# APPENDIX H

HYDROLOGY STUDIES

# LMC Murrieta Apartments

Preliminary Hydrology and Hydraulics Report

APN 910-410-011

Murrieta Hot Spring Rd/Jefferson Ave.

Murrieta, CA 92562

**Prepared for**:

Lennar Multifamily Communities, LLC

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Aliso Viejo, CA 92656

**Prepared By**:

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Orange, CA 92868

May 2022

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## Introduction

The scope of the project is to complete a preliminary hydrology and hydraulic analysis for the storm drain improvements associated with the proposed LMC Murrieta Apartments project in Murrieta, CA. The Project is located at the Northeast corner of the intersection of Jefferson Ave and Murrieta Hot Springs Road. The Project consist of about 160,000 square feet of multi-family apartment buildings and carports. Other project activities will also include utility improvements, parking areas, driveways redevelopment, and stormwater treatment and detention. The total project limits of disturbance make up approximately 13.35 acres. The total study limits for this report consists of 13.35 acres. As a preliminary report, the study area will include onsite drainage only, any offsite drainage and storm drain improvements will be analyzed and addressed during final design.

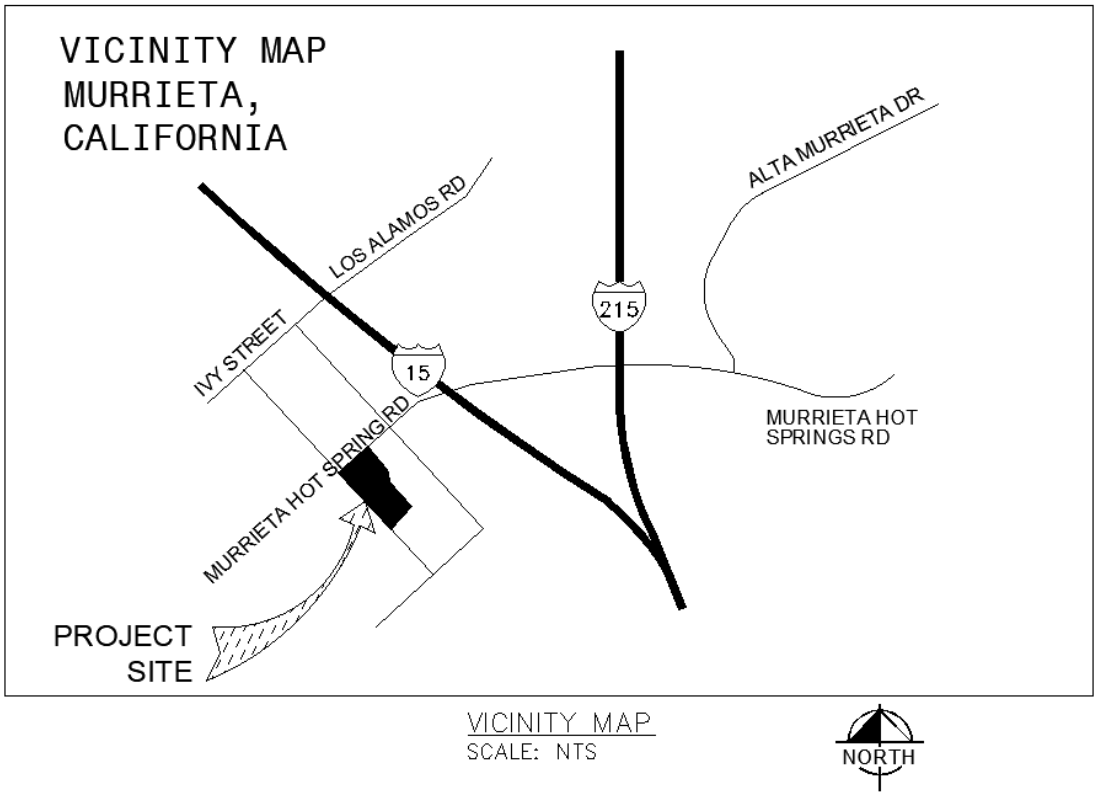



***Figure 1: LMC Murietta Apartments Location***

## Hydrology

The preliminary hydrology and hydraulic analyses were completed in accordance with the Riverside County Hydrology Manual. A rational method analysis in accordance with the Manual was completed to calculate the peak discharges for existing conditions and proposed project conditions. Plate C-1.52 of the Hydrology Manual shows that the project is underlain by three soil types, B, C, and BC. However, a review of the Geotechnical Investigation Report dated April 8, 2022 prepared by Leighton and Associates, Inc found that subsurface soils at the site consisted of silty and clayey sand. Per the web soil survey in Appendix D, soil group C is defined as soils having slow infiltration rates (high runoff potential) and was used conservatively to calculate the soil loss rates.

Land use for existing and proposed drainage areas were selected based on actual imperviousness for each area. The corresponding land uses are included in the AES summary tables in Appendix A. Storm intensities from NOAA 14 were used for the analyses. The Advance Engineering Software (AES) Hydrosoft package was used to complete the rational method analysis.

### Existing Conditions

The project consists of vacant property, with a naturally occurring creek located along the northern edge of the site. Under existing conditions, the site sheet flows to an outfall point located on the southeastern corner. Any runoff that does not sheet flow directly to the southeast corner will sheet flow into the creek along the northern edge before eventually running into the same outfall location. Runoff is then routed into the public system through three 36” RCP storm drain lines. As-Built plans show these existing 36” pipes and their connection to the public system in Appendix B. Table 1 includes a summary of the existing conditions peak flow rate calculations. Refer to Appendix A for existing conditions, map, and AES calculations.

*Table 1 – Existing Conditions*

| Drainage Area | Area (ac) | Imperviousness (%) | 10-year, 24-hour flow (cfs) | 100-year, 24-hour flow (cfs) |
|---|---|---|---|---|
| 1 | 13.35 | 0 | 11.46 | 21.19 |
| Total | 13.35 | 0 | 11.46 | 21.19 |

### Proposed Conditions

The project improvements include new multi-family apartment, utility improvements, parking areas, driveways redevelopment, and stormwater treatment and detention. Under proposed conditions, drainage patterns will mimic that of existing conditions and consist of six

drainage areas. Areas 1-4 will sheet flow to proposed catch basins located just off the main drive aisle and be routed to the main storm drain line running East towards the proposed detention basin. Drainage area 5 will sheet flow to a proposed catch basin, tie into the main storm drain line and connect to the proposed detention vault system. Drainage areas 1-4 will follow very similar drainage patterns, before connecting with the eastmost drainage area 5 and the proposed detention vault system. Impervious percentages were calculated for each area; permeable pavement was included in calculations as pervious area. Table 2 includes a summary of the proposed conditions peak flow rate calculations.

*Table 2 – Proposed Conditions*

| Drainage Area | Area (ac) | Imperviousness (%) | 10-year, 24-hour flow (cfs) | 100-year, 24-hour flow (cfs) |
|---|---|---|---|---|
| 1 | 3.00 | 80 | 6.46 | 10.75 |
| 2 | 3.25 | 80 | 6.55 | 10.91 |
| 3 | 1.19 | 80 | 2.57 | 4.27 |
| 4 | 1.75 | 80 | 3.76 | 6.26 |
| 5 | 4.16 | 80 | 7.96 | 13.24 |
| Total | 13.35 | 80 | 26.52 | 44.21 |

The total proposed runoff discharging to the existing outfall basin will exceed that of existing conditions, therefore detention is required. Hydrology maps and AES results for existing and proposed conditions are included in Appendix A.

## Hydraulics

### Detention System Calculations

In the proposed conditions, peak flows have increased, therefore the detention system will mitigate the peak flows to reflect that of the existing system. An Old Castle Storm Trap detention system or approved other is to be utilized onsite and will consist of 276 vaults measured at 7 ft x 15 ft x 7 ft internal dimensions. The system will be located along the northeastern edge of the site and hold 215,000 cubic feet of water. The detention system provided has been designed to mitigate storm events up to the 100-year storm. A hydromodification analysis was performed on the proposed system to ensure requirements were being met per the Riverside County Water Quality Management Plan. Please refer to the project WQMP for hydromodification analysis.

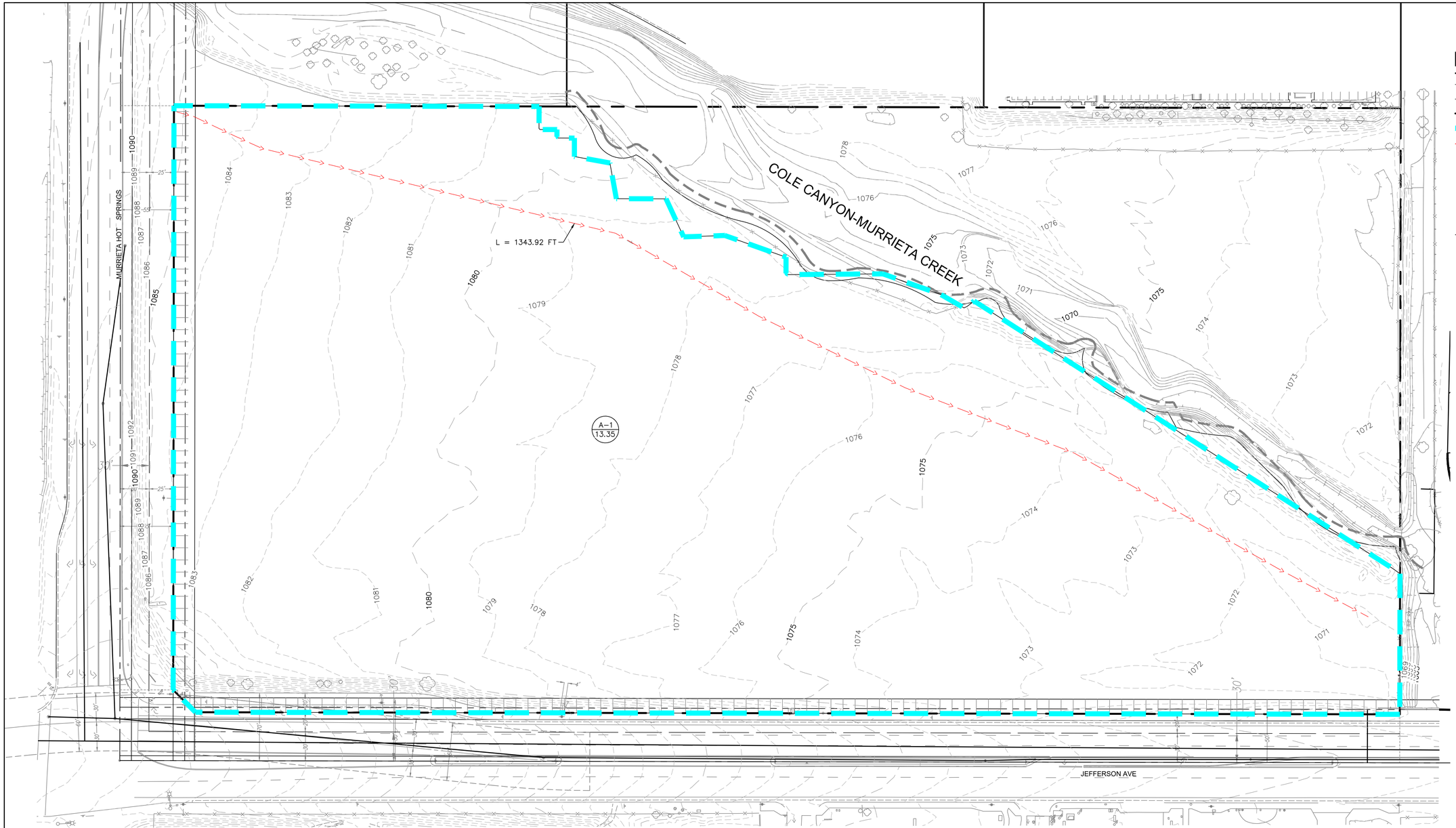
A unit hydrograph was developed for the entire site using AES per the Manual. This hydrograph was then routed in Bentley's Pond Pack to the detention system. The detention system and outlet structure used in the Pond pack analysis corresponds to the same layout from the site's hydromodification Santa Margarita Region Hydrology Model. In order to mitigate peak flows to that of existing conditions, internal outlet structures have been designed. The outlet structure consists of an orifice located at the invert of the system with a diameter of 2.229 in, a riser at 6 ft above the invert with a diameter of 54 in, and a rectangular weir AES Unit Hydrograph and Pond pack results for the proposed detention system are included in Appendix C.

## Conclusion

As a result of this preliminary hydrology and hydraulic analysis, the proposed Project demonstrates compliance with the sizing of the project infiltration system to the extent necessary to limit peak flows to level equal to, or less than predevelopment for the 100-year storm event. The final design will include calculations and hydraulic sizing of the on-site Project storm drain system catch basins, and energy dissipation devices.

| Existing 10-year, 24-hour flow (cfs) | Proposed 10-year, 24-hour flow (cfs) | Mitigated 10-year, 24-hour flow (cfs) | Existing 100-year, 24-hour flow (cfs) | Proposed 100-year, 24-hour flow (cfs) | Mitigated 100-year, 24-hour flow (cfs) |
|---|---|---|---|---|---|
| 11.46 | 26.52 | 0.2817 | 21.19 | 44.21 | 8.7647 |

# APPENDIX A: EXISTING CONDITIONS




## LEGEND

- 575 — PROPOSED CONTOUR
- 575 — EXISTING CONTOUR
- PROPERTY LINE
- DMA BOUNDARY
- FLOW PATH
- DA XX / XX AC — DRAINAGE AREA NAME / AREA (IN ACRES)
- NODE 10 / 50.00 FS — NODE ID AND ELEVATION
- ROADWAY CENTERLINE

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

SCALE 1" = 50'
WHEN PRINTED FULL SIZE
24" X 36"

| DRAINAGE AREAS SUMMARY | | | |
|---|---|---|---|
| DRAINAGE MANAGEMENT AREA | ACREAGE | 10-YR, 24-HR FLOW (CFS) | 100-YR, 24-HR FLOW (CFS) |
| A-1 | 13.35 | 11.46 | 21.19 |

PRELIMINARY H&H
EXISTING CONDITIONS

FIG 1

# JEFFERSON AVE,

MURRIETA, CA

DATE: 06-14-22
JOB NO.: 194422001

LMC
95 ENTERPRISE, SUITE 200 ALISO VIEGO, CA 92656
949.606.5536

DEVELOPER INFORMATIONAL BLOCK, AS IS, SHALL ONLY BE USED FOR CLIENTS THAT DO NOT HAVE A SPECIFIC LOGO. THIS DEVELOPER INFORMATIONAL BLOCK MUST BE REPLACED WITH THE APPROPRIATE BLOCK WHICH ALSO HOUSES THE CLIENT LOGO. IF THE CLIENT LOGO BLOCK HAS NOT BEEN CREATED YET, CONTACT YOUR DEPARTMENT'S AUTOCAD SUPPORT TEAM.

Kimley»Horn
© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
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WWW.KIMLEY-HORN.COM

Architecture. Design. Relationships.

| LMC Murrieta Apartments - AES Inputs - Existing Conditions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Upstream Node** | **Downstream Node** | **Flow Type** | **Code** | **Upstream Elevation (ft)** | **Downstream Elevation (ft)** | **Length (ft)** | **Path Slope (%)** | **LU** | **Soil Type** | **Area (AC)** | **DA** |
| 1 | 2 | Sheetflow | | 1085.10 | 1071.10 | 1343.92 | 1.04% | 9 | C | 13.35 | A-1 |

| Assumptions/Codes: | | |
|---|---|---|
| **Category** | **Code** | **Notes** |
| Rainfall Intensity Data | 1 | |
| Minimum Pipe Size | 8 in | |
| % Subarea Land Grad. | 0.95 | |
| Subarea Runoff Coeff. | 1 | |
| Confluence Analysis | 1 | |
| Friction Factor | 0.01 | |
| Topo Data Entry | 1 | |
| Pipe Sizing Constraint | 1 | |
| Runoff Coeff. Output | 1 | |

```
******************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
         RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                      (RCFC&WCD)  1978 HYDROLOGY MANUAL
          (c) Copyright 1982-2011 Advanced Engineering Software (aes)
                      (Rational Tabling Version 18.0)
                  Release Date: 07/01/2011  License ID 1499

                           Analysis prepared by:

                        Kimley-Horn and Associates, Inc.
                               765 The City Drive
                                   Suite 200
                                Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* LMC Murrieta Apartments                                                *
* 10 yr Existing Conditions                                              *
* Kimley-Horn                                                            *
 ************************************************************************

  FILE NAME: LMCME.DAT
  TIME/DATE OF STUDY: 15:46 06/06/2022
------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =   10.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =   8.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.180
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.040
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.610
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.710
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4130599
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4170282
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =   10.00   1-HOUR INTENSITY(INCH/HOUR) =   1.050
  SLOPE OF INTENSITY DURATION CURVE = 0.4131
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
```

```
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =  1343.92
  UPSTREAM ELEVATION(FEET) =   1085.10
  DOWNSTREAM ELEVATION(FEET) =   1071.10
  ELEVATION DIFFERENCE(FEET) =     14.00
  TC = 0.709*[( 1343.92**3)/(    14.00)]**.2 =   31.528
    10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.370
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6262
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =     11.46
  TOTAL AREA(ACRES) =     13.35   TOTAL RUNOFF(CFS) =     11.46
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       13.4  TC(MIN.) =     31.53
  PEAK FLOW RATE(CFS)   =      11.46
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```



```
**************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
        RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
         (c) Copyright 1982-2011 Advanced Engineering Software (aes)
                    (Rational Tabling Version 18.0)
                Release Date: 07/01/2011  License ID 1499

                         Analysis prepared by:

                    Kimley-Horn and Associates, Inc.
                           765 The City Drive
                               Suite 200
                            Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* LMC Murrieta Apartments                                                *
* 100 yr Existing Conditions                                             *
* Kimley-Horn                                                            *
 **************************************************************************

  FILE NAME: LMCME.DAT
  TIME/DATE OF STUDY: 15:43 06/06/2022
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =   8.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.180
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.040
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.610
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.710
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4130599
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4170282
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.710
  SLOPE OF INTENSITY DURATION CURVE = 0.4170
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

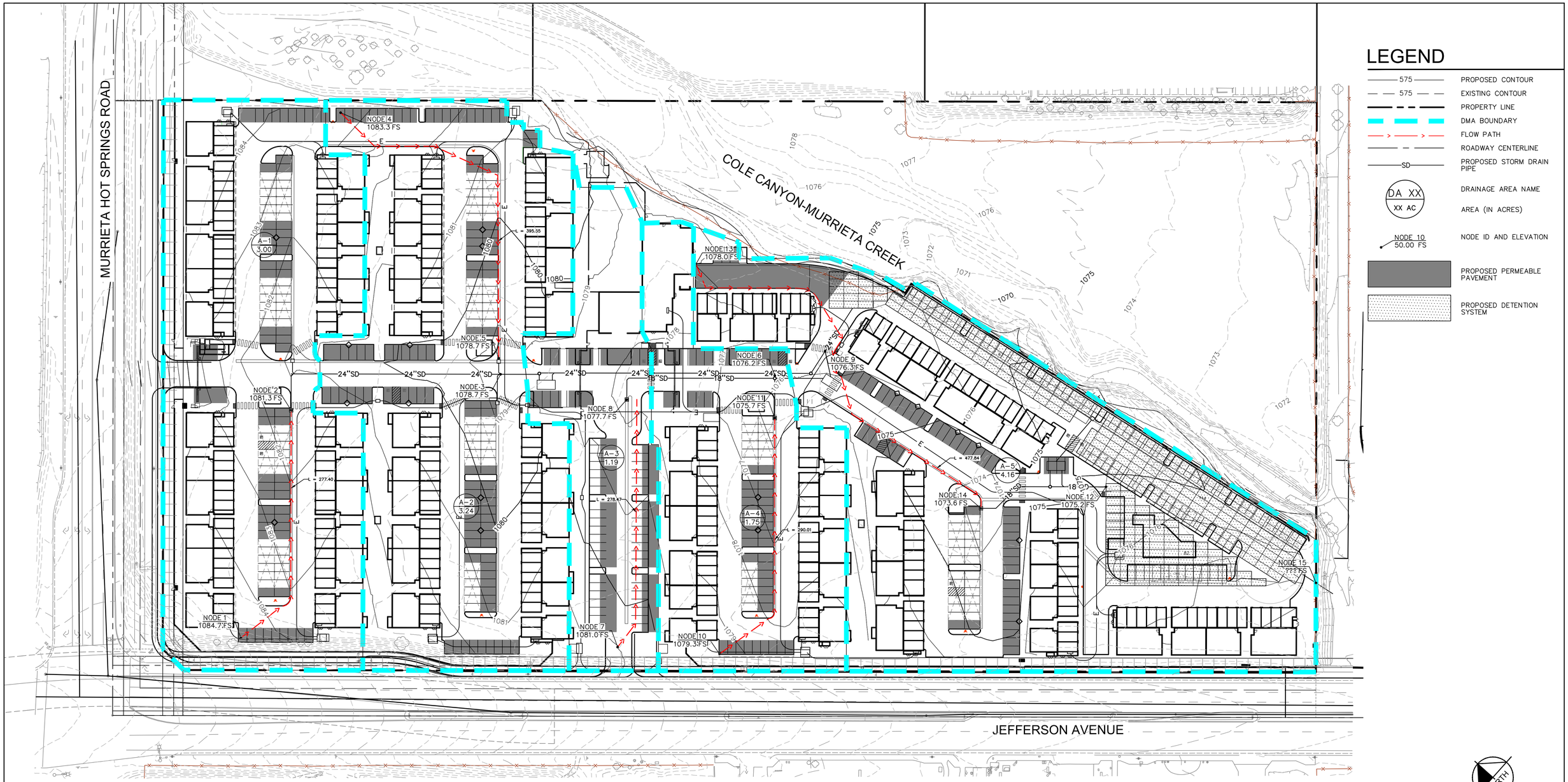
  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
```

```
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =  1343.92
  UPSTREAM ELEVATION(FEET) =   1085.10
  DOWNSTREAM ELEVATION(FEET) =   1071.10
  ELEVATION DIFFERENCE(FEET) =     14.00
  TC = 0.709*[( 1343.92**3)/(    14.00)]**.2 =   31.528
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.236
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .7099
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =     21.19
  TOTAL AREA(ACRES) =     13.35   TOTAL RUNOFF(CFS) =     21.19
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       13.4  TC(MIN.) =     31.53
  PEAK FLOW RATE(CFS)   =      21.19
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```



# APPENDIX B: PROPOSED CONDITIONS




## LEGEND

- 575 — PROPOSED CONTOUR
- 575 — EXISTING CONTOUR
- PROPERTY LINE
- DMA BOUNDARY
- FLOW PATH
- ROADWAY CENTERLINE
- SD — PROPOSED STORM DRAIN PIPE
- DA XX / XX AC — DRAINAGE AREA NAME / AREA (IN ACRES)
- NODE 10 / 50.00 FS — NODE ID AND ELEVATION
- PROPOSED PERMEABLE PAVEMENT
- PROPOSED DETENTION SYSTEM

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

SCALE 1" = 50'
WHEN PRINTED FULL SIZE
24" X 36"

### DRAINAGE AREAS SUMMARY

| DRAINAGE MANAGEMENT AREA | ACREAGE | 10-YR, 24-HR FLOW (CFS) | 100-YR, 24-HR FLOW (CFS) |
|---|---|---|---|
| A-1 | 3.00 | 6.46 | 10.75 |
| A-2 | 3.24 | 6.55 | 10.91 |
| A-3 | 1.19 | 2.57 | 4.27 |
| A-4 | 1.75 | 3.76 | 6.26 |
| A-5 | 4.16 | 7.96 | 13.24 |

### DISCHARGE POINT - PEAK FLOW RATES

| EXISTING 10-YR, 24-HR FLOW (CFS) | PROPOSED 10-YR, 24-HR FLOW (CFS) | MITIGATED 10-YR, 24-HR FLOW (CFS) | EXISTING 100-YR, 24-HR FLOW (CFS) | PROPOSED 100-YR, 24-HR FLOW (CFS) | MITIGATED 100-YR, 24-HR FLOW (CFS) |
|---|---|---|---|---|---|
| 11.46 | 26.52 | 0.2817 | 21.19 | 44.21 | 8.7647 |

PRELIMINARY H&H
PROPOSED CONDITIONS

FIG 2

# JEFFERSON AVE,

MURRIETA, CA

DATE: 06-14-22
JOB NO.: 194422001

LMC
95 ENTERPRISE, SUITE 200 ALISO VIEGO, CA 92656
949.606.5536

DEVELOPER INFORMATIONAL BLOCK. AS IS, SHALL ONLY BE USED FOR CLIENTS THAT DO NOT HAVE A SPECIFIC LOGO. THIS DEVELOPER INFORMATIONAL BLOCK MUST BE REPLACED WITH THE APPROPRIATE BLOCK WHICH ALSO HOUSES THE CLIENT LOGO. IF THE CLIENT LOGO BLOCK HAS NOT BEEN CREATED YET, CONTACT YOUR DEPARTMENT'S AUTOCAD SUPPORT TEAM.

Kimley»Horn
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1100 TOWN & COUNTRY RD, SUITE 700, ORANGE, CA 92868
PHONE: 714-939-1030 FAX: 714-938-9488
WWW.KIMLEY-HORN.COM

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| LMC Murrieta Apartments - AES Inputs - Existing Conditions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Upstream Node** | **Downstream Node** | **Flow Type** | **Code** | **Upstream Elevation (ft)** | **Downstream Elevation (ft)** | **Length (ft)** | **Path Slope (%)** | **LU** | **Soil Type** | **Area (AC)** | **DA** |
| 1 | 2 | Sheetflow | 2 | 1084.00 | 1080.70 | 277.4 | 1.19% | 2 | C | 3.00 | A-1 |
| 2 | 3 | Pipe | 3 | 1072.32 | 1071.12 | 238.95 | 0.50% | 2 | C | 3.24 | A-2 |
| 3 | 3 | Confluence 1 of 2 | 1 | | | | | | | | |
| 4 | 5 | Sheetflow | 2 | 1082.60 | 1078.00 | 395.55 | 1.16% | 2 | C | 3.24 | A-2 |
| 5 | 3 | Pipe | 3 | 1071.36 | 1071.22 | 26.49 | 0.50% | 2 | C | 3.24 | A-2 |
| 3 | 3 | Confluence 2 of 2 | 1 | | | | | | | | |
| 3 | 6 | Pipe | 3 | 1071.02 | 1070.25 | 153.67 | 0.50% | 2 | C | 1.19 | A-3 |
| 6 | 6 | Confluence 1 of 2 | 1 | | | | | | | | |
| 7 | 8 | Sheetflow | 2 | 1080.40 | 1077.00 | 278.47 | 1.22% | 2 | C | 1.19 | A-3 |
| 8 | 6 | Pipe | 3 | 1070.43 | 1070.35 | 15.26 | 0.50% | 2 | C | 1.19 | A-3 |
| 6 | 6 | Confluence 2 of 2 | 1 | | | | | | | | |
| 6 | 9 | Pipe | 3 | 1070.15 | 1069.24 | 183.83 | 0.50% | 2 | C | 1.75 | A-4 |
| 9 | 9 | Confluence 1 of 2 | 1 | | | | | | | | |
| 10 | 11 | Sheetflow | 2 | 1078.70 | 1075.00 | 290.01 | 1.28% | 2 | C | 1.75 | A-4 |
| 11 | 9 | Pipe | 3 | 1069.58 | 1069.34 | 48.83 | 0.50% | 2 | C | 1.75 | A-4 |
| 9 | 9 | Confluence 2 of 2 | 1 | | | | | | | | |
| 9 | 12 | Pipe | 3 | 1069.14 | 1067.75 | 277.15 | 0.50% | 2 | C | 4.16 | A-5 |
| 12 | 12 | Confluence 1 of 2 | 1 | | | | | | | | |
| 13 | 14 | Sheetflow | 2 | 1077.10 | 1072.90 | 477.84 | 0.88% | 2 | C | 4.16 | A-5 |
| 14 | 12 | Pipe | 3 | 1067.98 | 1067.85 | 27.01 | 0.50% | 2 | C | 4.16 | A-5 |
| 12 | 12 | Confluence 2 of 2 | 1 | | | | | | | | |
| 12 | 15 | Pipe | 3 | 1067.65 | 1065.00 | 529.95 | 0.50% | 2 | C | 4.16 | A-5 |

| Assumptions/Codes: | | |
|---|---|---|
| **Category** | **Code** | **Notes** |
| Rainfall Intensity Data | 1 | |
| Minimum Pipe Size | 8 in | |
| % Subarea Land Grad. | 0.95 | |
| Subarea Runoff Coeff. | 1 | |
| Confluence Analysis | 1 | |
| Friction Factor | 0.013 | |
| Topo Data Entry | 1 | |
| Pipe Sizing Constraint | 1 | |
| Runoff Coeff. Output | 1 | |

```
_____________________________________________________________________________
*****************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
        RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
         (c) Copyright 1982-2011 Advanced Engineering Software (aes)
                    (Rational Tabling Version 18.0)
                Release Date: 07/01/2011  License ID 1499

                         Analysis prepared by:

                    Kimley-Horn and Associates, Inc.
                           765 The City Drive
                               Suite 200
                            Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* LMC Murrieta Apartments                                                *
* 10 yr Proposed Conditions                                              *
* Kimley-Horn                                                            *
 ************************************************************************

  FILE NAME: LMCMP.DAT
  TIME/DATE OF STUDY: 07:58 05/27/2022
-----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
-----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =   10.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =   8.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.180
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.040
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.610
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.710
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4130599
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4170282
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =   10.00   1-HOUR INTENSITY(INCH/HOUR) =   1.050
  SLOPE OF INTENSITY DURATION CURVE = 0.4131
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
```

```
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   277.40
  UPSTREAM ELEVATION(FEET) =   1084.00
  DOWNSTREAM ELEVATION(FEET) =   1080.70
  ELEVATION DIFFERENCE(FEET) =      3.30
  TC = 0.323*[(  277.40**3)/(     3.30)]**.2 =    7.429
    10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.489
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8651
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      6.46
  TOTAL AREA(ACRES) =      3.00   TOTAL RUNOFF(CFS) =      6.46

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      3.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1072.32  DOWNSTREAM(FEET) =  1071.12
  FLOW LENGTH(FEET) =   238.95   MANNING'S N =  0.010
  DEPTH OF FLOW IN  18.0 INCH PIPE IS  10.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.75
  ESTIMATED PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       6.46
  PIPE TRAVEL TIME(MIN.) =   0.69    Tc(MIN.) =    8.12
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =     516.35 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      3.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.12
  RAINFALL INTENSITY(INCH/HR) =   2.40
  TOTAL STREAM AREA(ACRES) =     3.00
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      6.46

****************************************************************************
  FLOW PROCESS FROM NODE      4.00 TO NODE      5.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   395.55
  UPSTREAM ELEVATION(FEET) =   1082.60
  DOWNSTREAM ELEVATION(FEET) =   1078.00
  ELEVATION DIFFERENCE(FEET) =      4.60
  TC = 0.323*[(  395.55**3)/(     4.60)]**.2 =    8.601
    10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.343
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8634
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      6.55
  TOTAL AREA(ACRES) =      3.24   TOTAL RUNOFF(CFS) =      6.55

****************************************************************************
  FLOW PROCESS FROM NODE      5.00 TO NODE      3.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1071.36  DOWNSTREAM(FEET) =  1071.22
  FLOW LENGTH(FEET) =    26.49   MANNING'S N =  0.010
  DEPTH OF FLOW IN  18.0 INCH PIPE IS  10.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.88
  ESTIMATED PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       6.55
  PIPE TRAVEL TIME(MIN.) =   0.08    Tc(MIN.) =    8.68
  LONGEST FLOWPATH FROM NODE      4.00 TO NODE      3.00 =     422.04 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      3.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.68
  RAINFALL INTENSITY(INCH/HR) =   2.33
  TOTAL STREAM AREA(ACRES) =     3.24
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      6.55

  ** CONFLUENCE DATA **
```

```
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        6.46     8.12        2.399          3.00
      2        6.55     8.68        2.335          3.24

 ********************************WARNING*********************************
  IN THIS COMPUTER PROGRAM, THE CONFLUENCE VALUE USED IS BASED
  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       12.60     8.12       2.399
      2       12.84     8.68       2.335

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      12.84   Tc(MIN.) =    8.68
  TOTAL AREA(ACRES) =        6.2
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =     516.35 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      6.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1071.02  DOWNSTREAM(FEET) =  1070.25
  FLOW LENGTH(FEET) =   153.67   MANNING'S N =  0.010
  DEPTH OF FLOW IN  21.0 INCH PIPE IS  15.6 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   6.69
  ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      12.84
  PIPE TRAVEL TIME(MIN.) =   0.38    Tc(MIN.) =    9.06
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      6.00 =     670.02 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      6.00 TO NODE      6.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.06
  RAINFALL INTENSITY(INCH/HR) =   2.29
  TOTAL STREAM AREA(ACRES) =     6.24
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     12.84

****************************************************************************
  FLOW PROCESS FROM NODE      7.00 TO NODE      8.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   278.47
  UPSTREAM ELEVATION(FEET) =   1080.40
  DOWNSTREAM ELEVATION(FEET) =   1077.00
  ELEVATION DIFFERENCE(FEET) =      3.40
  TC = 0.323*[(  278.47**3)/(     3.40)]**.2 =    7.402
    10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.493
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8651
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      2.57
  TOTAL AREA(ACRES) =      1.19   TOTAL RUNOFF(CFS) =      2.57

****************************************************************************
  FLOW PROCESS FROM NODE      8.00 TO NODE      6.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1070.43  DOWNSTREAM(FEET) =  1070.35
  FLOW LENGTH(FEET) =    15.26   MANNING'S N =  0.010
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   8.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.61
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       2.57
  PIPE TRAVEL TIME(MIN.) =   0.06    Tc(MIN.) =    7.46
  LONGEST FLOWPATH FROM NODE      7.00 TO NODE      6.00 =     293.73 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      6.00 TO NODE      6.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    7.46
  RAINFALL INTENSITY(INCH/HR) =   2.49
  TOTAL STREAM AREA(ACRES) =     1.19
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      2.57

  ** CONFLUENCE DATA **
```

```
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1       12.84     9.06        2.294          6.24
      2        2.57     7.46        2.485          1.19

 ********************************WARNING*********************************
  IN THIS COMPUTER PROGRAM, THE CONFLUENCE VALUE USED IS BASED
  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       13.14     7.46       2.485
      2       15.21     9.06       2.294

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      15.21   Tc(MIN.) =    9.06
  TOTAL AREA(ACRES) =        7.4
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      6.00 =     670.02 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      6.00 TO NODE      9.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1070.15  DOWNSTREAM(FEET) =  1069.24
  FLOW LENGTH(FEET) =   183.83   MANNING'S N =  0.010
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  15.6 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   7.05
  ESTIMATED PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      15.21
  PIPE TRAVEL TIME(MIN.) =   0.43    Tc(MIN.) =    9.49
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      9.00 =     853.85 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      9.00 TO NODE      9.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.49
  RAINFALL INTENSITY(INCH/HR) =   2.25
  TOTAL STREAM AREA(ACRES) =     7.43
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     15.21

****************************************************************************
  FLOW PROCESS FROM NODE     10.00 TO NODE     11.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   290.01
  UPSTREAM ELEVATION(FEET) =   1078.70
  DOWNSTREAM ELEVATION(FEET) =   1075.00
  ELEVATION DIFFERENCE(FEET) =      3.70
  TC = 0.323*[(  290.01**3)/(     3.70)]**.2 =    7.458
    10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.485
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8650
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      3.76
  TOTAL AREA(ACRES) =      1.75   TOTAL RUNOFF(CFS) =      3.76

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE      9.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1069.58  DOWNSTREAM(FEET) =  1069.34
  FLOW LENGTH(FEET) =    48.83   MANNING'S N =  0.010
  DEPTH OF FLOW IN  15.0 INCH PIPE IS   8.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.98
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       3.76
  PIPE TRAVEL TIME(MIN.) =   0.16    Tc(MIN.) =    7.62
  LONGEST FLOWPATH FROM NODE     10.00 TO NODE      9.00 =     338.84 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      9.00 TO NODE      9.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    7.62
  RAINFALL INTENSITY(INCH/HR) =   2.46
  TOTAL STREAM AREA(ACRES) =     1.75
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      3.76

  ** CONFLUENCE DATA **
```

```
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1       15.21     9.49        2.250          7.43
      2        3.76     7.62        2.463          1.75

 ********************************WARNING*********************************
  IN THIS COMPUTER PROGRAM, THE CONFLUENCE VALUE USED IS BASED
  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       15.97     7.62       2.463
      2       18.65     9.49       2.250

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      18.65   Tc(MIN.) =    9.49
  TOTAL AREA(ACRES) =        9.2
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      9.00 =     853.85 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      9.00 TO NODE     12.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1069.14  DOWNSTREAM(FEET) =  1067.75
  FLOW LENGTH(FEET) =   277.15   MANNING'S N =  0.010
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  18.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   7.33
  ESTIMATED PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      18.65
  PIPE TRAVEL TIME(MIN.) =   0.63    Tc(MIN.) =   10.12
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE     12.00 =    1131.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     12.00 TO NODE     12.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   10.12
  RAINFALL INTENSITY(INCH/HR) =   2.19
  TOTAL STREAM AREA(ACRES) =     9.18
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     18.65

****************************************************************************
  FLOW PROCESS FROM NODE     13.00 TO NODE     14.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   477.84
  UPSTREAM ELEVATION(FEET) =   1077.10
  DOWNSTREAM ELEVATION(FEET) =   1072.90
  ELEVATION DIFFERENCE(FEET) =      4.20
  TC = 0.323*[(  477.84**3)/(     4.20)]**.2 =    9.811
    10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.219
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8617
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      7.96
  TOTAL AREA(ACRES) =      4.16   TOTAL RUNOFF(CFS) =      7.96

****************************************************************************
  FLOW PROCESS FROM NODE     14.00 TO NODE     12.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1067.98  DOWNSTREAM(FEET) =  1067.85
  FLOW LENGTH(FEET) =    27.01   MANNING'S N =  0.010
  DEPTH OF FLOW IN  18.0 INCH PIPE IS  12.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.88
  ESTIMATED PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       7.96
  PIPE TRAVEL TIME(MIN.) =   0.08    Tc(MIN.) =    9.89
  LONGEST FLOWPATH FROM NODE     13.00 TO NODE     12.00 =     504.85 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     12.00 TO NODE     12.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.89
  RAINFALL INTENSITY(INCH/HR) =   2.21
  TOTAL STREAM AREA(ACRES) =     4.16
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      7.96

  ** CONFLUENCE DATA **
```

```
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1       18.65    10.12        2.191          9.18
      2        7.96     9.89        2.212          4.16

 ********************************WARNING*********************************
  IN THIS COMPUTER PROGRAM, THE CONFLUENCE VALUE USED IS BASED
  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       26.17     9.89       2.212
      2       26.52    10.12       2.191

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      26.52   Tc(MIN.) =   10.12
  TOTAL AREA(ACRES) =       13.3
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE     12.00 =    1131.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     12.00 TO NODE     15.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1067.65  DOWNSTREAM(FEET) =  1065.00
  FLOW LENGTH(FEET) =   529.95   MANNING'S N =  0.010
  DEPTH OF FLOW IN  27.0 INCH PIPE IS  21.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   7.95
  ESTIMATED PIPE DIAMETER(INCH) =  27.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      26.52
  PIPE TRAVEL TIME(MIN.) =   1.11    Tc(MIN.) =   11.24
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE     15.00 =    1660.95 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       13.3  TC(MIN.) =     11.24
  PEAK FLOW RATE(CFS)   =      26.52
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```



```
**************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
        RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
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                         Analysis prepared by:

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 ************************* DESCRIPTION OF STUDY *************************
* LMC Murrieta Apartments                                                *
* 100 yr Proposed Conditions                                             *
* Kimley-Horn                                                            *
 **************************************************************************

  FILE NAME: LMCMP.DAT
  TIME/DATE OF STUDY: 14:34 05/25/2022
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =   8.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.180
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.040
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.610
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.710
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4130599
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4170282
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.710
  SLOPE OF INTENSITY DURATION CURVE = 0.4170
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
```

```
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   277.40
  UPSTREAM ELEVATION(FEET) =   1084.00
  DOWNSTREAM ELEVATION(FEET) =   1080.70
  ELEVATION DIFFERENCE(FEET) =      3.30
  TC = 0.323*[(  277.40**3)/(     3.30)]**.2 =    7.429
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.086
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8770
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =     10.75
  TOTAL AREA(ACRES) =      3.00   TOTAL RUNOFF(CFS) =     10.75

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      3.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1072.32  DOWNSTREAM(FEET) =  1071.12
  FLOW LENGTH(FEET) =   238.95   MANNING'S N =  0.010
  DEPTH OF FLOW IN  21.0 INCH PIPE IS  13.6 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   6.50
  ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      10.75
  PIPE TRAVEL TIME(MIN.) =   0.61    Tc(MIN.) =    8.04
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =     516.35 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      3.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.04
  RAINFALL INTENSITY(INCH/HR) =   3.95
  TOTAL STREAM AREA(ACRES) =     3.00
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     10.75

****************************************************************************
  FLOW PROCESS FROM NODE      4.00 TO NODE      5.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   395.55
  UPSTREAM ELEVATION(FEET) =   1082.60
  DOWNSTREAM ELEVATION(FEET) =   1078.00
  ELEVATION DIFFERENCE(FEET) =      4.60
  TC = 0.323*[(  395.55**3)/(     4.60)]**.2 =    8.601
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.844
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8757
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =     10.91
  TOTAL AREA(ACRES) =      3.24   TOTAL RUNOFF(CFS) =     10.91

****************************************************************************
  FLOW PROCESS FROM NODE      5.00 TO NODE      3.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1071.36  DOWNSTREAM(FEET) =  1071.22
  FLOW LENGTH(FEET) =    26.49   MANNING'S N =  0.010
  DEPTH OF FLOW IN  21.0 INCH PIPE IS  13.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   6.65
  ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      10.91
  PIPE TRAVEL TIME(MIN.) =   0.07    Tc(MIN.) =    8.67
  LONGEST FLOWPATH FROM NODE      4.00 TO NODE      3.00 =     422.04 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      3.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.67
  RAINFALL INTENSITY(INCH/HR) =   3.83
  TOTAL STREAM AREA(ACRES) =     3.24
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     10.91

  ** CONFLUENCE DATA **
```

```
 STREAM     RUNOFF       Tc      INTENSITY      AREA
 NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
     1       10.75     8.04        3.953          3.00
     2       10.91     8.67        3.832          3.24

 ********************************WARNING*********************************
  IN THIS COMPUTER PROGRAM, THE CONFLUENCE VALUE USED IS BASED
  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       20.87     8.04       3.953
      2       21.33     8.67       3.832

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      21.33   Tc(MIN.) =    8.67
  TOTAL AREA(ACRES) =        6.2
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =     516.35 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      6.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1071.02  DOWNSTREAM(FEET) =  1070.25
  FLOW LENGTH(FEET) =   153.67   MANNING'S N =  0.010
  DEPTH OF FLOW IN  27.0 INCH PIPE IS  17.7 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   7.70
  ESTIMATED PIPE DIAMETER(INCH) =  27.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      21.33
  PIPE TRAVEL TIME(MIN.) =   0.33    Tc(MIN.) =    9.00
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      6.00 =     670.02 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      6.00 TO NODE      6.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.00
  RAINFALL INTENSITY(INCH/HR) =   3.77
  TOTAL STREAM AREA(ACRES) =     6.24
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     21.33

****************************************************************************
  FLOW PROCESS FROM NODE      7.00 TO NODE      8.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   278.47
  UPSTREAM ELEVATION(FEET) =   1080.40
  DOWNSTREAM ELEVATION(FEET) =   1077.00
  ELEVATION DIFFERENCE(FEET) =      3.40
  TC = 0.323*[(  278.47**3)/(     3.40)]**.2 =    7.402
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.092
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8770
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      4.27
  TOTAL AREA(ACRES) =      1.19   TOTAL RUNOFF(CFS) =      4.27

****************************************************************************
  FLOW PROCESS FROM NODE      8.00 TO NODE      6.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1070.43  DOWNSTREAM(FEET) =  1070.35
  FLOW LENGTH(FEET) =    15.26   MANNING'S N =  0.010
  DEPTH OF FLOW IN  15.0 INCH PIPE IS   9.4 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.26
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       4.27
  PIPE TRAVEL TIME(MIN.) =   0.05    Tc(MIN.) =    7.45
  LONGEST FLOWPATH FROM NODE      7.00 TO NODE      6.00 =     293.73 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      6.00 TO NODE      6.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    7.45
  RAINFALL INTENSITY(INCH/HR) =   4.08
  TOTAL STREAM AREA(ACRES) =     1.19
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      4.27

  ** CONFLUENCE DATA **
```

```
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1       21.33     9.00        3.772          6.24
      2        4.27     7.45        4.081          1.19

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  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       21.93     7.45       4.081
      2       25.27     9.00       3.772

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      25.27   Tc(MIN.) =    9.00
  TOTAL AREA(ACRES) =        7.4
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      6.00 =     670.02 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      6.00 TO NODE      9.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1070.15  DOWNSTREAM(FEET) =  1069.24
  FLOW LENGTH(FEET) =   183.83   MANNING'S N =  0.010
  DEPTH OF FLOW IN  27.0 INCH PIPE IS  20.3 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   7.87
  ESTIMATED PIPE DIAMETER(INCH) =  27.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      25.27
  PIPE TRAVEL TIME(MIN.) =   0.39    Tc(MIN.) =    9.39
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      9.00 =     853.85 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      9.00 TO NODE      9.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.39
  RAINFALL INTENSITY(INCH/HR) =   3.71
  TOTAL STREAM AREA(ACRES) =     7.43
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     25.27

****************************************************************************
  FLOW PROCESS FROM NODE     10.00 TO NODE     11.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   290.01
  UPSTREAM ELEVATION(FEET) =   1078.70
  DOWNSTREAM ELEVATION(FEET) =   1075.00
  ELEVATION DIFFERENCE(FEET) =      3.70
  TC = 0.323*[(  290.01**3)/(     3.70)]**.2 =    7.458
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.080
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8770
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      6.26
  TOTAL AREA(ACRES) =      1.75   TOTAL RUNOFF(CFS) =      6.26

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE      9.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1069.58  DOWNSTREAM(FEET) =  1069.34
  FLOW LENGTH(FEET) =    48.83   MANNING'S N =  0.010
  DEPTH OF FLOW IN  18.0 INCH PIPE IS  10.8 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.66
  ESTIMATED PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       6.26
  PIPE TRAVEL TIME(MIN.) =   0.14    Tc(MIN.) =    7.60
  LONGEST FLOWPATH FROM NODE     10.00 TO NODE      9.00 =     338.84 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      9.00 TO NODE      9.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    7.60
  RAINFALL INTENSITY(INCH/HR) =   4.05
  TOTAL STREAM AREA(ACRES) =     1.75
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      6.26

  ** CONFLUENCE DATA **
```

```
 STREAM     RUNOFF       Tc      INTENSITY      AREA
 NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
     1       25.27     9.39        3.706          7.43
     2        6.26     7.60        4.047          1.75

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  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       26.72     7.60       4.047
      2       31.01     9.39       3.706

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      31.01   Tc(MIN.) =    9.39
  TOTAL AREA(ACRES) =        9.2
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      9.00 =     853.85 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      9.00 TO NODE     12.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1069.14  DOWNSTREAM(FEET) =  1067.75
  FLOW LENGTH(FEET) =   277.15   MANNING'S N =  0.010
  DEPTH OF FLOW IN  30.0 INCH PIPE IS  21.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   8.40
  ESTIMATED PIPE DIAMETER(INCH) =  30.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      31.01
  PIPE TRAVEL TIME(MIN.) =   0.55    Tc(MIN.) =    9.94
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE     12.00 =    1131.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     12.00 TO NODE     12.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.94
  RAINFALL INTENSITY(INCH/HR) =   3.62
  TOTAL STREAM AREA(ACRES) =     9.18
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     31.01

****************************************************************************
  FLOW PROCESS FROM NODE     13.00 TO NODE     14.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS APARTMENT
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   477.84
  UPSTREAM ELEVATION(FEET) =   1077.10
  DOWNSTREAM ELEVATION(FEET) =   1072.90
  ELEVATION DIFFERENCE(FEET) =      4.20
  TC = 0.323*[(  477.84**3)/(     4.20)]**.2 =    9.811
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.639
  APARTMENT DEVELOPMENT RUNOFF COEFFICIENT = .8746
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =     13.24
  TOTAL AREA(ACRES) =      4.16   TOTAL RUNOFF(CFS) =     13.24

****************************************************************************
  FLOW PROCESS FROM NODE     14.00 TO NODE     12.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1067.98  DOWNSTREAM(FEET) =  1067.85
  FLOW LENGTH(FEET) =    27.01   MANNING'S N =  0.010
  DEPTH OF FLOW IN  21.0 INCH PIPE IS  16.3 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   6.59
  ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      13.24
  PIPE TRAVEL TIME(MIN.) =   0.07    Tc(MIN.) =    9.88
  LONGEST FLOWPATH FROM NODE     13.00 TO NODE     12.00 =     504.85 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     12.00 TO NODE     12.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.88
  RAINFALL INTENSITY(INCH/HR) =   3.63
  TOTAL STREAM AREA(ACRES) =     4.16
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     13.24

  ** CONFLUENCE DATA **
```

```
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1       31.01     9.94        3.619          9.18
      2       13.24     9.88        3.628          4.16

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  ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
  WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ************************************************************************

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       44.06     9.88       3.628
      2       44.21     9.94       3.619

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      44.21   Tc(MIN.) =    9.94
  TOTAL AREA(ACRES) =       13.3
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE     12.00 =    1131.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     12.00 TO NODE     15.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1067.65  DOWNSTREAM(FEET) =  1065.00
  FLOW LENGTH(FEET) =   529.95   MANNING'S N =  0.010
  DEPTH OF FLOW IN  33.0 INCH PIPE IS  25.3 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   9.06
  ESTIMATED PIPE DIAMETER(INCH) =  33.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      44.21
  PIPE TRAVEL TIME(MIN.) =   0.97    Tc(MIN.) =   10.91
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE     15.00 =    1660.95 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       13.3  TC(MIN.) =     10.91
  PEAK FLOW RATE(CFS)   =      44.21
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```



# APPENDIX C: DETENTION CALCULATIONS

```
**************************************************************************

             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                          Analysis prepared by:



 ************************* DESCRIPTION OF STUDY *************************
* LMC Murrieta Apartments                                                *
* Unit Hydrograph - 10 yr, 24 hr                                         *
* Drainage Area 1                                                        *
 ************************************************************************

  FILE NAME: LMCMPHG.DAT
  TIME/DATE OF STUDY: 19:03 09/20/2022


**************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERSHED AREA =      13.350 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.150 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         VALLEY S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.110
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.500
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.050
         USER-ENTERED RAINFALL =  4.63 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         *USER SPECIFIED PRECIPITATION DEPTH-AREA ADJUSTMENT FACTOR = 0.9900
```

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 166.667

UNIT HYDROGRAPH DETERMINATION

| INTERVAL NUMBER | "S" GRAPH MEAN VALUES | UNIT HYDROGRAPH ORDINATES(CFS) |
|---|---|---|
| 1 | 36.829 | 19.820 |
| 2 | 82.779 | 24.729 |
| 3 | 92.971 | 5.485 |
| 4 | 97.347 | 2.355 |
| 5 | 98.994 | 0.886 |
| 6 | 99.522 | 0.284 |
| 7 | 99.809 | 0.154 |
| 8 | 99.952 | 0.077 |
| 9 | 100.000 | 0.026 |

| UNIT PERIOD (NUMBER) | UNIT RAINFALL (INCHES) | UNIT SOIL-LOSS (INCHES) | EFFECTIVE RAINFALL (INCHES) |
|---|---|---|---|
| 1 | 0.0092 | 0.0046 | 0.0046 |
| 2 | 0.0138 | 0.0069 | 0.0069 |
| 3 | 0.0138 | 0.0069 | 0.0069 |
| 4 | 0.0183 | 0.0092 | 0.0092 |
| 5 | 0.0138 | 0.0069 | 0.0069 |
| 6 | 0.0138 | 0.0069 | 0.0069 |
| 7 | 0.0138 | 0.0069 | 0.0069 |
| 8 | 0.0183 | 0.0092 | 0.0092 |
| 9 | 0.0183 | 0.0092 | 0.0092 |
| 10 | 0.0183 | 0.0092 | 0.0092 |
| 11 | 0.0229 | 0.0115 | 0.0115 |
| 12 | 0.0229 | 0.0115 | 0.0115 |
| 13 | 0.0229 | 0.0115 | 0.0115 |
| 14 | 0.0229 | 0.0115 | 0.0115 |
| 15 | 0.0229 | 0.0115 | 0.0115 |
| 16 | 0.0275 | 0.0138 | 0.0138 |
| 17 | 0.0275 | 0.0138 | 0.0138 |
| 18 | 0.0321 | 0.0160 | 0.0160 |
| 19 | 0.0321 | 0.0160 | 0.0160 |
| 20 | 0.0367 | 0.0183 | 0.0183 |

| | | | |
|---|---|---|---|
| 21 | 0.0275 | 0.0138 | 0.0138 |
| 22 | 0.0321 | 0.0160 | 0.0160 |
| 23 | 0.0367 | 0.0183 | 0.0183 |
| 24 | 0.0367 | 0.0183 | 0.0183 |
| 25 | 0.0413 | 0.0206 | 0.0206 |
| 26 | 0.0413 | 0.0206 | 0.0206 |
| 27 | 0.0458 | 0.0229 | 0.0229 |
| 28 | 0.0458 | 0.0229 | 0.0229 |
| 29 | 0.0458 | 0.0229 | 0.0229 |
| 30 | 0.0504 | 0.0252 | 0.0252 |
| 31 | 0.0550 | 0.0275 | 0.0275 |
| 32 | 0.0596 | 0.0298 | 0.0298 |
| 33 | 0.0688 | 0.0327 | 0.0361 |
| 34 | 0.0688 | 0.0322 | 0.0366 |
| 35 | 0.0733 | 0.0317 | 0.0416 |
| 36 | 0.0779 | 0.0312 | 0.0467 |
| 37 | 0.0871 | 0.0307 | 0.0564 |
| 38 | 0.0917 | 0.0303 | 0.0614 |
| 39 | 0.0963 | 0.0298 | 0.0665 |
| 40 | 0.1008 | 0.0293 | 0.0715 |
| 41 | 0.0688 | 0.0289 | 0.0399 |
| 42 | 0.0688 | 0.0284 | 0.0403 |
| 43 | 0.0917 | 0.0280 | 0.0637 |
| 44 | 0.0917 | 0.0275 | 0.0642 |
| 45 | 0.0871 | 0.0271 | 0.0600 |
| 46 | 0.0871 | 0.0266 | 0.0604 |
| 47 | 0.0779 | 0.0262 | 0.0517 |
| 48 | 0.0825 | 0.0258 | 0.0567 |
| 49 | 0.1146 | 0.0254 | 0.0892 |
| 50 | 0.1192 | 0.0249 | 0.0942 |
| 51 | 0.1283 | 0.0245 | 0.1038 |
| 52 | 0.1329 | 0.0241 | 0.1088 |
| 53 | 0.1558 | 0.0237 | 0.1321 |
| 54 | 0.1558 | 0.0233 | 0.1325 |
| 55 | 0.1054 | 0.0229 | 0.0825 |
| 56 | 0.1054 | 0.0225 | 0.0829 |
| 57 | 0.1238 | 0.0222 | 0.1016 |
| 58 | 0.1192 | 0.0218 | 0.0974 |
| 59 | 0.1192 | 0.0214 | 0.0978 |
| 60 | 0.1146 | 0.0211 | 0.0935 |
| 61 | 0.1100 | 0.0207 | 0.0893 |
| 62 | 0.1054 | 0.0203 | 0.0851 |
| 63 | 0.0871 | 0.0200 | 0.0671 |
| 64 | 0.0871 | 0.0196 | 0.0674 |
| 65 | 0.0183 | 0.0092 | 0.0092 |
| 66 | 0.0183 | 0.0092 | 0.0092 |
| 67 | 0.0138 | 0.0069 | 0.0069 |
| 68 | 0.0138 | 0.0069 | 0.0069 |
| 69 | 0.0229 | 0.0115 | 0.0115 |
| 70 | 0.0229 | 0.0115 | 0.0115 |

| | | | |
|---|---|---|---|
| 71 | 0.0229 | 0.0115 | 0.0115 |
| 72 | 0.0183 | 0.0092 | 0.0092 |
| 73 | 0.0183 | 0.0092 | 0.0092 |
| 74 | 0.0183 | 0.0092 | 0.0092 |
| 75 | 0.0138 | 0.0069 | 0.0069 |
| 76 | 0.0092 | 0.0046 | 0.0046 |
| 77 | 0.0138 | 0.0069 | 0.0069 |
| 78 | 0.0183 | 0.0092 | 0.0092 |
| 79 | 0.0138 | 0.0069 | 0.0069 |
| 80 | 0.0092 | 0.0046 | 0.0046 |
| 81 | 0.0138 | 0.0069 | 0.0069 |
| 82 | 0.0138 | 0.0069 | 0.0069 |
| 83 | 0.0138 | 0.0069 | 0.0069 |
| 84 | 0.0092 | 0.0046 | 0.0046 |
| 85 | 0.0138 | 0.0069 | 0.0069 |
| 86 | 0.0092 | 0.0046 | 0.0046 |
| 87 | 0.0138 | 0.0069 | 0.0069 |
| 88 | 0.0092 | 0.0046 | 0.0046 |
| 89 | 0.0138 | 0.0069 | 0.0069 |
| 90 | 0.0092 | 0.0046 | 0.0046 |
| 91 | 0.0092 | 0.0046 | 0.0046 |
| 92 | 0.0092 | 0.0046 | 0.0046 |
| 93 | 0.0092 | 0.0046 | 0.0046 |
| 94 | 0.0092 | 0.0046 | 0.0046 |
| 95 | 0.0092 | 0.0046 | 0.0046 |
| 96 | 0.0092 | 0.0046 | 0.0046 |

TOTAL STORM RAINFALL(INCHES) = 4.58
TOTAL SOIL-LOSS(INCHES) = 1.51
TOTAL EFFECTIVE RAINFALL(INCHES) = 3.07

---

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 1.6853
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.4123

---



==========

2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

---

| TIME(HRS) | VOLUME(AF) | Q(CFS) | 0. | 2.5 | 5.0 | 7.5 | 10.0 |
|---|---|---|---|---|---|---|---|
| 0.083 | 0.0006 | 0.09 | Q | . | . | . | . |
| 0.167 | 0.0013 | 0.09 | Q | . | . | . | . |
| 0.250 | 0.0019 | 0.09 | Q | . | . | . | . |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.333 | 0.0036 | 0.25 | Q | . | . | . | . |
| 0.417 | 0.0053 | 0.25 | Q | . | . | . | . |
| 0.500 | 0.0070 | 0.25 | Q | . | . | . | . |
| 0.583 | 0.0093 | 0.33 | VQ | . | . | . | . |
| 0.667 | 0.0116 | 0.33 | VQ | . | . | . | . |
| 0.750 | 0.0139 | 0.33 | VQ | . | . | . | . |
| 0.833 | 0.0166 | 0.40 | VQ | . | . | . | . |
| 0.917 | 0.0194 | 0.40 | VQ | . | . | . | . |
| 1.000 | 0.0222 | 0.40 | VQ | . | . | . | . |
| 1.083 | 0.0251 | 0.42 | VQ | . | . | . | . |
| 1.167 | 0.0280 | 0.42 | VQ | . | . | . | . |
| 1.250 | 0.0308 | 0.42 | VQ | . | . | . | . |
| 1.333 | 0.0335 | 0.38 | VQ | . | . | . | . |
| 1.417 | 0.0361 | 0.38 | VQ | . | . | . | . |
| 1.500 | 0.0387 | 0.38 | VQ | . | . | . | . |
| 1.583 | 0.0413 | 0.37 | VQ | . | . | . | . |
| 1.667 | 0.0439 | 0.37 | VQ | . | . | . | . |
| 1.750 | 0.0464 | 0.37 | VQ | . | . | . | . |
| 1.833 | 0.0493 | 0.42 | VQ | . | . | . | . |
| 1.917 | 0.0522 | 0.42 | VQ | . | . | . | . |
| 2.000 | 0.0551 | 0.42 | VQ | . | . | . | . |
| 2.083 | 0.0583 | 0.47 | VQ | . | . | . | . |
| 2.167 | 0.0616 | 0.47 | VQ | . | . | . | . |
| 2.250 | 0.0648 | 0.47 | VQ | . | . | . | . |
| 2.333 | 0.0682 | 0.49 | VQ | . | . | . | . |
| 2.417 | 0.0715 | 0.49 | VQ | . | . | . | . |
| 2.500 | 0.0748 | 0.49 | VQ | . | . | . | . |
| 2.583 | 0.0785 | 0.54 | V Q | . | . | . | . |
| 2.667 | 0.0822 | 0.54 | V Q | . | . | . | . |
| 2.750 | 0.0859 | 0.54 | VQ | . | . | . | . |
| 2.833 | 0.0900 | 0.59 | .VQ | . | . | . | . |
| 2.917 | 0.0941 | 0.59 | .VQ | . | . | . | . |
| 3.000 | 0.0982 | 0.59 | .VQ | . | . | . | . |
| 3.083 | 0.1024 | 0.61 | .VQ | . | . | . | . |
| 3.167 | 0.1066 | 0.61 | .VQ | . | . | . | . |
| 3.250 | 0.1107 | 0.61 | .VQ | . | . | . | . |
| 3.333 | 0.1150 | 0.61 | .VQ | . | . | . | . |
| 3.417 | 0.1192 | 0.61 | .VQ | . | . | . | . |
| 3.500 | 0.1234 | 0.61 | .VQ | . | . | . | . |
| 3.583 | 0.1277 | 0.62 | .VQ | . | . | . | . |
| 3.667 | 0.1319 | 0.62 | .VQ | . | . | . | . |
| 3.750 | 0.1361 | 0.62 | .VQ | . | . | . | . |
| 3.833 | 0.1407 | 0.66 | .VQ | . | . | . | . |
| 3.917 | 0.1452 | 0.66 | .VQ | . | . | . | . |
| 4.000 | 0.1498 | 0.66 | .VQ | . | . | . | . |
| 4.083 | 0.1547 | 0.72 | .VQ | . | . | . | . |
| 4.167 | 0.1597 | 0.72 | .VQ | . | . | . | . |
| 4.250 | 0.1646 | 0.72 | .VQ | . | . | . | . |
| 4.333 | 0.1700 | 0.78 | .V Q | . | . | . | . |
| 4.417 | 0.1753 | 0.78 | . VQ | . | . | . | . |

```
4.500      0.1807      0.78  . VQ      .         .         .         .
4.583      0.1865      0.84  . VQ      .         .         .         .
4.667      0.1922      0.84  . VQ      .         .         .         .
4.750      0.1980      0.84  . VQ      .         .         .         .
4.833      0.2042      0.90  . VQ      .         .         .         .
4.917      0.2104      0.90  . VQ      .         .         .         .
5.000      0.2166      0.90  . VQ      .         .         .         .
5.083      0.2226      0.87  . VQ      .         .         .         .
5.167      0.2286      0.87  . VQ      .         .         .         .
5.250      0.2346      0.87  . VQ      .         .         .         .
5.333      0.2402      0.82  . VQ      .         .         .         .
5.417      0.2459      0.82  . VQ      .         .         .         .
5.500      0.2515      0.82  . VQ      .         .         .         .
5.583      0.2577      0.90  .  Q      .         .         .         .
5.667      0.2639      0.90  .  Q      .         .         .         .
5.750      0.2701      0.90  .  Q      .         .         .         .
5.833      0.2767      0.96  .  Q      .         .         .         .
5.917      0.2833      0.96  .  Q      .         .         .         .
6.000      0.2900      0.96  .  Q      .         .         .         .
6.083      0.2970      1.02  .  VQ     .         .         .         .
6.167      0.3040      1.02  .  VQ     .         .         .         .
6.250      0.3111      1.02  .  VQ     .         .         .         .
6.333      0.3186      1.09  .  VQ     .         .         .         .
6.417      0.3260      1.09  .  VQ     .         .         .         .
6.500      0.3335      1.09  .  VQ     .         .         .         .
6.583      0.3414      1.15  .   Q     .         .         .         .
6.667      0.3493      1.15  .   Q     .         .         .         .
6.750      0.3572      1.15  .   Q     .         .         .         .
6.833      0.3655      1.21  .   Q     .         .         .         .
6.917      0.3738      1.21  .   Q     .         .         .         .
7.000      0.3821      1.21  .   Q     .         .         .         .
7.083      0.3906      1.22  .   Q     .         .         .         .
7.167      0.3990      1.22  .   Q     .         .         .         .
7.250      0.4074      1.22  .   Q     .         .         .         .
7.333      0.4162      1.27  .   VQ    .         .         .         .
7.417      0.4250      1.27  .   VQ    .         .         .         .
7.500      0.4338      1.27  .    Q    .         .         .         .
7.583      0.4433      1.38  .    Q    .         .         .         .
7.667      0.4528      1.38  .    Q    .         .         .         .
7.750      0.4623      1.38  .    Q    .         .         .         .
7.833      0.4726      1.49  .    Q    .         .         .         .
7.917      0.4828      1.49  .    Q    .         .         .         .
8.000      0.4931      1.49  .    Q    .         .         .         .
8.083      0.5048      1.69  .    VQ   .         .         .         .
8.167      0.5165      1.69  .     Q   .         .         .         .
8.250      0.5282      1.69  .     Q   .         .         .         .
8.333      0.5411      1.88  .     VQ  .         .         .         .
8.417      0.5540      1.88  .     VQ  .         .         .         .
8.500      0.5670      1.88  .     VQ  .         .         .         .
8.583      0.5810      2.04  .     V Q .         .         .         .
```

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8.667 | 0.5950 | 2.04 | . | V Q . | . | . | . |
| 8.750 | 0.6090 | 2.04 | . | VQ . | . | . | . |
| 8.833 | 0.6248 | 2.28 | . | V Q. | . | . | . |
| 8.917 | 0.6405 | 2.28 | . | V Q. | . | . | . |
| 9.000 | 0.6562 | 2.28 | . | V Q. | . | . | . |
| 9.083 | 0.6743 | 2.63 | . | V Q | . | . | . |
| 9.167 | 0.6925 | 2.63 | . | V Q | . | . | . |
| 9.250 | 0.7106 | 2.63 | . | V Q | . | . | . |
| 9.333 | 0.7314 | 3.01 | . | V . Q | . | . | . |
| 9.417 | 0.7521 | 3.01 | . | V . Q | . | . | . |
| 9.500 | 0.7729 | 3.01 | . | V. Q | . | . | . |
| 9.583 | 0.7957 | 3.31 | . | V. Q | . | . | . |
| 9.667 | 0.8185 | 3.31 | . | V. Q | . | . | . |
| 9.750 | 0.8413 | 3.31 | . | V. Q | . | . | . |
| 9.833 | 0.8660 | 3.59 | . | V Q | . | . | . |
| 9.917 | 0.8908 | 3.59 | . | V Q | . | . | . |
| 10.000 | 0.9155 | 3.59 | . | V Q | . | . | . |
| 10.083 | 0.9372 | 3.14 | . | V Q | . | . | . |
| 10.167 | 0.9588 | 3.14 | . | VQ | . | . | . |
| 10.250 | 0.9804 | 3.14 | . | VQ | . | . | . |
| 10.333 | 0.9971 | 2.42 | . | Q.V | . | . | . |
| 10.417 | 1.0137 | 2.42 | . | Q.V | . | . | . |
| 10.500 | 1.0304 | 2.42 | . | Q. V | . | . | . |
| 10.583 | 1.0492 | 2.74 | . | Q V | . | . | . |
| 10.667 | 1.0681 | 2.74 | . | Q V | . | . | . |
| 10.750 | 1.0869 | 2.74 | . | Q V | . | . | . |
| 10.833 | 1.1093 | 3.26 | . | . Q | . | . | . |
| 10.917 | 1.1318 | 3.26 | . | . Q | . | . | . |
| 11.000 | 1.1542 | 3.26 | . | . Q | . | . | . |
| 11.083 | 1.1769 | 3.29 | . | . Q | . | . | . |
| 11.167 | 1.1996 | 3.29 | . | . QV | . | . | . |
| 11.250 | 1.2223 | 3.29 | . | . QV | . | . | . |
| 11.333 | 1.2446 | 3.25 | . | . Q V | . | . | . |
| 11.417 | 1.2670 | 3.25 | . | . Q V | . | . | . |
| 11.500 | 1.2894 | 3.25 | . | . Q V | . | . | . |
| 11.583 | 1.3106 | 3.08 | . | . Q V | . | . | . |
| 11.667 | 1.3318 | 3.08 | . | . Q V | . | . | . |
| 11.750 | 1.3531 | 3.08 | . | . Q V | . | . | . |
| 11.833 | 1.3735 | 2.96 | . | .Q V | . | . | . |
| 11.917 | 1.3938 | 2.96 | . | .Q V | . | . | . |
| 12.000 | 1.4142 | 2.96 | . | .Q V | . | . | . |
| 12.083 | 1.4396 | 3.68 | . | . Q V | . | . | . |
| 12.167 | 1.4650 | 3.68 | . | . Q V | . | . | . |
| 12.250 | 1.4903 | 3.68 | . | . Q V | . | . | . |
| 12.333 | 1.5220 | 4.59 | . | . VQ | . | . | . |
| 12.417 | 1.5536 | 4.59 | . | . Q | . | . | . |
| 12.500 | 1.5852 | 4.59 | . | . Q | . | . | . |
| 12.583 | 1.6203 | 5.09 | . | . V Q | . | . | . |
| 12.667 | 1.6553 | 5.09 | . | . VQ | . | . | . |
| 12.750 | 1.6904 | 5.09 | . | . VQ | . | . | . |

```
12.833      1.7285      5.53  .         .         V Q       .         .
12.917      1.7666      5.53  .         .         V Q       .         .
13.000      1.8047      5.53  .         .          VQ       .         .
13.083      1.8474      6.21  .         .         .V  Q     .         .
13.167      1.8902      6.21  .         .         . V Q     .         .
13.250      1.9330      6.21  .         .         . V Q     .         .
13.333      1.9802      6.86  .         .         .  V   Q  .         .
13.417      2.0274      6.86  .         .         .  V   Q  .         .
13.500      2.0747      6.86  .         .         .   V  Q  .         .
13.583      2.1162      6.03  .         .         .   Q     .         .
13.667      2.1578      6.03  .         .         .   QV    .         .
13.750      2.1993      6.03  .         .         .   QV    .         .
13.833      2.2328      4.87  .         .        Q.     V   .         .
13.917      2.2664      4.87  .         .        Q.     V   .         .
14.000      2.2999      4.87  .         .        Q.     V   .         .
14.083      2.3343      5.00  .         .         Q      V  .         .
14.167      2.3688      5.00  .         .         Q      V  .         .
14.250      2.4032      5.00  .         .         Q       V .         .
14.333      2.4396      5.27  .         .         .Q      V .         .
14.417      2.4759      5.27  .         .         .Q       V.         .
14.500      2.5122      5.27  .         .         .Q       V.         .
14.583      2.5483      5.24  .         .         Q        V.         .
14.667      2.5844      5.24  .         .         Q         V         .
14.750      2.6205      5.24  .         .         Q         V         .
14.833      2.6561      5.18  .         .         Q         .V        .
14.917      2.6918      5.18  .         .         Q         .V        .
15.000      2.7274      5.18  .         .         Q         .V        .
15.083      2.7618      4.99  .         .        Q.         . V       .
15.167      2.7961      4.99  .         .        Q.         . V       .
15.250      2.8305      4.99  .         .        Q.         .  V      .
15.333      2.8634      4.78  .         .        Q.         .  V      .
15.417      2.8963      4.78  .         .        Q.         .  V      .
15.500      2.9292      4.78  .         .        Q.         .   V     .
15.583      2.9587      4.28  .         .      Q  .         .   V     .
15.667      2.9882      4.28  .         .      Q  .         .    V    .
15.750      3.0176      4.28  .         .      Q  .         .    V    .
15.833      3.0439      3.81  .         .    Q    .         .    V    .
15.917      3.0701      3.81  .         .    Q    .         .    V    .
16.000      3.0963      3.81  .         .    Q    .         .     V   .
16.083      3.1139      2.55  .         Q         .         .     V   .
16.167      3.1315      2.55  .         Q         .         .     V   .
16.250      3.1490      2.55  .         Q         .         .     V   .
16.333      3.1563      1.06  .   Q     .         .         .     V   .
16.417      3.1636      1.06  .   Q     .         .         .      V  .
16.500      3.1709      1.06  .   Q     .         .         .      V  .
16.583      3.1756      0.68  . Q       .         .         .      V  .
16.667      3.1803      0.68  . Q       .         .         .      V  .
16.750      3.1850      0.68  . Q       .         .         .      V  .
16.833      3.1883      0.48  .Q        .         .         .      V  .
16.917      3.1916      0.48  .Q        .         .         .      V  .
```

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 17.000 | 3.1949 | 0.48 | .Q | . | . | . | V . |
| 17.083 | 3.1984 | 0.50 | . Q | . | . | . | V . |
| 17.167 | 3.2018 | 0.50 | . Q | . | . | . | V . |
| 17.250 | 3.2053 | 0.50 | . Q | . | . | . | V . |
| 17.333 | 3.2094 | 0.59 | . Q | . | . | . | V . |
| 17.417 | 3.2134 | 0.59 | . Q | . | . | . | V . |
| 17.500 | 3.2175 | 0.59 | . Q | . | . | . | V . |
| 17.583 | 3.2217 | 0.61 | . Q | . | . | . | V . |
| 17.667 | 3.2259 | 0.61 | . Q | . | . | . | V . |
| 17.750 | 3.2301 | 0.61 | . Q | . | . | . | V . |
| 17.833 | 3.2340 | 0.57 | . Q | . | . | . | V . |
| 17.917 | 3.2379 | 0.57 | . Q | . | . | . | V . |
| 18.000 | 3.2418 | 0.57 | . Q | . | . | . | V . |
| 18.083 | 3.2453 | 0.51 | . Q | . | . | . | V . |
| 18.167 | 3.2488 | 0.51 | . Q | . | . | . | V . |
| 18.250 | 3.2524 | 0.51 | . Q | . | . | . | V . |
| 18.333 | 3.2558 | 0.50 | . Q | . | . | . | V . |
| 18.417 | 3.2593 | 0.50 | . Q | . | . | . | V . |
| 18.500 | 3.2627 | 0.50 | . Q | . | . | . | V . |
| 18.583 | 3.2658 | 0.45 | .Q | . | . | . | V . |
| 18.667 | 3.2689 | 0.45 | .Q | . | . | . | V . |
| 18.750 | 3.2720 | 0.45 | .Q | . | . | . | V . |
| 18.833 | 3.2744 | 0.35 | .Q | . | . | . | V . |
| 18.917 | 3.2768 | 0.35 | .Q | . | . | . | V . |
| 19.000 | 3.2792 | 0.35 | .Q | . | . | . | V . |
| 19.083 | 3.2814 | 0.32 | .Q | . | . | . | V . |
| 19.167 | 3.2836 | 0.32 | .Q | . | . | . | V . |
| 19.250 | 3.2859 | 0.32 | .Q | . | . | . | V . |
| 19.333 | 3.2887 | 0.41 | .Q | . | . | . | V . |
| 19.417 | 3.2915 | 0.41 | .Q | . | . | . | V . |
| 19.500 | 3.2943 | 0.41 | .Q | . | . | . | V . |
| 19.583 | 3.2972 | 0.42 | .Q | . | . | . | V . |
| 19.667 | 3.3001 | 0.42 | .Q | . | . | . | V . |
| 19.750 | 3.3030 | 0.42 | .Q | . | . | . | V . |
| 19.833 | 3.3053 | 0.34 | .Q | . | . | . | V . |
| 19.917 | 3.3076 | 0.34 | .Q | . | . | . | V . |
| 20.000 | 3.3099 | 0.34 | .Q | . | . | . | V . |
| 20.083 | 3.3121 | 0.32 | .Q | . | . | . | V . |
| 20.167 | 3.3143 | 0.32 | .Q | . | . | . | V . |
| 20.250 | 3.3165 | 0.32 | .Q | . | . | . | V . |
| 20.333 | 3.3190 | 0.36 | .Q | . | . | . | V . |
| 20.417 | 3.3214 | 0.36 | .Q | . | . | . | V . |
| 20.500 | 3.3239 | 0.36 | .Q | . | . | . | V . |
| 20.583 | 3.3264 | 0.37 | .Q | . | . | . | V . |
| 20.667 | 3.3289 | 0.37 | .Q | . | . | . | V. |
| 20.750 | 3.3315 | 0.37 | .Q | . | . | . | V. |
| 20.833 | 3.3337 | 0.32 | .Q | . | . | . | V. |
| 20.917 | 3.3359 | 0.32 | .Q | . | . | . | V. |
| 21.000 | 3.3381 | 0.32 | .Q | . | . | . | V. |
| 21.083 | 3.3403 | 0.31 | .Q | . | . | . | V. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 21.167 | 3.3424 | 0.31 | .Q | . | . | . | V. |
| 21.250 | 3.3446 | 0.31 | .Q | . | . | . | V. |
| 21.333 | 3.3467 | 0.31 | .Q | . | . | . | V. |
| 21.417 | 3.3489 | 0.31 | .Q | . | . | . | V. |
| 21.500 | 3.3510 | 0.31 | .Q | . | . | . | V. |
| 21.583 | 3.3532 | 0.31 | .Q | . | . | . | V. |
| 21.667 | 3.3553 | 0.31 | .Q | . | . | . | V. |
| 21.750 | 3.3574 | 0.31 | .Q | . | . | . | V. |
| 21.833 | 3.3595 | 0.31 | .Q | . | . | . | V. |
| 21.917 | 3.3617 | 0.31 | .Q | . | . | . | V. |
| 22.000 | 3.3638 | 0.31 | .Q | . | . | . | V. |
| 22.083 | 3.3659 | 0.31 | .Q | . | . | . | V. |
| 22.167 | 3.3680 | 0.31 | .Q | . | . | . | V. |
| 22.250 | 3.3701 | 0.31 | .Q | . | . | . | V. |
| 22.333 | 3.3723 | 0.31 | .Q | . | . | . | V. |
| 22.417 | 3.3744 | 0.31 | .Q | . | . | . | V. |
| 22.500 | 3.3765 | 0.31 | .Q | . | . | . | V. |
| 22.583 | 3.3783 | 0.26 | .Q | . | . | . | V. |
| 22.667 | 3.3801 | 0.26 | .Q | . | . | . | V. |
| 22.750 | 3.3820 | 0.26 | .Q | . | . | . | V. |
| 22.833 | 3.3837 | 0.25 | .Q | . | . | . | V. |
| 22.917 | 3.3854 | 0.25 | .Q | . | . | . | V. |
| 23.000 | 3.3872 | 0.25 | .Q | . | . | . | V. |
| 23.083 | 3.3889 | 0.25 | Q | . | . | . | V. |
| 23.166 | 3.3906 | 0.25 | Q | . | . | . | V. |
| 23.250 | 3.3923 | 0.25 | Q | . | . | . | V. |
| 23.333 | 3.3940 | 0.25 | Q | . | . | . | V. |
| 23.416 | 3.3957 | 0.25 | Q | . | . | . | V. |
| 23.500 | 3.3974 | 0.25 | Q | . | . | . | V. |
| 23.583 | 3.3991 | 0.25 | Q | . | . | . | V. |
| 23.666 | 3.4008 | 0.25 | Q | . | . | . | V. |
| 23.750 | 3.4025 | 0.25 | Q | . | . | . | V. |
| 23.833 | 3.4042 | 0.25 | Q | . | . | . | V. |
| 23.916 | 3.4059 | 0.25 | Q | . | . | . | V. |
| 24.000 | 3.4076 | 0.25 | Q | . | . | . | V. |
| 24.083 | 3.4087 | 0.16 | Q | . | . | . | V. |
| 24.166 | 3.4098 | 0.16 | Q | . | . | . | V. |
| 24.250 | 3.4109 | 0.16 | Q | . | . | . | V. |
| 24.333 | 3.4112 | 0.04 | Q | . | . | . | V. |
| 24.416 | 3.4114 | 0.04 | Q | . | . | . | V. |
| 24.500 | 3.4117 | 0.04 | Q | . | . | . | V. |
| 24.583 | 3.4119 | 0.02 | Q | . | . | . | V. |
| 24.666 | 3.4120 | 0.02 | Q | . | . | . | V. |
| 24.750 | 3.4121 | 0.02 | Q | . | . | . | V. |
| 24.833 | 3.4121 | 0.01 | Q | . | . | . | V. |
| 24.916 | 3.4122 | 0.01 | Q | . | . | . | V. |
| 25.000 | 3.4122 | 0.01 | Q | . | . | . | V. |

---

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have

an instantaneous time duration)

| Percentile of Estimated Peak Flow Rate | Duration (minutes) |
|---|---|
| 0% | 1500.0 |
| 10% | 750.0 |
| 20% | 525.0 |
| 30% | 450.0 |
| 40% | 375.0 |
| 50% | 255.0 |
| 60% | 210.0 |
| 70% | 165.0 |
| 80% | 60.0 |
| 90% | 30.0 |

END OF FLOODSCx ROUTING ANALYSIS

```
_____
**************************************************************************

             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* LMC Murrieta Apartments                                                *
* Unit Hydrograph - 100-yr, 1-hr                                         *
* Drainage Area 1                                                        *
 ************************************************************************

  FILE NAME: LMCMPHG.DAT
  TIME/DATE OF STUDY: 17:25 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERSHED AREA =      13.350 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.150 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         VALLEY S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.100
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.500
         USER-ENTERED RAINFALL =  1.71 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.42)
         *USER SPECIFIED PRECIPITATION DEPTH-AREA ADJUSTMENT FACTOR = 0.9900
```

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 55.556

UNIT HYDROGRAPH DETERMINATION

| INTERVAL NUMBER | "S" GRAPH MEAN VALUES | UNIT HYDROGRAPH ORDINATES(CFS) |
|---|---|---|
| 1 | 7.039 | 11.364 |
| 2 | 37.811 | 49.682 |
| 3 | 65.637 | 44.925 |
| 4 | 77.088 | 18.488 |
| 5 | 83.494 | 10.343 |
| 6 | 87.755 | 6.880 |
| 7 | 90.831 | 4.966 |
| 8 | 93.134 | 3.718 |
| 9 | 94.948 | 2.927 |
| 10 | 96.378 | 2.310 |
| 11 | 97.463 | 1.751 |
| 12 | 98.200 | 1.191 |
| 13 | 98.599 | 0.643 |
| 14 | 98.998 | 0.644 |
| 15 | 99.385 | 0.625 |
| 16 | 99.754 | 0.596 |
| 17 | 99.938 | 0.298 |
| 18 | 100.000 | 0.099 |

| UNIT PERIOD (NUMBER) | UNIT RAINFALL (INCHES) | UNIT SOIL-LOSS (INCHES) | EFFECTIVE RAINFALL (INCHES) |
|---|---|---|---|
| 1 | 0.0844 | 0.0083 | 0.0760 |
| 2 | 0.0885 | 0.0083 | 0.0801 |
| 3 | 0.0933 | 0.0083 | 0.0849 |
| 4 | 0.1015 | 0.0083 | 0.0932 |
| 5 | 0.1063 | 0.0083 | 0.0980 |
| 6 | 0.1190 | 0.0083 | 0.1106 |
| 7 | 0.1366 | 0.0083 | 0.1282 |
| 8 | 0.1483 | 0.0083 | 0.1400 |
| 9 | 0.2113 | 0.0083 | 0.2029 |
| 10 | 0.3844 | 0.0083 | 0.3760 |
| 11 | 0.1275 | 0.0083 | 0.1192 |

```
          12             0.0919           0.0083              0.0836

        TOTAL STORM RAINFALL(INCHES) =  1.69
        TOTAL SOIL-LOSS(INCHES) =  0.10
        TOTAL EFFECTIVE RAINFALL(INCHES) =  1.59

------------------------------------------------------------------------------
    TOTAL SOIL-LOSS VOLUME(ACRE-FEET) =       0.1113
    TOTAL STORM RUNOFF VOLUME(ACRE-FEET) =       1.7712
------------------------------------------------------------------------------
↟
==============================================================================

                        1 - H O U R    S T O R M
                   R U N O F F    H Y D R O G R A P H

==============================================================================
              HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
        (Note: Time indicated is at END of Each Unit Intervals)
------------------------------------------------------------------------------
 TIME(HRS) VOLUME(AF)   Q(CFS) 0.       10.0      20.0      30.0      40.0
------------------------------------------------------------------------------
   0.083      0.0060      0.86  Q         .         .         .         .
   0.167      0.0382      4.69  V   Q     .         .         .         .
   0.250      0.0958      8.36  . V     Q .         .         .         .
   0.333      0.1667     10.28  .  V      Q         .         .         .
   0.417      0.2481     11.83  .    V    .Q        .         .         .
   0.500      0.3393     13.24  .      V  .  Q      .         .         .
   0.583      0.4418     14.89  .        V.   Q     .         .         .
   0.667      0.5587     16.97  .         . V   Q   .         .         .
   0.750      0.6941     19.66  .         .    V   Q.         .         .
   0.833      0.8733     26.02  .         .        V.     Q   .         .
   0.917      1.1160     35.23  .         .         .    V    .    Q    .
   1.000      1.3326     31.46  .         .         .        VQ        .
   1.083      1.4798     21.37  .         .         .Q       .  V      .
   1.167      1.5716     13.33  .         .  Q      .         .    V    .
   1.250      1.6264      7.96  .      Q  .         .         .     V   .
   1.333      1.6645      5.53  .    Q    .         .         .      V  .
   1.417      1.6927      4.09  .   Q     .         .         .       V .
   1.500      1.7140      3.10  .  Q      .         .         .       V .
   1.583      1.7302      2.35  . Q       .         .         .        V.
   1.667      1.7423      1.76  .Q        .         .         .        V.
   1.750      1.7510      1.25  .Q        .         .         .        V.
   1.833      1.7569      0.87  Q         .         .         .        V.
   1.917      1.7616      0.68  Q         .         .         .        V.
   2.000      1.7653      0.54  Q         .         .         .        V.
   2.083      1.7683      0.43  Q         .         .         .        V.
   2.167      1.7700      0.26  Q         .         .         .        V.
   2.250      1.7709      0.12  Q         .         .         .        V.
   2.333      1.7711      0.04  Q         .         .         .        V.
```

```
    2.417      1.7712      0.01  Q         .         .         .        V.
-------------------------------------------------------------------------------
    TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
    (Note: 100% of Peak Flow Rate estimate assumed to have
    an instantaneous time duration)

    Percentile of Estimated                Duration
        Peak Flow Rate                     (minutes)
    ======================                 =========
               0%                            145.0
              10%                             80.0
              20%                             65.0
              30%                             50.0
              40%                             35.0
              50%                             25.0
              60%                             20.0
              70%                             15.0
              80%                             10.0
              90%                              5.0
 ===============================================================================

  END OF FLOODSCx ROUTING ANALYSIS
```

```
**************************************************************************

             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                          Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* LMC Murrieta Apartments                                                *
* Unit Hydrograph - 100 yr, 24 hr                                        *
* Drainage Area 1                                                        *
 **************************************************************************

  FILE NAME: LMCMPHG.DAT
  TIME/DATE OF STUDY: 16:04 05/25/2022
```



```
**************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERSHED AREA =      13.350 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.150 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         VALLEY S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.100
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.500
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.050
         USER-ENTERED RAINFALL =  7.37 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         *USER SPECIFIED PRECIPITATION DEPTH-AREA ADJUSTMENT FACTOR = 0.9900
```

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 166.667

UNIT HYDROGRAPH DETERMINATION

| INTERVAL NUMBER | "S" GRAPH MEAN VALUES | UNIT HYDROGRAPH ORDINATES(CFS) |
|---|---|---|
| 1 | 36.829 | 19.820 |
| 2 | 82.779 | 24.729 |
| 3 | 92.971 | 5.485 |
| 4 | 97.347 | 2.355 |
| 5 | 98.994 | 0.886 |
| 6 | 99.522 | 0.284 |
| 7 | 99.809 | 0.154 |
| 8 | 99.952 | 0.077 |
| 9 | 100.000 | 0.026 |

| UNIT PERIOD (NUMBER) | UNIT RAINFALL (INCHES) | UNIT SOIL-LOSS (INCHES) | EFFECTIVE RAINFALL (INCHES) |
|---|---|---|---|
| 1 | 0.0146 | 0.0073 | 0.0073 |
| 2 | 0.0219 | 0.0109 | 0.0109 |
| 3 | 0.0219 | 0.0109 | 0.0109 |
| 4 | 0.0292 | 0.0146 | 0.0146 |
| 5 | 0.0219 | 0.0109 | 0.0109 |
| 6 | 0.0219 | 0.0109 | 0.0109 |
| 7 | 0.0219 | 0.0109 | 0.0109 |
| 8 | 0.0292 | 0.0146 | 0.0146 |
| 9 | 0.0292 | 0.0146 | 0.0146 |
| 10 | 0.0292 | 0.0146 | 0.0146 |
| 11 | 0.0365 | 0.0182 | 0.0182 |
| 12 | 0.0365 | 0.0182 | 0.0182 |
| 13 | 0.0365 | 0.0182 | 0.0182 |
| 14 | 0.0365 | 0.0182 | 0.0182 |
| 15 | 0.0365 | 0.0182 | 0.0182 |
| 16 | 0.0438 | 0.0219 | 0.0219 |
| 17 | 0.0438 | 0.0219 | 0.0219 |
| 18 | 0.0511 | 0.0255 | 0.0255 |
| 19 | 0.0511 | 0.0255 | 0.0255 |

| | | | |
|---|---|---|---|
| 20 | 0.0584 | 0.0292 | 0.0292 |
| 21 | 0.0438 | 0.0219 | 0.0219 |
| 22 | 0.0511 | 0.0255 | 0.0255 |
| 23 | 0.0584 | 0.0292 | 0.0292 |
| 24 | 0.0584 | 0.0292 | 0.0292 |
| 25 | 0.0657 | 0.0327 | 0.0330 |
| 26 | 0.0657 | 0.0323 | 0.0334 |
| 27 | 0.0730 | 0.0318 | 0.0411 |
| 28 | 0.0730 | 0.0314 | 0.0416 |
| 29 | 0.0730 | 0.0310 | 0.0420 |
| 30 | 0.0803 | 0.0306 | 0.0497 |
| 31 | 0.0876 | 0.0301 | 0.0574 |
| 32 | 0.0949 | 0.0297 | 0.0651 |
| 33 | 0.1094 | 0.0293 | 0.0801 |
| 34 | 0.1094 | 0.0289 | 0.0805 |
| 35 | 0.1167 | 0.0285 | 0.0882 |
| 36 | 0.1240 | 0.0281 | 0.0959 |
| 37 | 0.1386 | 0.0277 | 0.1109 |
| 38 | 0.1459 | 0.0273 | 0.1186 |
| 39 | 0.1532 | 0.0269 | 0.1263 |
| 40 | 0.1605 | 0.0265 | 0.1340 |
| 41 | 0.1094 | 0.0261 | 0.0833 |
| 42 | 0.1094 | 0.0258 | 0.0837 |
| 43 | 0.1459 | 0.0254 | 0.1205 |
| 44 | 0.1459 | 0.0250 | 0.1209 |
| 45 | 0.1386 | 0.0247 | 0.1140 |
| 46 | 0.1386 | 0.0243 | 0.1143 |
| 47 | 0.1240 | 0.0239 | 0.1001 |
| 48 | 0.1313 | 0.0236 | 0.1078 |
| 49 | 0.1824 | 0.0232 | 0.1592 |
| 50 | 0.1897 | 0.0229 | 0.1668 |
| 51 | 0.2043 | 0.0225 | 0.1818 |
| 52 | 0.2116 | 0.0222 | 0.1894 |
| 53 | 0.2481 | 0.0219 | 0.2262 |
| 54 | 0.2481 | 0.0215 | 0.2266 |
| 55 | 0.1678 | 0.0212 | 0.1466 |
| 56 | 0.1678 | 0.0209 | 0.1469 |
| 57 | 0.1970 | 0.0206 | 0.1764 |
| 58 | 0.1897 | 0.0202 | 0.1695 |
| 59 | 0.1897 | 0.0199 | 0.1698 |
| 60 | 0.1824 | 0.0196 | 0.1628 |
| 61 | 0.1751 | 0.0193 | 0.1558 |
| 62 | 0.1678 | 0.0190 | 0.1488 |
| 63 | 0.1386 | 0.0187 | 0.1199 |
| 64 | 0.1386 | 0.0185 | 0.1202 |
| 65 | 0.0292 | 0.0146 | 0.0146 |
| 66 | 0.0292 | 0.0146 | 0.0146 |
| 67 | 0.0219 | 0.0109 | 0.0109 |
| 68 | 0.0219 | 0.0109 | 0.0109 |
| 69 | 0.0365 | 0.0171 | 0.0194 |

| | | | |
|---|---|---|---|
| 70 | 0.0365 | 0.0168 | 0.0196 |
| 71 | 0.0365 | 0.0166 | 0.0199 |
| 72 | 0.0292 | 0.0146 | 0.0146 |
| 73 | 0.0292 | 0.0146 | 0.0146 |
| 74 | 0.0292 | 0.0146 | 0.0146 |
| 75 | 0.0219 | 0.0109 | 0.0109 |
| 76 | 0.0146 | 0.0073 | 0.0073 |
| 77 | 0.0219 | 0.0109 | 0.0109 |
| 78 | 0.0292 | 0.0146 | 0.0146 |
| 79 | 0.0219 | 0.0109 | 0.0109 |
| 80 | 0.0146 | 0.0073 | 0.0073 |
| 81 | 0.0219 | 0.0109 | 0.0109 |
| 82 | 0.0219 | 0.0109 | 0.0109 |
| 83 | 0.0219 | 0.0109 | 0.0109 |
| 84 | 0.0146 | 0.0073 | 0.0073 |
| 85 | 0.0219 | 0.0109 | 0.0109 |
| 86 | 0.0146 | 0.0073 | 0.0073 |
| 87 | 0.0219 | 0.0109 | 0.0109 |
| 88 | 0.0146 | 0.0073 | 0.0073 |
| 89 | 0.0219 | 0.0109 | 0.0109 |
| 90 | 0.0146 | 0.0073 | 0.0073 |
| 91 | 0.0146 | 0.0073 | 0.0073 |
| 92 | 0.0146 | 0.0073 | 0.0073 |
| 93 | 0.0146 | 0.0073 | 0.0073 |
| 94 | 0.0146 | 0.0073 | 0.0073 |
| 95 | 0.0146 | 0.0073 | 0.0073 |
| 96 | 0.0146 | 0.0073 | 0.0073 |

TOTAL STORM RAINFALL(INCHES) = 7.30
TOTAL SOIL-LOSS(INCHES) = 1.79
TOTAL EFFECTIVE RAINFALL(INCHES) = 5.51

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TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 1.9928
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 6.1212

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

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| TIME(HRS) | VOLUME(AF) | Q(CFS) | 0. | 5.0 | 10.0 | 15.0 | 20.0 |
|---|---|---|---|---|---|---|---|
| 0.083 | 0.0010 | 0.14 | Q | . | . | . | . |
| 0.167 | 0.0020 | 0.14 | Q | . | . | . | . |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.250 | 0.0030 | 0.14 | Q | . | . | . | . |
| 0.333 | 0.0057 | 0.40 | Q | . | . | . | . |
| 0.417 | 0.0085 | 0.40 | Q | . | . | . | . |
| 0.500 | 0.0112 | 0.40 | Q | . | . | . | . |
| 0.583 | 0.0148 | 0.53 | VQ | . | . | . | . |
| 0.667 | 0.0185 | 0.53 | VQ | . | . | . | . |
| 0.750 | 0.0221 | 0.53 | VQ | . | . | . | . |
| 0.833 | 0.0265 | 0.64 | VQ | . | . | . | . |
| 0.917 | 0.0309 | 0.64 | VQ | . | . | . | . |
| 1.000 | 0.0353 | 0.64 | VQ | . | . | . | . |
| 1.083 | 0.0399 | 0.67 | VQ | . | . | . | . |
| 1.167 | 0.0445 | 0.67 | VQ | . | . | . | . |
| 1.250 | 0.0491 | 0.67 | VQ | . | . | . | . |
| 1.333 | 0.0533 | 0.61 | VQ | . | . | . | . |
| 1.417 | 0.0574 | 0.61 | VQ | . | . | . | . |
| 1.500 | 0.0616 | 0.61 | VQ | . | . | . | . |
| 1.583 | 0.0657 | 0.60 | VQ | . | . | . | . |
| 1.667 | 0.0698 | 0.60 | VQ | . | . | . | . |
| 1.750 | 0.0739 | 0.60 | VQ | . | . | . | . |
| 1.833 | 0.0785 | 0.66 | VQ | . | . | . | . |
| 1.917 | 0.0831 | 0.66 | VQ | . | . | . | . |
| 2.000 | 0.0876 | 0.66 | VQ | . | . | . | . |
| 2.083 | 0.0928 | 0.75 | VQ | . | . | . | . |
| 2.167 | 0.0980 | 0.75 | VQ | . | . | . | . |
| 2.250 | 0.1032 | 0.75 | VQ | . | . | . | . |
| 2.333 | 0.1085 | 0.77 | VQ | . | . | . | . |
| 2.417 | 0.1138 | 0.77 | VQ | . | . | . | . |
| 2.500 | 0.1191 | 0.77 | VQ | . | . | . | . |
| 2.583 | 0.1250 | 0.85 | VQ | . | . | . | . |
| 2.667 | 0.1309 | 0.85 | VQ | . | . | . | . |
| 2.750 | 0.1368 | 0.85 | VQ | . | . | . | . |
| 2.833 | 0.1433 | 0.95 | VQ | . | . | . | . |
| 2.917 | 0.1498 | 0.95 | VQ | . | . | . | . |
| 3.000 | 0.1563 | 0.95 | Q | . | . | . | . |
| 3.083 | 0.1630 | 0.97 | .Q | . | . | . | . |
| 3.167 | 0.1696 | 0.97 | .Q | . | . | . | . |
| 3.250 | 0.1763 | 0.97 | .Q | . | . | . | . |
| 3.333 | 0.1830 | 0.98 | .Q | . | . | . | . |
| 3.417 | 0.1897 | 0.98 | .Q | . | . | . | . |
| 3.500 | 0.1964 | 0.98 | .Q | . | . | . | . |
| 3.583 | 0.2032 | 0.98 | .Q | . | . | . | . |
| 3.667 | 0.2099 | 0.98 | .Q | . | . | . | . |
| 3.750 | 0.2167 | 0.98 | .Q | . | . | . | . |
| 3.833 | 0.2239 | 1.05 | .VQ | . | . | . | . |
| 3.917 | 0.2312 | 1.05 | .VQ | . | . | . | . |
| 4.000 | 0.2384 | 1.05 | .VQ | . | . | . | . |
| 4.083 | 0.2463 | 1.14 | .VQ | . | . | . | . |
| 4.167 | 0.2542 | 1.14 | .VQ | . | . | . | . |
| 4.250 | 0.2621 | 1.14 | .VQ | . | . | . | . |
| 4.333 | 0.2706 | 1.24 | .VQ | . | . | . | . |

```
4.417      0.2791      1.24  .VQ       .         .         .         .
4.500      0.2876      1.24  .VQ       .         .         .         .
4.583      0.2968      1.34  .VQ       .         .         .         .
4.667      0.3060      1.34  .VQ       .         .         .         .
4.750      0.3152      1.34  . Q       .         .         .         .
4.833      0.3251      1.43  . Q       .         .         .         .
4.917      0.3349      1.43  . Q       .         .         .         .
5.000      0.3448      1.43  . Q       .         .         .         .
5.083      0.3543      1.39  . Q       .         .         .         .
5.167      0.3639      1.39  . Q       .         .         .         .
5.250      0.3734      1.39  . Q       .         .         .         .
5.333      0.3824      1.30  . Q       .         .         .         .
5.417      0.3913      1.30  . Q       .         .         .         .
5.500      0.4003      1.30  . Q       .         .         .         .
5.583      0.4102      1.43  . Q       .         .         .         .
5.667      0.4201      1.43  . Q       .         .         .         .
5.750      0.4299      1.43  . Q       .         .         .         .
5.833      0.4405      1.53  . VQ      .         .         .         .
5.917      0.4510      1.53  . VQ      .         .         .         .
6.000      0.4616      1.53  .  Q      .         .         .         .
6.083      0.4728      1.63  .  Q      .         .         .         .
6.167      0.4840      1.63  .  Q      .         .         .         .
6.250      0.4952      1.63  .  Q      .         .         .         .
6.333      0.5072      1.74  .  Q      .         .         .         .
6.417      0.5192      1.74  .  Q      .         .         .         .
6.500      0.5312      1.74  .  Q      .         .         .         .
6.583      0.5445      1.93  .  Q      .         .         .         .
6.667      0.5578      1.93  .  Q      .         .         .         .
6.750      0.5711      1.93  .  Q      .         .         .         .
6.833      0.5859      2.14  .  VQ     .         .         .         .
6.917      0.6006      2.14  .  VQ     .         .         .         .
7.000      0.6154      2.14  .   Q     .         .         .         .
7.083      0.6306      2.21  .   Q     .         .         .         .
7.167      0.6458      2.21  .   Q     .         .         .         .
7.250      0.6610      2.21  .   Q     .         .         .         .
7.333      0.6775      2.39  .   Q     .         .         .         .
7.417      0.6940      2.39  .   Q     .         .         .         .
7.500      0.7105      2.39  .   Q     .         .         .         .
7.583      0.7294      2.75  .   VQ    .         .         .         .
7.667      0.7483      2.75  .   VQ    .         .         .         .
7.750      0.7673      2.75  .    Q    .         .         .         .
7.833      0.7889      3.14  .    VQ   .         .         .         .
7.917      0.8105      3.14  .    VQ   .         .         .         .
8.000      0.8321      3.14  .    VQ   .         .         .         .
8.083      0.8575      3.69  .    V Q  .         .         .         .
8.167      0.8829      3.69  .    V Q  .         .         .         .
8.250      0.9083      3.69  .    V Q  .         .         .         .
8.333      0.9368      4.14  .     V Q .         .         .         .
8.417      0.9653      4.14  .     V Q .         .         .         .
8.500      0.9938      4.14  .     V Q .         .         .         .
```

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8.583 | 1.0242 | 4.41 | . | V Q . | . | . | . |
| 8.667 | 1.0546 | 4.41 | . | V Q . | . | . | . |
| 8.750 | 1.0849 | 4.41 | . | VQ . | . | . | . |
| 8.833 | 1.1180 | 4.80 | . | V Q. | . | . | . |
| 8.917 | 1.1510 | 4.80 | . | V Q. | . | . | . |
| 9.000 | 1.1841 | 4.80 | . | V Q. | . | . | . |
| 9.083 | 1.2209 | 5.35 | . | V Q | . | . | . |
| 9.167 | 1.2578 | 5.35 | . | V Q | . | . | . |
| 9.250 | 1.2946 | 5.35 | . | V Q | . | . | . |
| 9.333 | 1.3355 | 5.94 | . | V .Q | . | . | . |
| 9.417 | 1.3764 | 5.94 | . | V .Q | . | . | . |
| 9.500 | 1.4173 | 5.94 | . | V.Q | . | . | . |
| 9.583 | 1.4613 | 6.39 | . | V. Q | . | . | . |
| 9.667 | 1.5053 | 6.39 | . | V. Q | . | . | . |
| 9.750 | 1.5493 | 6.39 | . | V Q | . | . | . |
| 9.833 | 1.5963 | 6.82 | . | V Q | . | . | . |
| 9.917 | 1.6433 | 6.82 | . | V Q | . | . | . |
| 10.000 | 1.6903 | 6.82 | . | V Q | . | . | . |
| 10.083 | 1.7322 | 6.08 | . | .VQ | . | . | . |
| 10.167 | 1.7741 | 6.08 | . | .VQ | . | . | . |
| 10.250 | 1.8160 | 6.08 | . | .VQ | . | . | . |
| 10.333 | 1.8498 | 4.91 | . | Q. V | . | . | . |
| 10.417 | 1.8836 | 4.91 | . | Q. V | . | . | . |
| 10.500 | 1.9175 | 4.91 | . | Q. V | . | . | . |
| 10.583 | 1.9547 | 5.40 | . | Q V | . | . | . |
| 10.667 | 1.9919 | 5.40 | . | Q V | . | . | . |
| 10.750 | 2.0291 | 5.40 | . | Q V | . | . | . |
| 10.833 | 2.0719 | 6.22 | . | . QV | . | . | . |
| 10.917 | 2.1147 | 6.22 | . | . QV | . | . | . |
| 11.000 | 2.1575 | 6.22 | . | . Q V | . | . | . |
| 11.083 | 2.2006 | 6.25 | . | . Q V | . | . | . |
| 11.167 | 2.2436 | 6.25 | . | . Q V | . | . | . |
| 11.250 | 2.2867 | 6.25 | . | . Q V | . | . | . |
| 11.333 | 2.3291 | 6.16 | . | . Q V | . | . | . |
| 11.417 | 2.3716 | 6.16 | . | . Q V | . | . | . |
| 11.500 | 2.4140 | 6.16 | . | . Q V | . | . | . |

↟

| TIME(HRS) | VOLUME(AF) | Q(CFS) | 0. | 5.0 | 10.0 | 15.0 | 20.0 |
|---|---|---|---|---|---|---|---|
| 11.583 | 2.4545 | 5.88 | . | .Q V | . | . | . |
| 11.667 | 2.4950 | 5.88 | . | .Q V | . | . | . |
| 11.750 | 2.5355 | 5.88 | . | .Q V | . | . | . |
| 11.833 | 2.5745 | 5.67 | . | .Q V | . | . | . |
| 11.917 | 2.6136 | 5.67 | . | .Q V | . | . | . |
| 12.000 | 2.6527 | 5.67 | . | .Q V | . | . | . |
| 12.083 | 2.6995 | 6.80 | . | . Q V | . | . | . |
| 12.167 | 2.7463 | 6.80 | . | . Q V | . | . | . |
| 12.250 | 2.7932 | 6.80 | . | . Q V | . | . | . |
| 12.333 | 2.8499 | 8.23 | . | . Q V | . | . | . |

```
12.417      2.9066      8.23  .         .     Q V .         .         .
12.500      2.9633      8.23  .         .     Q  V.         .         .
12.583      3.0253      9.01  .         .       QV.         .         .
12.667      3.0873      9.01  .         .       Q V         .         .
12.750      3.1494      9.01  .         .       Q V         .         .
12.833      3.2161      9.69  .         .        Q.V        .         .
12.917      3.2829      9.69  .         .        Q.V        .         .
13.000      3.3496      9.69  .         .        Q.V        .         .
13.083      3.4237     10.76  .         .         .QV       .         .
13.167      3.4978     10.76  .         .         .QV       .         .
13.250      3.5719     10.76  .         .         .Q V      .         .
13.333      3.6529     11.77  .         .         .  Q      .         .
13.417      3.7340     11.77  .         .         .  QV     .         .
13.500      3.8151     11.77  .         .         .  QV     .         .
13.583      3.8870     10.44  .         .        Q    V    .         .
13.667      3.9589     10.44  .         .        Q    V    .         .
13.750      4.0308     10.44  .         .        Q     V   .         .
13.833      4.0898      8.57  .         .      Q  .     V   .         .
13.917      4.1489      8.57  .         .      Q  .      V  .         .
14.000      4.2079      8.57  .         .      Q  .      V  .         .
14.083      4.2683      8.77  .         .      Q  .      V  .         .
14.167      4.3287      8.77  .         .      Q  .       V .         .
14.250      4.3891      8.77  .         .      Q  .       V .         .
14.333      4.4523      9.19  .         .       Q .        V.         .
14.417      4.5156      9.19  .         .       Q .        V.         .
14.500      4.5789      9.19  .         .       Q .        V.         .
14.583      4.6417      9.12  .         .       Q .         V         .
14.667      4.7045      9.12  .         .       Q .         V         .
14.750      4.7673      9.12  .         .       Q .          V        .
14.833      4.8292      9.00  .         .      Q  .         .V        .
14.917      4.8912      9.00  .         .      Q  .         .V        .
15.000      4.9532      9.00  .         .      Q  .         . V       .
15.083      5.0130      8.69  .         .      Q  .         . V       .
15.167      5.0729      8.69  .         .      Q  .         .  V      .
15.250      5.1327      8.69  .         .      Q  .         .  V      .
15.333      5.1901      8.33  .         .     Q   .         .  V      .
15.417      5.2475      8.33  .         .     Q   .         .   V     .
15.500      5.3049      8.33  .         .     Q   .         .   V     .
15.583      5.3568      7.53  .         .    Q    .         .    V    .
15.667      5.4087      7.53  .         .    Q    .         .    V    .
15.750      5.4606      7.53  .         .    Q    .         .    V    .
15.833      5.5071      6.77  .         .  Q      .         .    V    .
15.917      5.5537      6.77  .         .  Q      .         .     V   .
16.000      5.6003      6.77  .         .  Q      .         .     V   .
16.083      5.6313      4.50  .       Q .         .         .     V   .
16.167      5.6623      4.50  .       Q .         .         .      V  .
16.250      5.6933      4.50  .       Q .         .         .      V  .
16.333      5.7057      1.81  .  Q      .         .         .      V  .
16.417      5.7182      1.81  .  Q      .         .         .      V  .
16.500      5.7307      1.81  .  Q      .         .         .      V  .
```

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 16.583 | 5.7384 | 1.13 | . Q | . | . | . | V | . |
| 16.667 | 5.7462 | 1.13 | . Q | . | . | . | V | . |
| 16.750 | 5.7540 | 1.13 | . Q | . | . | . | V | . |
| 16.833 | 5.7594 | 0.78 | .Q | . | . | . | V | . |
| 16.917 | 5.7648 | 0.78 | .Q | . | . | . | V | . |
| 17.000 | 5.7702 | 0.78 | .Q | . | . | . | V | . |
| 17.083 | 5.7759 | 0.83 | .Q | . | . | . | V | . |
| 17.167 | 5.7816 | 0.83 | .Q | . | . | . | V | . |
| 17.250 | 5.7873 | 0.83 | .Q | . | . | . | V | . |
| 17.333 | 5.7942 | 1.00 | . Q | . | . | . | V | . |
| 17.417 | 5.8011 | 1.00 | . Q | . | . | . | V | . |
| 17.500 | 5.8081 | 1.00 | . Q | . | . | . | V | . |
| 17.583 | 5.8152 | 1.04 | . Q | . | . | . | V | . |
| 17.667 | 5.8224 | 1.04 | . Q | . | . | . | V | . |
| 17.750 | 5.8296 | 1.04 | . Q | . | . | . | V | . |
| 17.833 | 5.8361 | 0.95 | .Q | . | . | . | V | . |
| 17.917 | 5.8427 | 0.95 | .Q | . | . | . | V | . |
| 18.000 | 5.8493 | 0.95 | .Q | . | . | . | V | . |
| 18.083 | 5.8550 | 0.83 | .Q | . | . | . | V | . |
| 18.167 | 5.8607 | 0.83 | .Q | . | . | . | V | . |
| 18.250 | 5.8664 | 0.83 | .Q | . | . | . | V | . |
| 18.333 | 5.8719 | 0.80 | .Q | . | . | . | V | . |
| 18.417 | 5.8774 | 0.80 | .Q | . | . | . | V | . |
| 18.500 | 5.8830 | 0.80 | .Q | . | . | . | V | . |
| 18.583 | 5.8879 | 0.72 | .Q | . | . | . | V | . |
| 18.667 | 5.8929 | 0.72 | .Q | . | . | . | V | . |
| 18.750 | 5.8978 | 0.72 | .Q | . | . | . | V | . |
| 18.833 | 5.9016 | 0.55 | .Q | . | . | . | V | . |
| 18.917 | 5.9055 | 0.55 | .Q | . | . | . | V | . |
| 19.000 | 5.9093 | 0.55 | .Q | . | . | . | V | . |
| 19.083 | 5.9128 | 0.51 | .Q | . | . | . | V | . |
| 19.167 | 5.9163 | 0.51 | .Q | . | . | . | V | . |
| 19.250 | 5.9199 | 0.51 | .Q | . | . | . | V | . |
| 19.333 | 5.9243 | 0.65 | .Q | . | . | . | V | . |
| 19.417 | 5.9288 | 0.65 | .Q | . | . | . | V | . |
| 19.500 | 5.9333 | 0.65 | .Q | . | . | . | V | . |
| 19.583 | 5.9379 | 0.67 | .Q | . | . | . | V | . |
| 19.667 | 5.9425 | 0.67 | .Q | . | . | . | V | . |
| 19.750 | 5.9472 | 0.67 | .Q | . | . | . | V | . |
| 19.833 | 5.9508 | 0.53 | .Q | . | . | . | V | . |
| 19.917 | 5.9545 | 0.53 | .Q | . | . | . | V | . |
| 20.000 | 5.9582 | 0.53 | .Q | . | . | . | V | . |
| 20.083 | 5.9617 | 0.51 | .Q | . | . | . | V | . |
| 20.167 | 5.9652 | 0.51 | .Q | . | . | . | V | . |
| 20.250 | 5.9687 | 0.51 | .Q | . | . | . | V | . |
| 20.333 | 5.9726 | 0.57 | .Q | . | . | . | V | . |
| 20.417 | 5.9765 | 0.57 | .Q | . | . | . | V | . |
| 20.500 | 5.9805 | 0.57 | .Q | . | . | . | V | . |
| 20.583 | 5.9845 | 0.58 | .Q | . | . | . | V | . |
| 20.667 | 5.9885 | 0.58 | .Q | . | . | . | V | . |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 20.750 | 5.9925 | 0.58 | .Q | . | . | . | V. |
| 20.833 | 5.9960 | 0.51 | .Q | . | . | . | V. |
| 20.917 | 5.9996 | 0.51 | .Q | . | . | . | V. |
| 21.000 | 6.0031 | 0.51 | .Q | . | . | . | V. |
| 21.083 | 6.0065 | 0.50 | Q | . | . | . | V. |
| 21.167 | 6.0100 | 0.50 | Q | . | . | . | V. |
| 21.250 | 6.0134 | 0.50 | Q | . | . | . | V. |
| 21.333 | 6.0168 | 0.50 | Q | . | . | . | V. |
| 21.417 | 6.0202 | 0.50 | Q | . | . | . | V. |
| 21.500 | 6.0236 | 0.50 | Q | . | . | . | V. |
| 21.583 | 6.0270 | 0.49 | Q | . | . | . | V. |
| 21.667 | 6.0304 | 0.49 | Q | . | . | . | V. |
| 21.750 | 6.0338 | 0.49 | Q | . | . | . | V. |
| 21.833 | 6.0372 | 0.49 | Q | . | . | . | V. |
| 21.917 | 6.0406 | 0.49 | Q | . | . | . | V. |
| 22.000 | 6.0440 | 0.49 | Q | . | . | . | V. |
| 22.083 | 6.0473 | 0.49 | Q | . | . | . | V. |
| 22.167 | 6.0507 | 0.49 | Q | . | . | . | V. |
| 22.250 | 6.0541 | 0.49 | Q | . | . | . | V. |
| 22.333 | 6.0575 | 0.49 | Q | . | . | . | V. |
| 22.417 | 6.0609 | 0.49 | Q | . | . | . | V. |
| 22.500 | 6.0643 | 0.49 | Q | . | . | . | V. |
| 22.583 | 6.0671 | 0.42 | Q | . | . | . | V. |
| 22.667 | 6.0700 | 0.42 | Q | . | . | . | V. |
| 22.750 | 6.0729 | 0.42 | Q | . | . | . | V. |
| 22.833 | 6.0756 | 0.40 | Q | . | . | . | V. |
| 22.917 | 6.0784 | 0.40 | Q | . | . | . | V. |
| 23.000 | 6.0812 | 0.40 | Q | . | . | . | V. |
| 23.083 | 6.0839 | 0.40 | Q | . | . | . | V. |
| 23.166 | 6.0866 | 0.40 | Q | . | . | . | V. |
| 23.250 | 6.0894 | 0.40 | Q | . | . | . | V. |
| 23.333 | 6.0921 | 0.39 | Q | . | . | . | V. |
| 23.416 | 6.0948 | 0.39 | Q | . | . | . | V. |
| 23.500 | 6.0975 | 0.39 | Q | . | . | . | V. |
| 23.583 | 6.1002 | 0.39 | Q | . | . | . | V. |
| 23.666 | 6.1029 | 0.39 | Q | . | . | . | V. |
| 23.750 | 6.1056 | 0.39 | Q | . | . | . | V. |
| 23.833 | 6.1083 | 0.39 | Q | . | . | . | V. |
| 23.916 | 6.1111 | 0.39 | Q | . | . | . | V. |
| 24.000 | 6.1138 | 0.39 | Q | . | . | . | V. |



| TIME(HRS) | VOLUME(AF) | Q(CFS) | 0. | 5.0 | 10.0 | 15.0 | 20.0 |
|---|---|---|---|---|---|---|---|
| 24.083 | 6.1155 | 0.25 | Q | . | . | . | V. |
| 24.166 | 6.1172 | 0.25 | Q | . | . | . | V. |
| 24.250 | 6.1189 | 0.25 | Q | . | . | . | V. |
| 24.333 | 6.1193 | 0.07 | Q | . | . | . | V. |
| 24.416 | 6.1198 | 0.07 | Q | . | . | . | V. |
| 24.500 | 6.1203 | 0.07 | Q | . | . | . | V. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24.583 | 6.1205 | 0.03 | Q | . | . | . | V. |
| 24.666 | 6.1207 | 0.03 | Q | . | . | . | V. |
| 24.750 | 6.1209 | 0.03 | Q | . | . | . | V. |
| 24.833 | 6.1209 | 0.01 | Q | . | . | . | V. |
| 24.916 | 6.1210 | 0.01 | Q | . | . | . | V. |
| 25.000 | 6.1211 | 0.01 | Q | . | . | . | V. |
| 25.083 | 6.1211 | 0.00 | Q | . | . | . | V. |
| 25.166 | 6.1211 | 0.00 | Q | . | . | . | V. |
| 25.250 | 6.1211 | 0.00 | Q | . | . | . | V. |

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

| Percentile of Estimated Peak Flow Rate | Duration (minutes) |
|---|---|
| 0% | 1515.0 |
| 10% | 735.0 |
| 20% | 540.0 |
| 30% | 495.0 |
| 40% | 435.0 |
| 50% | 345.0 |
| 60% | 210.0 |
| 70% | 180.0 |
| 80% | 60.0 |
| 90% | 30.0 |

END OF FLOODSCx ROUTING ANALYSIS

# Scenario Calculation Summary

| Scenario Summary | |
|---|---|
| ID | 1 |
| Label | Base |
| Notes | |
| Active Topology | Base Active Topology |
| Hydrology | Base Hydrology |
| Rainfall Runoff | Base Rainfall Runoff |
| Physical | Base Physical |
| Initial Condition | Base Initial Condition |
| Boundary Condition | Base Boundary Condition |
| Infiltration and Inflow | Base Infiltration and Inflow |
| Output | Base Output |
| User Data Extensions | Base User Data Extensions |
| PondPack Engine Calculation Options | Base Calculation Options |

| Output Summary | | | |
|---|---|---|---|
| Output Increment | 3.000 min | Duration | 1,440.000 min |

| Rainfall Summary | | | |
|---|---|---|---|
| Return Event Tag | 10-year, 24-hr | Rainfall Type | (N/A) |
| Total Depth | (N/A) in | Storm Event | (N/A) |

## Executive Summary (Nodes)

| Label | Scenario | Return Event (years) | Truncation | Hydrograph Volume (ft³) | Time to Peak (min) | Peak Flow (ft³/s) | Maximum Water Surface Elevation (ft) | Maximum Pond Storage (ft³) |
|---|---|---|---|---|---|---|---|---|
| Onsite Detention Basin (IN) | Base | 0 | None | 148,025.000 | 798.000 | 6.8600 | (N/A) | (N/A) |
| Onsite Detention Basin (OUT) | Base | 0 | None | 14,690.000 | 1,347.000 | 0.2817 | 4.360 | 133,511.000 |
| Outfall (POC) | Base | 0 | None | 14,690.000 | 1,347.000 | 0.2817 | (N/A) | (N/A) |
| Unit Hydrograph (Onsite Runoff) | Base | 0 | None | 148,144.000 | 797.333 | 6.8600 | (N/A) | (N/A) |

## Executive Summary (Links)

| Label | Type | Location | Hydrograph Volume (ft³) | Peak Time (min) | Peak Flow (ft³/s) | End Point | Node Flow Direction |
|---|---|---|---|---|---|---|---|
| Outlet-1 | Pond Outlet | Upstream | 148,025.000 | 798.000 | 6.8600 | Onsite Detention Basin | Pond Inflow |

# Scenario Calculation Summary

## Executive Summary (Links)

| Label | Type | Location | Hydrograph Volume ($ft^3$) | Peak Time (min) | Peak Flow ($ft^3/s$) | End Point | Node Flow Direction |
|---|---|---|---|---|---|---|---|
| Outlet-1 | Pond Outlet | Outflow | 14,690.000 | 1,347.000 | 0.2817 | Onsite Detention Basin | Pond Outflow |
| Outlet-1 | Pond Outlet | Link | 14,690.000 | 1,347.000 | 0.2817 | | |
| Outlet-1 | Pond Outlet | Downstream | 14,690.000 | 1,347.000 | 0.2817 | Outfall (POC) | |

| Project Summary | |
|---|---|
| Title | LMC Murrieta Apartments - 100-yr, 1-hr |
| Engineer | Erica Kawata, P.E. |
| Company | Kimley-Horn and Associates, Inc. |
| Date | 6/16/2017 |

| | |
|---|---|
| Notes | 1. Inflow hydrograph (100-year, 1 hr) calculated based on Synthetic Unit Hydrograph Method from Riverside County Flood Control and Water Conservation District Hydrology Manual (April 1978) using AES software. |

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## Subsection: User Notifications

| | |
|---|---|
| User Notifications? | No user notifications generated. |

Subsection: Master Network Summary

## Catchments Summary

| Label | Scenario | Return Event (years) | Hydrograph Volume (ft³) | Time to Peak (hours) | Peak Flow (ft³/s) |
|---|---|---|---|---|---|
| Unit Hydrograph (Onsite Runoff) | Base | 0 | 61,048.000 | 0.914 | 35.2300 |

## Node Summary

| Label | Scenario | Return Event (years) | Hydrograph Volume (ft³) | Time to Peak (hours) | Peak Flow (ft³/s) |
|---|---|---|---|---|---|
| Outfall (POC) | Base | 0 | 14,684.000 | 1.100 | 0.1869 |

## Pond Summary

| Label | Scenario | Return Event (years) | Hydrograph Volume (ft³) | Time to Peak (hours) | Peak Flow (ft³/s) | Maximum Water Surface Elevation (ft) | Maximum Pond Storage (ft³) |
|---|---|---|---|---|---|---|---|
| Onsite Detention Basin (IN) | Base | 0 | 60,741.000 | 0.900 | 33.7207 | (N/A) | (N/A) |
| Onsite Detention Basin (OUT) | Base | 0 | 14,684.000 | 1.100 | 0.1869 | 1.973 | 60,412.000 |

Subsection: Read Hydrograph
Scenario: Base
Label: Unit Hydrograph (Onsite Runoff)

| | |
|---|---|
| Peak Discharge | 35.2300 ft³/s |
| Time to Peak | 0.914 hours |
| Hydrograph Volume | 61,048.325 ft³ |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.083 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 0.000 | 0.0000 | 0.8600 | 4.6900 | 8.3600 | 10.2800 |
| 0.415 | 11.8300 | 13.2400 | 14.8900 | 16.9700 | 19.6600 |
| 0.831 | 26.0200 | 35.2300 | 31.4600 | 21.3700 | (N/A) |

## Summary for Hydrograph Addition at 'Outfall (POC)'

| Upstream Link | Upstream Node |
|---|---|
| Outlet-1 | Onsite Detention Basin |

## Node Inflows

| Inflow Type | Element | Volume ($ft^3$) | Time to Peak (hours) | Flow (Peak) ($ft^3/s$) |
|---|---|---|---|---|
| Flow (From) | Outlet-1 | 14,684.249 | 1.100 | 0.1869 |
| Flow (In) | Outfall (POC) | 14,684.249 | 1.100 | 0.1869 |

## Time vs. Elevation (ft)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) |
|---|---|---|---|---|---|
| 0.000 | 0.000 | 0.002 | 0.008 | 0.024 | 0.054 |
| 0.250 | 0.097 | 0.149 | 0.208 | 0.273 | 0.343 |
| 0.500 | 0.418 | 0.499 | 0.585 | 0.679 | 0.780 |
| 0.750 | 0.891 | 1.018 | 1.170 | 1.351 | 1.548 |
| 1.000 | 1.737 | 1.900 | 1.973 | 1.972 | 1.970 |
| 1.250 | 1.969 | 1.968 | 1.967 | 1.966 | 1.965 |
| 1.500 | 1.964 | 1.963 | 1.962 | 1.961 | 1.959 |
| 1.750 | 1.958 | 1.957 | 1.956 | 1.955 | 1.954 |
| 2.000 | 1.953 | 1.952 | 1.951 | 1.950 | 1.949 |
| 2.250 | 1.947 | 1.946 | 1.945 | 1.944 | 1.943 |
| 2.500 | 1.942 | 1.941 | 1.940 | 1.939 | 1.938 |
| 2.750 | 1.937 | 1.936 | 1.934 | 1.933 | 1.932 |
| 3.000 | 1.931 | 1.930 | 1.929 | 1.928 | 1.927 |
| 3.250 | 1.926 | 1.925 | 1.924 | 1.922 | 1.921 |
| 3.500 | 1.920 | 1.919 | 1.918 | 1.917 | 1.916 |
| 3.750 | 1.915 | 1.914 | 1.913 | 1.912 | 1.911 |
| 4.000 | 1.910 | 1.908 | 1.907 | 1.906 | 1.905 |
| 4.250 | 1.904 | 1.903 | 1.902 | 1.901 | 1.900 |
| 4.500 | 1.899 | 1.898 | 1.897 | 1.896 | 1.894 |
| 4.750 | 1.893 | 1.892 | 1.891 | 1.890 | 1.889 |
| 5.000 | 1.888 | 1.887 | 1.886 | 1.885 | 1.884 |
| 5.250 | 1.883 | 1.882 | 1.881 | 1.879 | 1.878 |
| 5.500 | 1.877 | 1.876 | 1.875 | 1.874 | 1.873 |
| 5.750 | 1.872 | 1.871 | 1.870 | 1.869 | 1.868 |
| 6.000 | 1.867 | 1.866 | 1.865 | 1.863 | 1.862 |
| 6.250 | 1.861 | 1.860 | 1.859 | 1.858 | 1.857 |
| 6.500 | 1.856 | 1.855 | 1.854 | 1.853 | 1.852 |
| 6.750 | 1.851 | 1.850 | 1.849 | 1.848 | 1.846 |
| 7.000 | 1.845 | 1.844 | 1.843 | 1.842 | 1.841 |
| 7.250 | 1.840 | 1.839 | 1.838 | 1.837 | 1.836 |
| 7.500 | 1.835 | 1.834 | 1.833 | 1.832 | 1.831 |
| 7.750 | 1.830 | 1.828 | 1.827 | 1.826 | 1.825 |
| 8.000 | 1.824 | 1.823 | 1.822 | 1.821 | 1.820 |
| 8.250 | 1.819 | 1.818 | 1.817 | 1.816 | 1.815 |
| 8.500 | 1.814 | 1.813 | 1.812 | 1.811 | 1.810 |
| 8.750 | 1.809 | 1.807 | 1.806 | 1.805 | 1.804 |
| 9.000 | 1.803 | 1.802 | 1.801 | 1.800 | 1.799 |
| 9.250 | 1.798 | 1.797 | 1.796 | 1.795 | 1.794 |
| 9.500 | 1.793 | 1.792 | 1.791 | 1.790 | 1.789 |
| 9.750 | 1.788 | 1.787 | 1.786 | 1.785 | 1.784 |
| 10.000 | 1.782 | 1.781 | 1.780 | 1.779 | 1.778 |
| 10.250 | 1.777 | 1.776 | 1.775 | 1.774 | 1.773 |
| 10.500 | 1.772 | 1.771 | 1.770 | 1.769 | 1.768 |

## Time vs. Elevation (ft)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) |
|---|---|---|---|---|---|
| 10.750 | 1.767 | 1.766 | 1.765 | 1.764 | 1.763 |
| 11.000 | 1.762 | 1.761 | 1.760 | 1.759 | 1.758 |
| 11.250 | 1.757 | 1.756 | 1.755 | 1.753 | 1.752 |
| 11.500 | 1.751 | 1.750 | 1.749 | 1.748 | 1.747 |
| 11.750 | 1.746 | 1.745 | 1.744 | 1.743 | 1.742 |
| 12.000 | 1.741 | 1.740 | 1.739 | 1.738 | 1.737 |
| 12.250 | 1.736 | 1.735 | 1.734 | 1.733 | 1.732 |
| 12.500 | 1.731 | 1.730 | 1.729 | 1.728 | 1.727 |
| 12.750 | 1.726 | 1.725 | 1.724 | 1.723 | 1.722 |
| 13.000 | 1.721 | 1.720 | 1.719 | 1.718 | 1.717 |
| 13.250 | 1.716 | 1.715 | 1.714 | 1.713 | 1.712 |
| 13.500 | 1.711 | 1.710 | 1.708 | 1.707 | 1.706 |
| 13.750 | 1.705 | 1.704 | 1.703 | 1.702 | 1.701 |
| 14.000 | 1.700 | 1.699 | 1.698 | 1.697 | 1.696 |
| 14.250 | 1.695 | 1.694 | 1.693 | 1.692 | 1.691 |
| 14.500 | 1.690 | 1.689 | 1.688 | 1.687 | 1.686 |
| 14.750 | 1.685 | 1.684 | 1.683 | 1.682 | 1.681 |
| 15.000 | 1.680 | 1.679 | 1.678 | 1.677 | 1.676 |
| 15.250 | 1.675 | 1.674 | 1.673 | 1.672 | 1.671 |
| 15.500 | 1.670 | 1.669 | 1.668 | 1.667 | 1.666 |
| 15.750 | 1.665 | 1.664 | 1.663 | 1.662 | 1.661 |
| 16.000 | 1.660 | 1.659 | 1.658 | 1.657 | 1.656 |
| 16.250 | 1.655 | 1.654 | 1.653 | 1.652 | 1.651 |
| 16.500 | 1.650 | 1.649 | 1.648 | 1.647 | 1.646 |
| 16.750 | 1.645 | 1.644 | 1.643 | 1.642 | 1.641 |
| 17.000 | 1.640 | 1.639 | 1.638 | 1.637 | 1.636 |
| 17.250 | 1.635 | 1.634 | 1.633 | 1.632 | 1.631 |
| 17.500 | 1.630 | 1.629 | 1.628 | 1.627 | 1.626 |
| 17.750 | 1.625 | 1.624 | 1.623 | 1.622 | 1.621 |
| 18.000 | 1.620 | 1.619 | 1.618 | 1.617 | 1.616 |
| 18.250 | 1.615 | 1.614 | 1.613 | 1.612 | 1.611 |
| 18.500 | 1.610 | 1.609 | 1.608 | 1.607 | 1.607 |
| 18.750 | 1.606 | 1.605 | 1.604 | 1.603 | 1.602 |
| 19.000 | 1.601 | 1.600 | 1.599 | 1.598 | 1.597 |
| 19.250 | 1.596 | 1.595 | 1.594 | 1.593 | 1.592 |
| 19.500 | 1.591 | 1.590 | 1.589 | 1.588 | 1.587 |
| 19.750 | 1.586 | 1.585 | 1.584 | 1.583 | 1.582 |
| 20.000 | 1.581 | 1.580 | 1.579 | 1.578 | 1.577 |
| 20.250 | 1.576 | 1.575 | 1.574 | 1.573 | 1.572 |
| 20.500 | 1.571 | 1.570 | 1.569 | 1.568 | 1.567 |
| 20.750 | 1.566 | 1.565 | 1.564 | 1.564 | 1.563 |
| 21.000 | 1.562 | 1.561 | 1.560 | 1.559 | 1.558 |
| 21.250 | 1.557 | 1.556 | 1.555 | 1.554 | 1.553 |

Subsection: Time vs. Elevation
Scenario: Base
Label: Onsite Detention Basin (OUT)

## Time vs. Elevation (ft)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) |
|---|---|---|---|---|---|
| 21.500 | 1.552 | 1.551 | 1.550 | 1.549 | 1.548 |
| 21.750 | 1.547 | 1.546 | 1.545 | 1.544 | 1.543 |
| 22.000 | 1.542 | 1.541 | 1.540 | 1.539 | 1.538 |
| 22.250 | 1.537 | 1.536 | 1.535 | 1.535 | 1.534 |
| 22.500 | 1.533 | 1.532 | 1.531 | 1.530 | 1.529 |
| 22.750 | 1.528 | 1.527 | 1.526 | 1.525 | 1.524 |
| 23.000 | 1.523 | 1.522 | 1.521 | 1.520 | 1.519 |
| 23.250 | 1.518 | 1.517 | 1.516 | 1.515 | 1.514 |
| 23.500 | 1.513 | 1.512 | 1.512 | 1.511 | 1.510 |
| 23.750 | 1.509 | 1.508 | 1.507 | 1.506 | 1.505 |
| 24.000 | 1.504 | (N/A) | (N/A) | (N/A) | (N/A) |

## Time vs. Volume (ft³)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) |
|---|---|---|---|---|---|
| 0.000 | 0.000 | 47.000 | 241.000 | 743.000 | 1,654.000 |
| 0.250 | 2,963.000 | 4,571.000 | 6,379.000 | 8,365.000 | 10,513.000 |
| 0.500 | 12,813.000 | 15,277.000 | 17,927.000 | 20,786.000 | 23,893.000 |
| 0.750 | 27,289.000 | 31,185.000 | 35,827.000 | 41,372.000 | 47,400.000 |
| 1.000 | 53,186.000 | 58,197.000 | 60,412.000 | 60,379.000 | 60,345.000 |
| 1.250 | 60,312.000 | 60,278.000 | 60,244.000 | 60,211.000 | 60,177.000 |
| 1.500 | 60,144.000 | 60,110.000 | 60,077.000 | 60,043.000 | 60,010.000 |
| 1.750 | 59,976.000 | 59,943.000 | 59,909.000 | 59,876.000 | 59,842.000 |
| 2.000 | 59,809.000 | 59,775.000 | 59,742.000 | 59,708.000 | 59,675.000 |
| 2.250 | 59,642.000 | 59,608.000 | 59,575.000 | 59,541.000 | 59,508.000 |
| 2.500 | 59,475.000 | 59,441.000 | 59,408.000 | 59,375.000 | 59,341.000 |
| 2.750 | 59,308.000 | 59,275.000 | 59,241.000 | 59,208.000 | 59,175.000 |
| 3.000 | 59,142.000 | 59,108.000 | 59,075.000 | 59,042.000 | 59,009.000 |
| 3.250 | 58,976.000 | 58,942.000 | 58,909.000 | 58,876.000 | 58,843.000 |
| 3.500 | 58,810.000 | 58,777.000 | 58,744.000 | 58,710.000 | 58,677.000 |
| 3.750 | 58,644.000 | 58,611.000 | 58,578.000 | 58,545.000 | 58,512.000 |
| 4.000 | 58,479.000 | 58,446.000 | 58,413.000 | 58,380.000 | 58,347.000 |
| 4.250 | 58,314.000 | 58,281.000 | 58,248.000 | 58,215.000 | 58,182.000 |
| 4.500 | 58,149.000 | 58,116.000 | 58,083.000 | 58,050.000 | 58,017.000 |
| 4.750 | 57,984.000 | 57,952.000 | 57,919.000 | 57,886.000 | 57,853.000 |
| 5.000 | 57,820.000 | 57,787.000 | 57,755.000 | 57,722.000 | 57,689.000 |
| 5.250 | 57,656.000 | 57,623.000 | 57,591.000 | 57,558.000 | 57,525.000 |
| 5.500 | 57,492.000 | 57,460.000 | 57,427.000 | 57,394.000 | 57,362.000 |
| 5.750 | 57,329.000 | 57,296.000 | 57,264.000 | 57,231.000 | 57,198.000 |
| 6.000 | 57,166.000 | 57,133.000 | 57,100.000 | 57,068.000 | 57,035.000 |
| 6.250 | 57,003.000 | 56,970.000 | 56,938.000 | 56,905.000 | 56,872.000 |
| 6.500 | 56,840.000 | 56,807.000 | 56,775.000 | 56,742.000 | 56,710.000 |
| 6.750 | 56,677.000 | 56,645.000 | 56,612.000 | 56,580.000 | 56,548.000 |
| 7.000 | 56,515.000 | 56,483.000 | 56,450.000 | 56,418.000 | 56,386.000 |
| 7.250 | 56,353.000 | 56,321.000 | 56,288.000 | 56,256.000 | 56,224.000 |
| 7.500 | 56,191.000 | 56,159.000 | 56,127.000 | 56,095.000 | 56,062.000 |
| 7.750 | 56,030.000 | 55,998.000 | 55,965.000 | 55,933.000 | 55,901.000 |
| 8.000 | 55,869.000 | 55,837.000 | 55,804.000 | 55,772.000 | 55,740.000 |
| 8.250 | 55,708.000 | 55,676.000 | 55,643.000 | 55,611.000 | 55,579.000 |
| 8.500 | 55,547.000 | 55,515.000 | 55,483.000 | 55,451.000 | 55,419.000 |
| 8.750 | 55,387.000 | 55,354.000 | 55,322.000 | 55,290.000 | 55,258.000 |
| 9.000 | 55,226.000 | 55,194.000 | 55,162.000 | 55,130.000 | 55,098.000 |
| 9.250 | 55,066.000 | 55,034.000 | 55,002.000 | 54,971.000 | 54,939.000 |
| 9.500 | 54,907.000 | 54,875.000 | 54,843.000 | 54,811.000 | 54,779.000 |
| 9.750 | 54,747.000 | 54,715.000 | 54,683.000 | 54,652.000 | 54,620.000 |
| 10.000 | 54,588.000 | 54,556.000 | 54,524.000 | 54,493.000 | 54,461.000 |
| 10.250 | 54,429.000 | 54,397.000 | 54,365.000 | 54,334.000 | 54,302.000 |
| 10.500 | 54,270.000 | 54,239.000 | 54,207.000 | 54,175.000 | 54,143.000 |

## Time vs. Volume (ft³)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) |
|---|---|---|---|---|---|
| 10.750 | 54,112.000 | 54,080.000 | 54,048.000 | 54,017.000 | 53,985.000 |
| 11.000 | 53,954.000 | 53,922.000 | 53,890.000 | 53,859.000 | 53,827.000 |
| 11.250 | 53,796.000 | 53,764.000 | 53,732.000 | 53,701.000 | 53,669.000 |
| 11.500 | 53,638.000 | 53,606.000 | 53,575.000 | 53,543.000 | 53,512.000 |
| 11.750 | 53,480.000 | 53,449.000 | 53,417.000 | 53,386.000 | 53,354.000 |
| 12.000 | 53,323.000 | 53,292.000 | 53,260.000 | 53,229.000 | 53,197.000 |
| 12.250 | 53,166.000 | 53,135.000 | 53,103.000 | 53,072.000 | 53,041.000 |
| 12.500 | 53,009.000 | 52,978.000 | 52,947.000 | 52,915.000 | 52,884.000 |
| 12.750 | 52,853.000 | 52,822.000 | 52,790.000 | 52,759.000 | 52,728.000 |
| 13.000 | 52,697.000 | 52,665.000 | 52,634.000 | 52,603.000 | 52,572.000 |
| 13.250 | 52,541.000 | 52,509.000 | 52,478.000 | 52,447.000 | 52,416.000 |
| 13.500 | 52,385.000 | 52,354.000 | 52,322.000 | 52,291.000 | 52,260.000 |
| 13.750 | 52,229.000 | 52,198.000 | 52,167.000 | 52,136.000 | 52,105.000 |
| 14.000 | 52,074.000 | 52,043.000 | 52,012.000 | 51,981.000 | 51,950.000 |
| 14.250 | 51,919.000 | 51,888.000 | 51,857.000 | 51,826.000 | 51,795.000 |
| 14.500 | 51,764.000 | 51,733.000 | 51,702.000 | 51,671.000 | 51,640.000 |
| 14.750 | 51,609.000 | 51,579.000 | 51,548.000 | 51,517.000 | 51,486.000 |
| 15.000 | 51,455.000 | 51,424.000 | 51,393.000 | 51,363.000 | 51,332.000 |
| 15.250 | 51,301.000 | 51,270.000 | 51,240.000 | 51,209.000 | 51,178.000 |
| 15.500 | 51,147.000 | 51,116.000 | 51,086.000 | 51,055.000 | 51,024.000 |
| 15.750 | 50,994.000 | 50,963.000 | 50,932.000 | 50,902.000 | 50,871.000 |
| 16.000 | 50,840.000 | 50,810.000 | 50,779.000 | 50,748.000 | 50,718.000 |
| 16.250 | 50,687.000 | 50,657.000 | 50,626.000 | 50,595.000 | 50,565.000 |
| 16.500 | 50,534.000 | 50,504.000 | 50,473.000 | 50,443.000 | 50,412.000 |
| 16.750 | 50,382.000 | 50,351.000 | 50,321.000 | 50,290.000 | 50,260.000 |
| 17.000 | 50,229.000 | 50,199.000 | 50,168.000 | 50,138.000 | 50,107.000 |
| 17.250 | 50,077.000 | 50,047.000 | 50,016.000 | 49,986.000 | 49,955.000 |
| 17.500 | 49,925.000 | 49,895.000 | 49,864.000 | 49,834.000 | 49,804.000 |
| 17.750 | 49,773.000 | 49,743.000 | 49,713.000 | 49,683.000 | 49,652.000 |
| 18.000 | 49,622.000 | 49,592.000 | 49,561.000 | 49,531.000 | 49,501.000 |
| 18.250 | 49,471.000 | 49,441.000 | 49,410.000 | 49,380.000 | 49,350.000 |
| 18.500 | 49,320.000 | 49,290.000 | 49,259.000 | 49,229.000 | 49,199.000 |
| 18.750 | 49,169.000 | 49,139.000 | 49,109.000 | 49,079.000 | 49,049.000 |
| 19.000 | 49,019.000 | 48,988.000 | 48,958.000 | 48,928.000 | 48,898.000 |
| 19.250 | 48,868.000 | 48,838.000 | 48,808.000 | 48,778.000 | 48,748.000 |
| 19.500 | 48,718.000 | 48,688.000 | 48,658.000 | 48,628.000 | 48,598.000 |
| 19.750 | 48,568.000 | 48,538.000 | 48,509.000 | 48,479.000 | 48,449.000 |
| 20.000 | 48,419.000 | 48,389.000 | 48,359.000 | 48,329.000 | 48,299.000 |
| 20.250 | 48,269.000 | 48,240.000 | 48,210.000 | 48,180.000 | 48,150.000 |
| 20.500 | 48,120.000 | 48,091.000 | 48,061.000 | 48,031.000 | 48,001.000 |
| 20.750 | 47,971.000 | 47,942.000 | 47,912.000 | 47,882.000 | 47,853.000 |
| 21.000 | 47,823.000 | 47,793.000 | 47,763.000 | 47,734.000 | 47,704.000 |
| 21.250 | 47,674.000 | 47,645.000 | 47,615.000 | 47,585.000 | 47,556.000 |

## Time vs. Volume (ft³)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) |
|---|---|---|---|---|---|
| 21.500 | 47,526.000 | 47,497.000 | 47,467.000 | 47,437.000 | 47,408.000 |
| 21.750 | 47,378.000 | 47,349.000 | 47,319.000 | 47,290.000 | 47,260.000 |
| 22.000 | 47,231.000 | 47,201.000 | 47,172.000 | 47,142.000 | 47,113.000 |
| 22.250 | 47,083.000 | 47,054.000 | 47,024.000 | 46,995.000 | 46,965.000 |
| 22.500 | 46,936.000 | 46,906.000 | 46,877.000 | 46,848.000 | 46,818.000 |
| 22.750 | 46,789.000 | 46,759.000 | 46,730.000 | 46,701.000 | 46,671.000 |
| 23.000 | 46,642.000 | 46,613.000 | 46,583.000 | 46,554.000 | 46,525.000 |
| 23.250 | 46,495.000 | 46,466.000 | 46,437.000 | 46,408.000 | 46,378.000 |
| 23.500 | 46,349.000 | 46,320.000 | 46,291.000 | 46,261.000 | 46,232.000 |
| 23.750 | 46,203.000 | 46,174.000 | 46,145.000 | 46,115.000 | 46,086.000 |
| 24.000 | 46,057.000 | (N/A) | (N/A) | (N/A) | (N/A) |

Subsection: Elevation-Area Volume Curve
Scenario: Base
Label: Onsite Detention Basin

| Elevation (ft) | Planimeter (ft²) | Area (ft²) | A1+A2+sqr (A1*A2) (ft²) | Volume (ft³) | Volume (Total) (ft³) |
|---|---|---|---|---|---|
| 0.000 | 0.0 | 30,625 | 0 | 0.000 | 0.000 |
| 3.500 | 0.0 | 30,625 | 91,875 | 107,188.000 | 107,188.000 |
| 7.000 | 0.0 | 30,625 | 91,875 | 107,188.000 | 214,375.000 |

**Pond Volume Equations**
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

**Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))**

| | | |
|---|---|---|
| where: | EL1, EL2 | Lower and upper elevations of the increment |
| | Area1, Area2 | Areas computed for EL1, EL2, respectively |
| | Volume | Incremental volume between EL1 and EL2 |

| Requested Pond Water Surface Elevations | |
|---|---|
| Minimum (Headwater) | 0.000 ft |
| Increment (Headwater) | 0.500 ft |
| Maximum (Headwater) | 7.000 ft |

## Outlet Connectivity

| Structure Type | Outlet ID | Direction | Outfall | E1 (ft) | E2 (ft) |
|---|---|---|---|---|---|
| Rectangular Weir | Weir - 1 | Forward | TW | 4.550 | 7.000 |
| Stand Pipe | Riser - 1 | Forward | TW | 6.000 | 7.000 |
| Orifice-Circular | Orifice - 1 | Forward | TW | 0.000 | 7.000 |
| Tailwater Settings | Tailwater | | | (N/A) | (N/A) |

| Structure ID: Orifice - 1<br>Structure Type: Orifice-Circular | |
|---|---|
| Number of Openings | 1 |
| Elevation | 0.000 ft |
| Orifice Diameter | 2.28 in |
| Orifice Coefficient | 0.600 |

| Structure ID: Riser - 1<br>Structure Type: Stand Pipe | |
|---|---|
| Number of Openings | 1 |
| Elevation | 6.000 ft |
| Diameter | 54.00 in |
| Orifice Area | 15.9 ft² |
| Orifice Coefficient | 0.600 |
| Weir Length | 14.14 ft |
| Weir Coefficient | 3.00 (ft^0.5)/s |
| K Reverse | 1.000 |
| Manning's n | 0.000 |
| Kev, Charged Riser | 0.000 |
| Weir Submergence | False |
| Orifice H to crest | True |

| Structure ID: Weir - 1<br>Structure Type: Rectangular Weir | |
|---|---|
| Number of Openings | 1 |
| Elevation | 4.550 ft |
| Weir Length | 3.95 ft |
| Weir Coefficient | 3.00 (ft^0.5)/s |

| Structure ID: TW<br>Structure Type: TW Setup, DS Channel | |
|---|---|
| Tailwater Type | Free Outfall |

| Convergence Tolerances | |
|---|---|
| Maximum Iterations | 30 |
| Tailwater Tolerance (Minimum) | 0.010 ft |
| Tailwater Tolerance (Maximum) | 0.500 ft |
| Headwater Tolerance (Minimum) | 0.010 ft |
| Headwater Tolerance (Maximum) | 0.500 ft |
| Flow Tolerance (Minimum) | 0.001 ft³/s |
| Flow Tolerance (Maximum) | 10.000 ft³/s |

| Convergence Tolerances |
| --- |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Orifice - 1 (Orifice-Circular)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0868 | (N/A) | 0.000 |
| 1.000 | 0.1298 | (N/A) | 0.000 |
| 1.500 | 0.1618 | (N/A) | 0.000 |
| 2.000 | 0.1883 | (N/A) | 0.000 |
| 2.500 | 0.2116 | (N/A) | 0.000 |
| 3.000 | 0.2326 | (N/A) | 0.000 |
| 3.500 | 0.2518 | (N/A) | 0.000 |
| 4.000 | 0.2697 | (N/A) | 0.000 |
| 4.500 | 0.2864 | (N/A) | 0.000 |
| 4.550 | 0.2880 | (N/A) | 0.000 |
| 5.000 | 0.3022 | (N/A) | 0.000 |
| 5.500 | 0.3173 | (N/A) | 0.000 |
| 6.000 | 0.3316 | (N/A) | 0.000 |
| 6.500 | 0.3454 | (N/A) | 0.000 |
| 7.000 | 0.3586 | (N/A) | 0.000 |

Computation Messages

Upstream HW &
DNstream TW < Inv.El
H =.41
H =.91
H =1.41
H =1.91
H =2.41
H =2.91
H =3.41
H =3.91
H =4.41
H =4.46
H =4.91
H =5.41
H =5.91
H =6.41
H =6.91

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Riser - 1 (Stand Pipe)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0000 | (N/A) | 0.000 |
| 1.000 | 0.0000 | (N/A) | 0.000 |
| 1.500 | 0.0000 | (N/A) | 0.000 |
| 2.000 | 0.0000 | (N/A) | 0.000 |
| 2.500 | 0.0000 | (N/A) | 0.000 |
| 3.000 | 0.0000 | (N/A) | 0.000 |
| 3.500 | 0.0000 | (N/A) | 0.000 |
| 4.000 | 0.0000 | (N/A) | 0.000 |
| 4.500 | 0.0000 | (N/A) | 0.000 |
| 4.550 | 0.0000 | (N/A) | 0.000 |
| 5.000 | 0.0000 | (N/A) | 0.000 |
| 5.500 | 0.0000 | (N/A) | 0.000 |
| 6.000 | 0.0000 | (N/A) | 0.000 |
| 6.500 | 14.9947 | (N/A) | 0.000 |
| 7.000 | 42.4115 | (N/A) | 0.000 |

| Computation Messages |
|---|
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Riser - 1 (Stand Pipe)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Computation Messages |
| --- |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| Weir: H =0ft |
| Weir: H =0.5ft |
| Weir: H =1ft |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0000 | (N/A) | 0.000 |
| 1.000 | 0.0000 | (N/A) | 0.000 |
| 1.500 | 0.0000 | (N/A) | 0.000 |
| 2.000 | 0.0000 | (N/A) | 0.000 |
| 2.500 | 0.0000 | (N/A) | 0.000 |
| 3.000 | 0.0000 | (N/A) | 0.000 |
| 3.500 | 0.0000 | (N/A) | 0.000 |
| 4.000 | 0.0000 | (N/A) | 0.000 |
| 4.500 | 0.0000 | (N/A) | 0.000 |
| 4.550 | 0.0000 | (N/A) | 0.000 |
| 5.000 | 3.5771 | (N/A) | 0.000 |
| 5.500 | 10.9725 | (N/A) | 0.000 |
| 6.000 | 20.6905 | (N/A) | 0.000 |
| 6.500 | 32.2679 | (N/A) | 0.000 |
| 7.000 | 45.4431 | (N/A) | 0.000 |

| Computation Messages |
|---|
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| H=.00; Htw=.00; Qfree=.00; |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Computation Messages |
| --- |
| H=.45; Htw=.00; Qfree=3.58; |
| H=.95; Htw=.00; Qfree=10.97; |
| H=1.45; Htw=.00; Qfree=20.69; |
| H=1.95; Htw=.00; Qfree=32.27; |
| H=2.45; Htw=.00; Qfree=45.44; |

Subsection: Composite Rating Curve
Label: Composite Outlet Structure - 1

Scenario: Base

Composite Outflow Summary

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0868 | (N/A) | 0.000 |
| 1.000 | 0.1298 | (N/A) | 0.000 |
| 1.500 | 0.1618 | (N/A) | 0.000 |
| 2.000 | 0.1883 | (N/A) | 0.000 |
| 2.500 | 0.2116 | (N/A) | 0.000 |
| 3.000 | 0.2326 | (N/A) | 0.000 |
| 3.500 | 0.2518 | (N/A) | 0.000 |
| 4.000 | 0.2697 | (N/A) | 0.000 |
| 4.500 | 0.2864 | (N/A) | 0.000 |
| 4.550 | 0.2880 | (N/A) | 0.000 |
| 5.000 | 3.8794 | (N/A) | 0.000 |
| 5.500 | 11.2897 | (N/A) | 0.000 |
| 6.000 | 21.0221 | (N/A) | 0.000 |
| 6.500 | 47.6080 | (N/A) | 0.000 |
| 7.000 | 88.2131 | (N/A) | 0.000 |

| Contributing Structures |
|---|
| None Contributing |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Weir - 1 + Orifice - 1 |
| Weir - 1 + Orifice - 1 |
| Weir - 1 + Orifice - 1 |
| Weir - 1 + Riser - 1 + Orifice - 1 |
| Weir - 1 + Riser - 1 + Orifice - 1 |
| Weir - 1 + Riser - 1 + Orifice - 1 |

Subsection: Elevation-Volume-Flow Table (Pond) Scenario: Base
Label: Onsite Detention Basin

| Infiltration | |
|---|---|
| Infiltration Method (Computed) | No Infiltration |

| Initial Conditions | |
|---|---|
| Elevation (Water Surface, Initial) | 0.000 ft |
| Volume (Initial) | 0.000 ft³ |
| Flow (Initial Outlet) | 0.0000 ft³/s |
| Flow (Initial Infiltration) | 0.0000 ft³/s |
| Flow (Initial, Total) | 0.0000 ft³/s |
| Time Increment | 0.050 hours |

| Elevation (ft) | Outflow (ft³/s) | Storage (ft³) | Area (ft²) | Infiltration (ft³/s) | Flow (Total) (ft³/s) | 2S/t + O (ft³/s) |
|---|---|---|---|---|---|---|
| 0.000 | 0.0000 | 0.000 | 30,625 | 0.0000 | 0.0000 | 0.0000 |
| 0.500 | 0.0868 | 15,312.500 | 30,625 | 0.0000 | 0.0868 | 170.2257 |
| 1.000 | 0.1298 | 30,625.000 | 30,625 | 0.0000 | 0.1298 | 340.4076 |
| 1.500 | 0.1618 | 45,937.500 | 30,625 | 0.0000 | 0.1618 | 510.5784 |
| 2.000 | 0.1883 | 61,250.000 | 30,625 | 0.0000 | 0.1883 | 680.7439 |
| 2.500 | 0.2116 | 76,562.500 | 30,625 | 0.0000 | 0.2116 | 850.9061 |
| 3.000 | 0.2326 | 91,875.000 | 30,625 | 0.0000 | 0.2326 | 1,021.0659 |
| 3.500 | 0.2518 | 107,187.500 | 30,625 | 0.0000 | 0.2518 | 1,191.2240 |
| 4.000 | 0.2697 | 122,500.000 | 30,625 | 0.0000 | 0.2697 | 1,361.3808 |
| 4.500 | 0.2864 | 137,812.500 | 30,625 | 0.0000 | 0.2864 | 1,531.5364 |
| 4.550 | 0.2880 | 139,343.750 | 30,625 | 0.0000 | 0.2880 | 1,548.5519 |
| 5.000 | 3.8794 | 153,125.000 | 30,625 | 0.0000 | 3.8794 | 1,705.2683 |
| 5.500 | 11.2897 | 168,437.500 | 30,625 | 0.0000 | 11.2897 | 1,882.8175 |
| 6.000 | 21.0221 | 183,750.000 | 30,625 | 0.0000 | 21.0221 | 2,062.6887 |
| 6.500 | 47.6080 | 199,062.500 | 30,625 | 0.0000 | 47.6080 | 2,259.4135 |
| 7.000 | 88.2131 | 214,375.000 | 30,625 | 0.0000 | 88.2131 | 2,470.1576 |

Subsection: Level Pool Pond Routing Summary
Label: Onsite Detention Basin (IN)

Scenario: Base

| Infiltration | |
|---|---|
| Infiltration Method (Computed) | No Infiltration |

| Initial Conditions | |
|---|---|
| Elevation (Water Surface, Initial) | 0.000 ft |
| Volume (Initial) | 0.000 ft³ |
| Flow (Initial Outlet) | 0.0000 ft³/s |
| Flow (Initial Infiltration) | 0.0000 ft³/s |
| Flow (Initial, Total) | 0.0000 ft³/s |
| Time Increment | 0.050 hours |

| Inflow/Outflow Hydrograph Summary | | | |
|---|---|---|---|
| Flow (Peak In) | 33.7207 ft³/s | Time to Peak (Flow, In) | 0.900 hours |
| Flow (Peak Outlet) | 0.1869 ft³/s | Time to Peak (Flow, Outlet) | 1.100 hours |

| | |
|---|---|
| Elevation (Water Surface, Peak) | 1.973 ft |
| Volume (Peak) | 60,412.477 ft³ |

| Mass Balance (ft³) | |
|---|---|
| Volume (Initial) | 0.000 ft³ |
| Volume (Total Inflow) | 60,741.000 ft³ |
| Volume (Total Infiltration) | 0.000 ft³ |
| Volume (Total Outlet Outflow) | 14,684.000 ft³ |
| Volume (Retained) | 46,028.000 ft³ |
| Volume (Unrouted) | -29.000 ft³ |
| Error (Mass Balance) | 0.0 % |

| | |
|---|---|
| Peak Discharge | 0.1869 ft³/s |
| Time to Peak | 1.100 hours |
| Hydrograph Volume | 14,684.226 ft³ |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 0.050 | 0.0003 | 0.0014 | 0.0042 | 0.0094 | 0.0168 |
| 0.300 | 0.0259 | 0.0362 | 0.0474 | 0.0596 | 0.0727 |
| 0.550 | 0.0866 | 0.0942 | 0.1022 | 0.1109 | 0.1205 |
| 0.800 | 0.1310 | 0.1407 | 0.1522 | 0.1643 | 0.1743 |
| 1.050 | 0.1830 | 0.1869 | 0.1868 | 0.1868 | 0.1867 |
| 1.300 | 0.1867 | 0.1866 | 0.1865 | 0.1865 | 0.1864 |
| 1.550 | 0.1864 | 0.1863 | 0.1863 | 0.1862 | 0.1861 |
| 1.800 | 0.1861 | 0.1860 | 0.1860 | 0.1859 | 0.1858 |
| 2.050 | 0.1858 | 0.1857 | 0.1857 | 0.1856 | 0.1856 |
| 2.300 | 0.1855 | 0.1854 | 0.1854 | 0.1853 | 0.1853 |
| 2.550 | 0.1852 | 0.1851 | 0.1851 | 0.1850 | 0.1850 |
| 2.800 | 0.1849 | 0.1849 | 0.1848 | 0.1847 | 0.1847 |
| 3.050 | 0.1846 | 0.1846 | 0.1845 | 0.1845 | 0.1844 |
| 3.300 | 0.1843 | 0.1843 | 0.1842 | 0.1842 | 0.1841 |
| 3.550 | 0.1841 | 0.1840 | 0.1839 | 0.1839 | 0.1838 |
| 3.800 | 0.1838 | 0.1837 | 0.1837 | 0.1836 | 0.1835 |
| 4.050 | 0.1835 | 0.1834 | 0.1834 | 0.1833 | 0.1832 |
| 4.300 | 0.1832 | 0.1831 | 0.1831 | 0.1830 | 0.1830 |
| 4.550 | 0.1829 | 0.1828 | 0.1828 | 0.1827 | 0.1827 |
| 4.800 | 0.1826 | 0.1826 | 0.1825 | 0.1824 | 0.1824 |
| 5.050 | 0.1823 | 0.1823 | 0.1822 | 0.1822 | 0.1821 |
| 5.300 | 0.1821 | 0.1820 | 0.1819 | 0.1819 | 0.1818 |
| 5.550 | 0.1818 | 0.1817 | 0.1817 | 0.1816 | 0.1815 |
| 5.800 | 0.1815 | 0.1814 | 0.1814 | 0.1813 | 0.1813 |
| 6.050 | 0.1812 | 0.1811 | 0.1811 | 0.1810 | 0.1810 |
| 6.300 | 0.1809 | 0.1809 | 0.1808 | 0.1807 | 0.1807 |
| 6.550 | 0.1806 | 0.1806 | 0.1805 | 0.1805 | 0.1804 |
| 6.800 | 0.1804 | 0.1803 | 0.1802 | 0.1802 | 0.1801 |
| 7.050 | 0.1801 | 0.1800 | 0.1800 | 0.1799 | 0.1798 |
| 7.300 | 0.1798 | 0.1797 | 0.1797 | 0.1796 | 0.1796 |
| 7.550 | 0.1795 | 0.1795 | 0.1794 | 0.1793 | 0.1793 |
| 7.800 | 0.1792 | 0.1792 | 0.1791 | 0.1791 | 0.1790 |
| 8.050 | 0.1789 | 0.1789 | 0.1788 | 0.1788 | 0.1787 |
| 8.300 | 0.1787 | 0.1786 | 0.1786 | 0.1785 | 0.1784 |
| 8.550 | 0.1784 | 0.1783 | 0.1783 | 0.1782 | 0.1782 |
| 8.800 | 0.1781 | 0.1781 | 0.1780 | 0.1779 | 0.1779 |
| 9.050 | 0.1778 | 0.1778 | 0.1777 | 0.1777 | 0.1776 |
| 9.300 | 0.1776 | 0.1775 | 0.1774 | 0.1774 | 0.1773 |
| 9.550 | 0.1773 | 0.1772 | 0.1772 | 0.1771 | 0.1771 |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 9.800 | 0.1770 | 0.1769 | 0.1769 | 0.1768 | 0.1768 |
| 10.050 | 0.1767 | 0.1767 | 0.1766 | 0.1766 | 0.1765 |
| 10.300 | 0.1764 | 0.1764 | 0.1763 | 0.1763 | 0.1762 |
| 10.550 | 0.1762 | 0.1761 | 0.1761 | 0.1760 | 0.1760 |
| 10.800 | 0.1759 | 0.1758 | 0.1758 | 0.1757 | 0.1757 |
| 11.050 | 0.1756 | 0.1756 | 0.1755 | 0.1755 | 0.1754 |
| 11.300 | 0.1753 | 0.1753 | 0.1752 | 0.1752 | 0.1751 |
| 11.550 | 0.1751 | 0.1750 | 0.1750 | 0.1749 | 0.1749 |
| 11.800 | 0.1748 | 0.1747 | 0.1747 | 0.1746 | 0.1746 |
| 12.050 | 0.1745 | 0.1745 | 0.1744 | 0.1744 | 0.1743 |
| 12.300 | 0.1743 | 0.1742 | 0.1741 | 0.1741 | 0.1740 |
| 12.550 | 0.1740 | 0.1739 | 0.1739 | 0.1738 | 0.1738 |
| 12.800 | 0.1737 | 0.1737 | 0.1736 | 0.1735 | 0.1735 |
| 13.050 | 0.1734 | 0.1734 | 0.1733 | 0.1733 | 0.1732 |
| 13.300 | 0.1732 | 0.1731 | 0.1731 | 0.1730 | 0.1730 |
| 13.550 | 0.1729 | 0.1728 | 0.1728 | 0.1727 | 0.1727 |
| 13.800 | 0.1726 | 0.1726 | 0.1725 | 0.1725 | 0.1724 |
| 14.050 | 0.1724 | 0.1723 | 0.1723 | 0.1722 | 0.1721 |
| 14.300 | 0.1721 | 0.1720 | 0.1720 | 0.1719 | 0.1719 |
| 14.550 | 0.1718 | 0.1718 | 0.1717 | 0.1717 | 0.1716 |
| 14.800 | 0.1716 | 0.1715 | 0.1714 | 0.1714 | 0.1713 |
| 15.050 | 0.1713 | 0.1712 | 0.1712 | 0.1711 | 0.1711 |
| 15.300 | 0.1710 | 0.1710 | 0.1709 | 0.1709 | 0.1708 |
| 15.550 | 0.1707 | 0.1707 | 0.1706 | 0.1706 | 0.1705 |
| 15.800 | 0.1705 | 0.1704 | 0.1704 | 0.1703 | 0.1703 |
| 16.050 | 0.1702 | 0.1702 | 0.1701 | 0.1701 | 0.1700 |
| 16.300 | 0.1700 | 0.1699 | 0.1698 | 0.1698 | 0.1697 |
| 16.550 | 0.1697 | 0.1696 | 0.1696 | 0.1695 | 0.1695 |
| 16.800 | 0.1694 | 0.1694 | 0.1693 | 0.1693 | 0.1692 |
| 17.050 | 0.1692 | 0.1691 | 0.1690 | 0.1690 | 0.1689 |
| 17.300 | 0.1689 | 0.1688 | 0.1688 | 0.1687 | 0.1687 |
| 17.550 | 0.1686 | 0.1686 | 0.1685 | 0.1685 | 0.1684 |
| 17.800 | 0.1684 | 0.1683 | 0.1683 | 0.1682 | 0.1682 |
| 18.050 | 0.1681 | 0.1680 | 0.1680 | 0.1679 | 0.1679 |
| 18.300 | 0.1678 | 0.1678 | 0.1677 | 0.1677 | 0.1676 |
| 18.550 | 0.1676 | 0.1675 | 0.1675 | 0.1674 | 0.1674 |
| 18.800 | 0.1673 | 0.1673 | 0.1672 | 0.1672 | 0.1671 |
| 19.050 | 0.1671 | 0.1670 | 0.1669 | 0.1669 | 0.1668 |
| 19.300 | 0.1668 | 0.1667 | 0.1667 | 0.1666 | 0.1666 |
| 19.550 | 0.1665 | 0.1665 | 0.1664 | 0.1664 | 0.1663 |
| 19.800 | 0.1663 | 0.1662 | 0.1662 | 0.1661 | 0.1661 |
| 20.050 | 0.1660 | 0.1660 | 0.1659 | 0.1659 | 0.1658 |
| 20.300 | 0.1658 | 0.1657 | 0.1656 | 0.1656 | 0.1655 |
| 20.550 | 0.1655 | 0.1654 | 0.1654 | 0.1653 | 0.1653 |

Subsection: Pond Routed Hydrograph (total out) Scenario: Base
Label: Onsite Detention Basin (OUT)

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 20.800 | 0.1652 | 0.1652 | 0.1651 | 0.1651 | 0.1650 |
| 21.050 | 0.1650 | 0.1649 | 0.1649 | 0.1648 | 0.1648 |
| 21.300 | 0.1647 | 0.1647 | 0.1646 | 0.1646 | 0.1645 |
| 21.550 | 0.1645 | 0.1644 | 0.1644 | 0.1643 | 0.1643 |
| 21.800 | 0.1642 | 0.1642 | 0.1641 | 0.1641 | 0.1640 |
| 22.050 | 0.1639 | 0.1639 | 0.1638 | 0.1638 | 0.1637 |
| 22.300 | 0.1637 | 0.1636 | 0.1636 | 0.1635 | 0.1635 |
| 22.550 | 0.1634 | 0.1634 | 0.1633 | 0.1633 | 0.1632 |
| 22.800 | 0.1632 | 0.1631 | 0.1631 | 0.1630 | 0.1630 |
| 23.050 | 0.1629 | 0.1629 | 0.1628 | 0.1628 | 0.1627 |
| 23.300 | 0.1627 | 0.1626 | 0.1626 | 0.1625 | 0.1625 |
| 23.550 | 0.1624 | 0.1624 | 0.1623 | 0.1623 | 0.1622 |
| 23.800 | 0.1622 | 0.1621 | 0.1621 | 0.1620 | 0.1620 |

## Summary for Hydrograph Addition at 'Onsite Detention Basin'

| Upstream Link | Upstream Node |
|---|---|
| <Catchment to Outflow Node> | Unit Hydrograph (Onsite Runoff) |

## Node Inflows

| Inflow Type | Element | Volume ($ft^3$) | Time to Peak (hours) | Flow (Peak) ($ft^3/s$) |
|---|---|---|---|---|
| Flow (From) | Unit Hydrograph (Onsite Runoff) | 61,048.325 | 0.914 | 35.2300 |
| Flow (In) | Onsite Detention Basin | 60,741.391 | 0.900 | 33.7207 |

| | |
|---|---|
| Peak Discharge | 0.1869 ft³/s |
| Time to Peak | 1.100 hours |
| Hydrograph Volume | 14,684.226 ft³ |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 0.050 | 0.0003 | 0.0014 | 0.0042 | 0.0094 | 0.0168 |
| 0.300 | 0.0259 | 0.0362 | 0.0474 | 0.0596 | 0.0727 |
| 0.550 | 0.0866 | 0.0942 | 0.1022 | 0.1109 | 0.1205 |
| 0.800 | 0.1310 | 0.1407 | 0.1522 | 0.1643 | 0.1743 |
| 1.050 | 0.1830 | 0.1869 | 0.1868 | 0.1868 | 0.1867 |
| 1.300 | 0.1867 | 0.1866 | 0.1865 | 0.1865 | 0.1864 |
| 1.550 | 0.1864 | 0.1863 | 0.1863 | 0.1862 | 0.1861 |
| 1.800 | 0.1861 | 0.1860 | 0.1860 | 0.1859 | 0.1858 |
| 2.050 | 0.1858 | 0.1857 | 0.1857 | 0.1856 | 0.1856 |
| 2.300 | 0.1855 | 0.1854 | 0.1854 | 0.1853 | 0.1853 |
| 2.550 | 0.1852 | 0.1851 | 0.1851 | 0.1850 | 0.1850 |
| 2.800 | 0.1849 | 0.1849 | 0.1848 | 0.1847 | 0.1847 |
| 3.050 | 0.1846 | 0.1846 | 0.1845 | 0.1845 | 0.1844 |
| 3.300 | 0.1843 | 0.1843 | 0.1842 | 0.1842 | 0.1841 |
| 3.550 | 0.1841 | 0.1840 | 0.1839 | 0.1839 | 0.1838 |
| 3.800 | 0.1838 | 0.1837 | 0.1837 | 0.1836 | 0.1835 |
| 4.050 | 0.1835 | 0.1834 | 0.1834 | 0.1833 | 0.1832 |
| 4.300 | 0.1832 | 0.1831 | 0.1831 | 0.1830 | 0.1830 |
| 4.550 | 0.1829 | 0.1828 | 0.1828 | 0.1827 | 0.1827 |
| 4.800 | 0.1826 | 0.1826 | 0.1825 | 0.1824 | 0.1824 |
| 5.050 | 0.1823 | 0.1823 | 0.1822 | 0.1822 | 0.1821 |
| 5.300 | 0.1821 | 0.1820 | 0.1819 | 0.1819 | 0.1818 |
| 5.550 | 0.1818 | 0.1817 | 0.1817 | 0.1816 | 0.1815 |
| 5.800 | 0.1815 | 0.1814 | 0.1814 | 0.1813 | 0.1813 |
| 6.050 | 0.1812 | 0.1811 | 0.1811 | 0.1810 | 0.1810 |
| 6.300 | 0.1809 | 0.1809 | 0.1808 | 0.1807 | 0.1807 |
| 6.550 | 0.1806 | 0.1806 | 0.1805 | 0.1805 | 0.1804 |
| 6.800 | 0.1804 | 0.1803 | 0.1802 | 0.1802 | 0.1801 |
| 7.050 | 0.1801 | 0.1800 | 0.1800 | 0.1799 | 0.1798 |
| 7.300 | 0.1798 | 0.1797 | 0.1797 | 0.1796 | 0.1796 |
| 7.550 | 0.1795 | 0.1795 | 0.1794 | 0.1793 | 0.1793 |
| 7.800 | 0.1792 | 0.1792 | 0.1791 | 0.1791 | 0.1790 |
| 8.050 | 0.1789 | 0.1789 | 0.1788 | 0.1788 | 0.1787 |
| 8.300 | 0.1787 | 0.1786 | 0.1786 | 0.1785 | 0.1784 |
| 8.550 | 0.1784 | 0.1783 | 0.1783 | 0.1782 | 0.1782 |
| 8.800 | 0.1781 | 0.1781 | 0.1780 | 0.1779 | 0.1779 |
| 9.050 | 0.1778 | 0.1778 | 0.1777 | 0.1777 | 0.1776 |
| 9.300 | 0.1776 | 0.1775 | 0.1774 | 0.1774 | 0.1773 |
| 9.550 | 0.1773 | 0.1772 | 0.1772 | 0.1771 | 0.1771 |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 9.800 | 0.1770 | 0.1769 | 0.1769 | 0.1768 | 0.1768 |
| 10.050 | 0.1767 | 0.1767 | 0.1766 | 0.1766 | 0.1765 |
| 10.300 | 0.1764 | 0.1764 | 0.1763 | 0.1763 | 0.1762 |
| 10.550 | 0.1762 | 0.1761 | 0.1761 | 0.1760 | 0.1760 |
| 10.800 | 0.1759 | 0.1758 | 0.1758 | 0.1757 | 0.1757 |
| 11.050 | 0.1756 | 0.1756 | 0.1755 | 0.1755 | 0.1754 |
| 11.300 | 0.1753 | 0.1753 | 0.1752 | 0.1752 | 0.1751 |
| 11.550 | 0.1751 | 0.1750 | 0.1750 | 0.1749 | 0.1749 |
| 11.800 | 0.1748 | 0.1747 | 0.1747 | 0.1746 | 0.1746 |
| 12.050 | 0.1745 | 0.1745 | 0.1744 | 0.1744 | 0.1743 |
| 12.300 | 0.1743 | 0.1742 | 0.1741 | 0.1741 | 0.1740 |
| 12.550 | 0.1740 | 0.1739 | 0.1739 | 0.1738 | 0.1738 |
| 12.800 | 0.1737 | 0.1737 | 0.1736 | 0.1735 | 0.1735 |
| 13.050 | 0.1734 | 0.1734 | 0.1733 | 0.1733 | 0.1732 |
| 13.300 | 0.1732 | 0.1731 | 0.1731 | 0.1730 | 0.1730 |
| 13.550 | 0.1729 | 0.1728 | 0.1728 | 0.1727 | 0.1727 |
| 13.800 | 0.1726 | 0.1726 | 0.1725 | 0.1725 | 0.1724 |
| 14.050 | 0.1724 | 0.1723 | 0.1723 | 0.1722 | 0.1721 |
| 14.300 | 0.1721 | 0.1720 | 0.1720 | 0.1719 | 0.1719 |
| 14.550 | 0.1718 | 0.1718 | 0.1717 | 0.1717 | 0.1716 |
| 14.800 | 0.1716 | 0.1715 | 0.1714 | 0.1714 | 0.1713 |
| 15.050 | 0.1713 | 0.1712 | 0.1712 | 0.1711 | 0.1711 |
| 15.300 | 0.1710 | 0.1710 | 0.1709 | 0.1709 | 0.1708 |
| 15.550 | 0.1707 | 0.1707 | 0.1706 | 0.1706 | 0.1705 |
| 15.800 | 0.1705 | 0.1704 | 0.1704 | 0.1703 | 0.1703 |
| 16.050 | 0.1702 | 0.1702 | 0.1701 | 0.1701 | 0.1700 |
| 16.300 | 0.1700 | 0.1699 | 0.1698 | 0.1698 | 0.1697 |
| 16.550 | 0.1697 | 0.1696 | 0.1696 | 0.1695 | 0.1695 |
| 16.800 | 0.1694 | 0.1694 | 0.1693 | 0.1693 | 0.1692 |
| 17.050 | 0.1692 | 0.1691 | 0.1690 | 0.1690 | 0.1689 |
| 17.300 | 0.1689 | 0.1688 | 0.1688 | 0.1687 | 0.1687 |
| 17.550 | 0.1686 | 0.1686 | 0.1685 | 0.1685 | 0.1684 |
| 17.800 | 0.1684 | 0.1683 | 0.1683 | 0.1682 | 0.1682 |
| 18.050 | 0.1681 | 0.1680 | 0.1680 | 0.1679 | 0.1679 |
| 18.300 | 0.1678 | 0.1678 | 0.1677 | 0.1677 | 0.1676 |
| 18.550 | 0.1676 | 0.1675 | 0.1675 | 0.1674 | 0.1674 |
| 18.800 | 0.1673 | 0.1673 | 0.1672 | 0.1672 | 0.1671 |
| 19.050 | 0.1671 | 0.1670 | 0.1669 | 0.1669 | 0.1668 |
| 19.300 | 0.1668 | 0.1667 | 0.1667 | 0.1666 | 0.1666 |
| 19.550 | 0.1665 | 0.1665 | 0.1664 | 0.1664 | 0.1663 |
| 19.800 | 0.1663 | 0.1662 | 0.1662 | 0.1661 | 0.1661 |
| 20.050 | 0.1660 | 0.1660 | 0.1659 | 0.1659 | 0.1658 |
| 20.300 | 0.1658 | 0.1657 | 0.1656 | 0.1656 | 0.1655 |
| 20.550 | 0.1655 | 0.1654 | 0.1654 | 0.1653 | 0.1653 |

Subsection: Diverted Hydrograph
Scenario: Base
Label: Outlet-1

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 20.800 | 0.1652 | 0.1652 | 0.1651 | 0.1651 | 0.1650 |
| 21.050 | 0.1650 | 0.1649 | 0.1649 | 0.1648 | 0.1648 |
| 21.300 | 0.1647 | 0.1647 | 0.1646 | 0.1646 | 0.1645 |
| 21.550 | 0.1645 | 0.1644 | 0.1644 | 0.1643 | 0.1643 |
| 21.800 | 0.1642 | 0.1642 | 0.1641 | 0.1641 | 0.1640 |
| 22.050 | 0.1639 | 0.1639 | 0.1638 | 0.1638 | 0.1637 |
| 22.300 | 0.1637 | 0.1636 | 0.1636 | 0.1635 | 0.1635 |
| 22.550 | 0.1634 | 0.1634 | 0.1633 | 0.1633 | 0.1632 |
| 22.800 | 0.1632 | 0.1631 | 0.1631 | 0.1630 | 0.1630 |
| 23.050 | 0.1629 | 0.1629 | 0.1628 | 0.1628 | 0.1627 |
| 23.300 | 0.1627 | 0.1626 | 0.1626 | 0.1625 | 0.1625 |
| 23.550 | 0.1624 | 0.1624 | 0.1623 | 0.1623 | 0.1622 |
| 23.800 | 0.1622 | 0.1621 | 0.1621 | 0.1620 | 0.1620 |

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| Project Summary | |
|---|---|
| Title | LMC Murrieta Apartments - 100-yr, 24-hr |
| Engineer | Erica Kawata, P.E. |
| Company | Kimley-Horn and Associates, Inc. |
| Date | 6/16/2017 |

| | |
|---|---|
| Notes | 1. Inflow hydrograph (100-year, 24 hr) calculated based on Synthetic Unit Hydrograph Method from Riverside County Flood Control and Water Conservation District Hydrology Manual (April 1978) using AES software. |

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## Subsection: User Notifications

| | |
|---|---|
| User Notifications? | No user notifications generated. |

Subsection: Master Network Summary

## Catchments Summary

| Label | Scenario | Return Event (years) | Hydrograph Volume (ft³) | Time to Peak (hours) | Peak Flow (ft³/s) |
|---|---|---|---|---|---|
| Unit Hydrograph (Onsite Runoff) | Base | 0 | 265,442.000 | 13.289 | 11.7700 |

## Node Summary

| Label | Scenario | Return Event (years) | Hydrograph Volume (ft³) | Time to Peak (hours) | Peak Flow (ft³/s) |
|---|---|---|---|---|---|
| Outfall (POC) | Base | 0 | 125,694.000 | 15.000 | 8.7647 |

## Pond Summary

| Label | Scenario | Return Event (years) | Hydrograph Volume (ft³) | Time to Peak (hours) | Peak Flow (ft³/s) | Maximum Water Surface Elevation (ft) | Maximum Pond Storage (ft³) |
|---|---|---|---|---|---|---|---|
| Onsite Detention Basin (IN) | Base | 0 | 265,549.000 | 13.300 | 11.7700 | (N/A) | (N/A) |
| Onsite Detention Basin (OUT) | Base | 0 | 125,694.000 | 15.000 | 8.7647 | 5.330 | 163,220.000 |

| | |
|---|---|
| Peak Discharge | 11.7700 ft³/s |
| Time to Peak | 13.289 hours |
| Hydrograph Volume | 265,441.735 ft³ |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.083 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 0.000 | 0.0000 | 0.1400 | 0.1400 | 0.1400 | 0.4000 |
| 0.415 | 0.4000 | 0.4000 | 0.5300 | 0.5300 | 0.5300 |
| 0.831 | 0.6400 | 0.6400 | 0.6400 | 0.6700 | 0.6700 |
| 1.246 | 0.6700 | 0.6100 | 0.6100 | 0.6100 | 0.6000 |
| 1.661 | 0.6000 | 0.6000 | 0.6600 | 0.6600 | 0.6600 |
| 2.076 | 0.7500 | 0.7500 | 0.7500 | 0.7700 | 0.7700 |
| 2.492 | 0.7700 | 0.8500 | 0.8500 | 0.8500 | 0.9500 |
| 2.907 | 0.9500 | 0.9500 | 0.9700 | 0.9700 | 0.9700 |
| 3.322 | 0.9800 | 0.9800 | 0.9800 | 0.9800 | 0.9800 |
| 3.738 | 0.9800 | 1.0500 | 1.0500 | 1.0500 | 1.1400 |
| 4.153 | 1.1400 | 1.1400 | 1.2400 | 1.2400 | 1.2400 |
| 4.568 | 1.3400 | 1.3400 | 1.3400 | 1.4300 | 1.4300 |
| 4.983 | 1.4300 | 1.3900 | 1.3900 | 1.3900 | 1.3000 |
| 5.399 | 1.3000 | 1.3000 | 1.4300 | 1.4300 | 1.4300 |
| 5.814 | 1.5300 | 1.5300 | 1.5300 | 1.6300 | 1.6300 |
| 6.229 | 1.6300 | 1.7400 | 1.7400 | 1.7400 | 1.9300 |
| 6.644 | 1.9300 | 1.9300 | 2.1400 | 2.1400 | 2.1400 |
| 7.060 | 2.2100 | 2.2100 | 2.2100 | 2.3900 | 2.3900 |
| 7.475 | 2.3900 | 2.7500 | 2.7500 | 2.7500 | 3.1400 |
| 7.890 | 3.1400 | 3.1400 | 3.6900 | 3.6900 | 3.6900 |
| 8.306 | 4.1400 | 4.1400 | 4.1400 | 4.4100 | 4.4100 |
| 8.721 | 4.4100 | 4.8000 | 4.8000 | 4.8000 | 5.3500 |
| 9.136 | 5.3500 | 5.3500 | 5.9400 | 5.9400 | 5.9400 |
| 9.551 | 6.3900 | 6.3900 | 6.3900 | 6.8200 | 6.8200 |
| 9.967 | 6.8200 | 6.0800 | 6.0800 | 6.0800 | 4.9100 |
| 10.382 | 4.9100 | 4.9100 | 5.4000 | 5.4000 | 5.4000 |
| 10.797 | 6.2200 | 6.2200 | 6.2200 | 6.2500 | 6.2500 |
| 11.213 | 6.2500 | 6.1600 | 6.1600 | 6.1600 | 5.8800 |
| 11.628 | 5.8800 | 5.8800 | 5.6700 | 5.6700 | 5.6700 |
| 12.043 | 6.8000 | 6.8000 | 6.8000 | 8.2300 | 8.2300 |
| 12.458 | 8.2300 | 9.0100 | 9.0100 | 9.0100 | 9.6900 |
| 12.874 | 9.6900 | 9.6900 | 10.7600 | 10.7600 | 10.7600 |
| 13.289 | 11.7700 | 11.7700 | 11.7700 | 10.4400 | 10.4400 |
| 13.704 | 10.4400 | 8.5700 | 8.5700 | 8.5700 | 8.7700 |
| 14.119 | 8.7700 | 8.7700 | 9.1900 | 9.1900 | 9.1900 |
| 14.535 | 9.1200 | 9.1200 | 9.1200 | 9.0000 | 9.0000 |
| 14.950 | 9.0000 | 8.6900 | 8.6900 | 8.6900 | 8.3300 |
| 15.365 | 8.3300 | 8.3300 | 7.5300 | 7.5300 | 7.5300 |
| 15.781 | 6.7700 | 6.7700 | 6.7700 | 4.5000 | 4.5000 |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.083 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 16.196 | 4.5000 | 1.8100 | 1.8100 | 1.8100 | 1.1300 |
| 16.611 | 1.1300 | 1.1300 | 0.7800 | 0.7800 | 0.7800 |
| 17.026 | 0.8300 | 0.8300 | 0.8300 | 1.0000 | 1.0000 |
| 17.442 | 1.0000 | 1.0400 | 1.0400 | 1.0400 | 0.9500 |
| 17.857 | 0.9500 | 0.9500 | 0.8300 | 0.8300 | 0.8300 |
| 18.272 | 0.8000 | 0.8000 | 0.8000 | 0.7200 | 0.7200 |
| 18.688 | 0.7200 | 0.5500 | 0.5500 | 0.5500 | 0.5100 |
| 19.103 | 0.5100 | 0.5100 | 0.6500 | 0.6500 | 0.6500 |
| 19.518 | 0.6700 | 0.6700 | 0.6700 | 0.5300 | 0.5300 |
| 19.933 | 0.5300 | 0.5100 | 0.5100 | 0.5100 | 0.5700 |
| 20.349 | 0.5700 | 0.5700 | 0.5800 | 0.5800 | 0.5800 |
| 20.764 | 0.5100 | 0.5100 | 0.5100 | 0.5000 | 0.5000 |
| 21.179 | 0.5000 | 0.5000 | 0.5000 | 0.5000 | 0.4900 |
| 21.594 | 0.4900 | 0.4900 | 0.4900 | 0.4900 | 0.4900 |
| 22.010 | 0.4900 | 0.4900 | 0.4900 | 0.4900 | 0.4900 |
| 22.425 | 0.4900 | 0.4200 | 0.4200 | 0.4200 | 0.4000 |
| 22.840 | 0.4000 | 0.4000 | 0.4000 | 0.4000 | 0.4000 |
| 23.256 | 0.3900 | 0.3900 | 0.3900 | 0.3900 | 0.3900 |
| 23.671 | 0.3900 | 0.3900 | 0.3900 | 0.3900 | 0.2500 |

## Summary for Hydrograph Addition at 'Outfall (POC)'

| Upstream Link | Upstream Node |
|---|---|
| Outlet-1 | Onsite Detention Basin |

## Node Inflows

| Inflow Type | Element | Volume ($ft^3$) | Time to Peak (hours) | Flow (Peak) ($ft^3/s$) |
|---|---|---|---|---|
| Flow (From) | Outlet-1 | 125,693.859 | 15.000 | 8.7647 |
| Flow (In) | Outfall (POC) | 125,693.859 | 15.000 | 8.7647 |

Subsection: Time vs. Elevation
Scenario: Base
Label: Onsite Detention Basin (OUT)

## Time vs. Elevation (ft)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) |
|---|---|---|---|---|---|
| 0.000 | 0.000 | 0.000 | 0.001 | 0.002 | 0.003 |
| 0.250 | 0.003 | 0.005 | 0.007 | 0.009 | 0.011 |
| 0.500 | 0.014 | 0.016 | 0.019 | 0.022 | 0.025 |
| 0.750 | 0.029 | 0.032 | 0.035 | 0.039 | 0.043 |
| 1.000 | 0.047 | 0.050 | 0.054 | 0.058 | 0.062 |
| 1.250 | 0.066 | 0.070 | 0.073 | 0.077 | 0.080 |
| 1.500 | 0.084 | 0.087 | 0.091 | 0.094 | 0.097 |
| 1.750 | 0.101 | 0.104 | 0.108 | 0.112 | 0.116 |
| 2.000 | 0.120 | 0.123 | 0.128 | 0.132 | 0.136 |
| 2.250 | 0.140 | 0.145 | 0.149 | 0.154 | 0.158 |
| 2.500 | 0.162 | 0.167 | 0.172 | 0.176 | 0.181 |
| 2.750 | 0.186 | 0.191 | 0.196 | 0.202 | 0.207 |
| 3.000 | 0.213 | 0.218 | 0.223 | 0.229 | 0.234 |
| 3.250 | 0.240 | 0.245 | 0.251 | 0.256 | 0.262 |
| 3.500 | 0.267 | 0.273 | 0.278 | 0.284 | 0.289 |
| 3.750 | 0.295 | 0.300 | 0.306 | 0.312 | 0.318 |
| 4.000 | 0.324 | 0.330 | 0.336 | 0.342 | 0.349 |
| 4.250 | 0.355 | 0.362 | 0.369 | 0.376 | 0.382 |
| 4.500 | 0.389 | 0.397 | 0.404 | 0.411 | 0.419 |
| 4.750 | 0.426 | 0.434 | 0.442 | 0.450 | 0.458 |
| 5.000 | 0.466 | 0.474 | 0.481 | 0.489 | 0.497 |
| 5.250 | 0.504 | 0.512 | 0.519 | 0.526 | 0.533 |
| 5.500 | 0.540 | 0.548 | 0.556 | 0.563 | 0.571 |
| 5.750 | 0.579 | 0.587 | 0.596 | 0.604 | 0.613 |
| 6.000 | 0.621 | 0.630 | 0.639 | 0.648 | 0.657 |
| 6.250 | 0.666 | 0.675 | 0.685 | 0.694 | 0.704 |
| 6.500 | 0.714 | 0.724 | 0.735 | 0.745 | 0.756 |
| 6.750 | 0.767 | 0.778 | 0.790 | 0.802 | 0.814 |
| 7.000 | 0.826 | 0.838 | 0.850 | 0.863 | 0.875 |
| 7.250 | 0.887 | 0.900 | 0.914 | 0.927 | 0.940 |
| 7.500 | 0.954 | 0.968 | 0.984 | 0.999 | 1.015 |
| 7.750 | 1.030 | 1.047 | 1.065 | 1.082 | 1.100 |
| 8.000 | 1.118 | 1.138 | 1.159 | 1.179 | 1.200 |
| 8.250 | 1.222 | 1.244 | 1.267 | 1.291 | 1.314 |
| 8.500 | 1.338 | 1.363 | 1.388 | 1.413 | 1.438 |
| 8.750 | 1.463 | 1.489 | 1.517 | 1.544 | 1.571 |
| 9.000 | 1.599 | 1.628 | 1.659 | 1.689 | 1.720 |
| 9.250 | 1.751 | 1.783 | 1.817 | 1.851 | 1.885 |
| 9.500 | 1.919 | 1.955 | 1.991 | 2.028 | 2.064 |
| 9.750 | 2.101 | 2.139 | 2.178 | 2.217 | 2.256 |
| 10.000 | 2.294 | 2.330 | 2.364 | 2.399 | 2.433 |
| 10.250 | 2.467 | 2.496 | 2.524 | 2.551 | 2.579 |
| 10.500 | 2.607 | 2.637 | 2.667 | 2.698 | 2.728 |

Subsection: Time vs. Elevation
Scenario: Base
Label: Onsite Detention Basin (OUT)

## Time vs. Elevation (ft)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) |
|---|---|---|---|---|---|
| 10.750 | 2.760 | 2.794 | 2.829 | 2.864 | 2.899 |
| 11.000 | 2.934 | 2.970 | 3.005 | 3.041 | 3.076 |
| 11.250 | 3.111 | 3.146 | 3.181 | 3.216 | 3.250 |
| 11.500 | 3.285 | 3.318 | 3.352 | 3.385 | 3.418 |
| 11.750 | 3.451 | 3.483 | 3.515 | 3.546 | 3.578 |
| 12.000 | 3.612 | 3.648 | 3.687 | 3.725 | 3.764 |
| 12.250 | 3.804 | 3.849 | 3.896 | 3.943 | 3.989 |
| 12.500 | 4.037 | 4.087 | 4.139 | 4.190 | 4.242 |
| 12.750 | 4.294 | 4.348 | 4.403 | 4.459 | 4.514 |
| 13.000 | 4.570 | 4.628 | 4.685 | 4.739 | 4.790 |
| 13.250 | 4.841 | 4.892 | 4.942 | 4.990 | 5.035 |
| 13.500 | 5.075 | 5.107 | 5.135 | 5.161 | 5.184 |
| 13.750 | 5.203 | 5.215 | 5.223 | 5.231 | 5.238 |
| 14.000 | 5.245 | 5.252 | 5.258 | 5.264 | 5.270 |
| 14.250 | 5.276 | 5.282 | 5.288 | 5.294 | 5.300 |
| 14.500 | 5.304 | 5.309 | 5.312 | 5.316 | 5.319 |
| 14.750 | 5.322 | 5.324 | 5.326 | 5.327 | 5.329 |
| 15.000 | 5.330 | 5.330 | 5.329 | 5.329 | 5.328 |
| 15.250 | 5.327 | 5.326 | 5.323 | 5.322 | 5.320 |
| 15.500 | 5.317 | 5.312 | 5.306 | 5.301 | 5.297 |
| 15.750 | 5.291 | 5.284 | 5.276 | 5.270 | 5.263 |
| 16.000 | 5.253 | 5.238 | 5.221 | 5.206 | 5.192 |
| 16.250 | 5.174 | 5.151 | 5.127 | 5.104 | 5.084 |
| 16.500 | 5.064 | 5.044 | 5.025 | 5.007 | 4.991 |
| 16.750 | 4.975 | 4.958 | 4.942 | 4.927 | 4.913 |
| 17.000 | 4.899 | 4.886 | 4.874 | 4.862 | 4.851 |
| 17.250 | 4.841 | 4.831 | 4.822 | 4.814 | 4.806 |
| 17.500 | 4.799 | 4.791 | 4.785 | 4.778 | 4.772 |
| 17.750 | 4.766 | 4.760 | 4.754 | 4.749 | 4.743 |
| 18.000 | 4.738 | 4.732 | 4.727 | 4.722 | 4.717 |
| 18.250 | 4.713 | 4.708 | 4.704 | 4.700 | 4.696 |
| 18.500 | 4.692 | 4.688 | 4.684 | 4.680 | 4.677 |
| 18.750 | 4.673 | 4.669 | 4.665 | 4.661 | 4.658 |
| 19.000 | 4.654 | 4.651 | 4.647 | 4.644 | 4.641 |
| 19.250 | 4.639 | 4.637 | 4.635 | 4.633 | 4.631 |
| 19.500 | 4.630 | 4.628 | 4.627 | 4.625 | 4.624 |
| 19.750 | 4.623 | 4.621 | 4.619 | 4.617 | 4.615 |
| 20.000 | 4.614 | 4.612 | 4.610 | 4.609 | 4.608 |
| 20.250 | 4.606 | 4.605 | 4.604 | 4.604 | 4.603 |
| 20.500 | 4.602 | 4.601 | 4.601 | 4.600 | 4.599 |
| 20.750 | 4.599 | 4.598 | 4.597 | 4.596 | 4.595 |
| 21.000 | 4.594 | 4.593 | 4.593 | 4.592 | 4.591 |
| 21.250 | 4.591 | 4.590 | 4.589 | 4.589 | 4.588 |

## Time vs. Elevation (ft)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) | Elevation (ft) |
|---|---|---|---|---|---|
| 21.500 | 4.588 | 4.587 | 4.586 | 4.586 | 4.585 |
| 21.750 | 4.585 | 4.585 | 4.584 | 4.584 | 4.583 |
| 22.000 | 4.583 | 4.583 | 4.582 | 4.582 | 4.582 |
| 22.250 | 4.581 | 4.581 | 4.581 | 4.581 | 4.580 |
| 22.500 | 4.580 | 4.579 | 4.579 | 4.578 | 4.578 |
| 22.750 | 4.577 | 4.576 | 4.576 | 4.575 | 4.575 |
| 23.000 | 4.574 | 4.574 | 4.573 | 4.573 | 4.572 |
| 23.250 | 4.572 | 4.572 | 4.571 | 4.571 | 4.570 |
| 23.500 | 4.570 | 4.570 | 4.569 | 4.569 | 4.569 |
| 23.750 | 4.569 | 4.568 | 4.568 | 4.568 | 4.567 |
| 24.000 | 4.567 | (N/A) | (N/A) | (N/A) | (N/A) |

## Time vs. Volume (ft³)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) |
|---|---|---|---|---|---|
| 0.000 | 0.000 | 8.000 | 28.000 | 53.000 | 78.000 |
| 0.250 | 103.000 | 143.000 | 206.000 | 278.000 | 349.000 |
| 0.500 | 421.000 | 500.000 | 590.000 | 685.000 | 780.000 |
| 0.750 | 875.000 | 976.000 | 1,086.000 | 1,200.000 | 1,314.000 |
| 1.000 | 1,428.000 | 1,544.000 | 1,662.000 | 1,780.000 | 1,899.000 |
| 1.250 | 2,018.000 | 2,132.000 | 2,242.000 | 2,349.000 | 2,456.000 |
| 1.500 | 2,564.000 | 2,670.000 | 2,776.000 | 2,881.000 | 2,986.000 |
| 1.750 | 3,091.000 | 3,200.000 | 3,314.000 | 3,429.000 | 3,544.000 |
| 2.000 | 3,660.000 | 3,781.000 | 3,910.000 | 4,041.000 | 4,171.000 |
| 2.250 | 4,302.000 | 4,434.000 | 4,568.000 | 4,701.000 | 4,835.000 |
| 2.500 | 4,970.000 | 5,109.000 | 5,254.000 | 5,402.000 | 5,549.000 |
| 2.750 | 5,698.000 | 5,852.000 | 6,014.000 | 6,179.000 | 6,344.000 |
| 3.000 | 6,508.000 | 6,674.000 | 6,841.000 | 7,009.000 | 7,176.000 |
| 3.250 | 7,344.000 | 7,511.000 | 7,680.000 | 7,848.000 | 8,017.000 |
| 3.500 | 8,185.000 | 8,353.000 | 8,520.000 | 8,688.000 | 8,856.000 |
| 3.750 | 9,024.000 | 9,197.000 | 9,375.000 | 9,554.000 | 9,733.000 |
| 4.000 | 9,913.000 | 10,100.000 | 10,292.000 | 10,487.000 | 10,681.000 |
| 4.250 | 10,877.000 | 11,080.000 | 11,289.000 | 11,501.000 | 11,712.000 |
| 4.500 | 11,925.000 | 12,145.000 | 12,371.000 | 12,600.000 | 12,828.000 |
| 4.750 | 13,058.000 | 13,293.000 | 13,535.000 | 13,779.000 | 14,022.000 |
| 5.000 | 14,264.000 | 14,503.000 | 14,739.000 | 14,974.000 | 15,209.000 |
| 5.250 | 15,442.000 | 15,668.000 | 15,888.000 | 16,106.000 | 16,324.000 |
| 5.500 | 16,544.000 | 16,774.000 | 17,013.000 | 17,254.000 | 17,494.000 |
| 5.750 | 17,737.000 | 17,987.000 | 18,244.000 | 18,502.000 | 18,760.000 |
| 6.000 | 19,021.000 | 19,288.000 | 19,562.000 | 19,838.000 | 20,113.000 |
| 6.250 | 20,391.000 | 20,677.000 | 20,970.000 | 21,265.000 | 21,560.000 |
| 6.500 | 21,858.000 | 22,172.000 | 22,498.000 | 22,826.000 | 23,154.000 |
| 6.750 | 23,486.000 | 23,836.000 | 24,198.000 | 24,563.000 | 24,928.000 |
| 7.000 | 25,295.000 | 25,666.000 | 26,042.000 | 26,419.000 | 26,796.000 |
| 7.250 | 27,177.000 | 27,572.000 | 27,978.000 | 28,386.000 | 28,794.000 |
| 7.500 | 29,212.000 | 29,658.000 | 30,127.000 | 30,599.000 | 31,070.000 |
| 7.750 | 31,553.000 | 32,067.000 | 32,605.000 | 33,146.000 | 33,687.000 |
| 8.000 | 34,243.000 | 34,845.000 | 35,480.000 | 36,119.000 | 36,758.000 |
| 8.250 | 37,410.000 | 38,099.000 | 38,815.000 | 39,534.000 | 40,252.000 |
| 8.500 | 40,979.000 | 41,728.000 | 42,492.000 | 43,258.000 | 44,024.000 |
| 8.750 | 44,801.000 | 45,612.000 | 46,445.000 | 47,280.000 | 48,114.000 |
| 9.000 | 48,966.000 | 49,866.000 | 50,796.000 | 51,728.000 | 52,660.000 |
| 9.250 | 53,612.000 | 54,614.000 | 55,650.000 | 56,687.000 | 57,724.000 |
| 9.500 | 58,775.000 | 59,867.000 | 60,982.000 | 62,099.000 | 63,215.000 |
| 9.750 | 64,345.000 | 65,514.000 | 66,706.000 | 67,898.000 | 69,090.000 |
| 10.000 | 70,255.000 | 71,352.000 | 72,410.000 | 73,467.000 | 74,524.000 |
| 10.250 | 75,538.000 | 76,446.000 | 77,291.000 | 78,137.000 | 78,982.000 |
| 10.500 | 79,845.000 | 80,753.000 | 81,686.000 | 82,618.000 | 83,550.000 |

## Time vs. Volume (ft³)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) |
|---|---|---|---|---|---|
| 10.750 | 84,514.000 | 85,552.000 | 86,631.000 | 87,710.000 | 88,789.000 |
| 11.000 | 89,868.000 | 90,950.000 | 92,033.000 | 93,116.000 | 94,199.000 |
| 11.250 | 95,278.000 | 96,348.000 | 97,414.000 | 98,480.000 | 99,545.000 |
| 11.500 | 100,598.000 | 101,626.000 | 102,641.000 | 103,655.000 | 104,668.000 |
| 11.750 | 105,673.000 | 106,659.000 | 107,634.000 | 108,609.000 | 109,584.000 |
| 12.000 | 110,607.000 | 111,733.000 | 112,910.000 | 114,088.000 | 115,265.000 |
| 12.250 | 116,505.000 | 117,873.000 | 119,307.000 | 120,740.000 | 122,173.000 |
| 12.500 | 123,641.000 | 125,179.000 | 126,752.000 | 128,324.000 | 129,896.000 |
| 12.750 | 131,499.000 | 133,163.000 | 134,856.000 | 136,549.000 | 138,242.000 |
| 13.000 | 139,970.000 | 141,738.000 | 143,470.000 | 145,123.000 | 146,700.000 |
| 13.250 | 148,252.000 | 149,821.000 | 151,360.000 | 152,829.000 | 154,209.000 |
| 13.500 | 155,417.000 | 156,410.000 | 157,268.000 | 158,053.000 | 158,774.000 |
| 13.750 | 159,345.000 | 159,707.000 | 159,967.000 | 160,205.000 | 160,423.000 |
| 14.000 | 160,632.000 | 160,842.000 | 161,041.000 | 161,224.000 | 161,391.000 |
| 14.250 | 161,566.000 | 161,762.000 | 161,957.000 | 162,135.000 | 162,299.000 |
| 14.500 | 162,446.000 | 162,574.000 | 162,690.000 | 162,795.000 | 162,892.000 |
| 14.750 | 162,974.000 | 163,040.000 | 163,095.000 | 163,146.000 | 163,193.000 |
| 15.000 | 163,220.000 | 163,218.000 | 163,205.000 | 163,193.000 | 163,182.000 |
| 15.250 | 163,153.000 | 163,096.000 | 163,031.000 | 162,972.000 | 162,916.000 |
| 15.500 | 162,822.000 | 162,669.000 | 162,502.000 | 162,349.000 | 162,206.000 |
| 15.750 | 162,035.000 | 161,814.000 | 161,587.000 | 161,379.000 | 161,181.000 |
| 16.000 | 160,874.000 | 160,404.000 | 159,903.000 | 159,445.000 | 159,012.000 |
| 16.250 | 158,465.000 | 157,743.000 | 157,001.000 | 156,320.000 | 155,693.000 |
| 16.500 | 155,079.000 | 154,462.000 | 153,876.000 | 153,339.000 | 152,839.000 |
| 16.750 | 152,346.000 | 151,847.000 | 151,360.000 | 150,896.000 | 150,453.000 |
| 17.000 | 150,034.000 | 149,638.000 | 149,262.000 | 148,902.000 | 148,561.000 |
| 17.250 | 148,245.000 | 147,958.000 | 147,688.000 | 147,431.000 | 147,186.000 |
| 17.500 | 146,955.000 | 146,737.000 | 146,531.000 | 146,333.000 | 146,144.000 |
| 17.750 | 145,958.000 | 145,774.000 | 145,596.000 | 145,426.000 | 145,262.000 |
| 18.000 | 145,098.000 | 144,933.000 | 144,772.000 | 144,618.000 | 144,472.000 |
| 18.250 | 144,330.000 | 144,192.000 | 144,060.000 | 143,934.000 | 143,812.000 |
| 18.500 | 143,691.000 | 143,570.000 | 143,452.000 | 143,340.000 | 143,230.000 |
| 18.750 | 143,115.000 | 142,992.000 | 142,871.000 | 142,755.000 | 142,644.000 |
| 19.000 | 142,536.000 | 142,429.000 | 142,327.000 | 142,229.000 | 142,138.000 |
| 19.250 | 142,061.000 | 141,997.000 | 141,939.000 | 141,884.000 | 141,831.000 |
| 19.500 | 141,783.000 | 141,738.000 | 141,695.000 | 141,655.000 | 141,614.000 |
| 19.750 | 141,565.000 | 141,508.000 | 141,451.000 | 141,397.000 | 141,345.000 |
| 20.000 | 141,294.000 | 141,244.000 | 141,196.000 | 141,150.000 | 141,108.000 |
| 20.250 | 141,071.000 | 141,041.000 | 141,013.000 | 140,986.000 | 140,960.000 |
| 20.500 | 140,937.000 | 140,915.000 | 140,894.000 | 140,874.000 | 140,854.000 |
| 20.750 | 140,830.000 | 140,802.000 | 140,774.000 | 140,747.000 | 140,722.000 |
| 21.000 | 140,697.000 | 140,672.000 | 140,649.000 | 140,626.000 | 140,605.000 |
| 21.250 | 140,584.000 | 140,565.000 | 140,546.000 | 140,528.000 | 140,511.000 |

## Time vs. Volume (ft³)

**Output Time increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) | Volume (ft³) |
|---|---|---|---|---|---|
| 21.500 | 140,494.000 | 140,477.000 | 140,460.000 | 140,445.000 | 140,430.000 |
| 21.750 | 140,415.000 | 140,402.000 | 140,389.000 | 140,376.000 | 140,365.000 |
| 22.000 | 140,353.000 | 140,343.000 | 140,332.000 | 140,323.000 | 140,313.000 |
| 22.250 | 140,304.000 | 140,296.000 | 140,288.000 | 140,280.000 | 140,271.000 |
| 22.500 | 140,256.000 | 140,238.000 | 140,221.000 | 140,204.000 | 140,187.000 |
| 22.750 | 140,169.000 | 140,151.000 | 140,134.000 | 140,117.000 | 140,102.000 |
| 23.000 | 140,087.000 | 140,072.000 | 140,059.000 | 140,045.000 | 140,033.000 |
| 23.250 | 140,020.000 | 140,007.000 | 139,994.000 | 139,982.000 | 139,971.000 |
| 23.500 | 139,960.000 | 139,950.000 | 139,940.000 | 139,931.000 | 139,922.000 |
| 23.750 | 139,913.000 | 139,905.000 | 139,897.000 | 139,890.000 | 139,878.000 |
| 24.000 | 139,855.000 | (N/A) | (N/A) | (N/A) | (N/A) |

Subsection: Elevation-Area Volume Curve Scenario: Base

Label: Onsite Detention Basin

| Elevation (ft) | Planimeter (ft²) | Area (ft²) | A1+A2+sqr (A1*A2) (ft²) | Volume (ft³) | Volume (Total) (ft³) |
|---|---|---|---|---|---|
| 0.000 | 0.0 | 30,625 | 0 | 0.000 | 0.000 |
| 3.500 | 0.0 | 30,625 | 91,875 | 107,188.000 | 107,188.000 |
| 7.000 | 0.0 | 30,625 | 91,875 | 107,188.000 | 214,375.000 |

**Pond Volume Equations**
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

**Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))**

| | | |
|---|---|---|
| where: | EL1, EL2 | Lower and upper elevations of the increment |
| | Area1, Area2 | Areas computed for EL1, EL2, respectively |
| | Volume | Incremental volume between EL1 and EL2 |

| Requested Pond Water Surface Elevations | |
|---|---|
| Minimum (Headwater) | 0.000 ft |
| Increment (Headwater) | 0.500 ft |
| Maximum (Headwater) | 7.000 ft |

## Outlet Connectivity

| Structure Type | Outlet ID | Direction | Outfall | E1 (ft) | E2 (ft) |
|---|---|---|---|---|---|
| Rectangular Weir | Weir - 1 | Forward | TW | 4.550 | 7.000 |
| Stand Pipe | Riser - 1 | Forward | TW | 6.000 | 7.000 |
| Orifice-Circular | Orifice - 1 | Forward | TW | 0.000 | 7.000 |
| Tailwater Settings | Tailwater | | | (N/A) | (N/A) |

| Structure ID: Orifice - 1<br>Structure Type: Orifice-Circular | |
|---|---|
| Number of Openings | 1 |
| Elevation | 0.000 ft |
| Orifice Diameter | 2.28 in |
| Orifice Coefficient | 0.600 |

| Structure ID: Riser - 1<br>Structure Type: Stand Pipe | |
|---|---|
| Number of Openings | 1 |
| Elevation | 6.000 ft |
| Diameter | 54.00 in |
| Orifice Area | 15.9 ft² |
| Orifice Coefficient | 0.600 |
| Weir Length | 14.14 ft |
| Weir Coefficient | 3.00 (ft^0.5)/s |
| K Reverse | 1.000 |
| Manning's n | 0.000 |
| Kev, Charged Riser | 0.000 |
| Weir Submergence | False |
| Orifice H to crest | True |

| Structure ID: Weir - 1<br>Structure Type: Rectangular Weir | |
|---|---|
| Number of Openings | 1 |
| Elevation | 4.550 ft |
| Weir Length | 3.95 ft |
| Weir Coefficient | 3.00 (ft^0.5)/s |

| Structure ID: TW<br>Structure Type: TW Setup, DS Channel | |
|---|---|
| Tailwater Type | Free Outfall |

| Convergence Tolerances | |
|---|---|
| Maximum Iterations | 30 |
| Tailwater Tolerance (Minimum) | 0.010 ft |
| Tailwater Tolerance (Maximum) | 0.500 ft |
| Headwater Tolerance (Minimum) | 0.010 ft |
| Headwater Tolerance (Maximum) | 0.500 ft |
| Flow Tolerance (Minimum) | 0.001 ft³/s |
| Flow Tolerance (Maximum) | 10.000 ft³/s |

| Convergence Tolerances |
| --- |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Orifice - 1 (Orifice-Circular)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0868 | (N/A) | 0.000 |
| 1.000 | 0.1298 | (N/A) | 0.000 |
| 1.500 | 0.1618 | (N/A) | 0.000 |
| 2.000 | 0.1883 | (N/A) | 0.000 |
| 2.500 | 0.2116 | (N/A) | 0.000 |
| 3.000 | 0.2326 | (N/A) | 0.000 |
| 3.500 | 0.2518 | (N/A) | 0.000 |
| 4.000 | 0.2697 | (N/A) | 0.000 |
| 4.500 | 0.2864 | (N/A) | 0.000 |
| 4.550 | 0.2880 | (N/A) | 0.000 |
| 5.000 | 0.3022 | (N/A) | 0.000 |
| 5.500 | 0.3173 | (N/A) | 0.000 |
| 6.000 | 0.3316 | (N/A) | 0.000 |
| 6.500 | 0.3454 | (N/A) | 0.000 |
| 7.000 | 0.3586 | (N/A) | 0.000 |

Computation Messages

Upstream HW &
DNstream TW < Inv.El
H =.41
H =.91
H =1.41
H =1.91
H =2.41
H =2.91
H =3.41
H =3.91
H =4.41
H =4.46
H =4.91
H =5.41
H =5.91
H =6.41
H =6.91

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Riser - 1 (Stand Pipe)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0000 | (N/A) | 0.000 |
| 1.000 | 0.0000 | (N/A) | 0.000 |
| 1.500 | 0.0000 | (N/A) | 0.000 |
| 2.000 | 0.0000 | (N/A) | 0.000 |
| 2.500 | 0.0000 | (N/A) | 0.000 |
| 3.000 | 0.0000 | (N/A) | 0.000 |
| 3.500 | 0.0000 | (N/A) | 0.000 |
| 4.000 | 0.0000 | (N/A) | 0.000 |
| 4.500 | 0.0000 | (N/A) | 0.000 |
| 4.550 | 0.0000 | (N/A) | 0.000 |
| 5.000 | 0.0000 | (N/A) | 0.000 |
| 5.500 | 0.0000 | (N/A) | 0.000 |
| 6.000 | 0.0000 | (N/A) | 0.000 |
| 6.500 | 14.9947 | (N/A) | 0.000 |
| 7.000 | 42.4115 | (N/A) | 0.000 |

| Computation Messages |
|---|
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Riser - 1 (Stand Pipe)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Computation Messages |
| --- |
| HW & TW < Inv.El.=6.000 |
| HW & TW < Inv.El.=6.000 |
| Weir: H =0ft |
| Weir: H =0.5ft |
| Weir: H =1ft |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0000 | (N/A) | 0.000 |
| 1.000 | 0.0000 | (N/A) | 0.000 |
| 1.500 | 0.0000 | (N/A) | 0.000 |
| 2.000 | 0.0000 | (N/A) | 0.000 |
| 2.500 | 0.0000 | (N/A) | 0.000 |
| 3.000 | 0.0000 | (N/A) | 0.000 |
| 3.500 | 0.0000 | (N/A) | 0.000 |
| 4.000 | 0.0000 | (N/A) | 0.000 |
| 4.500 | 0.0000 | (N/A) | 0.000 |
| 4.550 | 0.0000 | (N/A) | 0.000 |
| 5.000 | 3.5771 | (N/A) | 0.000 |
| 5.500 | 10.9725 | (N/A) | 0.000 |
| 6.000 | 20.6905 | (N/A) | 0.000 |
| 6.500 | 32.2679 | (N/A) | 0.000 |
| 7.000 | 45.4431 | (N/A) | 0.000 |

| Computation Messages |
|---|
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| HW & TW below Inv.El.=4.550 |
| H=.00; Htw=.00; Qfree=.00; |

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)
---
Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

| Computation Messages |
| --- |
| H=.45; Htw=.00; Qfree=3.58; |
| H=.95; Htw=.00; Qfree=10.97; |
| H=1.45; Htw=.00; Qfree=20.69; |
| H=1.95; Htw=.00; Qfree=32.27; |
| H=2.45; Htw=.00; Qfree=45.44; |

Subsection: Composite Rating Curve
Label: Composite Outlet Structure - 1

Scenario: Base

Composite Outflow Summary

| Water Surface Elevation (ft) | Flow ($ft^3/s$) | Tailwater Elevation (ft) | Convergence Error (ft) |
|---|---|---|---|
| 0.000 | 0.0000 | (N/A) | 0.000 |
| 0.500 | 0.0868 | (N/A) | 0.000 |
| 1.000 | 0.1298 | (N/A) | 0.000 |
| 1.500 | 0.1618 | (N/A) | 0.000 |
| 2.000 | 0.1883 | (N/A) | 0.000 |
| 2.500 | 0.2116 | (N/A) | 0.000 |
| 3.000 | 0.2326 | (N/A) | 0.000 |
| 3.500 | 0.2518 | (N/A) | 0.000 |
| 4.000 | 0.2697 | (N/A) | 0.000 |
| 4.500 | 0.2864 | (N/A) | 0.000 |
| 4.550 | 0.2880 | (N/A) | 0.000 |
| 5.000 | 3.8794 | (N/A) | 0.000 |
| 5.500 | 11.2897 | (N/A) | 0.000 |
| 6.000 | 21.0221 | (N/A) | 0.000 |
| 6.500 | 47.6080 | (N/A) | 0.000 |
| 7.000 | 88.2131 | (N/A) | 0.000 |

| Contributing Structures |
|---|
| None Contributing |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Orifice - 1 |
| Weir - 1 + Orifice - 1 |
| Weir - 1 + Orifice - 1 |
| Weir - 1 + Orifice - 1 |
| Weir - 1 + Riser - 1 + Orifice - 1 |
| Weir - 1 + Riser - 1 + Orifice - 1 |
| Weir - 1 + Riser - 1 + Orifice - 1 |

| Infiltration | |
|---|---|
| Infiltration Method (Computed) | No Infiltration |

| Initial Conditions | |
|---|---|
| Elevation (Water Surface, Initial) | 0.000 ft |
| Volume (Initial) | 0.000 ft³ |
| Flow (Initial Outlet) | 0.0000 ft³/s |
| Flow (Initial Infiltration) | 0.0000 ft³/s |
| Flow (Initial, Total) | 0.0000 ft³/s |
| Time Increment | 0.050 hours |

| Elevation (ft) | Outflow (ft³/s) | Storage (ft³) | Area (ft²) | Infiltration (ft³/s) | Flow (Total) (ft³/s) | 2S/t + O (ft³/s) |
|---|---|---|---|---|---|---|
| 0.000 | 0.0000 | 0.000 | 30,625 | 0.0000 | 0.0000 | 0.0000 |
| 0.500 | 0.0868 | 15,312.500 | 30,625 | 0.0000 | 0.0868 | 170.2257 |
| 1.000 | 0.1298 | 30,625.000 | 30,625 | 0.0000 | 0.1298 | 340.4076 |
| 1.500 | 0.1618 | 45,937.500 | 30,625 | 0.0000 | 0.1618 | 510.5784 |
| 2.000 | 0.1883 | 61,250.000 | 30,625 | 0.0000 | 0.1883 | 680.7439 |
| 2.500 | 0.2116 | 76,562.500 | 30,625 | 0.0000 | 0.2116 | 850.9061 |
| 3.000 | 0.2326 | 91,875.000 | 30,625 | 0.0000 | 0.2326 | 1,021.0659 |
| 3.500 | 0.2518 | 107,187.500 | 30,625 | 0.0000 | 0.2518 | 1,191.2240 |
| 4.000 | 0.2697 | 122,500.000 | 30,625 | 0.0000 | 0.2697 | 1,361.3808 |
| 4.500 | 0.2864 | 137,812.500 | 30,625 | 0.0000 | 0.2864 | 1,531.5364 |
| 4.550 | 0.2880 | 139,343.750 | 30,625 | 0.0000 | 0.2880 | 1,548.5519 |
| 5.000 | 3.8794 | 153,125.000 | 30,625 | 0.0000 | 3.8794 | 1,705.2683 |
| 5.500 | 11.2897 | 168,437.500 | 30,625 | 0.0000 | 11.2897 | 1,882.8175 |
| 6.000 | 21.0221 | 183,750.000 | 30,625 | 0.0000 | 21.0221 | 2,062.6887 |
| 6.500 | 47.6080 | 199,062.500 | 30,625 | 0.0000 | 47.6080 | 2,259.4135 |
| 7.000 | 88.2131 | 214,375.000 | 30,625 | 0.0000 | 88.2131 | 2,470.1576 |

Subsection: Level Pool Pond Routing Summary
Scenario: Base
Label: Onsite Detention Basin (IN)

| Infiltration | |
|---|---|
| Infiltration Method (Computed) | No Infiltration |

| Initial Conditions | |
|---|---|
| Elevation (Water Surface, Initial) | 0.000 ft |
| Volume (Initial) | 0.000 ft³ |
| Flow (Initial Outlet) | 0.0000 ft³/s |
| Flow (Initial Infiltration) | 0.0000 ft³/s |
| Flow (Initial, Total) | 0.0000 ft³/s |
| Time Increment | 0.050 hours |

| Inflow/Outflow Hydrograph Summary | | | |
|---|---|---|---|
| Flow (Peak In) | 11.7700 ft³/s | Time to Peak (Flow, In) | 13.300 hours |
| Flow (Peak Outlet) | 8.7647 ft³/s | Time to Peak (Flow, Outlet) | 15.000 hours |

| | |
|---|---|
| Elevation (Water Surface, Peak) | 5.330 ft |
| Volume (Peak) | 163,219.794 ft³ |

| Mass Balance (ft³) | |
|---|---|
| Volume (Initial) | 0.000 ft³ |
| Volume (Total Inflow) | 265,549.000 ft³ |
| Volume (Total Infiltration) | 0.000 ft³ |
| Volume (Total Outlet Outflow) | 125,694.000 ft³ |
| Volume (Retained) | 139,781.000 ft³ |
| Volume (Unrouted) | -74.000 ft³ |
| Error (Mass Balance) | 0.0 % |

| | |
|---|---|
| Peak Discharge | 8.7647 ft³/s |
| Time to Peak | 15.000 hours |
| Hydrograph Volume | 125,693.510 ft³ |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 0.300 | 0.0008 | 0.0012 | 0.0016 | 0.0020 | 0.0024 |
| 0.550 | 0.0028 | 0.0033 | 0.0039 | 0.0044 | 0.0050 |
| 0.800 | 0.0055 | 0.0062 | 0.0068 | 0.0075 | 0.0081 |
| 1.050 | 0.0088 | 0.0094 | 0.0101 | 0.0108 | 0.0114 |
| 1.300 | 0.0121 | 0.0127 | 0.0133 | 0.0139 | 0.0145 |
| 1.550 | 0.0151 | 0.0157 | 0.0163 | 0.0169 | 0.0175 |
| 1.800 | 0.0181 | 0.0188 | 0.0194 | 0.0201 | 0.0208 |
| 2.050 | 0.0214 | 0.0222 | 0.0229 | 0.0237 | 0.0244 |
| 2.300 | 0.0251 | 0.0259 | 0.0267 | 0.0274 | 0.0282 |
| 2.550 | 0.0290 | 0.0298 | 0.0306 | 0.0315 | 0.0323 |
| 2.800 | 0.0332 | 0.0341 | 0.0350 | 0.0360 | 0.0369 |
| 3.050 | 0.0379 | 0.0388 | 0.0398 | 0.0407 | 0.0416 |
| 3.300 | 0.0426 | 0.0436 | 0.0445 | 0.0455 | 0.0464 |
| 3.550 | 0.0474 | 0.0483 | 0.0493 | 0.0502 | 0.0512 |
| 3.800 | 0.0522 | 0.0532 | 0.0542 | 0.0552 | 0.0562 |
| 4.050 | 0.0573 | 0.0584 | 0.0595 | 0.0606 | 0.0617 |
| 4.300 | 0.0628 | 0.0640 | 0.0652 | 0.0664 | 0.0676 |
| 4.550 | 0.0689 | 0.0702 | 0.0715 | 0.0728 | 0.0741 |
| 4.800 | 0.0754 | 0.0768 | 0.0781 | 0.0795 | 0.0809 |
| 5.050 | 0.0823 | 0.0836 | 0.0849 | 0.0863 | 0.0872 |
| 5.300 | 0.0878 | 0.0885 | 0.0891 | 0.0897 | 0.0903 |
| 5.550 | 0.0909 | 0.0916 | 0.0923 | 0.0930 | 0.0936 |
| 5.800 | 0.0944 | 0.0951 | 0.0958 | 0.0965 | 0.0973 |
| 6.050 | 0.0980 | 0.0988 | 0.0995 | 0.1003 | 0.1011 |
| 6.300 | 0.1019 | 0.1027 | 0.1036 | 0.1044 | 0.1052 |
| 6.550 | 0.1061 | 0.1070 | 0.1079 | 0.1089 | 0.1098 |
| 6.800 | 0.1108 | 0.1118 | 0.1128 | 0.1138 | 0.1149 |
| 7.050 | 0.1159 | 0.1170 | 0.1180 | 0.1191 | 0.1201 |
| 7.300 | 0.1213 | 0.1224 | 0.1235 | 0.1247 | 0.1259 |
| 7.550 | 0.1271 | 0.1284 | 0.1297 | 0.1307 | 0.1318 |
| 7.800 | 0.1328 | 0.1339 | 0.1351 | 0.1362 | 0.1374 |
| 8.050 | 0.1386 | 0.1399 | 0.1413 | 0.1426 | 0.1440 |
| 8.300 | 0.1454 | 0.1469 | 0.1484 | 0.1499 | 0.1514 |
| 8.550 | 0.1530 | 0.1546 | 0.1562 | 0.1578 | 0.1594 |
| 8.800 | 0.1611 | 0.1626 | 0.1641 | 0.1655 | 0.1670 |
| 9.050 | 0.1686 | 0.1702 | 0.1718 | 0.1734 | 0.1751 |
| 9.300 | 0.1768 | 0.1786 | 0.1804 | 0.1822 | 0.1841 |
| 9.550 | 0.1859 | 0.1879 | 0.1896 | 0.1913 | 0.1931 |
| 9.800 | 0.1948 | 0.1966 | 0.1985 | 0.2003 | 0.2020 |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 10.050 | 0.2037 | 0.2053 | 0.2069 | 0.2085 | 0.2101 |
| 10.300 | 0.2115 | 0.2126 | 0.2138 | 0.2149 | 0.2161 |
| 10.550 | 0.2174 | 0.2186 | 0.2199 | 0.2212 | 0.2225 |
| 10.800 | 0.2239 | 0.2254 | 0.2269 | 0.2284 | 0.2298 |
| 11.050 | 0.2313 | 0.2328 | 0.2341 | 0.2355 | 0.2369 |
| 11.300 | 0.2382 | 0.2395 | 0.2409 | 0.2422 | 0.2435 |
| 11.550 | 0.2448 | 0.2461 | 0.2474 | 0.2486 | 0.2499 |
| 11.800 | 0.2511 | 0.2523 | 0.2535 | 0.2546 | 0.2558 |
| 12.050 | 0.2571 | 0.2585 | 0.2599 | 0.2612 | 0.2627 |
| 12.300 | 0.2643 | 0.2659 | 0.2676 | 0.2693 | 0.2709 |
| 12.550 | 0.2726 | 0.2743 | 0.2760 | 0.2778 | 0.2795 |
| 12.800 | 0.2813 | 0.2832 | 0.2850 | 0.2869 | 0.4513 |
| 13.050 | 0.9120 | 1.3634 | 1.7940 | 2.2050 | 2.6094 |
| 13.300 | 3.0184 | 3.4195 | 3.8022 | 4.4040 | 4.9888 |
| 13.550 | 5.4692 | 5.8842 | 6.2644 | 6.6130 | 6.8894 |
| 13.800 | 7.0646 | 7.1903 | 7.3055 | 7.4110 | 7.5125 |
| 14.050 | 7.6138 | 7.7103 | 7.7987 | 7.8798 | 7.9642 |
| 14.300 | 8.0590 | 8.1534 | 8.2399 | 8.3192 | 8.3902 |
| 14.550 | 8.4523 | 8.5081 | 8.5592 | 8.6060 | 8.6459 |
| 14.800 | 8.6775 | 8.7044 | 8.7291 | 8.7517 | 8.7647 |
| 15.050 | 8.7636 | 8.7574 | 8.7518 | 8.7465 | 8.7324 |
| 15.300 | 8.7047 | 8.6734 | 8.6447 | 8.6178 | 8.5723 |
| 15.550 | 8.4979 | 8.4171 | 8.3431 | 8.2743 | 8.1911 |
| 15.800 | 8.0842 | 7.9745 | 7.8739 | 7.7780 | 7.6292 |
| 16.050 | 7.4019 | 7.1597 | 6.9377 | 6.7285 | 6.4637 |
| 16.300 | 6.1143 | 5.7550 | 5.4257 | 5.1221 | 4.8252 |
| 16.550 | 4.5263 | 4.2428 | 3.9830 | 3.8049 | 3.6764 |
| 16.800 | 3.5463 | 3.4195 | 3.2985 | 3.1832 | 3.0739 |
| 17.050 | 2.9707 | 2.8726 | 2.7790 | 2.6900 | 2.6078 |
| 17.300 | 2.5329 | 2.4626 | 2.3956 | 2.3317 | 2.2714 |
| 17.550 | 2.2147 | 2.1609 | 2.1095 | 2.0603 | 2.0118 |
| 17.800 | 1.9637 | 1.9173 | 1.8729 | 1.8303 | 1.7876 |
| 18.050 | 1.7445 | 1.7026 | 1.6626 | 1.6244 | 1.5874 |
| 18.300 | 1.5515 | 1.5170 | 1.4841 | 1.4525 | 1.4210 |
| 18.550 | 1.3894 | 1.3587 | 1.3294 | 1.3009 | 1.2707 |
| 18.800 | 1.2387 | 1.2071 | 1.1770 | 1.1481 | 1.1199 |
| 19.050 | 1.0921 | 1.0654 | 1.0400 | 1.0162 | 0.9961 |
| 19.300 | 0.9795 | 0.9644 | 0.9500 | 0.9363 | 0.9236 |
| 19.550 | 0.9119 | 0.9008 | 0.8902 | 0.8795 | 0.8668 |
| 19.800 | 0.8520 | 0.8372 | 0.8232 | 0.8096 | 0.7964 |
| 20.050 | 0.7833 | 0.7708 | 0.7588 | 0.7477 | 0.7382 |
| 20.300 | 0.7303 | 0.7229 | 0.7159 | 0.7093 | 0.7031 |
| 20.550 | 0.6974 | 0.6921 | 0.6869 | 0.6817 | 0.6753 |
| 20.800 | 0.6680 | 0.6607 | 0.6538 | 0.6472 | 0.6407 |

Subsection: Pond Routed Hydrograph (total out) Scenario: Base
Label: Onsite Detention Basin (OUT)

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 21.050 | 0.6342 | 0.6281 | 0.6222 | 0.6166 | 0.6113 |
| 21.300 | 0.6062 | 0.6013 | 0.5967 | 0.5922 | 0.5877 |
| 21.550 | 0.5832 | 0.5790 | 0.5749 | 0.5710 | 0.5673 |
| 21.800 | 0.5637 | 0.5604 | 0.5571 | 0.5541 | 0.5511 |
| 22.050 | 0.5483 | 0.5457 | 0.5431 | 0.5407 | 0.5383 |
| 22.300 | 0.5361 | 0.5340 | 0.5320 | 0.5296 | 0.5258 |
| 22.550 | 0.5212 | 0.5165 | 0.5121 | 0.5077 | 0.5031 |
| 22.800 | 0.4985 | 0.4939 | 0.4896 | 0.4855 | 0.4816 |
| 23.050 | 0.4779 | 0.4743 | 0.4709 | 0.4676 | 0.4642 |
| 23.300 | 0.4608 | 0.4576 | 0.4545 | 0.4515 | 0.4487 |
| 23.550 | 0.4460 | 0.4434 | 0.4410 | 0.4386 | 0.4364 |
| 23.800 | 0.4343 | 0.4323 | 0.4303 | 0.4273 | 0.4214 |

# APPENDIX D: REFERENCES

**NOAA Atlas 14, Volume 6, Version 2**
**Location name: Murrieta, California, USA***
**Latitude: 33.5503°, Longitude: -117.1971°**
**Elevation: 1081.36 ft****
* source: ESRI Maps
** source: USGS

**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

## PF tabular

**PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]**

| Duration | Average recurrence interval (years) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 5 | 10 | 25 | 50 | 100 | 200 | 500 | 1000 |
| 5-min | **0.119** (0.100-0.143) | **0.157** (0.132-0.189) | **0.210** (0.175-0.253) | **0.254** (0.210-0.309) | **0.317** (0.253-0.400) | **0.367** (0.287-0.474) | **0.420** (0.320-0.556) | **0.476** (0.352-0.650) | **0.555** (0.393-0.792) | **0.619** (0.423-0.916) |
| 10-min | **0.170** (0.143-0.205) | **0.225** (0.189-0.271) | **0.300** (0.251-0.363) | **0.364** (0.302-0.444) | **0.454** (0.363-0.573) | **0.526** (0.411-0.679) | **0.602** (0.458-0.797) | **0.682** (0.505-0.932) | **0.796** (0.563-1.14) | **0.887** (0.606-1.31) |
| 15-min | **0.206** (0.173-0.248) | **0.272** (0.228-0.328) | **0.363** (0.304-0.439) | **0.440** (0.365-0.536) | **0.549** (0.439-0.693) | **0.636** (0.497-0.821) | **0.727** (0.554-0.964) | **0.825** (0.610-1.13) | **0.962** (0.681-1.37) | **1.07** (0.733-1.59) |
| 30-min | **0.319** (0.267-0.383) | **0.422** (0.353-0.508) | **0.562** (0.470-0.679) | **0.681** (0.564-0.830) | **0.849** (0.679-1.07) | **0.984** (0.770-1.27) | **1.13** (0.858-1.49) | **1.28** (0.945-1.74) | **1.49** (1.05-2.13) | **1.66** (1.13-2.46) |
| 60-min | **0.484** (0.407-0.583) | **0.641** (0.538-0.772) | **0.855** (0.715-1.03) | **1.04** (0.858-1.26) | **1.29** (1.03-1.63) | **1.50** (1.17-1.93) | **1.71** (1.31-2.27) | **1.94** (1.44-2.65) | **2.27** (1.60-3.23) | **2.53** (1.72-3.74) |
| 2-hr | **0.710** (0.596-0.855) | **0.933** (0.782-1.12) | **1.23** (1.03-1.49) | **1.48** (1.23-1.81) | **1.83** (1.47-2.32) | **2.11** (1.65-2.73) | **2.40** (1.83-3.18) | **2.70** (2.00-3.69) | **3.13** (2.21-4.46) | **3.46** (2.36-5.13) |
| 3-hr | **0.887** (0.745-1.07) | **1.16** (0.974-1.40) | **1.53** (1.28-1.85) | **1.84** (1.52-2.24) | **2.26** (1.81-2.86) | **2.60** (2.03-3.36) | **2.95** (2.25-3.91) | **3.31** (2.45-4.52) | **3.82** (2.70-5.45) | **4.22** (2.88-6.24) |
| 6-hr | **1.27** (1.07-1.53) | **1.66** (1.39-2.00) | **2.18** (1.83-2.64) | **2.62** (2.17-3.19) | **3.21** (2.57-4.06) | **3.68** (2.88-4.75) | **4.16** (3.17-5.51) | **4.66** (3.45-6.36) | **5.35** (3.79-7.63) | **5.89** (4.02-8.72) |
| 12-hr | **1.69** (1.42-2.03) | **2.22** (1.86-2.67) | **2.92** (2.44-3.53) | **3.50** (2.90-4.26) | **4.29** (3.43-5.42) | **4.90** (3.84-6.33) | **5.53** (4.22-7.33) | **6.19** (4.58-8.45) | **7.08** (5.01-10.1) | **7.77** (5.31-11.5) |
| 24-hr | **2.18** (1.92-2.51) | **2.90** (2.56-3.35) | **3.85** (3.39-4.46) | **4.63** (4.04-5.41) | **5.70** (4.82-6.87) | **6.53** (5.41-8.03) | **7.37** (5.97-9.28) | **8.25** (6.51-10.7) | **9.45** (7.16-12.7) | **10.4** (7.62-14.5) |
| 2-day | **2.62** (2.31-3.02) | **3.57** (3.15-4.13) | **4.85** (4.27-5.62) | **5.91** (5.16-6.91) | **7.39** (6.25-8.91) | **8.56** (7.10-10.5) | **9.77** (7.91-12.3) | **11.0** (8.71-14.3) | **12.8** (9.71-17.2) | **14.2** (10.4-19.8) |
| 3-day | **2.76** (2.44-3.19) | **3.83** (3.38-4.43) | **5.29** (4.65-6.13) | **6.51** (5.69-7.61) | **8.24** (6.97-9.94) | **9.63** (7.98-11.8) | **11.1** (8.98-14.0) | **12.6** (9.97-16.3) | **14.8** (11.2-20.0) | **16.6** (12.2-23.1) |
| 4-day | **2.99** (2.64-3.45) | **4.19** (3.70-4.84) | **5.82** (5.13-6.75) | **7.21** (6.30-8.43) | **9.19** (7.77-11.1) | **10.8** (8.94-13.3) | **12.5** (10.1-15.7) | **14.3** (11.3-18.5) | **16.9** (12.8-22.7) | **19.0** (13.9-26.4) |
| 7-day | **3.48** (3.07-4.02) | **4.91** (4.33-5.68) | **6.88** (6.05-7.97) | **8.55** (7.47-9.99) | **11.0** (9.27-13.2) | **12.9** (10.7-15.9) | **15.0** (12.1-18.9) | **17.2** (13.6-22.3) | **20.4** (15.5-27.5) | **23.1** (16.9-32.1) |
| 10-day | **3.76** (3.32-4.34) | **5.33** (4.70-6.16) | **7.49** (6.59-8.68) | **9.34** (8.16-10.9) | **12.0** (10.2-14.5) | **14.2** (11.7-17.4) | **16.5** (13.3-20.7) | **19.0** (15.0-24.5) | **22.6** (17.1-30.4) | **25.6** (18.7-35.6) |
| 20-day | **4.69** (4.14-5.41) | **6.72** (5.93-7.77) | **9.55** (8.41-11.1) | **12.0** (10.5-14.0) | **15.5** (13.1-18.7) | **18.4** (15.3-22.7) | **21.5** (17.5-27.1) | **24.9** (19.7-32.3) | **29.9** (22.6-40.2) | **34.0** (24.9-47.3) |
| 30-day | **5.55** (4.90-6.40) | **7.98** (7.05-9.23) | **11.4** (10.0-13.2) | **14.4** (12.5-16.8) | **18.7** (15.8-22.5) | **22.2** (18.4-27.3) | **26.1** (21.1-32.8) | **30.3** (23.9-39.1) | **36.4** (27.6-49.0) | **41.5** (30.4-57.7) |
| 45-day | **6.54** (5.78-7.55) | **9.40** (8.30-10.9) | **13.4** (11.8-15.6) | **16.9** (14.8-19.8) | **22.1** (18.7-26.6) | **26.4** (21.9-32.4) | **31.0** (25.1-39.0) | **36.1** (28.4-46.6) | **43.5** (33.0-58.6) | **49.7** (36.5-69.2) |
| 60-day | **7.58** (6.70-8.76) | **10.8** (9.57-12.5) | **15.5** (13.6-17.9) | **19.5** (17.0-22.8) | **25.4** (21.5-30.6) | **30.3** (25.2-37.3) | **35.7** (28.9-44.9) | **41.6** (32.8-53.8) | **50.3** (38.1-67.7) | **57.5** (42.2-80.1) |

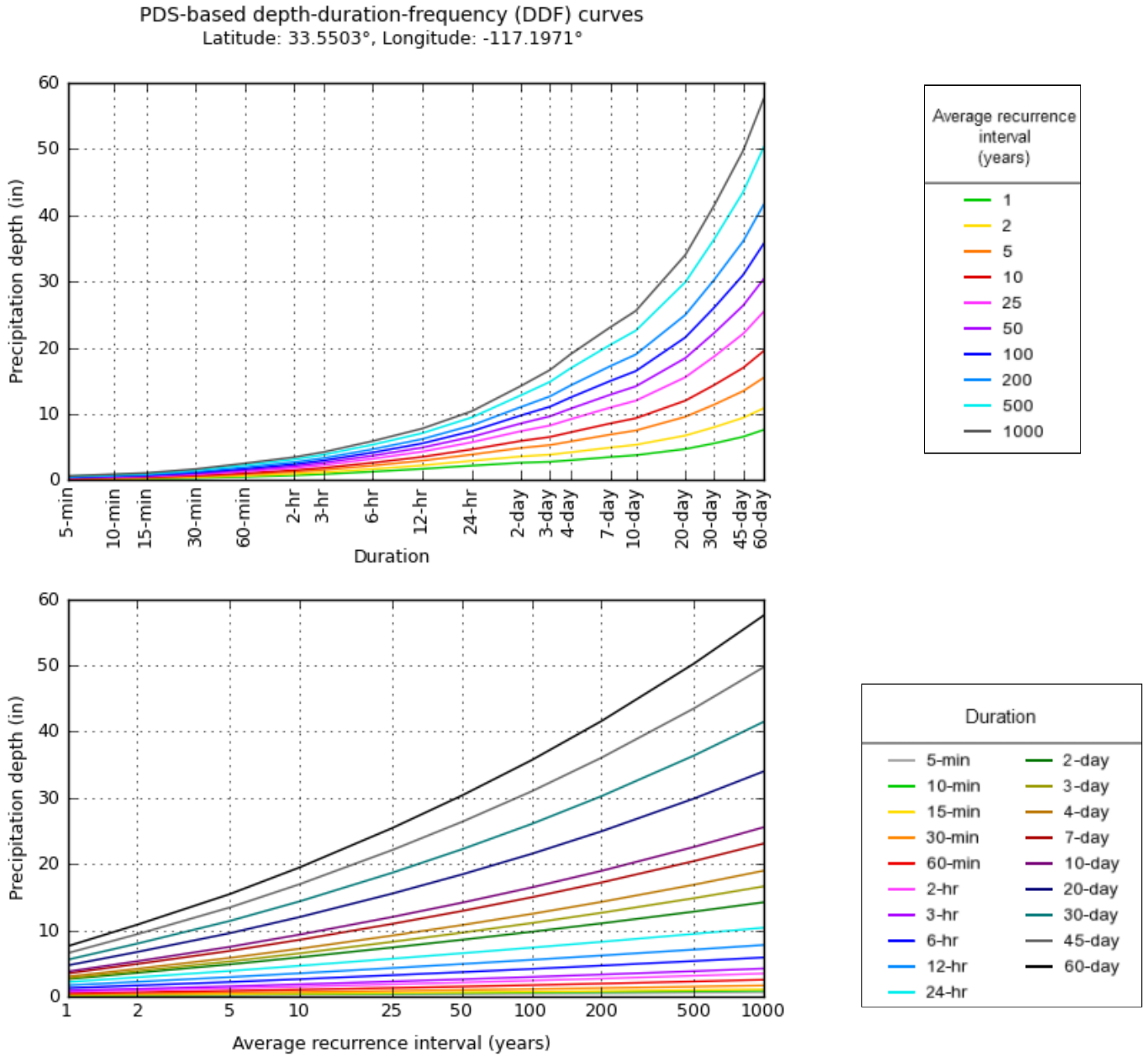
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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## PF graphical



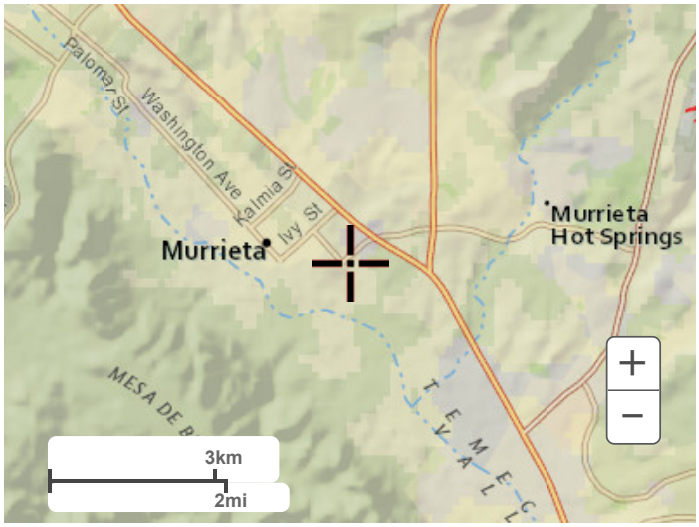

NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Wed May 18 23:07:53 2022

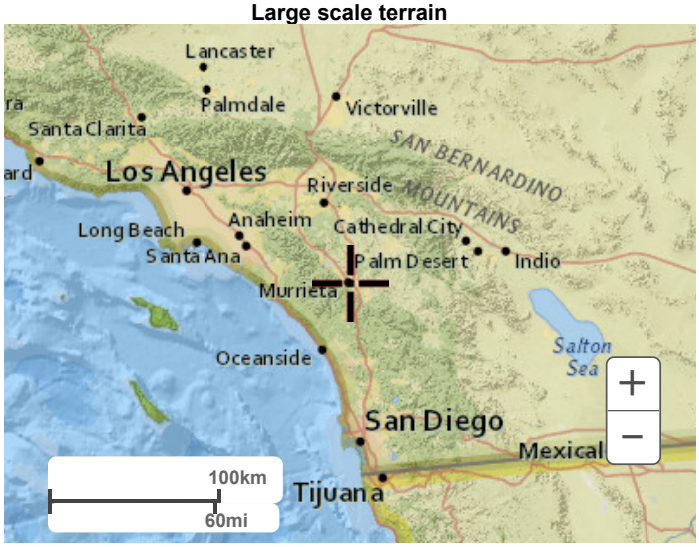
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## Maps & aerials

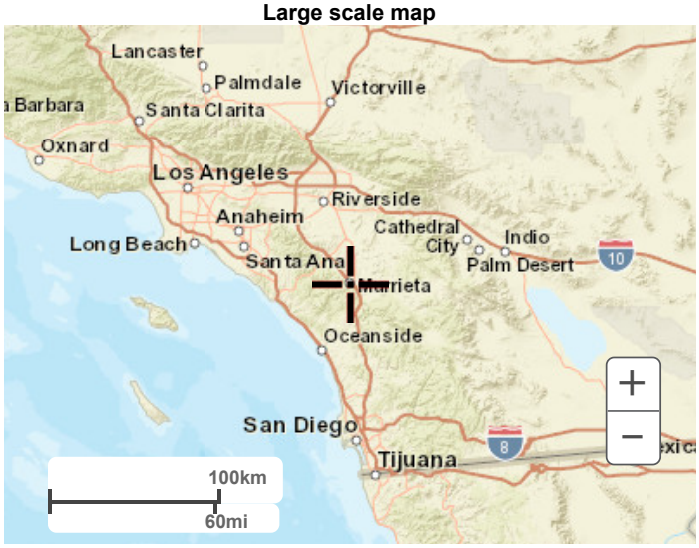
**Small scale terrain**



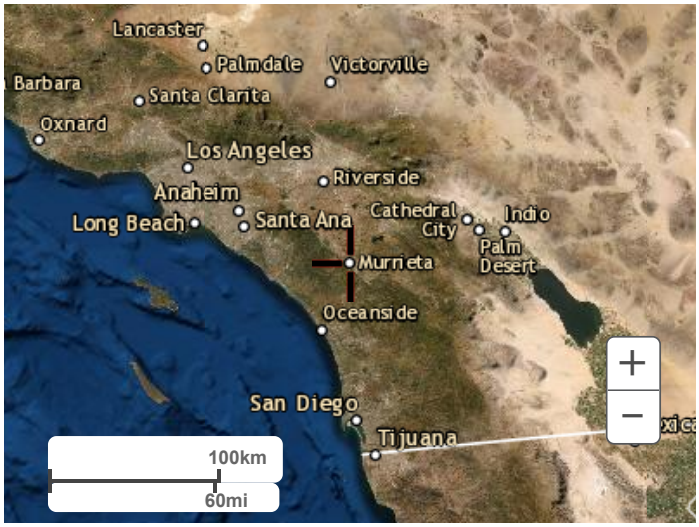

**Large scale terrain**




**Large scale map**




**Large scale aerial**




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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

**NOAA Atlas 14, Volume 6, Version 2**
**Location name: Murrieta, California, USA***
**Latitude: 33.5503°, Longitude: -117.1971°**
**Elevation: 1081.36 ft****
* source: ESRI Maps
** source: USGS

**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

## PF tabular

**PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]**

| Duration | Average recurrence interval (years) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 5 | 10 | 25 | 50 | 100 | 200 | 500 | 1000 |
| 5-min | **1.43** (1.20-1.72) | **1.88** (1.58-2.27) | **2.52** (2.10-3.04) | **3.05** (2.52-3.71) | **3.80** (3.04-4.80) | **4.40** (3.44-5.69) | **5.04** (3.84-6.67) | **5.71** (4.22-7.80) | **6.66** (4.72-9.50) | **7.43** (5.08-11.0) |
| 10-min | **1.02** (0.858-1.23) | **1.35** (1.13-1.63) | **1.80** (1.51-2.18) | **2.18** (1.81-2.66) | **2.72** (2.18-3.44) | **3.16** (2.47-4.07) | **3.61** (2.75-4.78) | **4.09** (3.03-5.59) | **4.78** (3.38-6.82) | **5.32** (3.64-7.88) |
| 15-min | **0.824** (0.692-0.992) | **1.09** (0.912-1.31) | **1.45** (1.22-1.76) | **1.76** (1.46-2.14) | **2.20** (1.76-2.77) | **2.54** (1.99-3.28) | **2.91** (2.22-3.86) | **3.30** (2.44-4.51) | **3.85** (2.72-5.49) | **4.29** (2.93-6.35) |
| 30-min | **0.638** (0.534-0.766) | **0.844** (0.706-1.02) | **1.12** (0.940-1.36) | **1.36** (1.13-1.66) | **1.70** (1.36-2.15) | **1.97** (1.54-2.54) | **2.25** (1.72-2.98) | **2.55** (1.89-3.49) | **2.98** (2.11-4.25) | **3.32** (2.27-4.92) |
| 60-min | **0.484** (0.407-0.583) | **0.641** (0.538-0.772) | **0.855** (0.715-1.03) | **1.04** (0.858-1.26) | **1.29** (1.03-1.63) | **1.50** (1.17-1.93) | **1.71** (1.31-2.27) | **1.94** (1.44-2.65) | **2.27** (1.60-3.23) | **2.53** (1.72-3.74) |
| 2-hr | **0.355** (0.298-0.428) | **0.466** (0.391-0.562) | **0.616** (0.515-0.744) | **0.742** (0.614-0.904) | **0.917** (0.733-1.16) | **1.06** (0.826-1.36) | **1.20** (0.914-1.59) | **1.35** (1.00-1.85) | **1.56** (1.11-2.23) | **1.73** (1.18-2.56) |
| 3-hr | **0.295** (0.248-0.355) | **0.387** (0.324-0.466) | **0.510** (0.426-0.616) | **0.612** (0.507-0.746) | **0.754** (0.603-0.952) | **0.865** (0.677-1.12) | **0.981** (0.748-1.30) | **1.10** (0.816-1.51) | **1.27** (0.900-1.81) | **1.41** (0.959-2.08) |
| 6-hr | **0.212** (0.178-0.255) | **0.278** (0.233-0.334) | **0.365** (0.305-0.441) | **0.437** (0.362-0.533) | **0.536** (0.429-0.678) | **0.614** (0.480-0.793) | **0.694** (0.529-0.920) | **0.778** (0.575-1.06) | **0.893** (0.632-1.27) | **0.983** (0.671-1.46) |
| 12-hr | **0.140** (0.118-0.169) | **0.184** (0.154-0.222) | **0.243** (0.203-0.293) | **0.290** (0.241-0.354) | **0.356** (0.285-0.450) | **0.407** (0.318-0.526) | **0.459** (0.350-0.609) | **0.513** (0.380-0.701) | **0.587** (0.416-0.838) | **0.645** (0.440-0.955) |
| 24-hr | **0.091** (0.080-0.105) | **0.121** (0.107-0.140) | **0.160** (0.141-0.186) | **0.193** (0.169-0.225) | **0.237** (0.201-0.286) | **0.272** (0.226-0.335) | **0.307** (0.249-0.387) | **0.344** (0.271-0.445) | **0.394** (0.298-0.530) | **0.433** (0.317-0.602) |
| 2-day | **0.055** (0.048-0.063) | **0.074** (0.066-0.086) | **0.101** (0.089-0.117) | **0.123** (0.108-0.144) | **0.154** (0.130-0.186) | **0.178** (0.148-0.219) | **0.203** (0.165-0.256) | **0.230** (0.181-0.297) | **0.267** (0.202-0.359) | **0.296** (0.217-0.412) |
| 3-day | **0.038** (0.034-0.044) | **0.053** (0.047-0.062) | **0.073** (0.065-0.085) | **0.090** (0.079-0.106) | **0.114** (0.097-0.138) | **0.134** (0.111-0.164) | **0.154** (0.125-0.194) | **0.176** (0.138-0.227) | **0.206** (0.156-0.277) | **0.231** (0.169-0.321) |
| 4-day | **0.031** (0.028-0.036) | **0.044** (0.039-0.050) | **0.061** (0.053-0.070) | **0.075** (0.066-0.088) | **0.096** (0.081-0.115) | **0.112** (0.093-0.138) | **0.130** (0.105-0.164) | **0.149** (0.117-0.192) | **0.176** (0.133-0.237) | **0.198** (0.145-0.275) |
| 7-day | **0.021** (0.018-0.024) | **0.029** (0.026-0.034) | **0.041** (0.036-0.047) | **0.051** (0.044-0.059) | **0.065** (0.055-0.079) | **0.077** (0.064-0.094) | **0.089** (0.072-0.112) | **0.102** (0.081-0.133) | **0.122** (0.092-0.164) | **0.137** (0.101-0.191) |
| 10-day | **0.016** (0.014-0.018) | **0.022** (0.020-0.026) | **0.031** (0.027-0.036) | **0.039** (0.034-0.045) | **0.050** (0.042-0.060) | **0.059** (0.049-0.073) | **0.069** (0.056-0.086) | **0.079** (0.062-0.102) | **0.094** (0.071-0.127) | **0.107** (0.078-0.148) |
| 20-day | **0.010** (0.009-0.011) | **0.014** (0.012-0.016) | **0.020** (0.018-0.023) | **0.025** (0.022-0.029) | **0.032** (0.027-0.039) | **0.038** (0.032-0.047) | **0.045** (0.036-0.057) | **0.052** (0.041-0.067) | **0.062** (0.047-0.084) | **0.071** (0.052-0.099) |
| 30-day | **0.008** (0.007-0.009) | **0.011** (0.010-0.013) | **0.016** (0.014-0.018) | **0.020** (0.017-0.023) | **0.026** (0.022-0.031) | **0.031** (0.026-0.038) | **0.036** (0.029-0.046) | **0.042** (0.033-0.054) | **0.050** (0.038-0.068) | **0.058** (0.042-0.080) |
| 45-day | **0.006** (0.005-0.007) | **0.009** (0.008-0.010) | **0.012** (0.011-0.014) | **0.016** (0.014-0.018) | **0.020** (0.017-0.025) | **0.024** (0.020-0.030) | **0.029** (0.023-0.036) | **0.033** (0.026-0.043) | **0.040** (0.031-0.054) | **0.046** (0.034-0.064) |
| 60-day | **0.005** (0.005-0.006) | **0.008** (0.007-0.009) | **0.011** (0.009-0.012) | **0.014** (0.012-0.016) | **0.018** (0.015-0.021) | **0.021** (0.017-0.026) | **0.025** (0.020-0.031) | **0.029** (0.023-0.037) | **0.035** (0.026-0.047) | **0.040** (0.029-0.056) |

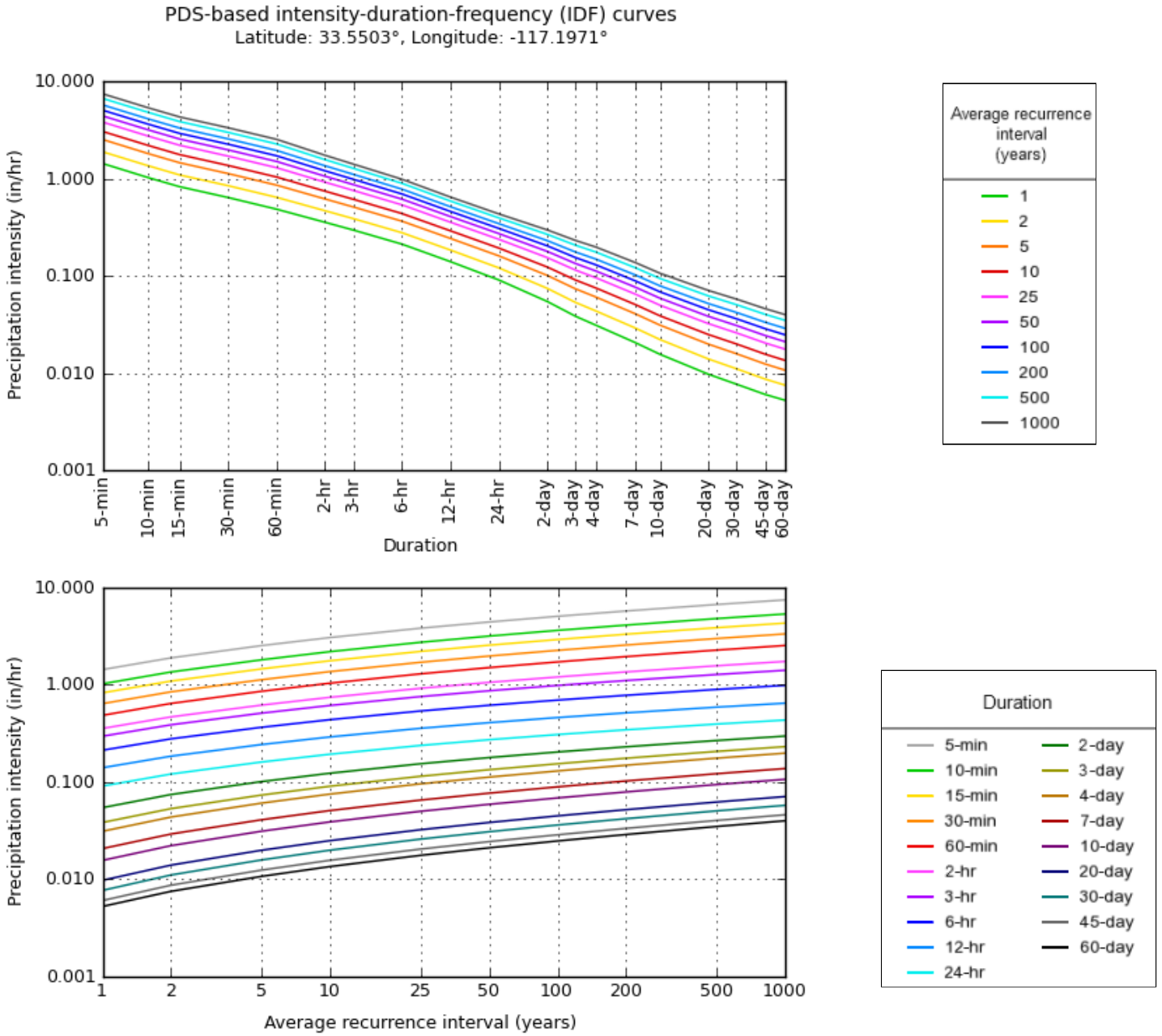
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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## PF graphical



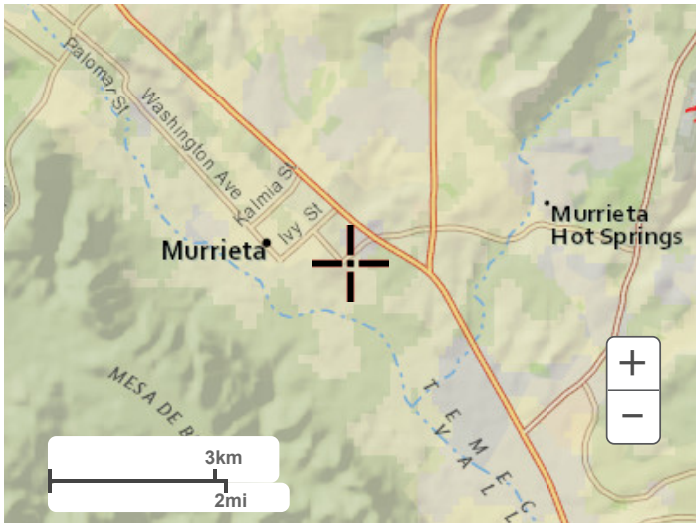

NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Wed May 18 23:06:13 2022

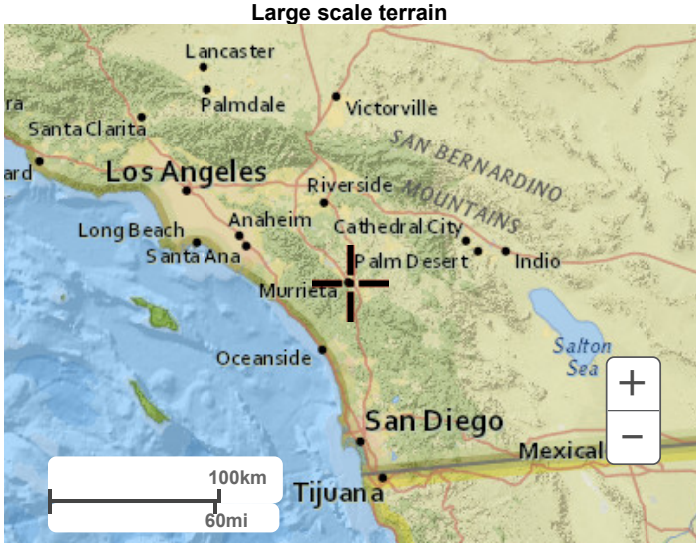
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## Maps & aerials

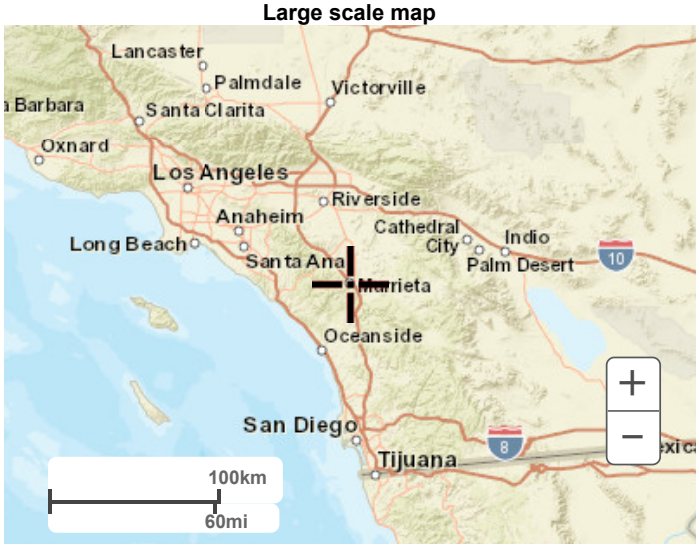
**Small scale terrain**



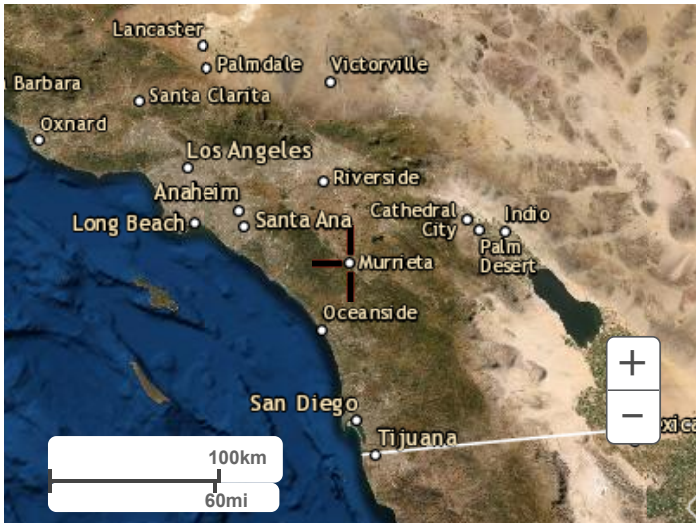

**Large scale terrain**




**Large scale map**




**Large scale aerial**




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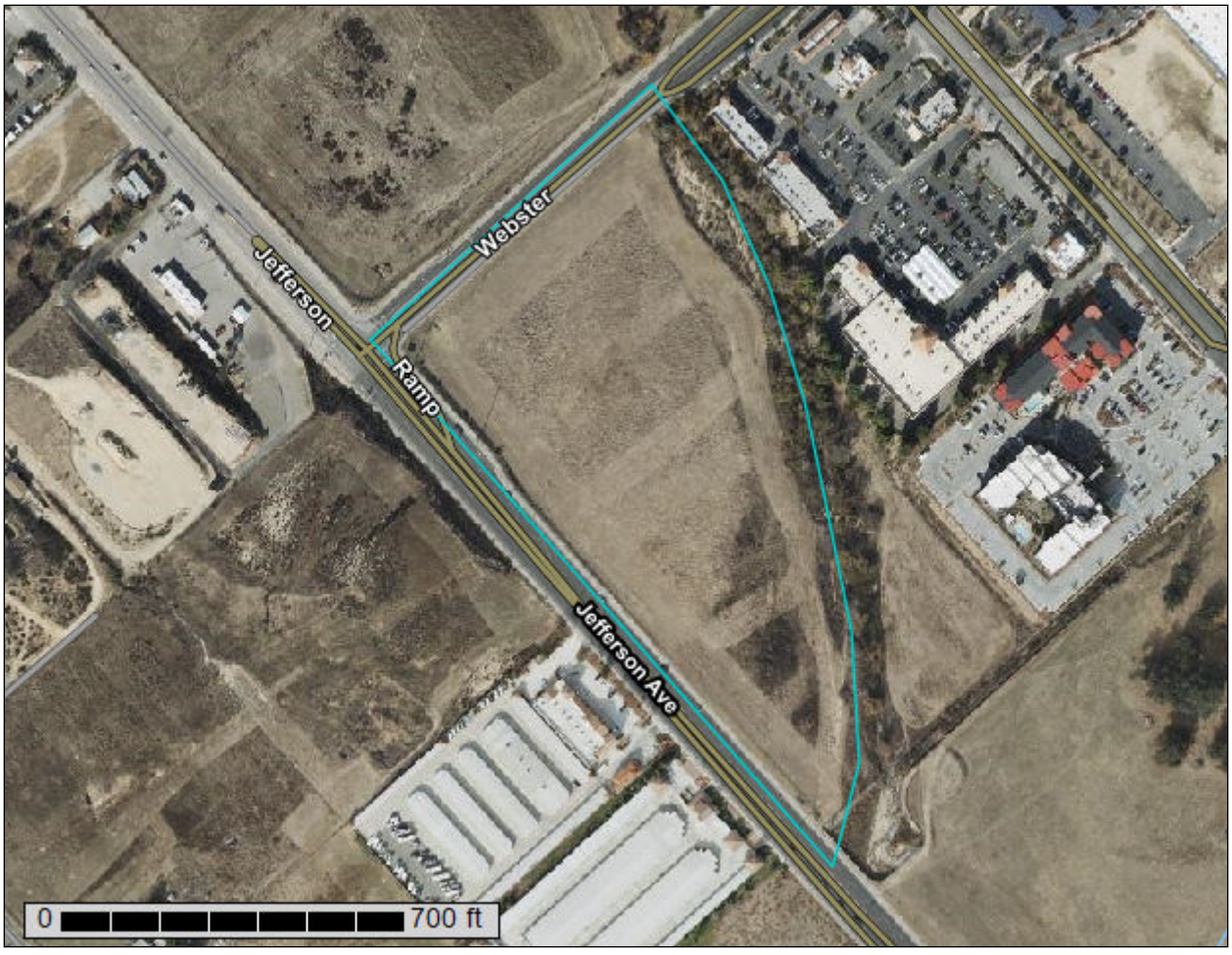
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Western Riverside Area, California




February 7, 2022

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map




Map Scale: 1:2,840 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 7, 2021—Jan 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| GtA | Grangeville fine sandy loam, drained, 0 to 2 percent sl opes | 8.6 | 50.3% |
| GvB | Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes | 0.0 | 0.3% |
| GyA | Greenfield sandy loam, 0 to 2 percent slopes | 3.9 | 22.8% |
| MmC2 | Monserate sandy loam, 5 to 8 percent slopes, eroded | 0.3 | 2.0% |
| MnE3 | Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded | 0.6 | 3.6% |
| RaB2 | Ramona sandy loam, 2 to 5 percent slopes, eroded | 3.6 | 21.0% |
| **Totals for Area of Interest** | | **17.0** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Western Riverside Area, California

## GtA—Grangeville fine sandy loam, drained, 0 to 2 percent sl opes

### Map Unit Setting

*National map unit symbol:* hcvn
*Elevation:* 10 to 1,800 feet
*Mean annual precipitation:* 12 inches
*Mean annual air temperature:* 63 degrees F
*Frost-free period:* 200 to 270 days
*Farmland classification:* Prime farmland if irrigated and drained

### Map Unit Composition

*Grangeville and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Grangeville

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 36 inches:* fine sandy loam
*H2 - 36 to 64 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 5 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 3c
*Hydrologic Soil Group:* A/D
*Ecological site:* R019XD070CA - SANDY BASIN
*Hydric soil rating:* No

### Minor Components

#### Dello

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

**Traver**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 1 percent
*Hydric soil rating:* No

## GvB—Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes

### Map Unit Setting

*National map unit symbol:* hcvr
*Elevation:* 10 to 1,800 feet
*Mean annual precipitation:* 8 to 16 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 200 to 270 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Grangeville and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Grangeville

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 17 inches:* fine sandy loam
*H2 - 17 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 5 percent
*Maximum salinity:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 6.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* B/D
*Ecological site:* R019XD070CA - SANDY BASIN
*Hydric soil rating:* No

**Minor Components**

**Dello**

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

**Traver**

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

## GyA—Greenfield sandy loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* hcvv
*Elevation:* 100 to 3,500 feet
*Mean annual precipitation:* 9 to 20 inches
*Mean annual air temperature:* 63 degrees F
*Frost-free period:* 200 to 300 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**

*Greenfield and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Greenfield**

**Setting**

*Landform:* Terraces, alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*H1 - 0 to 26 inches:* sandy loam
*H2 - 26 to 43 inches:* fine sandy loam
*H3 - 43 to 60 inches:* loam
*H4 - 60 to 72 inches:* stratified loamy sand to sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained

*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Moderate (about 8.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 3c
*Hydrologic Soil Group:* A
*Ecological site:* R019XD029CA - LOAMY
*Hydric soil rating:* No

**Minor Components**

**Hanford**

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

**Arlington**

*Percent of map unit:* 2 percent
*Hydric soil rating:* No

**Pachappa**

*Percent of map unit:* 2 percent
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 1 percent
*Hydric soil rating:* No

## MmC2—Monserate sandy loam, 5 to 8 percent slopes, eroded

**Map Unit Setting**

*National map unit symbol:* hcx5
*Elevation:* 700 to 2,500 feet
*Mean annual precipitation:* 10 to 18 inches
*Mean annual air temperature:* 63 to 64 degrees F
*Frost-free period:* 220 to 280 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Monserate and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Monserate

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 10 inches:* sandy loam
*H2 - 10 to 28 inches:* sandy clay loam
*H3 - 28 to 45 inches:* indurated
*H4 - 45 to 57 inches:* cemented
*H5 - 57 to 70 inches:* loamy coarse sand

#### Properties and qualities

*Slope:* 5 to 8 percent
*Depth to restrictive feature:* 20 to 39 inches to duripan
*Drainage class:* Well drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 4.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* C
*Ecological site:* R019XD029CA - LOAMY
*Hydric soil rating:* No

### Minor Components

#### Tujunga

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Greenfield

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Ramona

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Unnamed

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Hanford

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

## MnE3—Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded

### Map Unit Setting

*National map unit symbol:* hcx9
*Elevation:* 700 to 2,500 feet
*Mean annual precipitation:* 10 to 18 inches
*Mean annual air temperature:* 63 to 64 degrees F
*Frost-free period:* 220 to 280 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Monserate and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Monserate

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Convex
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 10 inches:* sandy loam
*H2 - 10 to 18 inches:* sandy clay loam
*H3 - 18 to 45 inches:* indurated
*H4 - 45 to 57 inches:* cemented
*H5 - 57 to 70 inches:* loamy coarse sand

#### Properties and qualities

*Slope:* 15 to 25 percent
*Depth to restrictive feature:* 10 to 20 inches to duripan
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Very low (about 2.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7e
*Hydrologic Soil Group:* D
*Ecological site:* R019XD060CA - SHALLOW LOAMY (1975)
*Hydric soil rating:* No

**Minor Components**

**Greenfield**
*Percent of map unit:* 5 percent
*Hydric soil rating:* No

**Hanford**
*Percent of map unit:* 5 percent
*Hydric soil rating:* No

**Tujunga**
*Percent of map unit:* 5 percent
*Hydric soil rating:* No

## RaB2—Ramona sandy loam, 2 to 5 percent slopes, eroded

**Map Unit Setting**
*National map unit symbol:* hcy5
*Elevation:* 250 to 3,500 feet
*Mean annual precipitation:* 10 to 20 inches
*Mean annual air temperature:* 63 degrees F
*Frost-free period:* 230 to 320 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**
*Ramona and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Ramona**

**Setting**
*Landform:* Terraces, alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**
*H1 - 0 to 14 inches:* sandy loam
*H2 - 14 to 23 inches:* fine sandy loam
*H3 - 23 to 68 inches:* sandy clay loam
*H4 - 68 to 74 inches:* gravelly sandy loam

**Properties and qualities**
*Slope:* 2 to 5 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)

*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 1 percent
*Available water supply, 0 to 60 inches:* Moderate (about 8.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2e
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* C
*Ecological site:* R019XD029CA - LOAMY
*Hydric soil rating:* No

**Minor Components**

**Hanford**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Arlington**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Greenfield**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Tujunga**

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

# Soil Information for All Uses

## Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

## Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

### Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# Custom Soil Resource Report
## Map—Hydrologic Soil Group



## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Soil Rating Lines**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Soil Rating Points**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Water Features**

Streams and Canals

**Transportation**

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 7, 2021—Jan 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Table—Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| GtA | Grangeville fine sandy loam, drained, 0 to 2 percent sl opes | A/D | 8.6 | 50.3% |
| GvB | Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes | B/D | 0.0 | 0.3% |
| GyA | Greenfield sandy loam, 0 to 2 percent slopes | A | 3.9 | 22.8% |
| MmC2 | Monserate sandy loam, 5 to 8 percent slopes, eroded | C | 0.3 | 2.0% |
| MnE3 | Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded | D | 0.6 | 3.6% |
| RaB2 | Ramona sandy loam, 2 to 5 percent slopes, eroded | C | 3.6 | 21.0% |
| **Totals for Area of Interest** | | | **17.0** | **100.0%** |

## Rating Options—Hydrologic Soil Group

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

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RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

| Cover Type (3) | Quality of Cover (2) | Soil Group A | B | C | D |
|---|---|---|---|---|---|
| NATURAL COVERS - | | | | | |
| Barren (Rockland, eroded and graded land) | | 78 | 86 | 91 | 93 |
| Chaparrel, Broadleaf (Manzonita, ceanothus and scrub oak) | Poor | 53 | 70 | 80 | 85 |
| | Fair | 40 | 63 | 75 | 81 |
| | Good | 31 | 57 | 71 | 78 |
| Chaparrel, Narrowleaf (Chamise and redshank) | Poor | 71 | 82 | 88 | 91 |
| | Fair | 55 | 72 | 81 | 86 |
| Grass, Annual or Perennial | Poor | 67 | 78 | 86 | 89 |
| | Fair | 50 | 69 | 79 | 84 |
| | Good | 38 | 61 | 74 | 80 |
| Meadows or Cienegas (Areas with seasonally high water table, principal vegetation is sod forming grass) | Poor | 63 | 77 | 85 | 88 |
| | Fair | 51 | 70 | 80 | 84 |
| | Good | 30 | 58 | 72 | 78 |
| Open Brush (Soft wood shrubs - buckwheat, sage, etc.) | Poor | 62 | 76 | 84 | 88 |
| | Fair | 46 | 66 | 77 | 83 |
| | Good | 41 | 63 | 75 | 81 |
| Woodland (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent) | Poor | 45 | 66 | 77 | 83 |
| | Fair | 36 | 60 | 73 | 79 |
| | Good | 28 | 55 | 70 | 77 |
| Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent) | Poor | 57 | 73 | 82 | 86 |
| | Fair | 44 | 65 | 77 | 82 |
| | Good | 33 | 58 | 72 | 79 |
| URBAN COVERS - | | | | | |
| Residential or Commercial Landscaping (Lawn, shrubs, etc.) | Good | 32 | 56 | 69 | 75 |
| Turf (Irrigated and mowed grass) | Poor | 58 | 74 | 83 | 87 |
| | Fair | 44 | 65 | 77 | 82 |
| | Good | 33 | 58 | 72 | 79 |
| AGRICULTURAL COVERS - | | | | | |
| Fallow (Land plowed but not tilled or seeded) | | 76 | 85 | 90 | 92 |

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

| Cover Type (3) | Quality of Cover (2) | Soil Group A | B | C | D |
|---|---|---|---|---|---|
| AGRICULTURAL COVERS (cont.) - | | | | | |
| Legumes, Close Seeded (Alfalfa, sweetclover, timothy, etc.) | Poor | 66 | 77 | 85 | 89 |
| | Good | 58 | 72 | 81 | 85 |
| Orchards, Deciduous (Apples, apricots, pears, walnuts, etc.) | | See Note 4 | | | |
| Orchards, Evergreen (Citrus, avocados, etc.) | Poor | 57 | 73 | 82 | 86 |
| | Fair | 44 | 65 | 77 | 82 |
| | Good | 33 | 58 | 72 | 79 |
| Pasture, Dryland (Annual grasses) | Poor | 67 | 78 | 86 | 89 |
| | Fair | 50 | 69 | 79 | 84 |
| | Good | 38 | 61 | 74 | 80 |
| Pasture, Irrigated (Legumes and perennial grass) | Poor | 58 | 74 | 83 | 87 |
| | Fair | 44 | 65 | 77 | 82 |
| | Good | 33 | 58 | 72 | 79 |
| Row Crops (Field crops - tomatoes, sugar beets, etc.) | Poor | 72 | 81 | 88 | 91 |
| | Good | 67 | 78 | 85 | 89 |
| Small Grain (Wheat, oats, barley, etc.) | Poor | 65 | 76 | 84 | 88 |
| | Good | 63 | 75 | 83 | 87 |
| Vineyard | | See Note 4 | | | |

Notes:

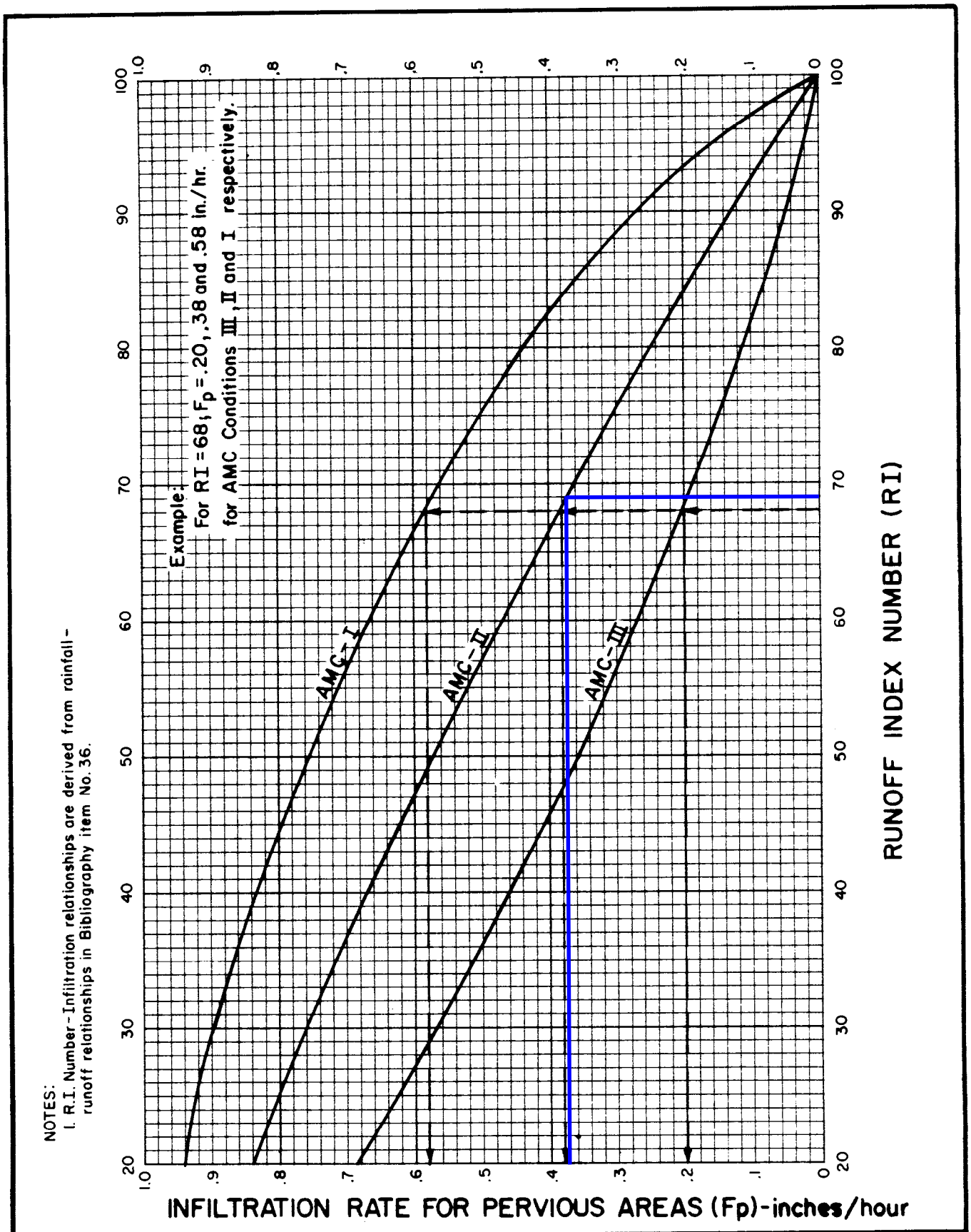
1. All runoff index (RI) numbers are for Antecedent Moisture Condition (AMC) II.

2. Quality of cover definitions:
   Poor-Heavily grazed or regularly burned areas. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.
   Fair-Moderate cover with 50 percent to 75 percent of the ground surface protected.
   Good-Heavy or dense cover with more than 75 percent of the ground surface protected.

3. See Plate C-2 for a detailed description of cover types.

4. Use runoff index numbers based on ground cover type. See discussion under "Cover Type Descriptions" on Plate C-2.

5. Reference Bibliography item 17.




NOTES:
1. R.I. Number - Infiltration relationships are derived from rainfall - runoff relationships in Bibliography item No. 36.

**RCFC & WCD**

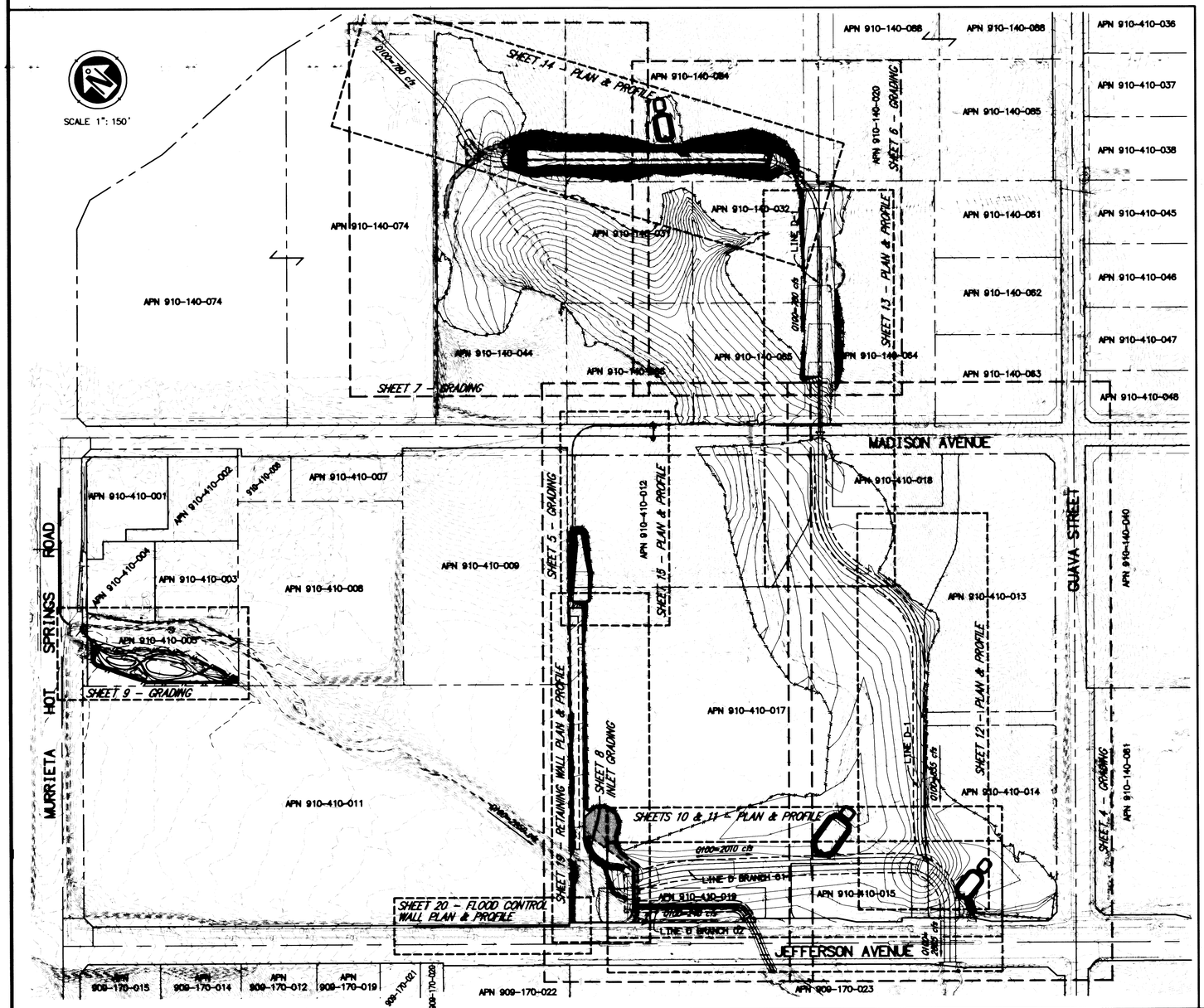
HYDROLOGY MANUAL

INFILTRATION RATE FOR PERVIOUS AREAS VERSUS RUNOFF INDEX NUMBERS

PLATE E-6.2

# MASTER DRAINAGE FACILITY IMPROVEMENT PLANS FOR LINE D & D-1

# CITY OF MURRIETA CIP No. 8157




## ASSESSOR'S PARCEL NUMBERS IMPACTED BY LINE D & D1 IMPROVEMENTS

910-410-12, 13, 14, 15, 17, 18 & 19
910-140-20, 31, 32, 44, 57, 64, 65 & 66

## SOURCE OF TOPOGRAPHY

THE AERIAL TOPOGRAPHY FOR THIS PROJECT WAS PROVIDED BY ADVANTAGE CONSULTANTS INCORPORATED. AERIAL PHOTO WAS TAKEN LAST JANUARY 14, 2003. SUPPLEMENTAL FIELD DATA SURVEYS WERE CONDUCTED BY EXCEL ENGINEERING.

## BASIS OF BEARING

THE BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN CAL-COORD TIES DESIGNATED ELM AND ROSA PER NGS SURVEY CONTROL DATA OBTAINED FROM THE NATIONAL GEODEDITC SERVICE WEBSITE. (is N 15° 31' 18" E)

## BENCHMARK NOTE

THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

## UTILITIES

| | |
|---|---|
| SOUTHERN CALIFORNIA EDISON | 951-928-8272 |
| VERIZON | 951-929-9493 |
| WESTERN MUNICIPAL WATER DISTRICT | 951-677-7667 |
| EASTERN MUNICIPAL WATER DISTRICT | 951-928-3777 |
| SOUTHERN CALIFORNIA GAS | 951-304-0093 |

## SOILS ENGINEER

T.H.E. SOILS CO., INC.
41548 EASTMAN DRIVE, UNIT G
MURRIETA, CA 92562
(951) 894-2121

## OWNER

THE CITY OF MURRIETA
ONE TOWN SQUARE
24601 JEFFERSON AVE
MURRIETA, CA 92562
(951) 304-CITY (2489)

## CIVIL ENGINEER

EXCEL ENGINEERING
440 STATE PLACE
ESCONDIDO, CALIFORNIA 92029
(760) 745-8118

## DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF MURRIETA IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

EXCEL ENGINEERING
440 STATE PLACE
ESCONDIDO CA 92029
760-745-8118
760-745-1890

ROBERT D. DENTINO R.C.E. DATE: 9/28/11 EXP. DATE: 12-31-12

## REFERENCE PLANS

CITY OF MURRIETA
- JEFFERSON AVE ST IMPROVEMENT PLANS
  PROJECT No.-96-136 DRAWING No.-01-483

RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
- MURRIETA CREEK MDP LINE D1
  PROJECT No.-7-0-01136 DRAWING No. 7-322

## INDEX SHEET


| | |
|---|---|
| SHEET 1 & 2 | TITLE & NOTES |
| SHEET 3 | DEMOLITION PLAN |
| SHEET 4 TO 9 | GRADING PLANS |
| SHEET 10 | LINE D BRANCH 01 |
| SHEET 11 | LINE D BRANCH 02 |
| SHEET 12 TO 14 | LINE D-1 |
| SHEET 15 | STORM DRAIN LINE ST-01 |
| SHEET 16 | STORM DRAIN LATERALS |
| SHEET 17 & 18 | DETAILS |
| SHEET 19 | RETAINING WALL 01 & 02 PLAN & PROFILE |
| SHEET 20 | TEMPORARY FLOOD CONTROL WALL PLAN & PROFILE |
| SHEET 21 & 22 | EROSION CONTROL PLAN & DETAILS |
| SHEET 23 | FENCING PLAN |
| SHEET 24 | WATER SERVICE PLAN |
| SHEET 25 | JUNCTION STRUCTURAL DETAILS FOR LINE D BRANCH 01 |
| SHEET 26 | JUNCTION STRUCTURAL DETAILS FOR LINE D BRANCH 02 |
| SHEET 27 | FREE STANDING WALL STRUCTURAL DETAIL |


## RCFC & WCD STANDARD DRAWINGS

| | |
|---|---|
| BX401 | 11.5'X28' SINGLE REINFORCED CONCRETE BOX |
| JS226 | JUNCTION STRUCTURE #1 |
| JS227 | JUNCTION STRUCTURE #2 |
| JS228 | JUNCTION STRUCTURE #3 |
| JS229 | JUNCTION STRUCTURE #4 |
| MH254 | MANHOLE #4 |
| M816 | CONCRETE BULKHEAD |
| M827 | VEHICULAR TURN AROUND AREA |

## CALTRANS STANDARD DRAWINGS

| | |
|---|---|
| D80 | SINGLE 7'X10' REINFORCED CONCRETE BOX |
| D81 | DOUBLE 7'X14' REINFORCED CONCRETE BOX |
| D86A | WARPED WINGWALL |
| D86B | WARPED WINGWALL |
| B3-1 | RETAINING WALL |

## OTHER DRAWINGS

| | |
|---|---|
| SHEET 8 | RIPRAP BERM |
| SHEET 17 | RIPRAP ENERGY DISSIPATOR |
| SHEET 25 | 7'X28' TO 11.5'X28' TRANSISTION STRUCTURE |
| SHEET 26 | STORM DRAIN MANHOLE |

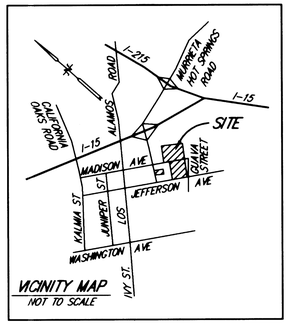
## BMP HANDBOOK BY CALIFORNIA STORM WTER QUALITY ASSOCIATION

| | |
|---|---|
| EC-1 SCHEDULING | NS-2 DEWATERING OPERATIONS |
| EC-2 PRESERVATION OF EXISTING VEGETATION | NS-3 PAVING AND GRINDING OPERATIONS |
| EC-4 HYDROSEEDING | NS-4 TEMPORARY STREAM CROSSING |
| EC-7 GEOTEXTILES AND MATS | NS-8 VEHICLE AND EQUIPMENT CLEANING |
| EC-8 WOOD MULCHING | NS-9 VEHICLE AND EQUIPMENT FUELING |
| EC-9 EARTH DIKES AND DRAINAGE SWALES | NS-10 VEHICLE AND EQUIPMENT MAINTENANCE |
| EC-10 VELOCITY DISSIPATION DEVICES | NS-12 CONCRETE CURING |
| EC-11 SLOPE DRAIN | NS-13 CONCRETE FINISHING |
| SC-1 SILT FENCE | NS-14 MATERIAL AND EQUIPMENT USE |
| SC-2 SEDIMENT BASIN | WM-1 MATERIAL DELIVERY AND STORAGE |
| SC-3 SEDIMENT TRAP | WM-2 MATERIAL USE |
| SC-4 CHECK DAM | WM-3 STOCKPILE MANAGEMENT |
| SC-5 FIBER ROLLS | WM-4 SPILL PREVENTION AND CONTROL |
| SC-7 STREET SWEEPING AND VACUUMING | WM-5 SOLID WASTE MANAGEMENT |
| SC-8 GRAVEL BAG BARRIER | WM-6 HAZARDOUS WASTE MANAGEMENT |
| SC-9 STRAW BALE BARRIER | WM-7 CONTAMINATED SOIL MANAGEMENT |
| SC-10 STORM DRAIN INLET PROTECTION | WM-8 CONCRETE WASTE MANAGEMENT |
| WE-1 WIND EROSION CONTROL | WM-9 SANITARY/SEPTIC WASTE MANAGEMENT |
| TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT | WM-10 LIQUID WASTE MANAGEMENT |
| TC-2 STABILIZED CONSTRUCTION ROADWAY | |

## LEGEND & ABBREVIATION

FL=FLOW LINE
RIM=RIM MANHOLE ELEVATION
IE=INVERT ELEVATION
STA=STATION
BC=BEGIN CURB
EC=END CURB
POC=POINT OF CURVATURE
TW=TOP OF WALL
BW=BOTTOM OF WALL
TF=TOP OF FOOTING
TB=TOP OF BERM
TD=TOP OF DIKE

BOUNDARY
PROPERTY LINE — PL —
RIGHT OF WAY — RW —
DAYLIGHT LINE
SLOPE 2:1
RETAINING WALL
SHEET PILE WALL
FREE STANDING WALL




VICINITY MAP
NOT TO SCALE

WDID # 9 33C358396

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 1 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING & IMPROVEMENT PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-103

DRAWING NUMBER

DRAWING NUMBER 11-103

## GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING OF THE PROPOSED WORK AREA, AND RELOCATION COST OF ALL EXISTING UTILITIES. PERMITTEE MUST INFORM THE CITY OF CONSTRUCTION SCHEDULE AT LEAST 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION PHONE: (951) 304-2489

2. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF MURRIETA PUBLIC WORKS DEPARTMENT IMPROVEMENT STANDARDS AND THE LATEST EDITION OF STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK).

3. THE DEVELOPER WILL INSTALL STREET NAME SIGNS CONFIRMING TO CITY STANDARD NO. 601.

4. CURB DEPRESSIONS AND DRIVEWAY APPROACHES WILL BE INSTALLED AND CONSTRUCTED ACCORDING TO CITY STANDARD NO. 308, 309, OR 310, AS DIRECTED IN THE FIELD.

5. BLUE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED TO MARK FIRE HYDRANT AND/OR WATER SUPPLY LOCATIONS AT THE DIRECTION OF THE CITY INSPECTOR FOLLOWING FINAL SEALANT AND STRIPING.

6. WORK MAY NOT START UNTIL PERMITS HAVE BEEN OBTAINED.

7. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS WITH UNDERGROUND SERVICE ALERT AT 1-800-422-4133 AT LEAST TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION.

8. ALL PAVEMENT SECTIONS ARE AT MINIMUM REQUIREMENTS. ADDITIONAL SOIL TEST SHALL BE TAKEN AFTER ROUGH GRADING TO DETERMINE THE EXACT STRUCTURAL SECTION REQUIREMENTS. USE STANDARD NO. 320 IF EXPANSIVE SOIL ARE ENCOUNTERED.

9. DUST CONTROL SHALL BE MAINTAINED AT ALL TIMES BY WATER OR OTHER APPROVED METHODS.

10. EQUIPMENT AND MATERIALS SHALL BE STORED IN A NEAT AND PROTECTED MANNER.

11. THE CONTRACTOR WILL CONDUCT HIS OPERATIONS AS TO OFFER THE LEAST POSSIBLE OBSTRUCTION AND INCONVENIENCE TO PUBLIC TRAFFIC, AND HE SHALL HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAN HE CAN EXECUTE PROPERLY. ON EXISTING ROADS, TRAFFIC SHALL BE PERMITTED TO PASS THROUGH THE WORK AREA WITH AS LITTLE INCONVENIENCE AND DELAY AS POSSIBLE.

12. EXISTING TRAFFIC SIGNALS AND LIGHTING SYSTEMS SHALL BE KEPT IN OPERATION FOR THE BENEFIT OF THE TRAVELING PUBLIC, AND TO MINIMIZE ANY INTERFERENCE WITH ROUTINE MAINTENANCE OF EXISTING SYSTEMS DURING WORK PROGRESS.

13. WHENEVER THE CONTRACTOR'S OPERATION CREATES A HAZARDOUS CONDITION TO TRAFFIC OR TO THE PUBLIC, HE SHALL FURNISH AT HIS OWN EXPENSE, SUCH FLAGMEN AND GUARDS AS ARE NECESSARY TO GIVE ADEQUATE WARNING TO THE PUBLIC OF ANY DANGEROUS CONDITIONS. HE SHALL ALSO FURNISH, ERECT AND MAINTAIN SUCH FENCES BARRICADES, LIGHTS, SIGNS, AND OTHER DEVICES NECESSARY TO PREVENT ACCIDENTS AND INJURY TO THE PUBLIC.

14. WHERE SURVEY MONUMENTS EXIST, SUCH MONUMENTS WILL BE PROTECTED OR SHALL BE REFERENCED AND RESET, PURSUANT TO BUSINESS AND PROFESSIONS CODE, SECTION 8700 TO 8805 (LAND SURVEYOR'S ACT).

15. WHERE NEW A.C. PAVEMENT JOIN EXISTING PAVEMENT, SAWCUT TO A NEAT EDGE. THE SAWCUTS MUST BE PERPENDICULAR, PARALLEL OR RADIAL TO THE ROADWAY CENTERLINE. OVERLAY AND FEATHER NEW A.C. PAVEMENT TO PROVIDE SMOOTH TRANSITION.

16. ALL EXISTING STREET SIGNS, ROADSIDE MARKERS ETC., SHALL BE PROTECTED AND/OR REPLACED IN KIND TO THE CURRENT CITY STANDARD PLANS AND CURRENT TRAFFIC MANUAL, AT NO COST TO THE CITY.

17. ASPHALTIC EMULSION (FOG SEAL)SHALL BE APPLIED NOT LESS THAN FOURTEEN (14) DAYS FOLLOWING PLACEMENT OF THE ASPHALT SURFACING AND SHALL BE APPLIED AT A MIN. RATE OF 0.05 GALLON PER SQUARE YARD. ASPHALTIC EMULSION SHALL CONFORM TO SECTION 37, 39, AND 94 OF THE STATE STANDARD SPECIFICATIONS.

18. ALL UNDERGROUND FACILITIES, WITH LATERALS SHALL BE IN PLACE PRIOR TO PAVING THE STREET SECTION INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: WATER, SEWER, GAS, ELECTRIC, CABLE T.V., TELEPHONE, AND DRAINAGE.

19. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITY LINES, INCLUDING ANY OTHER LINES NOT SHOWN ON THESE PLANS OR NOT OF RECORD.

20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY TO THE CITY OF MURRIETA ENGINEERING DEPARTMENT, FOR AN ENCROACHMENT PERMIT FOR ALL WORK ON EXISTING CITY MAINTAINED ROADS, AND FOR UTILITY WORK WITHIN OFFERS OF DEDICATION FOR PUBLIC USE.

21. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER TO INSTALL STREET CENTERLINE MONUMENTS AS REQUIRED BY CITY STANDARD DRAWINGS NO. 616, 617, AND 618.

22. STREET LIGHTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF MURRIETA STANDARD NO. 619 OR 620.

23. APPROVAL OF THESE PLANS BY THE CITY OR ITS AGENTS DOES NOT RELIEVE THE APPLICANT AND HIS ENGINEER FROM THE RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE APPROPRIATE PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL.

24. ALL GTE, SCE AND SCG FACILITIES WILL BE RELOCATED OR MODIFIED BY THE RESPECTIVE UTILITIES OR THEIR APPOINTED REPRESENTATIVES.

25. ALL WATER RELATED WORK SHALL BE DONE IN ACCORDANCE WITH THE SERVICING WATER DISTRICT STANDARDS AND SPECIFICATIONS.

26. ALL SEWER RELATED WORK SHALL BE DONE IN ACCORDANCE WITH THE SERVICING WATER DISTRICT STANDARDS AND SPECIFICATIONS.

27. ANY SERVICE SHUT DOWN SHALL BE DONE AT NIGHT, PRIOR TO ANY SHUT DOWN, THE CONTRACTOR SHALL NOTIFY THE DIRECTOR, ENGINEER, CUSTOMER, FIRE DEPARTMENT, SERVICING WATER DISTRICT, AND ALL OTHERS AFFECTED BY THE SHUT DOWN A MINIMUM OF THREE (3) WEEKS IN ADVANCE.

28. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR CONTRACTOR TO APPLY TO CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) FOR AN ENCROACHMENT PERMIT FOR ALL WORK PERFORMED WITHIN THE STATE RIGHT-OF-WAY.

29. IN CASE OF EMERGENCY, 24 HOUR CONTACT IS KEN BURRIS AT (951) 453-3181

## SPECIAL NOTES

1. STANDARD DRAWINGS CALLED FOR ON THE PLAN AND PROFILE SHALL CONFORM TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, CALTRANS AND THE CITY OF MURRIETA STANDARD DRAWINGS LISTED ON THIS SHEET.

2. ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE NOTED.

3. STATIONING FOR LATERALS AND CONNECTOR PIPE REFER TO THE CENTERLINE INTERSECTION STATION.

4. ALL ELEVATIONS SHOWN ARE IN FEET AND DECIMALS THEREOF BASED ON U.S.C. & G.S. DATUM

5. ELEVATIONS OF UTILITIES ARE APPROXIMATE UNLESS OTHERWISE NOTED.

6. THE APPLICANT IS HEREBY NOTICED THAT THEY MUST COMPLY WITH ALL STATE & FEDERAL ENDANGERED SPECIES LAW. THE CITY OF MURRIETA IS NOT RESPONSIBLE FOR ANY SUCH VIOLATION OF STATE OR FEDERAL ENDANGERED SPECIES LAW DUE TO THE APPLICANT'S NON-COMPLIANCE.

7. ALL WORK SHALL BE DONE ACCORDING TO THE APPROVED PLANS AND SPECIFICATIONS, THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK), STANDARD DRAWINGS, AND ALL APPLICABLE CITY OF MURRIETA ORDINANCES.

8. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

9. THE CONTRACTOR SHALL CONFORM TO LABOR CODE SECTION 6705 BY SUBMITTING A DETAIL PLAN TO THE CITY ENGINEER AND/OR CONCERNED AGENCY SHOWING THE DESIGN OF SHORING, BRACING, SLOPING OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH OR TRENCHES OR DURING THE PIPE INSTALLATION THEREIN. THIS PLAN MUST BE PREPARED FOR ALL TRENCHES FIVE FEET (5') OR MORE IN DEPTH AND APPROVED BY THE CITY ENGINEER AND/OR CONCERNED AGENCY PRIOR TO EXCAVATION. IF THE PLAN VARIES FROM THE SHORING SYSTEM STANDARDS ESTABLISHED BY THE CONSTRUCTION SAFETY ORDERS, THE PLAN SHALL BE PREPARED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER AT THE CONTRACTOR'S EXPENSE.

10. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES (ABOVEGROUND AND UNDERGROUND) WITHIN THE PROJECT SITE SUFFICIENTLY AHEAD OF THE CONSTRUCTION TO PERMIT THE REVISION OF THE CONSTRUCTION PLANS IF IT IS FOUND THE ACTUAL LOCATIONS ARE IN CONFLICT WITH THE PROPOSED WORK.

11. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48-HOURS PRIOR TO STARTING CONSTRUCTION NEAR THEIR FACILITIES AND SHALL COORDINATE THE WORK WITH COMPANY REPRESENTATIVE. (NOTE: CURRENT PHONE NUMBERS OF ALL AFFECTED UTILITIES SHALL BE SHOWN ON THE PLANS.)

12. NO WORK SHALL BE COMMENCED UNTIL ALL PERMITS HAVE BEEN OBTAINED FROM THE CITY AND OTHER APPROPRIATE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE CITY OF MURRIETA AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING CONSTRUCTION SO THAT INSPECTION MAY BE PROVIDED. PHONE (909) 698-1040

13. WHERE TRENCHES ARE WITHIN CITY EASEMENTS, A SOILS REPORT PERFORMED BY A QUALIFIED SOILS ENGINEER IS REQUIRED. COMPACTION REPORTS SHALL BE SUBMITTED TO THE PUBLIC WORKS INSPECTOR UPON COMPLETION OF THE WORK.

14. NO REVISIONS WILL BE MADE TO THE CONSTRUCTION PLANS WITHOUT THE WRITTEN APPROVAL OF THE CITY ENGINEER NOTED WITHIN THE REVISION BLOCK ON THE APPROPRIATE SHEET OF THE PLANS.

15. ACCESS FOR FIRE AND OTHER EMERGENCY VEHICLES SHALL BE MAINTAINED TO THE PROJECT SITE AT ALL TIMES DURING THE CONSTRUCTION.

16. REVISIONS OF THESE PLANS MAY BE REQUIRED IF THE PROPOSED IMPROVEMENTS ARE NOT CONSTRUCTED PRIOR TO THE EXPIRATION OF THE IMPROVEMENT AGREEMENT.

## CAST-IN-PLACE CONCRETE PIPE (C.I.P.P.) REQUIREMENTS

1. THE SUPPLYING BATCH PLANT MAY BE INSPECTED BY THE CITY OF MURRIETA INSPECTOR AT THE START OF CONSTRUCTION AND THEREAFTER TO OBSERVE PLANT OPERATIONS, BATCH WEIGHTS AND OTHER CONCRETE CONTROL MEASURES.

2. CONCRETE MIXES SHALL NOT HAVE LESS THAN SIX (6) SACKS OF PORTLAND CEMENT PER C.Y. - 4000 PSI MINIMUM. FOR COVER GREATER THAN 12' & OR ULTIMATE HEAD ABOVE PIPE GREATER THAN 2 FEET. USE 5000 PSI MINIMUM.

3. CONCRETE MIX DESIGN SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL PRIOR TO START OF CONSTRUCTION.

4. A 140° SEGMENT OF THE C.I.P.P. INVERT SHALL BE THICKENED 2 INCHES IN WALL THICKNESS AS "SACRIFICIAL CONCRETE" TO RESIST ABRASION. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE AT LEAST F'c=5000 psi.

5. THE CONTRACTOR SHALL ALLOW THE CITY INSPECTOR INTO PIPE WHILE UNDER CONSTRUCTION & ROD FOR ALL THICKNESS AT A MINIMUM.

6. AT THE END OF ALL POURS & THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL INSTALL #4 DOWELS 24" LONG 12" INTO THE LAST POUR AT 12" CENTERS AROUND THE CIRCUMFERENCE OF THE C.I.P.P.

## GRADING NOTES

1. ALL GRADING SHALL CONFORM TO THE CITY OF MURRIETA GRADING CODE AND MANUAL.

2. MINIMUM BUILDING PAD AND DRAINAGE SWALE SLOPE SHALL BE 1%. DRAINAGE SWALES SHALL BE A MINIMUM OF 0.2' DEEP AND BE CONSTRUCTED A MINIMUM OF 2' FROM THE TOP OF CUT OR FILL SLOPES.

3. MAXIMUM CUT AND FILL SLOPE = 2:1

4. PROVIDE 4' WIDE BY 1' HIGH BERM OR EQUIVALENT ALONG THE TOP OF ALL FILL SLOPES OVER 5' HIGH.

## GRADING VOLUME

EARTHWORK VOLUME IS CALCULATED USING PRISMOIDAL OR SLICE METHOD BETWEEN THE EXISTING & PROPOSED SURFACES, BASED ON THE SOILS REPORT, A SHRINKAGE FACTOR OF 15% IS APPLIED. VOLUME OF THE PROPOSED INFRASTRUCTURES WERE ALSO CONSIDERED. THESE VALUES ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR HIS BID EARTHWORK VOLUMES AND OTHER REMEDIAL GRADING RECOMMENDED BY THE SOILS ENGINEER.

VOLUME OF STORMDRAIN=17,100 CY
RAW CUT=62,430 CY
TOTAL CUT=79,530 CY
AVAILABLE ONSITE MATERIALS FOR FILLING AFTER 15% SHRINKAGE FACTOR IS APPLIED=67,600 CY
RAW FILL=67,600 CY
EXPORT / IMPORT = 0 CY
REMEDIAL GRADING = LUMP SUMP

## GRADING NOTES

5. ALL GRADING SHALL BE DONE UNDER THE SUPERVISION OF A COMPETENT SOILS ENGINEER WHO SHALL CERTIFY THAT ALL FILL HAS BEEN PROPERLY PLACED AND WHO SHALL SUBMIT A FINAL COMPACTION REPORT FOR ALL FILLS OVER 1' DEEP.

6. A REGISTERED CIVIL ENGINEER SHALL SUBMIT TO THE CITY ENGINEERING DEPARTMENT WRITTEN CERTIFICATION OF COMPLETION OF ROUGH GRADING IN ACCORDANCE WITH THE APPROVED GRADING PLAN PRIOR TO ISSUANCE OF THE BUILDING PERMIT. CERTIFICATION SHALL BE TO LINE, GRADE, ELEVATION AND LOCATION OF CUT FILL SLOPES.

7. PROVIDE A BROW DITCH, DESIGNED TO HANDLE 100 YR. Q STORM FLOWS, ALONG TOP CUT OF SLOPE.

8. ALL GRADING SHALL BE DONE IN CONFORMANCE WITH RECOMMENDATIONS OF THE PRELIMINARY SOILS INVESTIGATION BY T.H.E. SOILS CO., INC, DATED APRIL 27, 2007; NOVEMBER 25, 2008; SEPTEMBER 7, 2011 AND ANY FUTURE UPDATES. TWO SETS OF THE FINAL COMPACTION REPORT SHALL BE SUBMITTED TO THE ENGINEERING DEPARTMENT WHICH SHALL INCLUDE FOUNDATION DESIGN RECOMMENDATION AND CERTIFICATION THAT GRADING HAS BEEN DONE IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PRELIMINARY SOILS REPORT.

9. THE CONTRACTOR SHALL NOTIFY THE CITY OF MURRIETA ENGINEERING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF REQUESTING FINISH LOT GRADE AND DRAINAGE INSPECTION. THIS INSPECTION MUST BE APPROVED PRIOR TO BUILDING PERMIT FINAL INSPECTION FOR EACH LOT.

10. CUT SLOPES EQUAL TO OR GREATER THAN 5' IN VERTICAL HEIGHT AND FILL SLOPES EQUAL TO OR GREATER THAN 3' IN VERTICAL HEIGHT SHALL BE PLANTED WITH GROUND COVER TO PROTECT THE SLOPE FROM EROSION AND INSTABILITY IN ACCORDANCE WITH THE CITY GRADING CODE PRIOR TO THE APPROVAL OF FINAL INSPECTION.

11. NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAD BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL, AND OTHER DELETERIOUS MATERIAL.

12. IF STEEP SLOPING TERRAIN OCCURS UPON WHICH FILL IS TO BE PLACED, IT MUST BE CLEARED, KEYED, AND BENCHED INTO FIRM NATURAL SOIL FOR FULL SUPPORT. PREPARATION SHALL BE APPROVED BY A REGISTERED ENGINEER PRIOR TO PLACEMENT OF FILL MATERIAL.

13. DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES TEMPORARY DRAINAGE CONTROL SHOULD BE PROVIDED TO PREVENT PONDING WATER AND DAMAGE TO ADJACENT PROPERTIES.

14. DUST SHALL BE CONTROLLED BY WATER AND OTHER APPROVED METHODS.

15. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING OPERATIONS.

16. STABILITY CALCULATIONS WITH A FACTOR OF AT LEAST ONE AND FIVE TENTHS (1.5) SHALL BE SUBMITTED BY A SOILS ENGINEER TO THE CITY ENGINEERING DEPARTMENT FOR CUT AND FILL SLOPES OVER 30' IN VERTICAL HEIGHT.

17. A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR SHALL SUBMIT CERTIFICATION OF BUILDING PAD ELEVATION. WHERE SPECIFIC ELEVATIONS ARE REQUIRED, THE ELEVATION (WITH RESPECT TO MEAN SEA LEVEL) SHALL BE GIVEN. IF AN ELEVATION WITH RESPECT TO ADJACENT GROUND SURFACE IS REQUIRED, THE ACTUAL DISTANCE ABOVE THE ADJACENT GROUND SHALL BE GIVEN.

18. EROSION CONTROL: ALL GRADED SLOPES SHALL BE PLANTED WITH AN APPROVED GROUND COVER. SLOPES OVER 15' IN VERTICAL HEIGHT, IN ADDITION TO GROUND COVER, SHALL BE PLANTED WITH APPROVED TREES, SHRUBS, OR COMBINATION, 15' ON CENTER. SLOPES OF 4' IN VERTICAL HEIGHT SHALL HAVE PERMANENT IRRIGATION SYSTEMS WITH BACKFLOW PREVENTION DEVICES PER U.P.C., CHAPTER 10.R.

19. FINISH GRADE SHALL BE SLOPED AWAY FROM ALL EXTERIOR WALLS AT NO LESS THAN 2% PER FOOT FOR A MINIMUM OF 3 FEET.

20. NO OBSTRUCTION OF FLOOD PLAINS OR NATURAL WATER COURSES SHALL BE PERMITTED.

21. ALL PROPERTY CORNERS SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION / GRADING.

22. WORK MAY NOT START UNTIL PERMITS HAVE BEEN OBTAINED.

23. PURSUANT TO THE CITY OF MURRIETA MUNICIPAL CODE 15.52.150, GRADING AND EQUIPMENT OPERATION WITHIN ONE-HALF (1/2) MILE OF A STRUCTURE FOR HUMAN OCCUPANCY SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM, NOR ON SUNDAY AND FEDERAL HOLIDAYS WITHOUT THE APPROVAL OF THE CITY ENGINEER.

24. APPROVAL OF THESE PLANS BY THE CITY OR ITS AGENT DOES NOT RELIEVE THE APPLICANT AND HIS ENGINEER FROM THE RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE APPROPRIATE PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR REVIEW APPROVAL.

25. SOURCE OF TOPOGRAPHY: A PHOTOGRAMMETRIC AERIAL SURVEY CONDUCTED BY VERTICAL MAPPING RESOURCES, INC. LAST JANUARY 14, 2003 & SUPPLEMENTED BY FIELD SURVEY BY EXCEL ENGINEERING USING CONVENTIONAL METHODS.

26. SEPARATE HAUL PERMIT IS REQUIRED FOR ANY IMPORT/EXPORT MATERIAL TO/FROM THE PROJECT SITE.

27. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY LANDSCAPE ARCHITECT AT LEAST 48 HOURS PRIOR TO BEGINNING OF ANY CONSTRUCTION. ALSO, THE CITY LANDSCAPE ARCHITECT SHALL BE NOTIFIED AT LEAST 48 HOURS BEFORE ANY CONCRETE CURB POURS ARE MADE. THE CITY LANDSCAPE ARCHITECT'S PHONE NUMBER IS (951) 698-0122.

28. THE APPLICANT IS HEREBY NOTICED THAT THEY MUST COMPLY WITH ALL STATE AND FEDERAL ENDANGERED SPECIES LAW. THE CITY OF MURRIETA IS NOT RESPONSIBLE FOR ANY SUCH VIOLATION OF STATE OR FEDERAL ENDANGERED SPECIES LAW DUE TO THE APPLICANT'S NON-COMPLIANCE.

29. IN CASE OF EMERGENCY, 24 HOUR CONTACT: KEN BURRIS 951-453-3181

## CONSTRUCTION ITEMS*

| ITEM | STANDARD DRAWINGS | QUANTITY |
|---|---|---|
| (1) DOUBLE 7'X14' REINFORCED CONCRETE BOX CIPB | CALTRANS D81 | 895 LF |
| (2) 12.5'X28' SINGLE REINFORCED CONCRETE BOX CIPB | RCFC&WCD BX401 | 30 LF |
| (3) 7'X28' TO 12.5'X28' TRANSITION STRUCTURE CIPB | RCFC&WCD TS304 | 2 EA |
| (4) 36" RCP CLASS IV OR 2000D | RINKER OR EQUIVALENT | 925 LF |
| (5) JUNCTION STRUCTURE #1 | RCFC&WCD JS226 | 3 EA |
| (6) JUNCTION STRUCTURE #2 | RCFC&WCD JS227 | 1 EA |
| (7) MANHOLE FOR THE TRIPLE 36" RCP | RCFC&WCD MH253 | 1 EA |
| (8) 18" RCP CLASS IV OR 2000D | RINKER OR EQUIVALENT | 80 LF |
| (9) INSTALL CLEARWATER DRAIN INSERTS INTO EXISTING CATCH BASIN | CLEARWATER OR EQUIVALENT | 4 EA |
| (10) 36" RCP CLASS IV OR 2000D (FOR INTERIM WATER QUALITY BASINS) | RINKER OR EQUIVALENT | 55 LF |
| (11) 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA | RCFC&WCD W827 | 1 EA |
| (12) CONCRETE APRON W/ CUTOFF WALL | SEE SHEET 8 / CALTRANS D86 | 1,600 SF |
| (13) NOT USED | | |
| (14) UTILITY TRENCH SURFACE RESTORATION | C.O.M. STD DWG 212a | 990 SF |
| (15) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS | RCP TEK 11-3 | 1,690 SF |
| (16) CONCRETE DITCH PER COM DWG 415B | C.O.M. STD DWG 415B | 150 LF |
| (17) RIPRAP GROUTED BERM<br>T=4.3' ROCK CLASS=1 TON<br>2.15' FILTER<br>BLANKET UPPER LAYER=TYPE B<br>LOWER LAYER=SAND | | 380 CY |
| (18) RIPRAP SLOPE PROTECTION<br>T=4.3' ROCK CLASS=1 TON<br>2.15' FILTER<br>BLANKET UPPER LAYER=TYPE B<br>LOWER LAYER=SAND | | 1,080 CY |
| (19) RETAINING WALL (TYPE 1) | CALTRANS B3-1 | 12,300 SF |
| (20) SHEET PILE RETAINING WALL WITH MATCHING CAP | SEE SHEETS 19 & 26 | 6,170 SF |
| (21) TEMPORARY FLOOD CONTROL WALL | SEE SHEETS 20 & 27 | 110 SF |
| (22) 6" AC BERM, TYPE A | CALTRANS A87B | 35 LF |
| (23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT | GREENFIX AMERICA CFS072R | 17,500 SF |
| (24) NOT USED | | |
| (25) 24" RCP CLASS IV OR 2000D (FOR TEMP. INLET ON MADISON AVE) | RINKER OR EQUIVALENT | 490 LF |
| (26) TEMPORARY STEEL INLET PIPE WITH KRISTAR INSERT | CALTRANS D75A | 2 EA |
| (27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS | | 9 EA |
| (28) 108" CAST IN PLACE PIPE | DESIGN BUILD | 1,970 LF |
| (29) MANHOLE #4 | RCFC&WCD MH254 | 1 EA |
| (30) WARPED WINGWALL | CALTRANS D86A | 1 EA |
| (31) WARPED WINGWALL | CALTRANS D86B | 1 EA |
| (32) SINGLE 7'X10' REINFORCED CONCRETE BOX CIPB | RCFC&WCD BX401 | 115 LF |
| (33) CONCRETE BULKHEAD | RCFC&WCD M816 | 2 EA |
| (34) EARTHEN CHANNEL | SEE SHEET 14 & 17 | 680 LF |
| (35) 30" RCP CLASS IV OR 2000D | RINKER OR EQUIVALENT | 60 LF |
| (36) 36" RCP CLASS IV OR 2000D (STUBS FOR ST. INLETS) | RINKER OR EQUIVALENT | 16 LF |
| (37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE | | 3,400 SF |
| (38) PIPE ENTRANCE TO EARTH CHANNEL | C.O.M. STD DWG 422A | 2 EA |
| (39) RIPRAP ENERGY DISSIPATOR<br>T=5.4' ROCK CLASS=2 TON<br>2.7' FILTER BLANKET<br>UPPER LAYER=TYPE B<br>LOWER LAYER=SAND | C.O.M. STD DWG 446A | 750 CY |
| (40) RIPRAP ENERGY DISSIPATOR<br>T=2.0' ROCK CLASS=LIGHT<br>1.00' 1/2" GRAVEL FILTER BLANKET | C.O.M. STD DWG 446A | 60 CY |
| (41) BLACK VINYL COATED FABRIC CHAINLINK FENCE | RCFC&WCD M801/ SEE SHEET 23 | 2,760 LF |
| (42) BLACK VINYL COATED FABRIC CHAINLINK GATE | RCFC&WCD M801/ SEE SHEET 23 | 3 EA |
| (43) INTERIM WATER QUALITY BASIN | SEE SHEET 18 | 3 EA |
| (44) 36" CMP RISER | SEE SHEET 18 | 3 EA |
| (45) 4-WIRE BARBED WIRE FENCE | RCFC&WCD M818/ SEE SHEET 23 | 820 LF |
| (46) TYPE A METAL HAND RAILING | APWA 606-1/ SEE SHEET 23 | 100 LF |
| (47) REMOVE AND REPLACE EXISTING FENCE AS NECESSARY * SEE DEMOLITION ITEMS ON SHEET 3. | | |
| (48) TEMPORARY FLOOD EARTHEN BERM | SEE SHEET 20 | 400 LF |
| (49) RIPRAP BOTTOM OF WALL PROTECTION<br>T=2.7" ROCK CLASS=1/4 TON<br>1.35" FILTER<br>BLANKET UPPER LAYER=3/4"<br>LOWER LAYER=SAND | | 60 CY |
| (50) STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS. | | 1 L.S. |

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
140 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1850

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629 EXP. DATE: 12/31/12
2/28/11 DATE

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 33 FEET EAST OF POWER POLE #18307, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 2 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

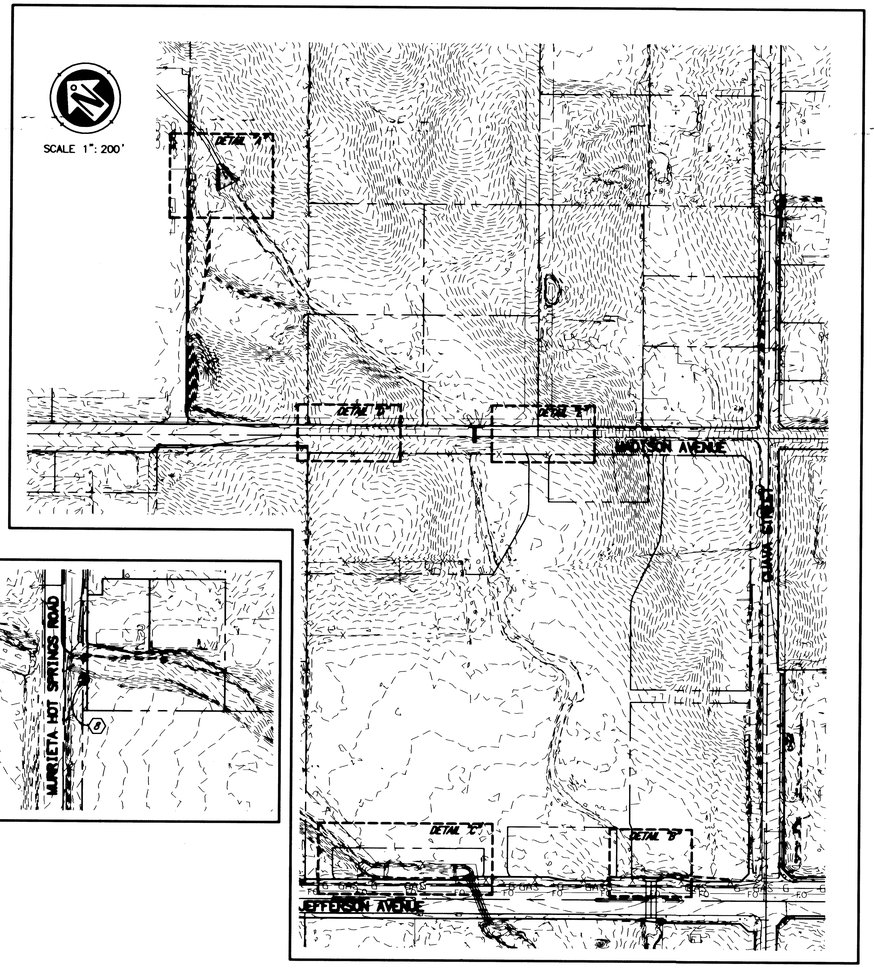
IMPROVEMENT PLAN FOR LINE D & D-1

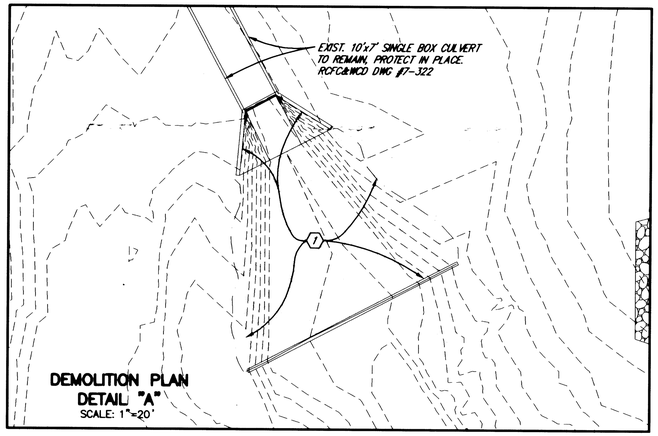
APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

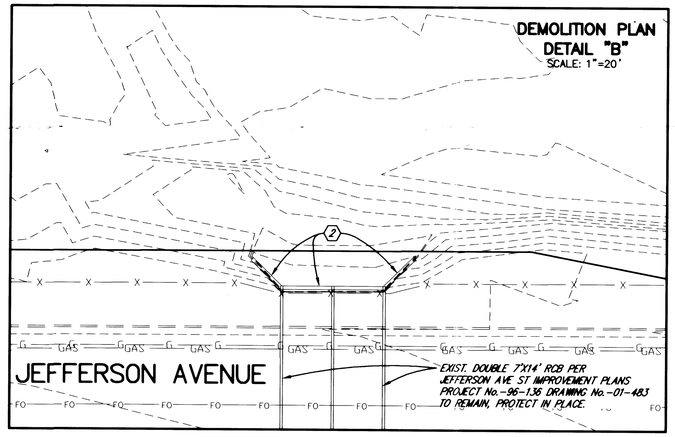
DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-104

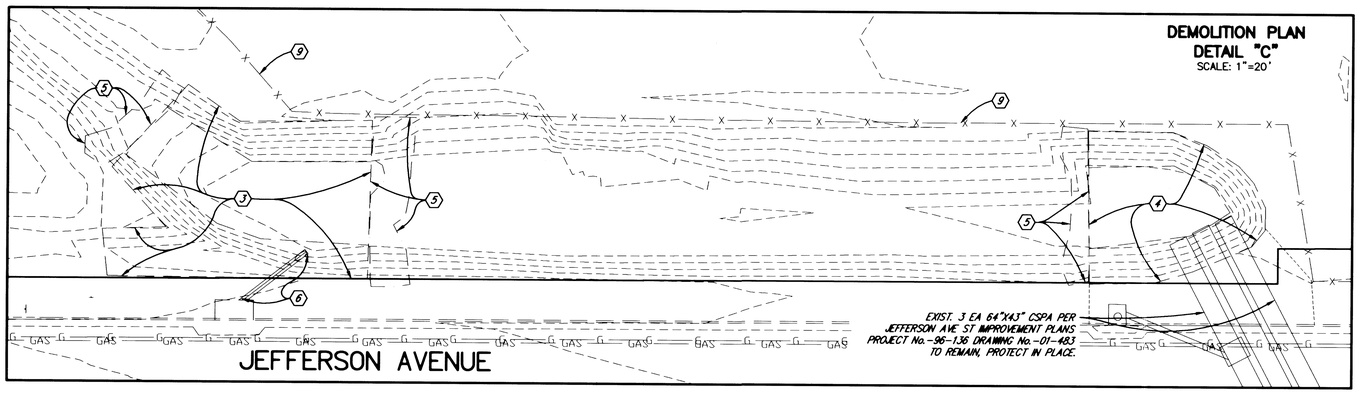
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 05550

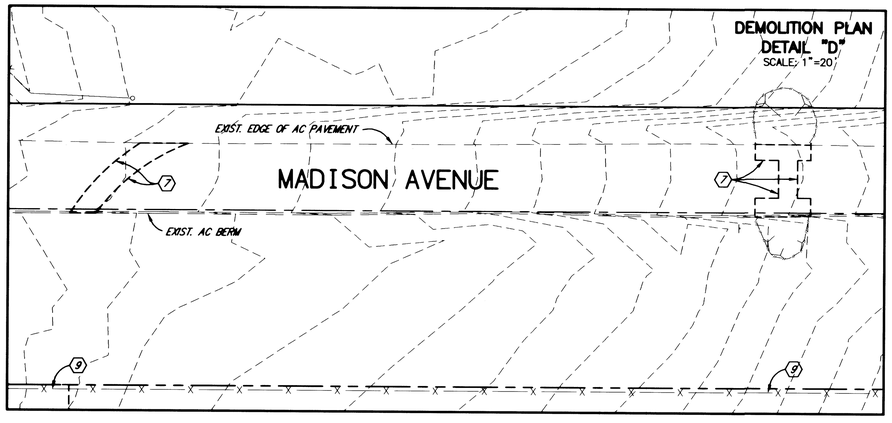
DRAWING NUMBER
11-104
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 05550

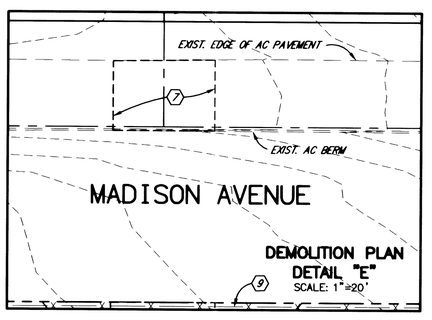



| DEMOLITION ITEMS | QUANTITY |
|---|---|
| (1) REMOVE EXISTING HEADWALL, SILL AND RIPRAP. RIPRAP TO BE REUSED ELSEWHERE ON SITE AS POSSIBLE. | 1 LS |
| (2) REMOVE EXISTING HEADWALL. | 1 EA |
| (3) REMOVE EXISTING CONCRETE SPILLWAY. | 1 EA |
| (4) REMOVE EXISTING CONCRETE FOR INLET STRUCTURE. | 1 EA |
| (5) REMOVE EXISTING RIPRAP. RIPRAP TO BE REUSED ELSEWHERE ON SITE AS POSSIBLE. | 1 LS |
| (6) REMOVE EXISTING 18" RCP PIPE. | 23 LF |
| (7) SAWCUT AND REMOVE AC PAVEMENT PER C.O.M. STD DWG 212a. | 990 SF |
| (8) REMOVE EXISTING Casuarinas equisetifolia – HORSETAIL TREE AND STUMP. SEE SHEET 9 FOR CLARITY. | 1 EA |
| (9) REMOVE EXISTING FENCE AS NECESSARY FOR CONSTRUCTION. TO BE REPLACED UPON COMPLETION. | 1 LS |

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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PH (760)745-8118 FX (760)745-1290

PREPARED BY
ROBERT D. DENTINO 9/22/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

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BENCH MARK
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ELEVATION = 1118.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 3 | | 27 |

DEMOLITION PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-105

DRAWING NUMBER 11-105

DRAWING NUMBER 11-105

SAFETY PARTS • NEW HOPE, MINNESOTA

MATCHLINE SEE SHEET 5 FOR CONTINUATION

MATCHLINE SEE SHEET 6 FOR CONTINUATION

JEFFERSON AVE

MADISON AVE

GUAVA STREET

LINE D BRANCH 01 SEE SHEET 9

LINE D BRANCH 01 SEE SHEET 10

LINE D-1 SEE SHEET 12

LINE D-1 SEE SHEETS 12 & 13

LINE D JUNCTION 02 SEE SHEET 16 FOR PLAN AND PROFILE

LINE D JUNCTION 01 SEE SHEET 16 FOR PLAN AND PROFILE

BASIN 1

BASIN 2

APN 909-170-023

APN 910-410-015

APN 910-410-017

APN 910-410-014

APN 910-410-013

APN 910-410-018

APN 910-140-064

APN 910-140-063

APN 910-140-081

APN 910-140-040

APN 909-060-022

APN 910-410-017

APN 910-140-08

LIMITS OF GRADING

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

50' WIDE LINE D EASEMENT

30' WIDE LINE D1 EASEMENT

EXIST. GASLINE PROTECT IN PLACE

EXIST. WATER AIR VAC PROTECT IN PLACE

EXIST. CAUTION HIGH PRESSURE GAS LINE SIGN

EXIST. TELEPHONE LINE

EXIST. SEWERMAIN

EXIST. WATERMAIN

EXIST. FIBER OPTIC

EXIST. GASLINE

FUTURE R/W

EDGE OF EXISTING 20' WIDE AC PAVEMENT

55.00' 55.00' 110.00'

50.00' 30.00' 80.00'

30.00' 30.00' 60.00'

## CONSTRUCTION NOTES

(14) UTILITY TRENCH SURFACE RESTORATION PER C.O.M. STD DWG 212a

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS07DR

(43) INTERIM WATER QUALITY BASIN, SEE SHEET 18.

(47) REMOVE AND REPLACE EXISTING FENCE AS NECESSARY.

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

GRADING NOTE: NO REMEDIAL GRADING IS REQUIRED IN THE FILL AREAS. REMEDIAL GRADING WILL BE REQUIRED BY THE SOIL ENGINEER TO STABILIZED THE PROPOSED LINE D & D1 STRUCTURES ONLY.

SCALE 1": 50'

0 50 100 150 200

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1050

PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629 EXP. DATE: 12/31/12
9/28/11 DATE

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
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ELEVATION = 1118.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

SHEET 4 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

GRADING PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS Patrick A Thomas DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-106

DRAWING NUMBER 11-106

DRAWING NUMBER
SARCO PRODUCTS • NEW HOPE, MINNESOTA

APN 909-170-022

APN 909-170-023

JEFFERSON AVE

MADISON AVE

APN 910-410-011
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

APN 910-410-009
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

APN 910-140-044

APN 910-410-019

APN 910-410-017

APN 910-410-012

APN 910-140-065

TEMPORARY FLOOD CONTROL WALL AND BERM. SEE SHEET 20

EXIST. SEWER MAN 84+00

EXIST. WATERMAIN

EXIST. FIBER OPTIC

EXIST. GAS LINE

10.25' WIDE MITIGATION EASEMENT

23.50' WIDE MITIGATION EASEMENT

20.50' WIDE MITIGATION EASEMENT

50' WIDE LINE D EASEMENT

LIMITS OF GRADING

SEE SHEET 15

SEE SECTION AT BOTTOM LEFT OF THIS SHEET

LINE ST-01
SEE SHEET 15

20' WIDE LINE ST-01 EASEMENT

LINE ST-01 EASEMENT

LIMITS OF GRADING. SEE BERM DETAIL THIS SHEET.

55.00' 55.00'

110.00'

RETAINING WALL 02 SEE SHEET 19

TURF BLOCK ACCESS ROAD

LINE D EASEMENT

10' WIDE LINE D EASEMENT

RETAINING WALL 01 - SEE SHEET 19
SEE SHEET 23 FOR FENCE PLANS

LIMITS OF GRADING

DG ACCESS ROAD VEHICULAR TURN AROUND

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

MAINTENANCE ACCESS EASEMENT

70.00 FL

12' WIDE DG ACCESS ROAD

FOR GRADING DETAILS IN THIS AREA, SEE SHEET 8.

LINE D JUNCTION 03
SEE SHEET 16 FOR PLAN AND PROFILE

LINE D
BRANCH 02
SEE SHEET 11

LINE D
BRANCH D1
SEE SHEET 10

30' WIDE LINE D EASEMENT

50' WIDE LINE D EASEMENT

LIMITS OF GRADING

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

EXIST. FIRE HYDRANT PROTECT IN PLACE

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

EDGE OF EXISTING 20' WIDE AC PAVEMENT

EXIST. 3 EA 36" CMP DRAINS TO REMAIN, PROTECT IN PLACE

30.00' 30.00'

60.00'

50.00' 30.00'

80.00'

20'±

MATCHLINE SEE SHEET 6 FOR CONTINUATION

MATCHLINE SEE SHEET 4 FOR CONTINUATION

3'
APN 910-410-009
APN 910-410-012
1' HIGH BERM PER C.O.M. STD DWG 413A, SECTION B-B
2:1 SLOPE
PROPERTY LINE
SECTION 1-1
NOT TO SCALE

DAYLIGHT/LIMITS OF GRADING
EXIST. GROUND
1'
2:1
2:1
BERM DETAIL
NOT TO SCALE

SCALE 1": 50'
0 50 100 150 200

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

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## CONSTRUCTION NOTES

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFSD72R

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(37) 6" D.C. ACCESS ROAD OVER 90% COMPACTED NATIVE

(38) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER ROP TEK 17-3

(47) REMOVE AND REPLACE EXISTING FENCE AS NECESSARY.

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Engineer of work _____ Date _____
RCE _____ EXP. _____

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40 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1080

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/3/11
BUREAU VERITAS
R.C.E. NO. 48819

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

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| ENGINEER OF WORK | | | | CITY APPROVAL | |

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ELEVATION = 1119.00 NAVD

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 5 | | 27 |

GRADING PLAN FOR
LINE D & D-1

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: ____
CHKD BY: ____
FIELD BK: ____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-107

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

11-107

MATCHLINE SEE SHEET 7 FOR CONTINUATION

MATCHLINE SEE SHEET 5 FOR CONTINUATION

MATCHLINE SEE SHEET 4 FOR CONTINUATION

APN 910-140-066

APN 910-140-031

APN 910-140-065

APN 910-140-032

APN 910-140-057

APN 910-140-064

APN 910-140-020
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

APN 910-140-058

APN 910-140-062

APN 910-140-061

APN 910-140-060

APN 910-140-059

LINE D-1
SEE SHEET 14

LINE D-1
SEE SHEET 13

BASIN 3
89.00
87.00

LINE D1 EASEMENT

CHANNEL LATERAL D1
SEE SHEET 16 FOR
PLAN AND PROFILE

LIMITS OF VEGETATION
PRESERVATION &
PROPOSED LIMIT OF
CONSTRUCTION ACTIVITIES

LIMITS OF GRADING

20' WIDE MITIGATION EASEMENT

STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS.

LIMITS OF GRADING.
SEE BERM DETAIL THIS SHEET

12' WIDE TURF BLOCK ACCESS ROAD

FUTURE R/W

78' ULTIMATE NONAME
ST RIGHT OF WAY

39.00'

2:1 SLOPE

GRADING NOTE: NO REMEDIAL GRADING IS REQUIRED IN THE FILL AREAS. REMEDIAL GRADING WILL BE REQUIRED BY THE SOIL ENGINEER TO STABILIZED THE PROPOSED LINE D & D1 STRUCTURES ONLY.

DAYLIGHT/LIMITS OF GRADING

EXIST. GROUND

1' / 2:1

BERM DETAIL
NOT TO SCALE

SCALE 1": 50'

0 50 100 150 200

## CONSTRUCTION NOTES

(12) CONCRETE APRON/RAMP W/ CUTOFF WALL PER CALTRANS D86

(17) RIPRAP GROUTED BERM
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND

(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS072R

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(28) 108" CAST IN PLACE PIPE, DESIGN BUILD

(31) WARPED WINGWALL PER CALTRANS D86B

(34) EARTHEN CHANNEL, SEE SHEET 17.

(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

(38) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER RCP TEK 11-3

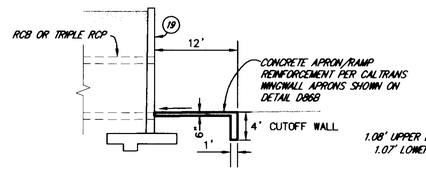
(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A
T=1.0' ROCK CLASS=#2 BACKING
0.50' DG FILTER BLANKET

(41) BLACK VINYL COATED FABRIC CHAINLINK FENCE PER RCFC&WCD M801/ SEE SHEET 23

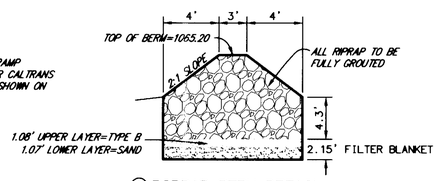
(42) BLACK VINYL COATED FABRIC CHAINLINK GATE PER RCFC&WCD M801/ SEE SHEET 23

(43) INTERIM WATER QUALITY BASIN, SEE SHEET 18.

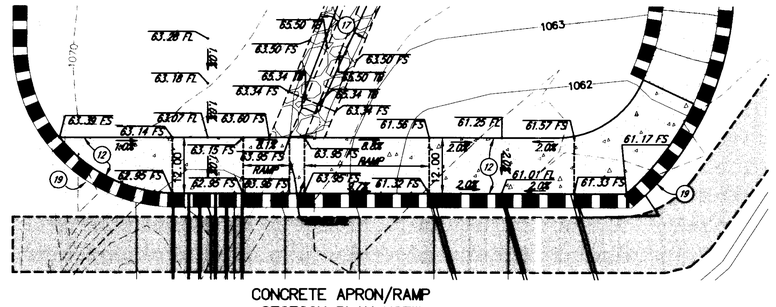
(50) STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS.




(12) CONCRETE APRON/RAMP SECTION DETAIL
NOT TO SCALE




(17) RIPRAP BERM DETAIL
NOT TO SCALE




CONCRETE APRON/RAMP
SECTION PLAN VIEW
SCALE 1":15'

"AS BUILT"
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Engineer of work — Date

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1050

PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629 — DATE 9/22/11 — EXP. DATE: 12/31/12

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800-422-4133
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BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 6 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING PLAN FOR
LINE D & D-1

APPROVED
PATRICK THOMAS — DIRECTOR OF PUBLIC WORKS/CITY ENGINEER — R.C.E. 44223 — DATE: 10/12/2011 — EXP. DATE: 08/30/13

DWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

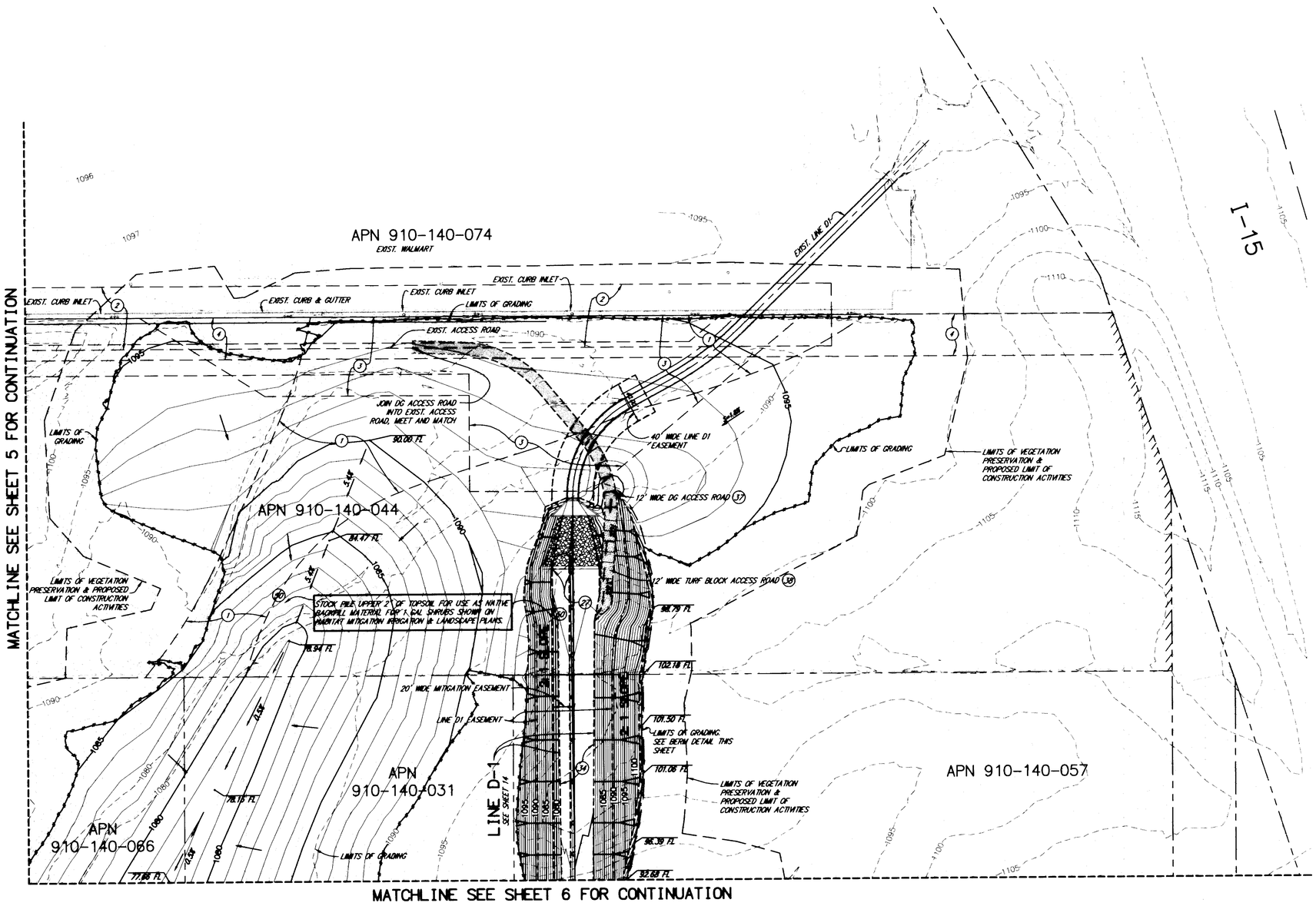
DRAWING NO. 11-108

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10362

DRAWING NUMBER 11-108

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10362




## EASEMENTS

(1) AN EASEMENT FOR FLOOD PLAIN AND RIGHTS INCIDENTAL THERETO AS SHOWN ON PARCEL MAP 11019.

(2) A NO BUILD EASEMENT BY AND BETWEEN WAL-MART STORES, INC. AND RALPH AND JEAN SOHN IN ORDER TO MEET THE YARD REQUIREMENTS OF THE UBC, APPLICABLE TO AN UNLIMITED AREA CODE BUILDING, IN THE DOCUMENT ENTITLED "DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS AND GRANTS OF EASEMENTS", RECORDED NOVEMBER 30, 1999 AS INSTRUMENT NO. 1999-522878 OF OFFICIAL RECORDS.

(3) AN IRREVOCABLE OFFER TO DEDICATE A PORTION OF SAID LAND FOR MURRIETA CREEK MDP LINE D-1 AND INCLUDING INGRESS AND EGRESS THERETO, IN FAVOR OF THE CITY OF MURRIETA, ON BEHALF OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, IN THE DOCUMENT RECORDED NOVEMBER 22, 2000 AS INSTRUMENT NO. 2000-468397 AND RE-RECORDED MAY 17, 2001 AS INSTRUMENT NO. 2001-217626, BOTH OF OFFICIAL RECORDS.

(4) AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO, GRANTED TO EASTERN MUNICIPAL WATER DISTRICT, AS SET FORTH IN THE DOCUMENT RECORDED OCTOBER 25, 2005 AS INSTRUMENT NO. 2005-0878652 OF OFFICIAL RECORDS.

## CONSTRUCTION NOTES

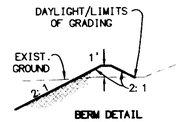
(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(34) EARTHEN CHANNEL, SEE SHEET 17.

(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

(38) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER RCP TEK 11-3

(50) STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS.




BERM DETAIL
NOT TO SCALE

SCALE 1": 50'

0 50 100 150 200

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
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PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO 9/28/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

ENGINEER OF WORK

| DATE | INITIAL | REVISION DESCRIPTION |
|---|---|---|

SHT. NO. | DATE | INITIAL | CITY APPROVAL

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**BENCH MARK**
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183017, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

SHEET 7 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

GRADING PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-109

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

DRAWING NUMBER
11-109
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

JEFFERSON AVE

LINE D JUNCTION 03 SEE SHEET 16 FOR PLAN AND PROFILE

WATER SERVICE LATERAL BY OTHERS, SEE SHEET 24 FOR DETAILS.

EXIST. WATERMAIN

EXIST. FIBER OPTIC

EXIST. GAS LINE

SEE SHEET 20 FOR TEMPORARY FLOOD CONTROL BERM AND WALL PLAN AND PROFILE. SEE SHEET 27 FOR STRUCTURAL SECTIONS.

JOIN EX. FG

EXIST. RW

ULTIMATE RW

LINE D BRANCH 02 SEE SHEET 11

LINE D BRANCH 02 CENTERLINE

LINE D BRANCH 01 SEE SHEET 10

LINE D BRANCH 01 CENTERLINE

SEE SHEET 5

2:1 SLOPE

LIMITS OF GRADING

MAINTENANCE ROAD

MAINTENANCE ACCESS EASEMENT

APN 910-410-017

(14) DG ACCESS ROAD VEHICULAR TURN AROUND

APN 910-410-011
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

PROPERTY LINE

SCALE: 1": 20'

0 20 40 60 80

## SECTION C-C
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

EXIST. GROUND
PROPOSED GROUND
PROPERTY LINE
1065.30 FS
1065.08 FS
(18) RIPRAP T=4.3' ROCK CLASS=1 TON 2.15' FILTER BLANKET UPPER LAYER=TYPE B LOWER LAYER=SAND

## SECTION D-D
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

EXIST. GROUND
PROPERTY LINE
1064.71
1064.93
1027.28
PROPOSED GROUND

## (17) RIPRAP BERM DETAIL
NOT TO SCALE

TOP OF BERM=1065.20
4' 3' 4'
2:1 SLOPE
ALL RIPRAP TO BE FULLY GROUTED
4.3'
2.15' FILTER BLANKET
1.08' UPPER LAYER=TYPE B
1.07' LOWER LAYER=SAND

## (12) CONCRETE APRON/RAMP DETAIL
NOT TO SCALE

RCB OR TRIPLE RCP
12'
CONCRETE APRON REINFORCEMENT PER CALTRANS WINGWALL APRONS SHOWN ON DETAIL D86B
4' CUTOFF WALL
6"
1'

## SECTION A-A
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

SEE SHEET 23 FOR FENCING PLAN
TOP OF WALL=1075.00
Q100 WATER EL=1072.493
2:1 SLOPE
DOUBLE 7'X14' RCB
3 EA 36"RCP
(17) RIPRAP BERM. SEE DETAIL ON THIS SHEET.
BOTTOM OF WALL
FOOTING EL
PROPOSED GROUND

SEE SHEET 23 FOR FENCING PLAN
FRONT OF WALL
TOP OF WALL=1074.00
5' MAX EXPOSED WALL
JEFFERSON AVE
CENTERLINE
BOTTOM OF WALL
FOOTING EL

## SECTION B-B
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

SEE SHEET 23 FOR FENCING PLAN
0+20.69
FS=1075.11
TOP OF WALL=1075.00
12' TURF BLOCK ACCESS ROAD
PROPERTY LINE
2:1 SLOPE
1%
1+47.38
FS=1071.38
EXIST. GROUND
BOTTOM OF WALL
PROPOSED GROUND
FOOTING EL
FL=1064.81
1+23.13
FS=1064.96
(49)

TOP OF BERM=1073.00
ULTIMATE RW
EXIST. RW
50.00'
7.00'
CENTERLINE
JEFFERSON AVE
2'
6" MIN

## CONSTRUCTION NOTES

(11) 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA PER ROFC&WCD W827

(12) CONCRETE APRON/RAMP W/ CUTOFF WALL PER CALTRANS D86. SEE SHEET 6 FOR DETAILED SPOT ELEVATION CALLOUTS.

(37) 6" D.G. ACCESS PAVEMENT OVER 90% COMPACTED NATIVE

(15) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER ROP TEK 11-3

(16) CONCRETE DITCH PER COM DWG 415B

(17) RIPRAP GROUTED BERM
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND

(18) RIPRAP SLOPE PROTECTION
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND

(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(49) RIPRAP BOTTOM OF WALL PROTECTION
T=2.7' ROCK CLASS=1/4 TON
1..35' FILTER
BLANKET UPPER LAYER=3/4"
LOWER LAYER=SAND
WIDTH FROM FACE OF WALL=5'

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1290

PREPARED BY
ROBERT D. DENTINO 9/20/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

SHEET 8 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING PLAN
DETAIL FOR LINE D

APPROVED
PATRICK THOMAS _____ DATE: 10/19/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 08/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-110

UNDERGROUND SERVICE ALERT
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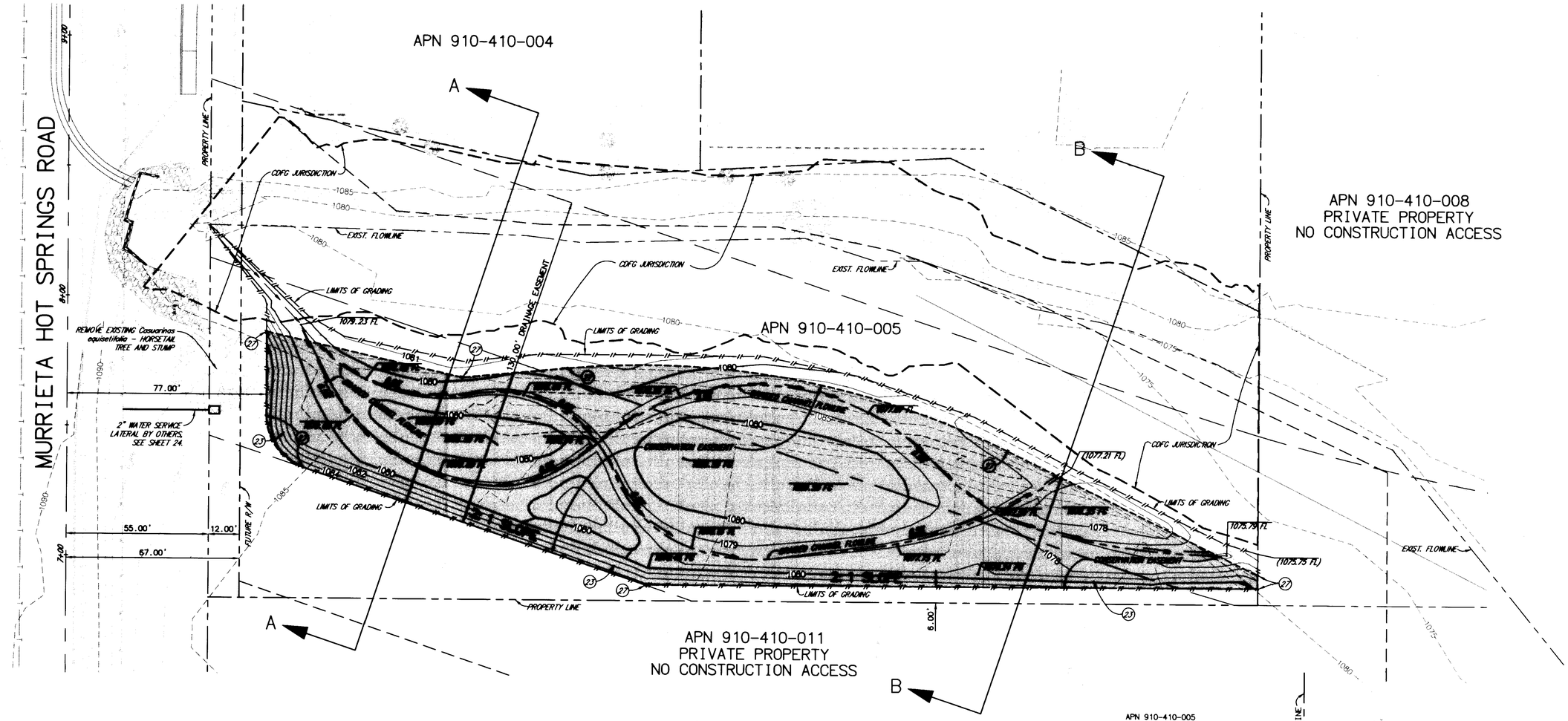
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ELEVATION = 1118.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/12/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

DRAWING NUMBER 11-110

SAFCO PRODUCTS • NEW HOPE, MINNESOTA




## LEGEND

MITIGATION AREA
= 0.500 ACRES

## CONSTRUCTION NOTES

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFSO72R. INSTALL PER MANUFACTURER'S STANDARD / GUIDELINES.

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

SCALE 1": 20'

0 20 40 60 80

## SECTION A-A

SCALE HORIZONTAL 1": 20'
VERICAL 1": 4'

## SECTION B-B

SCALE HORIZONTAL 1": 20'
VERICAL 1": 4'

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

SHEET 9 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING PLAN FOR APN 910-410-005 (MITIGATION PARCEL)

APPROVED
PATRICK THOMAS — DATE: 10/13/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: | CHKD BY: | FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-111

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

DRAWING NUMBER

11-111

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

# LINE D BRANCH 01
HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'

JEFFERSON AVENUE

REFERENCE: JEFFERSON AVE ST IMPROVEMENT PLANS PROJECT No.-96-1.16 DRAWING No.-01-483 CITY OF MURRIETA

NOTE: POTENTIAL ENCOUNTER OF GROUNDWATER PER SOILS REPORT BY T.H.E. SOILS CO. INC., DATED NOVEMBER 25, 2008. CONTRACTOR TO REFER TO THE DEWATERING SPECIFICATIONS.

EXISTING DOUBLE 7'X14' RCB PER JEFFERSON AVE ST IMPROVEMENT PLANS PROJECT No. 96-1.16 DRAWING No. 01-483 PROJECTED TO REMAIN, PROTECT IN PLACE

# JEFFERSON AVE

# LINE D BRANCH 02
SEE SHEET 11

# LINE D BRANCH 01
SEE ABOVE FOR PROFILE

BASIN 1

BASIN 2

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 1 | N48°16'34"E | -- | 37.49' | DOUBLE 14'WX7'H' RCB |
| 2 | Δ=52°16'08" | 115.00' | 104.91' | DOUBLE 14'WX7'H' RCB |
| 3 | Δ=02°51'58" | 115.00' | 5.75' | TRANSITION STRUCTURE* |
| 4 | Δ=14°30'55" | 115.00' | 29.13' | SINGLE 28'Wx11.50'H RCB* |
| 5 | Δ=02°51'58" | 115.00' | 5.75' | TRANSITION STRUCTURE* |

*SEE SHEET 25 FOR DETAILS

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 6 | Δ=17°31'07" | 115.00' | 35.16' | DOUBLE 14'WX7'H' RCB |
| 7 | N41°45'32"W | -- | 67.57' | DOUBLE 14'WX7'H' RCB |
| 8 | Δ=01°35'20" | 2000.00' | 67.10' | DOUBLE 14'WX7'H' RCB |
| 9 | N43°40'53"W | -- | 413.14' | DOUBLE 14'WX7'H' RCB |
| 10 | Δ=13°51'53" | 500.00' | 120.99' | DOUBLE 14'WX7'H' RCB |

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 11 | N57°32'45"W | -- | 47.90' | DOUBLE 14'WX7'H' RCB |
| 12 | N41°43'26"W | -- | 4.00' | 24" RCP |
| 13 | N68°10'22"W | -- | 23.01' | 36" RCP |
| 14 | N01°19'07"E | -- | 27.35' | 36" RCP |

## CONSTRUCTION NOTES

1. DOUBLE 7'X14' REINFORCED CONCRETE BOX CIPB PER CALTRANS D81
2. 12.5'X28' SINGLE REINFORCED CONCRETE BOX CIPB PER ROFC&WCD BIX401
3. 7'X28' TO 11.5'X28' TRANSISTION STRUCTURE CIPB PER ROFC&WCD TS304
5. JUNCTION STRUCTURE #1 PER ROFC&WCD JS226
10. 36" RCP CLASS IV OR 2000D - RAMKER OR EQUIVALENT
11. 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA PER ROFC&WCD M827
13. CONCRETE BULKHEAD PER ROFC&WCD M816
15. TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER ROP TEK 11-3
17. RIPRAP GROUTED BERM
    T=4.3' ROCK CLASS=1 TON
    2:1S FILTER
    BLANKET UPPER LAYER=TYPE B
    LOWER LAYER=SAND
18. RETAINING WALL (TYPE 1) PER CALTRANS B3-1
37. 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE
44. 36" CMP RISER, SEE SHEET 18

JOIN DETAIL
NOT TO SCALE

SCALE 1": 40'

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
10/13/11 DATE

"AS BUILT"
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Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629
9/28/11 DATE
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| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

SHEET 10 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

PLAN & PROFILE FOR LINE D BRANCH 01
STA 8+94.17 TO 21+18.52

APPROVED
PATRICK THOMAS, DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE: 10/12/2011 EXP. DATE: 06/30/13

DWN. BY: ____ CHKD BY: ____ FIELD BK: ____

PROJECT NO. 10-335 CIP 8157 (ISD 8832)

DRAWING NO. 11-112

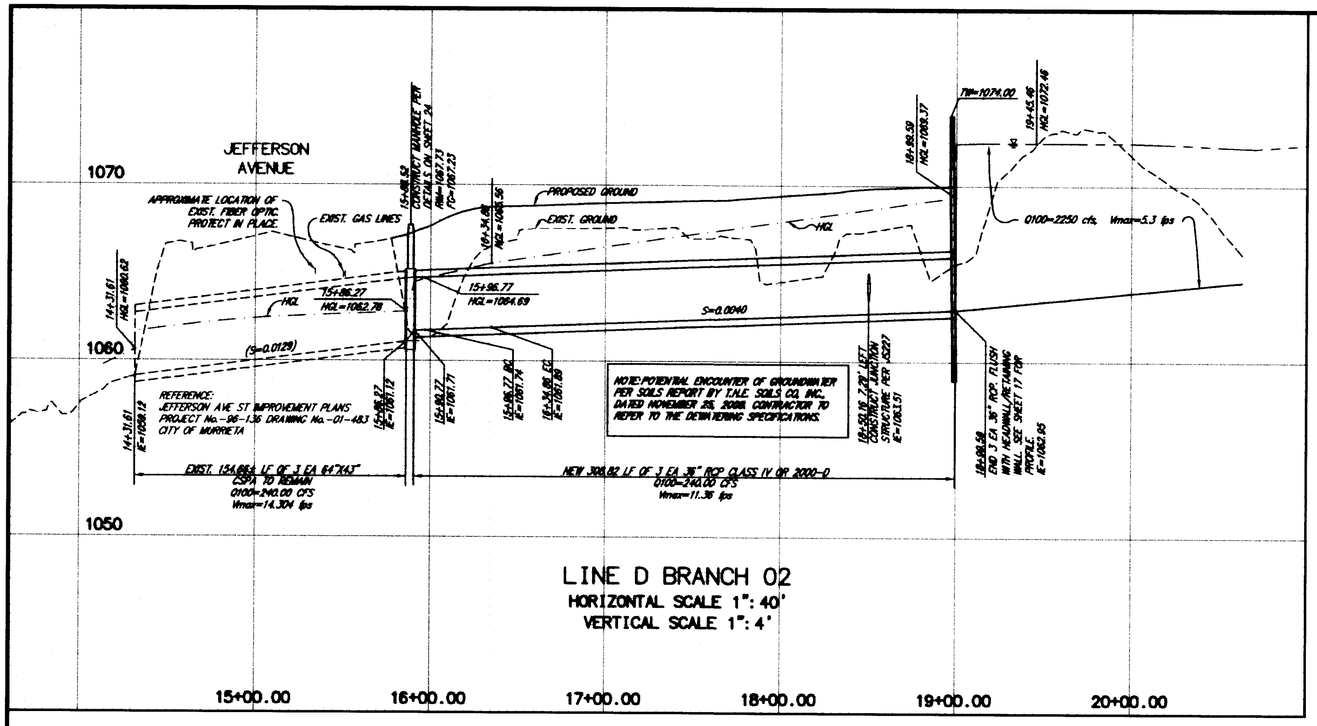
DRAWING NUMBER 11-112

DRAWING NUMBER

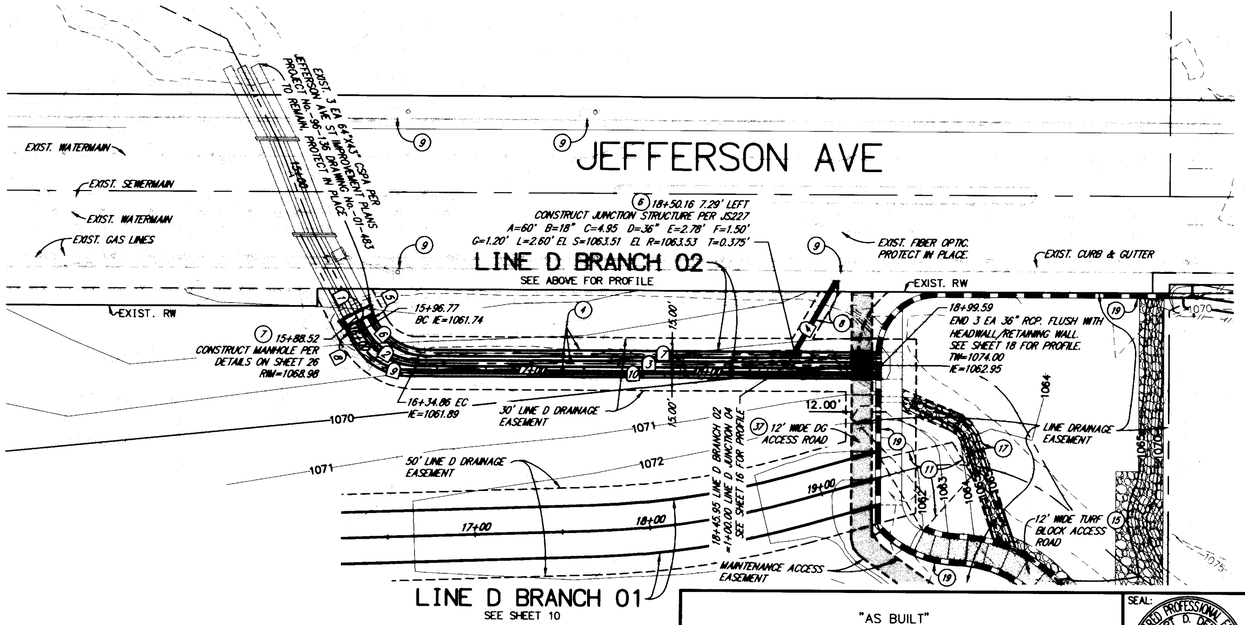
DRAWING NUMBER

SHEET INDEX NUMBERS • NEW SHEET NUMBERS

REVISED BY PART NUMBER 0355




## LINE D BRANCH 02
HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'




SCALE 1": 40'

0 40 80 120 160

## CONSTRUCTION NOTES

(4) 36" RCP CLASS IV OR 2000D BRANCH 02 - RINKER OR EQUIVALENT
(6) JUNCTION STRUCTURE #2 PER RCFC&WCD JS227
(7) MANHOLE FOR THE TRIPLE 36" RCP PER RCFC&WCD MH253
(8) 18" RCP CLASS IV OR 2000D - RINKER OR EQUIVALENT. CONNECT NEW 18" RCP TO EXISTING CURB INLET.
(9) INSTALL CLEARWATER OR EQUIVALENT DRAIN INSERTS INTO EXISTING CATCH BASIN
(11) 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA PER RCFC&WCD W827
(15) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER RCP TEK 11-3
(17) RIPRAP GROUTED BERM
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND
(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1
(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 1 | N20°36'03"E | -- | 6.00' | 36" RCP * |
| 2 | Δ=62°21'35" | 35.00' | 38.09' | 36" RCP * |
| 3 | N41°45'32"W | -- | 264.73' | 36" RCP * |
| 4 | N78°14'28"E | -- | 44.59' | 18" RCP * |
| 5 | N20°36'03"E | -- | 3.28' | 36" RCP * |
| 6 | Δ=62°21'35" | 35.00' | 38.09' | 36" RCP * |
| 7 | N41°45'32"W | -- | 259.52' | 36" RCP * |
| 8 | N20°36'03"E | -- | 8.87' | 36" RCP * |
| 9 | Δ=62°21'35" | 35.00' | 38.09' | 36" RCP * |
| 10 | N41°45'32"W | -- | 269.60' | 36" RCP * |

* CLASS IV OR 2000D

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

**UNDERGROUND SERVICE ALERT**
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

**BENCH MARK**
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183307, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
10/3/11 DATE

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/Developer of any responsibility for their accuracy.
Engineer of work ____ Date ____
RCE ____ EXP. ____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

| SCALE HORIZONTAL |
|---|
| AS NOTED |
| SCALE VERTICAL |
| AS NOTED |

PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629
9/28/11 DATE
EXP. DATE: 12/31/12

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | ENGINEER OF WORK | | | CITY APPROVAL |

SHEET 11 | SHEETS 27

**CITY OF MURRIETA**
ENGINEERING DEPARTMENT

**PLAN & PROFILE FOR LINE D BRANCH 02**
STA 14+31.61 TO 18+99.59

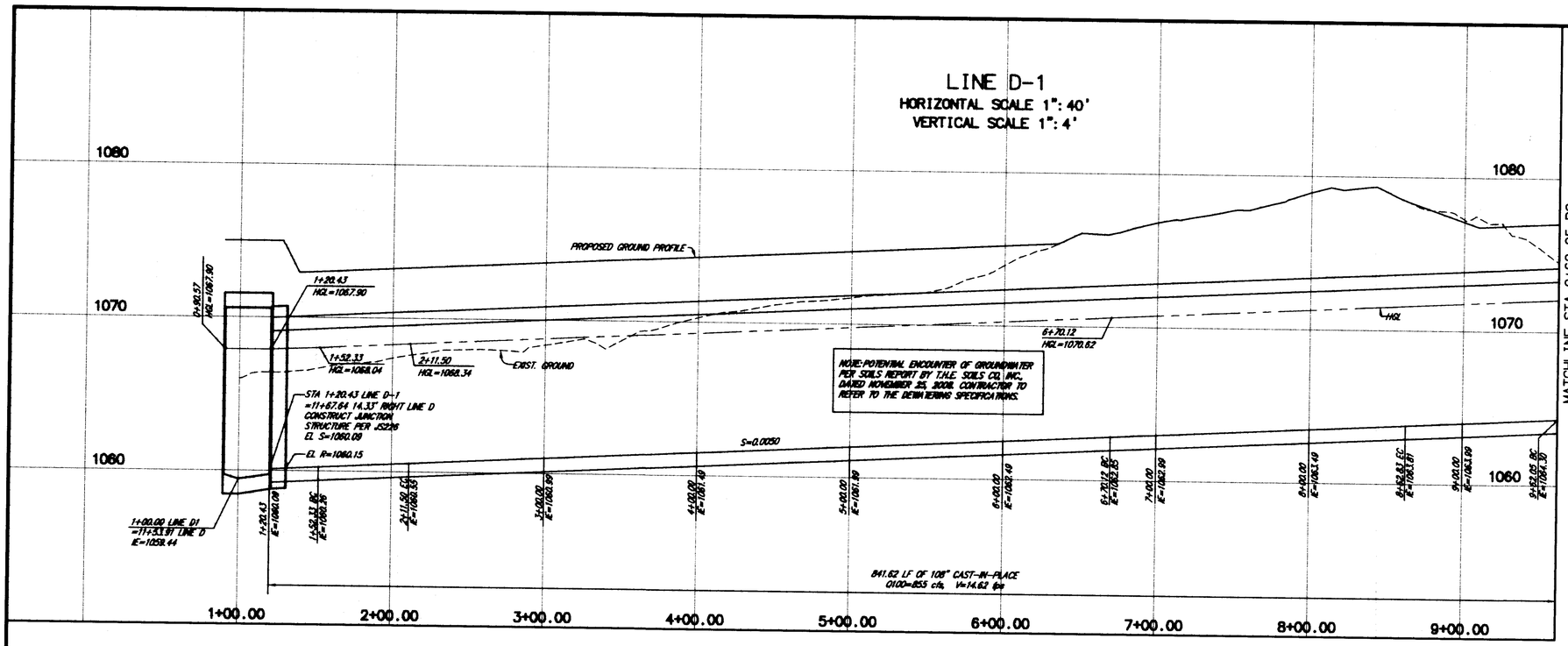
APPROVED
PATRICK THOMAS
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13
DATE: 10/12/2011

DWN BY: ____
CHKD BY: ____
FIELD BK: ____

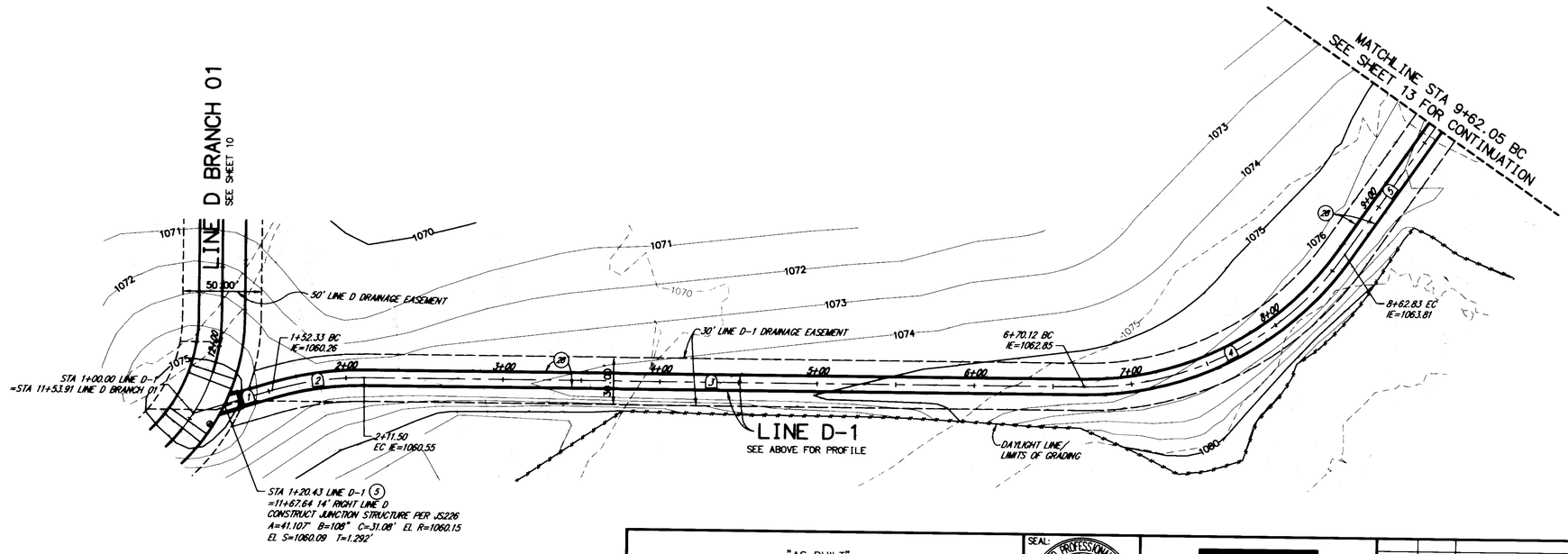
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-113

DRAWING NUMBER 11-113
SAFCO PRODUCTS • NEW HOPE, MINNESOTA

# LINE D-1
HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'




NOTE: POTENTIAL ENCOUNTER OF GROUNDWATER PER SOILS REPORT BY T.H.E. SOILS CO., INC. DATED NOVEMBER 25, 2008. CONTRACTOR TO REFER TO THE DEWATERING SPECIFICATIONS.




## CONSTRUCTION NOTES
(5) JUNCTION STRUCTURE #1 PER RCFC&WCD JS226
(28) 108" CAST IN PLACE PIPE, DESIGN BUILD

| STORM DRAIN DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| (1) | N31°17'31"E | -- | 21.92' | 108" CIPP * |
| (2) | Δ=16°56'57" | 200.00' | 59.16' | 108" CIPP * |
| (3) | N48°14'28"E | -- | 458.63' | 108" CIPP * |
| (4) | Δ=55°12'29" | 200.00' | 192.71' | 108" CIPP * |
| (5) | N06°58'01"W | -- | 99.21' | 108" CIPP * |

* CAST-IN-PLACE PIPE

SCALE 1": 40'
0 40 80 120 160

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
740 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO 9/28/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 0.5 FEET EAST OF POWER POLE #18307, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 12 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

PLAN & PROFILE FOR
LINE D-1
STA 1+00.00 TO 9+62.05

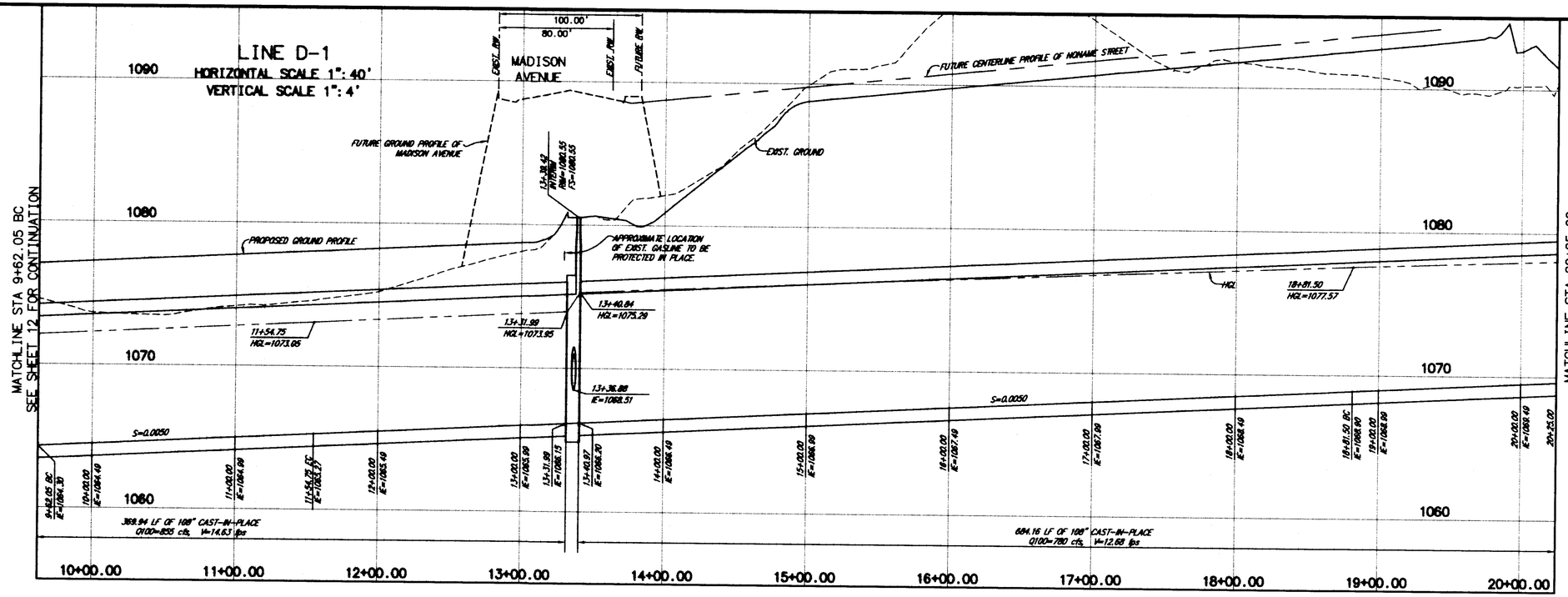
APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-114

DRAWING NUMBER
REORDER BY PART NUMBER 6350

DRAWING NUMBER
11-114
REORDER BY PART NUMBER 6350

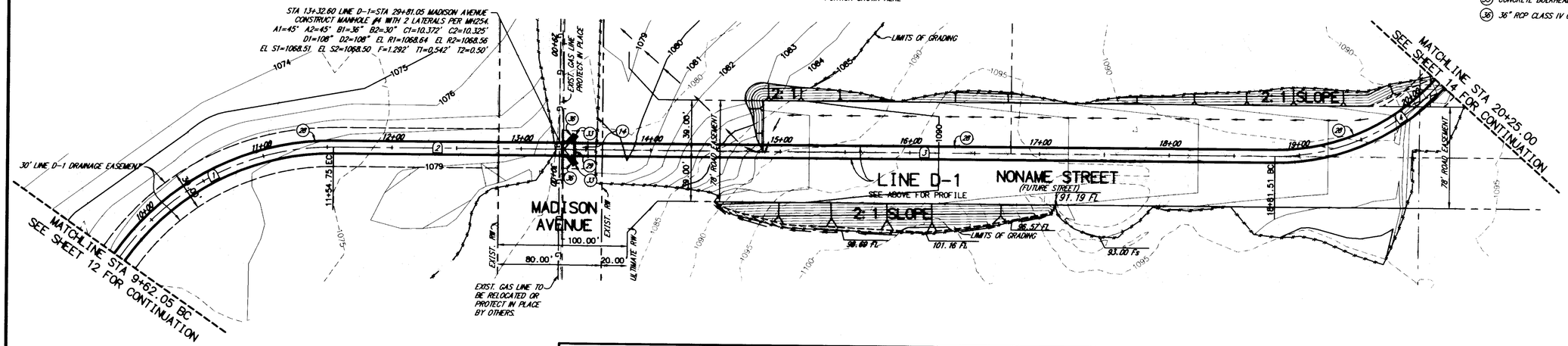



| STORM DRAIN DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| 1 | Δ=55°12'21" | 200.00' | 192.70' | 108" CIPP |
| 2 | N48°14'20"E | -- | 177.24' | 108" CIPP |
| 3 | N48°14'20"E | -- | 540.53' | 108" CIPP |
| 4 | Δ=69°43'34" | 170.00' | 206.88' | 108" CIPP* |

* PORTION SHOWN HERE

## CONSTRUCTION NOTES

(14) UTILITY TRENCH SURFACE RESTORATION PER C.O.M. STD DWG 2120
(28) 108" CAST IN PLACE PIPE, DESIGN BUILD
(29) MANHOLE #4 PER RCFC&WCD MH254
(33) CONCRETE BULKHEAD PER RCFC&WCD M816
(36) 36" RCP CLASS IV OR 2000D - RINKER OR EQUIVALENT




SCALE 1": 40'

0 40 80 120 160

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
740 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629 EXP. DATE: 12/31/12
DATE 9/26/11

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
DATE 10/3/11

**UNDERGROUND SERVICE ALERT**
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183107, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

| SHEET 13 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

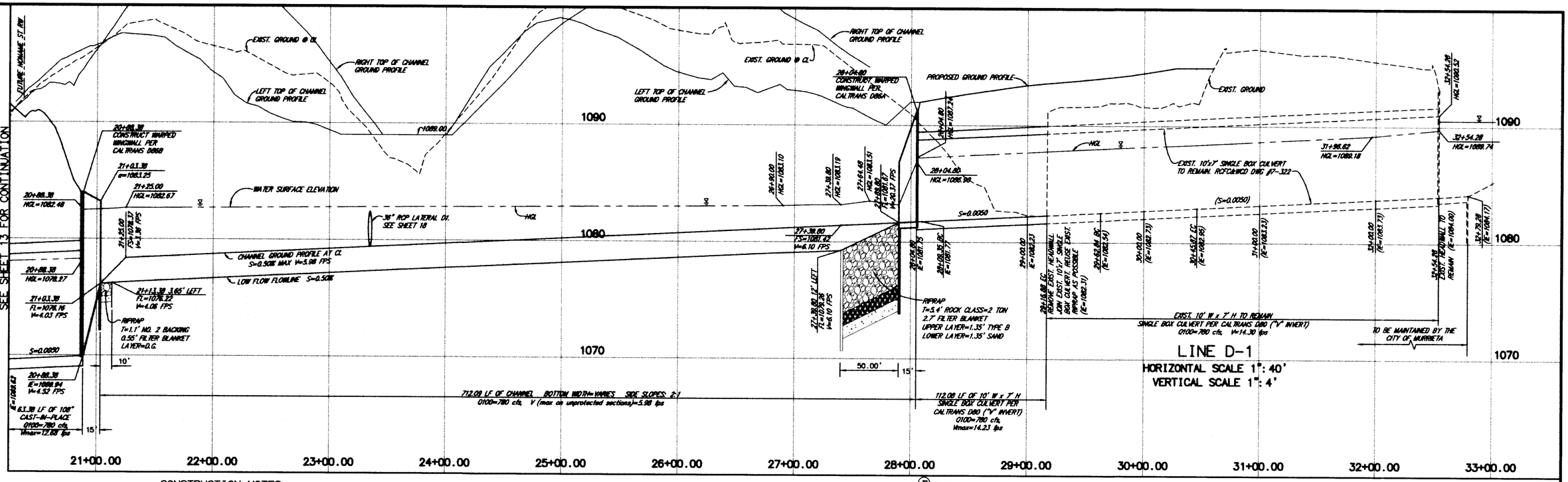
**PLAN & PROFILE FOR LINE D-1**
STA 9+62.05 TO ST 20+25.00

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE: 10/12/2011 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-115

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA




## CONSTRUCTION NOTES

(15) TURF-BLOCK CASTELLATED CONC. GRID PAVERS PER RCP TEK 11-3

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS072R

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS.

(28) 108" CAST IN PLACE PIPE, DESIGN BUILD

(30) WARPED WINGWALL PER CALTRANS D86A, SEE DETAIL ON SHEET 17.

(31) WARPED WINGWALL PER CALTRANS D86B, SEE DETAIL ON SHEET 17.

(32) SINGLE 7'X10' REINFORCED CONCRETE BOX CIP8 PER RCFC&WCD BX401

(34) EARTHEN CHANNEL. SEE SHEET 14 & 17 FOR DETAILS.

(35) 30" RCP, CLASS IV OR 2000D – RINKER OR EQUIVALENT TO BE MAINTAINED BY CITY, SEE SHEET 17 FOR PROFILE.

(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

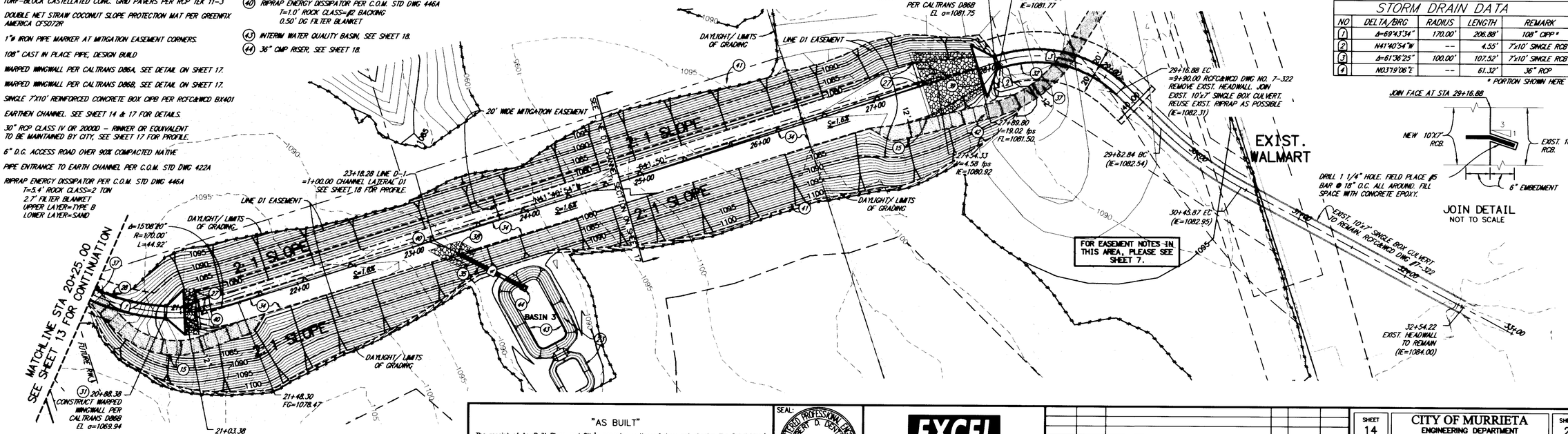
(38) PIPE ENTRANCE TO EARTH CHANNEL PER C.O.M. STD DWG 422A

(39) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=5.4' ROCK CLASS=2 TON 2.7' FILTER BLANKET UPPER LAYER=TYPE B LOWER LAYER=SAND

(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=1.0' ROCK CLASS=#2 BACKING 0.50' DG FILTER BLANKET

(43) INTERIM WATER QUALITY BASIN, SEE SHEET 18.

(44) 36" CMP RISER, SEE SHEET 18.




### STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| (1) | Δ=69°43'34" | 170.00' | 206.88' | 108" CIPP * |
| (2) | N41°40'54"W | -- | 4.55' | 7'x10' SINGLE RCB |
| (3) | Δ=61°36'25" | 100.00' | 107.52' | 7'x10' SINGLE RCB |
| (4) | N03°19'06"E | -- | 61.32' | 36" RCP |

* PORTION SHOWN HERE

JOIN FACE AT STA 29+16.88




JOIN DETAIL
NOT TO SCALE

DRILL 1 1/4" HOLE. FIELD PLACE #5 BAR @ 18" O.C. ALL AROUND. FILL SPACE WITH CONCRETE EPOXY.

SCALE 1": 40'

0 40 80 120 160

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 46819

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work — Date
RCE ____ EXP. ____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
140 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1880

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

SHEET 14 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

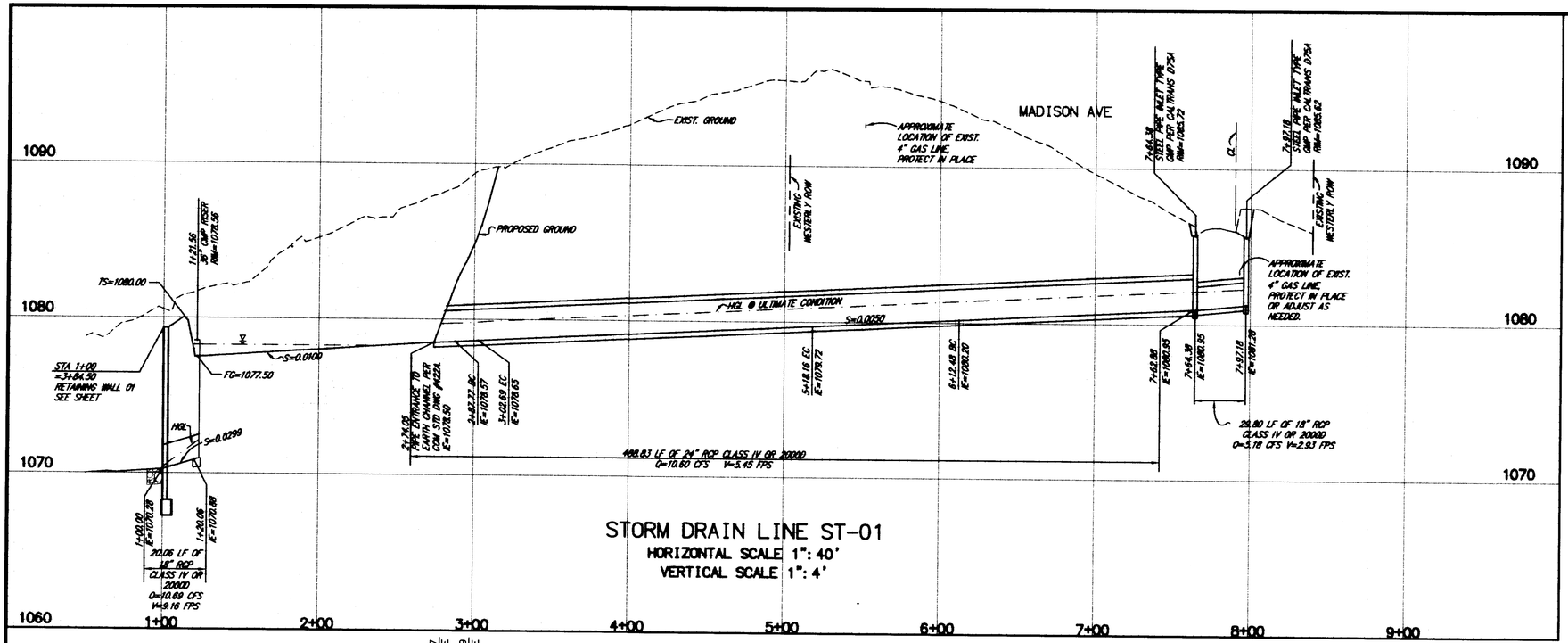
PLAN & PROFILE FOR LINE D-1
STA ST 20+25.00 TO STA 33+04.95

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 08/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-116

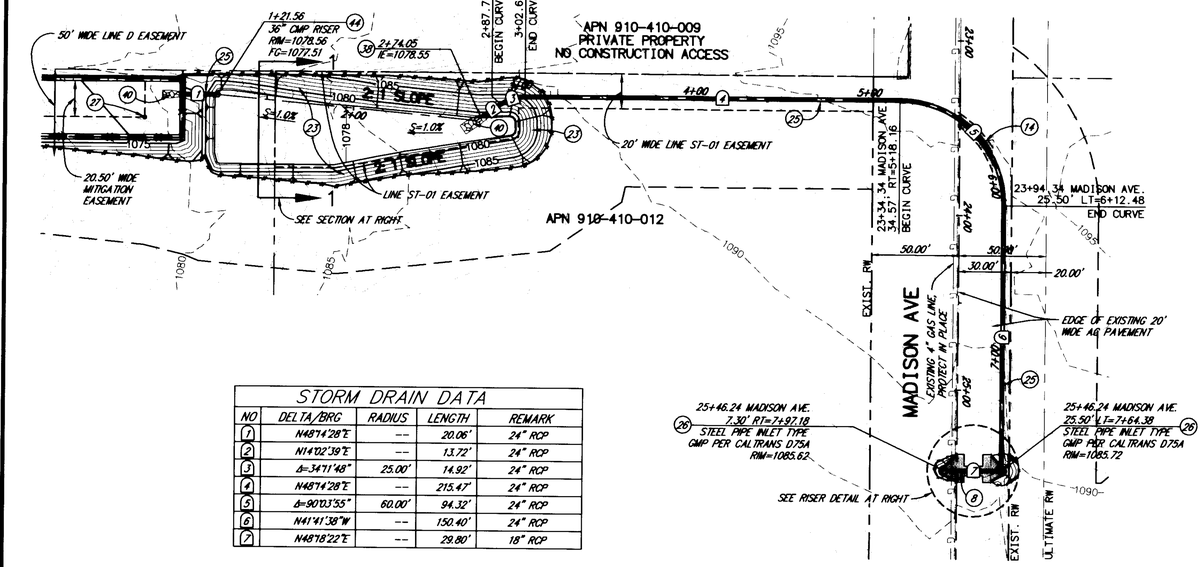
DRAWING NUMBER 11-116

REORDER BY PART NUMBER 65552

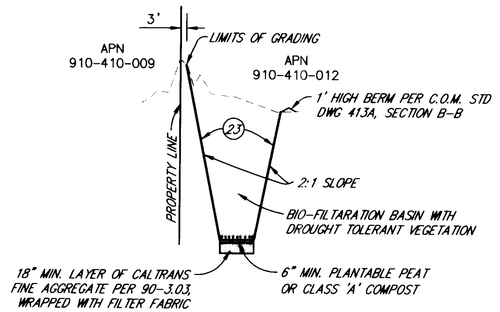



## STORM DRAIN LINE ST-01

HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'



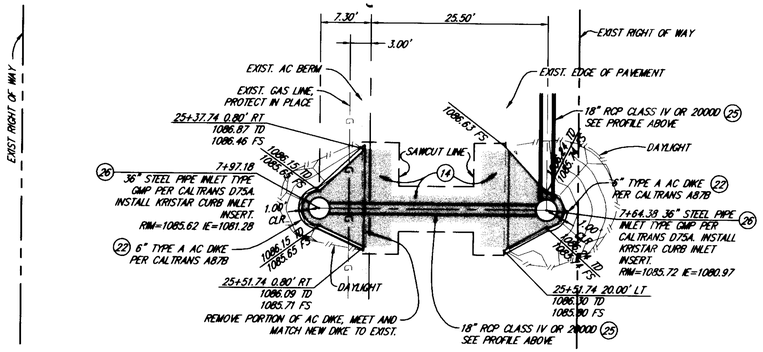

| STORM DRAIN DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| 1 | N48°14'28"E | --- | 20.06' | 24" RCP |
| 2 | N14°02'39"E | --- | 13.72' | 24" RCP |
| 3 | Δ=34°11'48" | 25.00' | 14.92' | 24" RCP |
| 4 | N48°14'28"E | --- | 215.47' | 24" RCP |
| 5 | Δ=90°03'55" | 60.00' | 94.32' | 24" RCP |
| 6 | N41°41'38"W | --- | 150.40' | 24" RCP |
| 7 | N48°18'22"E | --- | 29.80' | 18" RCP |




SECTION 1-1
NOT TO SCALE

### CONSTRUCTION NOTES

(8) 18" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT.
(14) UTILITY TRENCH SURFACE RESTORATION PER C.O.M. STD DWG 212a
(22) 6" AC BERM, TYPE A PER CALTRANS A87B
(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS072R
(25) 24" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT
(26) TEMPORARY STEEL INLET PIPE WITH KRISTAR INSERT, TYPE GMP PER CALTRANS D75A
(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS
(38) PIPE ENTRANCE TO EARTH CHANNEL PER C.O.M. STD DWG 422A
(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=2.0' ROCK CLASS=LIGHT 1.00' 1/2" GRAVEL FILTER BLANKET
(44) 36" CMP RISER, SEE SHEET 18.




RISER DETAIL
SCALE: 1"=10'

SCALE 1": 40'
0 40 80 120 160

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
740 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1080

PREPARED BY
ROBERT D. DENTINO 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1118.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| SHEET 15 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

STORM DRAIN LINE ST-01

APPROVED
PATRICK THOMAS 10/12/2011 DATE:
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

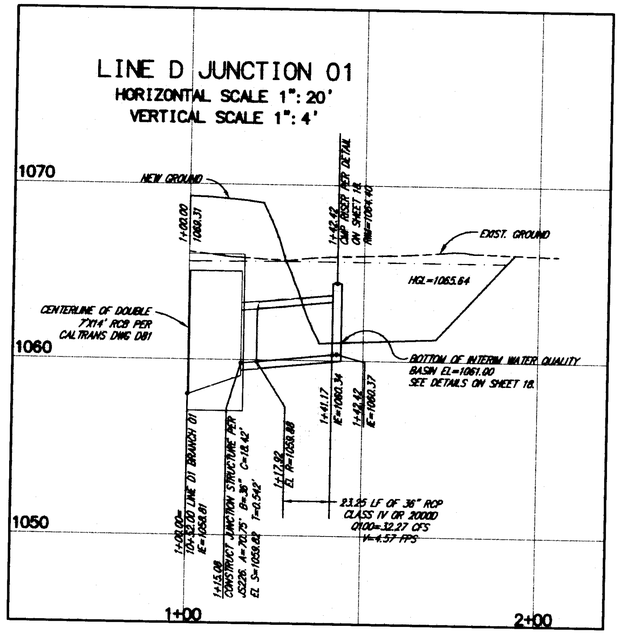
DRAWING NO. 11-117

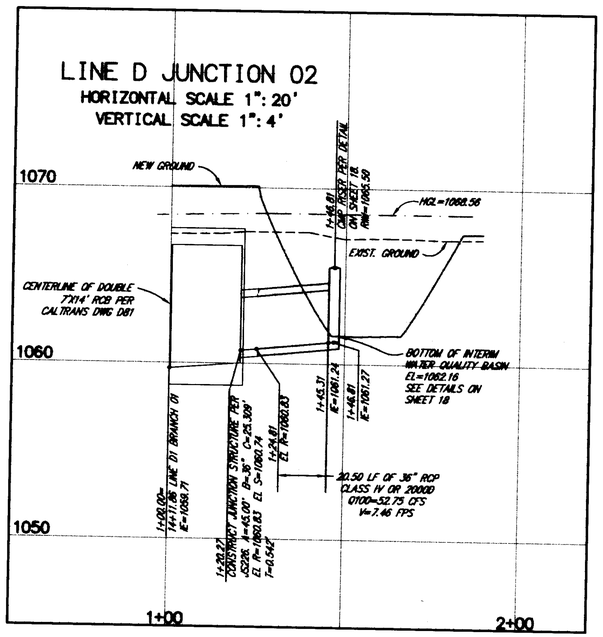
DRAWING NUMBER 11-117

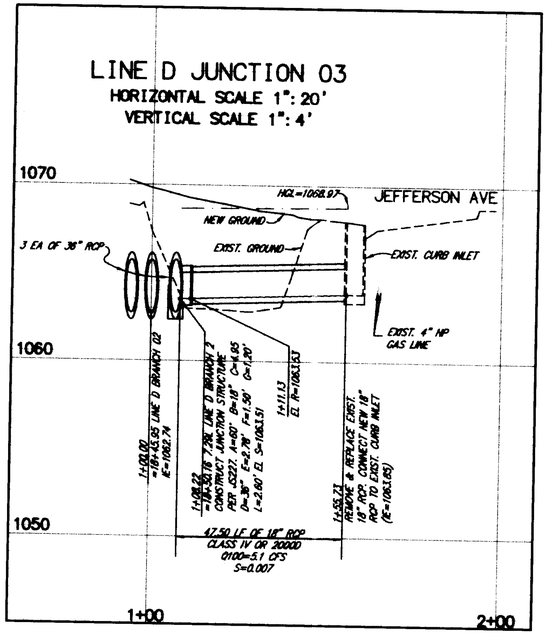
DRAWING NUMBER

DRAWING NUMBER

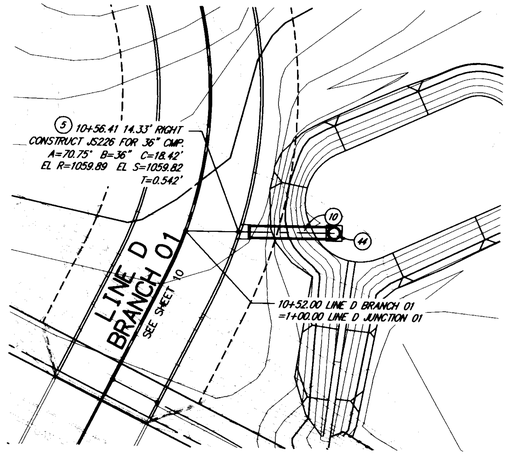
SHOULD PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 51510




LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.




## CONSTRUCTION NOTES

(5) JUNCTION STRUCTURE #1 PER RCFC&WCD JS226

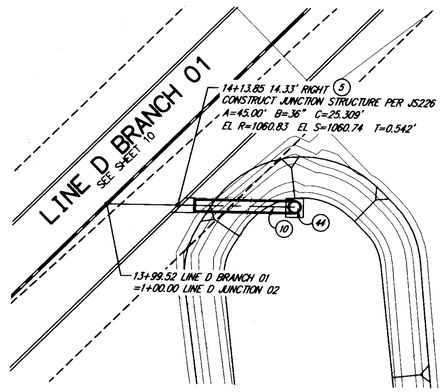
(6) JUNCTION STRUCTURE #2 PER RCFC&WCD JS227

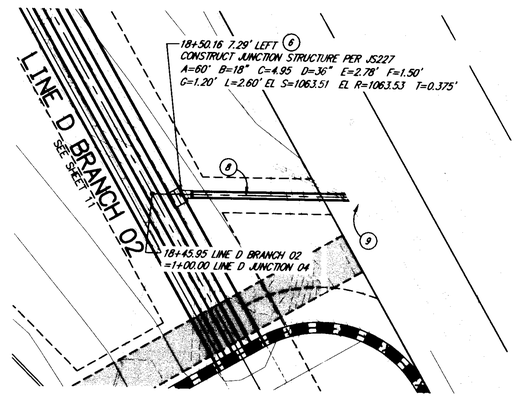
(8) 18" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT. CONNECT NEW 18" RCP TO EXISTING CURB INLET.

(9) INSTALL CLEARWATER OR EQUIVALENT DRAIN INSERTS INTO EXISTING CATCH BASIN.

(10) 36" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT

(44) 36" CMP RISER, SEE SHEET 18




"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

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BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO 9/18/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 16 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

LATERAL PROFILES FOR LINE D

APPROVED
PATRICK THOMAS DATE: 10/13/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

OWN BY: _____
CHKD BY: _____
FIELD BK: _____

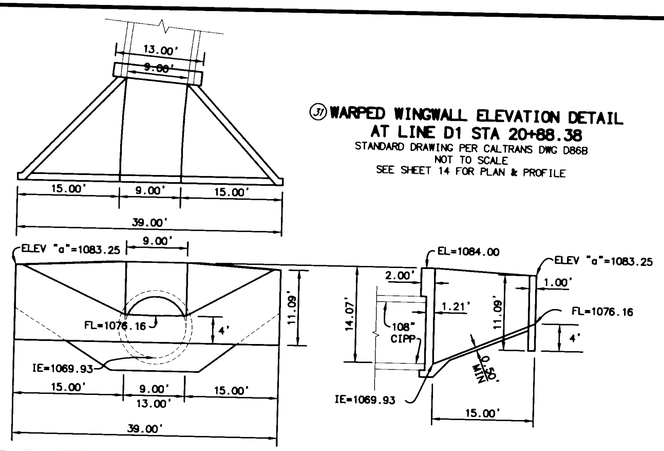
PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-118

DRAWING NUMBER

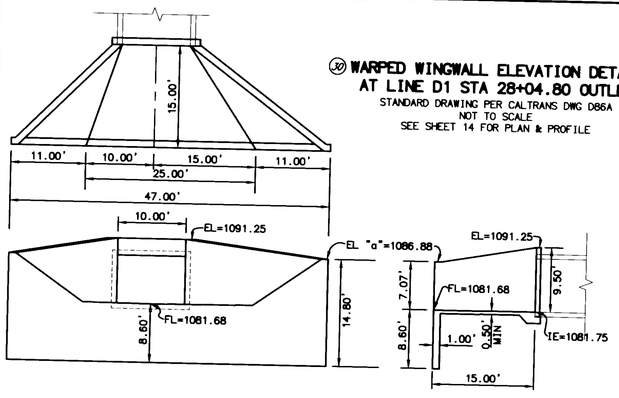
DRAWING NUMBER 11-11-8

REORDER BY PART NUMBER 82550



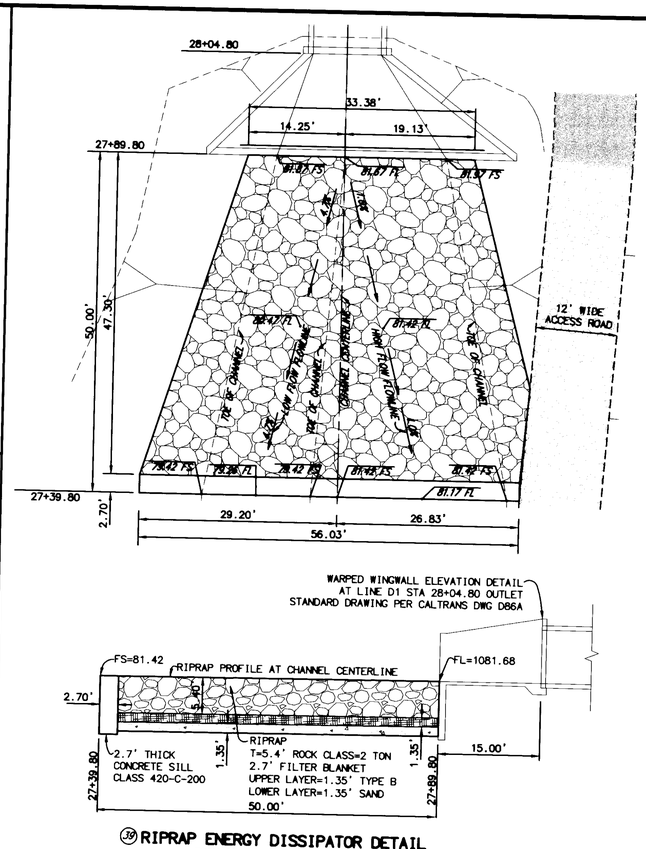

## (31) WARPED WINGWALL ELEVATION DETAIL AT LINE D1 STA 20+88.38

STANDARD DRAWING PER CALTRANS DWG D86B
NOT TO SCALE
SEE SHEET 14 FOR PLAN & PROFILE




## (32) WARPED WINGWALL ELEVATION DETAIL AT LINE D1 STA 28+04.80 OUTLET

STANDARD DRAWING PER CALTRANS DWG D86A
NOT TO SCALE
SEE SHEET 14 FOR PLAN & PROFILE



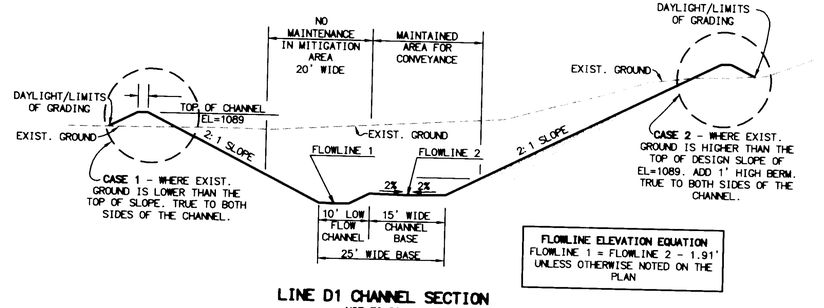

## (39) RIPRAP ENERGY DISSIPATOR DETAIL

FROM STA 27+39.80 TO 27+89.80




## (39) RIPRAP ENERGY DISSIPATOR DETAIL

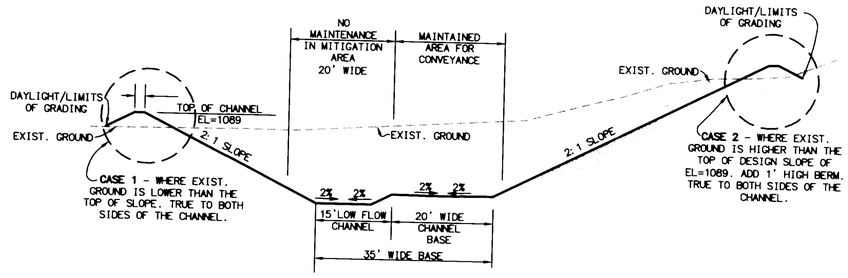
FROM STA 27+39.80 TO 27+89.80




**FLOWLINE ELEVATION EQUATION**
FLOWLINE 1 = FLOWLINE 2 - 1.91'
UNLESS OTHERWISE NOTED ON THE PLAN

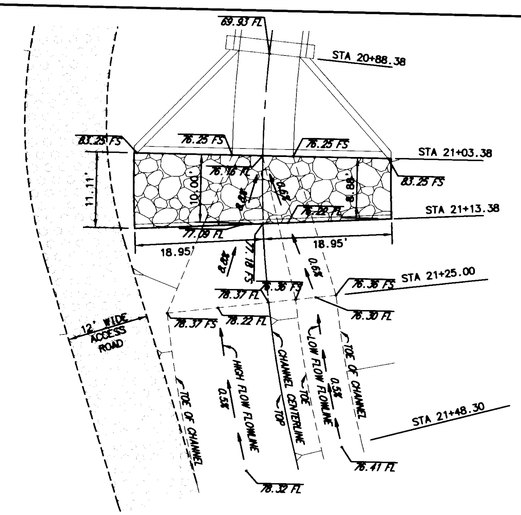
## LINE D1 CHANNEL SECTION

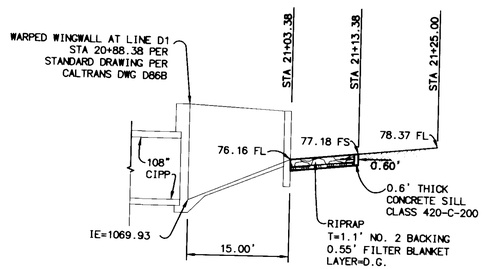
NOT TO SCALE
SEE SHEET 14 FOR PLAN VIEW
FROM STA 21+25.00 TO SAT 21+48.30




## LINE D1 CHANNEL SECTION

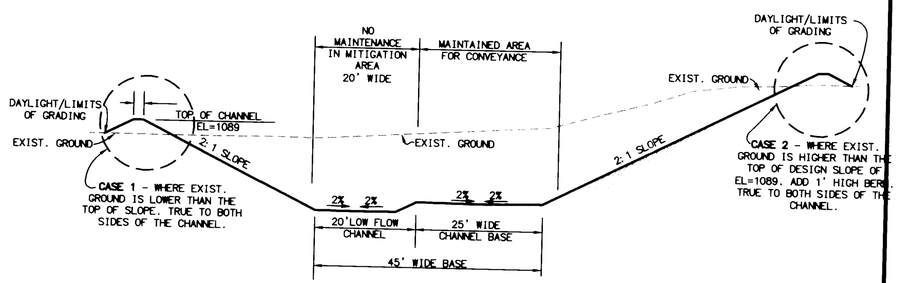
NOT TO SCALE
SEE SHEET 14 FOR PLAN VIEW
SECTION AT STA 26+90.00
SECTION VARIES FROM 25' TO 35' BASE FROM
STA 21+48.30 TO STA 26+90.00




## (40) RIPRAP ENERGY DISSIPATOR DETAIL

FROM STA 21+03.38 TO 21+13.38




## LINE D1 CHANNEL SECTION

NOT TO SCALE
SEE SHEET 14 FOR PLAN VIEW
SECTION AT STA 27+14.80 TO 27+39.80
SECTION VARIES FROM 35' TO 45' BASE FROM
STA 26+90.00 TO STA 27+14.80

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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PREPARED BY
ROBERT D. DENTINO 9/28/11
R.C.E NO. 45629 DATE
EXP. DATE: 12/31/12

| DATE | INITIAL | ENGINEER OF WORK |
|---|---|---|
| | | |

| SHT. NO. | DATE | INITIAL | REVISION DESCRIPTION |
|---|---|---|---|
| | | | |

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11
BUREAU VERITAS DATE
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 17 | | 27 |

**LINE D & D-1 MISCELLANEOUS DETAILS**

APPROVED
PATRICK THOMAS 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE EXP. DATE: 06/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

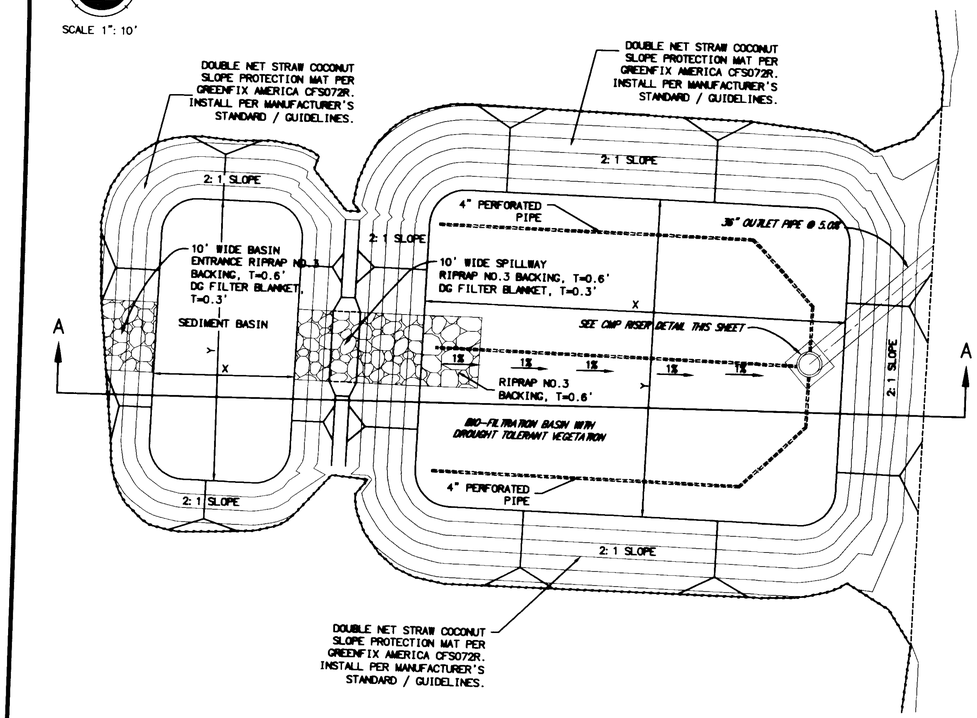
DRAWING NO. 11-119

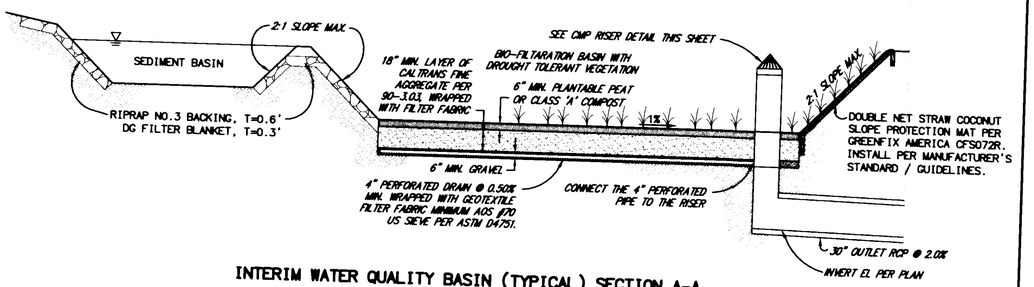
DRAWING NUMBER

11-119

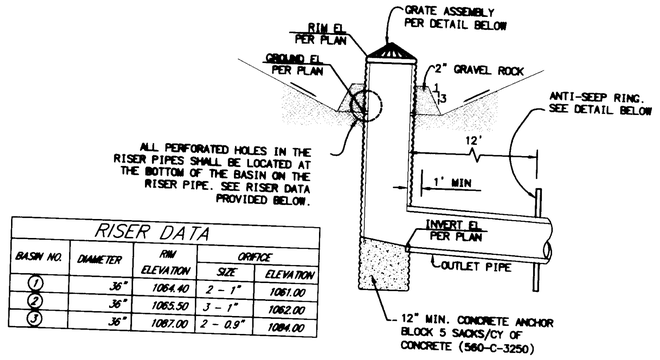
SARCO PRODUCTS • 1-800-328-8402 • MINNEAPOLIS, MINNESOTA
REORDER BY PART NUMBER 10502

SCALE 1": 10'



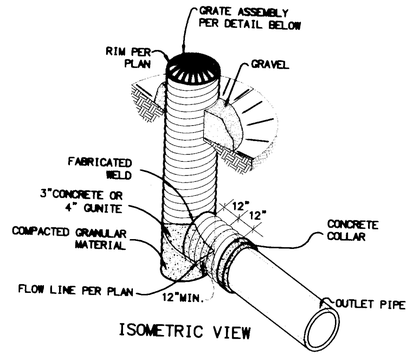

INTERIM WATER QUALITY BASIN (TYPICAL) SECTION A-A
NOT TO SCALE



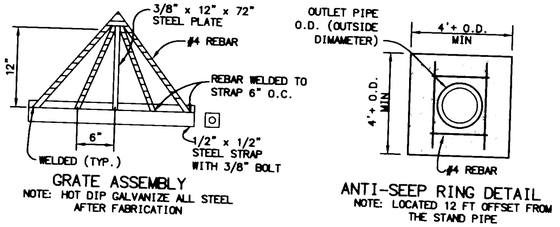

ALL PERFORATED HOLES IN THE RISER PIPES SHALL BE LOCATED AT THE BOTTOM OF THE BASIN ON THE RISER PIPE. SEE RISER DATA PROVIDED BELOW.

| RISER DATA | | | | |
|---|---|---|---|---|
| BASIN NO. | DIAMETER | RIM ELEVATION | ORIFICE SIZE | ORIFICE ELEVATION |
| ① | 36" | 1064.40 | 2 - 1" | 1061.00 |
| ② | 36" | 1065.50 | 3 - 1" | 1062.00 |
| ③ | 36" | 1067.00 | 2 - 0.9" | 1064.00 |

SIDE VIEW



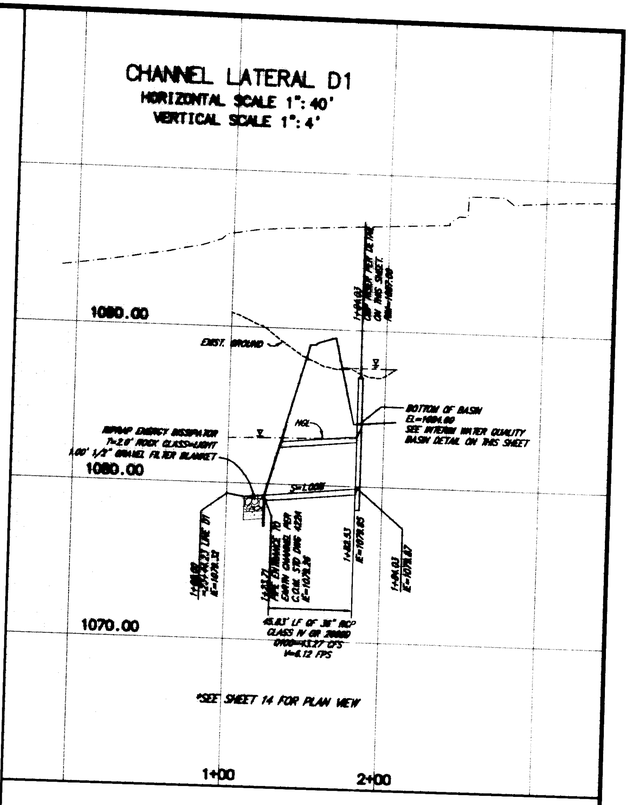

ISOMETRIC VIEW




GRATE ASSEMBLY
NOTE: HOT DIP GALVANIZE ALL STEEL AFTER FABRICATION

ANTI-SEEP RING DETAIL
NOTE: LOCATED 12 FT OFFSET FROM THE STAND PIPE

(#) CMP RISER DETAIL
NOT TO SCALE




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Engineer of work _____ Date _____

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PREPARED BY
ROBERT D. DENTINO 9/28/11 DATE
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

SHEET 18 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

LINE D & D-1
MISCELLANEOUS DETAILS

APPROVED
PATRICK THOMAS DATE: 10/12/20 11
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

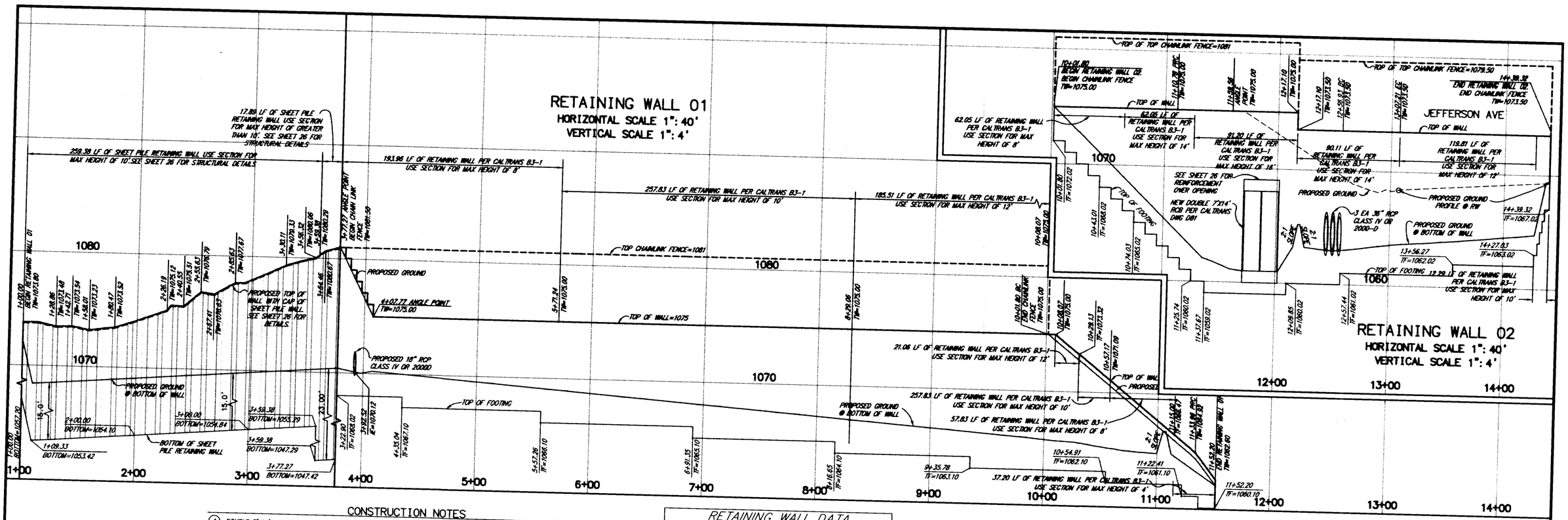
DWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-120

DRAWING NUMBER 11-120

SYCO PRODUCTS • NEW HOPE, MINNESOTA




## CONSTRUCTION NOTES

(1) DOUBLE 7'X14' REINFORCED CONCRETE BOX DIPB PER CALTRANS D81

(4) 36" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT

(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1

(20) SHEET PILE RETAINING WALL WITH MATCHING CAP. SEE SHEET 26 FOR STRUCTURAL DETAILS.

(25) 18" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT, SEE PLAN AND PROFILE ON SHEET 15.

(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=1.0' ROCK CLASS=#2 BACKING 0.50' DG FILTER BLANKET

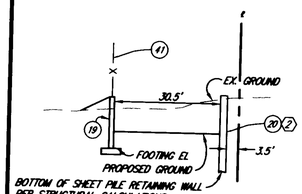
(41) BLACK VINYL COATED FABRIC CHAINLINK FENCE, SEE FENCING PLAN ON SHEET 23.

(42) BLACK VINYL COATED FABRIC CHAINLINK GATE, SEE FENCING PLAN ON SHEET 23.

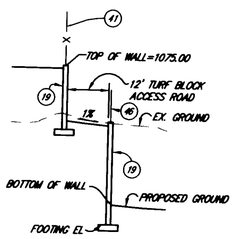
(46) TYPE A METAL HAND RAILING PER APWA 606-1, SEE FENCING PLAN ON SHEET 23.

## RETAINING WALL DATA

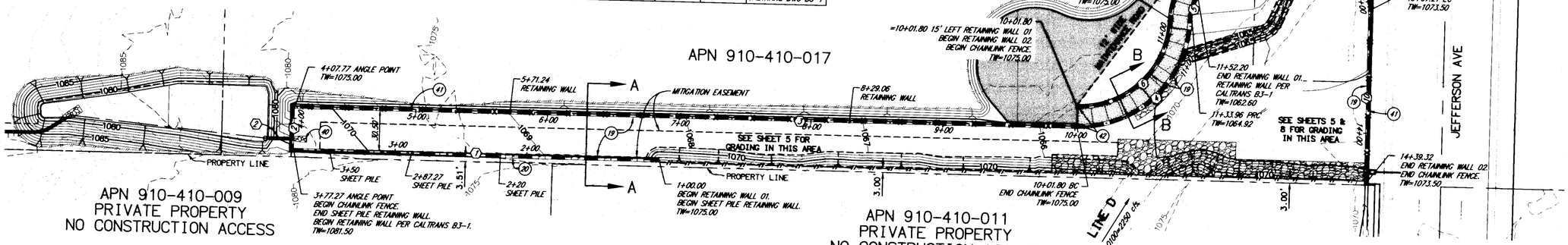
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 1 | N48°14'28"E | -- | 277.27' | CALTRANS DWG B3-1 |
| 2 | N41°45'32"W | -- | 30.50' | CALTRANS DWG B3-1 |
| 3 | N48°14'28"E | -- | 420.25' | CALTRANS DWG B3-1 |
| 4 | Δ= 88°34'02" | 85.50' | 132.16' | CALTRANS DWG B3-1 |
| 5 | Δ= 23°29'17" | 44.50' | 18.24' | CALTRANS DWG B3-1 |
| 6 | Δ= 88°34'02" | 70.50' | 108.98' | CALTRANS DWG B3-1 |
| 7 | Δ= 46°58'33" | 59.50' | 48.78' | CALTRANS DWG B3-1 |
| 8 | N48°14'28"E | -- | 57.87' | CALTRANS DWG B3-1 |
| 9 | Δ= 90°02'06" | 32.00' | 50.29' | CALTRANS DWG B3-1 |
| 10 | N41°43'26"W | -- | 132.10' | CALTRANS DWG B3-1 |




SECTION A–A
SCALE 1":20'




SECTION B–B
SCALE 1":20'










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PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E. NO. 45629 EXP. DATE: 12/31/12

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/3/11
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
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ELEVATION = 1119.00 NAVD

| SHEET 19 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

LINE D RETAINING WALL 01 & 02
PLAN & PROFILE

APPROVED
PATRICK THOMAS — DATE: 12/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 08/30/13

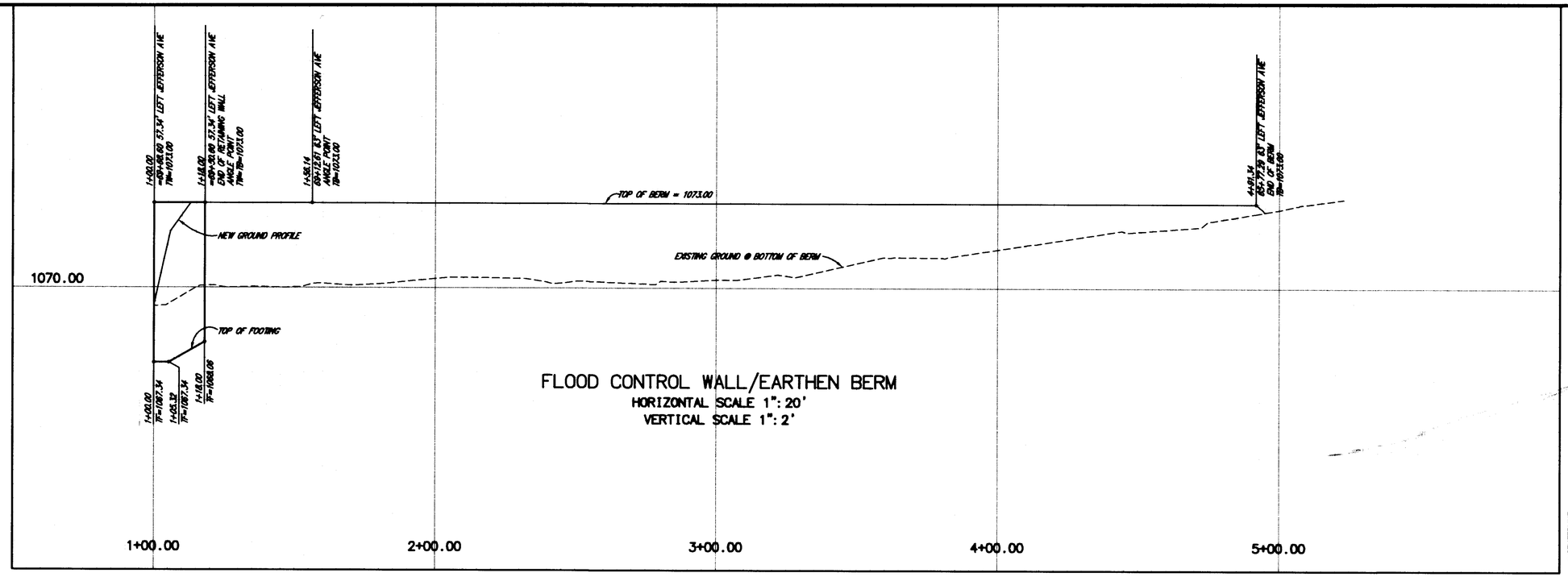
DWN BY: _____
CHKD BY: _____
FIELD BK: _____

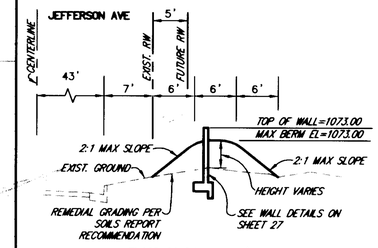
PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-121

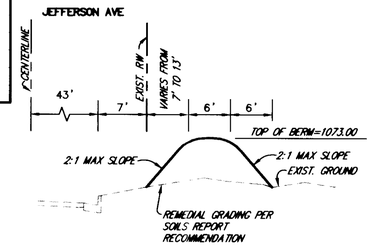
DRAWING NUMBER
11-121

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6582

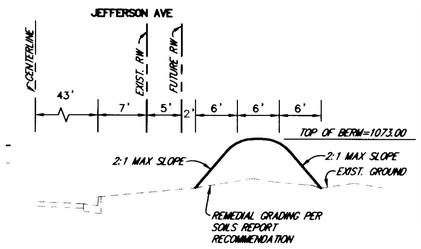



FLOOD CONTROL WALL/BERM DETAIL
NOT TO SCALE
STA 1+00.00 TO 1+18.00




FLOOD CONTROL BERM DETAIL
NOT TO SCALE
STA 1+18.00 TO 1+56.14

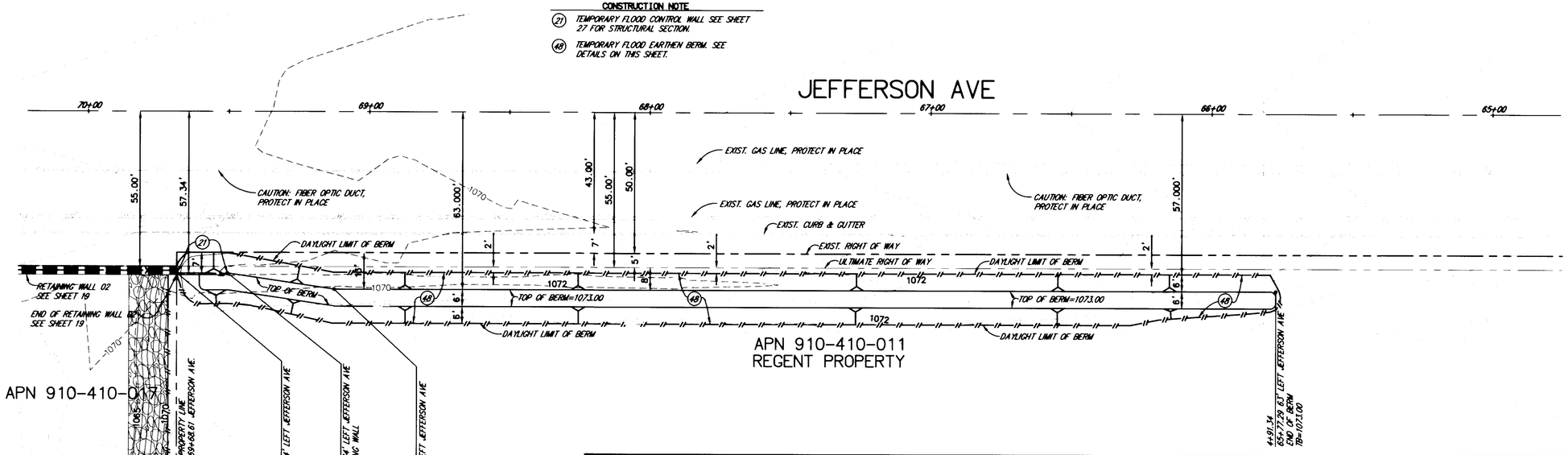



FLOOD CONTROL BERM DETAIL
NOT TO SCALE
STA 1+56.14 TO 4+91.34

**CONSTRUCTION NOTE**

(21) TEMPORARY FLOOD CONTROL WALL SEE SHEET 27 FOR STRUCTURAL SECTION.

(48) TEMPORARY FLOOD EARTHEN BERM. SEE DETAILS ON THIS SHEET.




SCALE 1": 20'

0 20 40 60 80

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629 EXP. DATE: 12/31/12
9/28/11 DATE

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | ENGINEER OF WORK | | | CITY APPROVAL |

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BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
10/3/11 DATE

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| SHEET 20 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

**TEMPORARY FLOOD CONTROL WALL PLAN & PROFILE**

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE: 10/12/2011 EXP. DATE: 06/30/13

DRWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-T22

DRAWING NUMBER 11-T22

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

DRAWING NUMBER 11-T22

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

## LEGEND

| ITEM | | QUANTITY | SYMBOL |
|---|---|---|---|
| BONDED FIBER MATRIX AREA (TYP) | (EC-4) | 1,763,116 SF | |
| STABILIZED CONSTRUCTION ENTRANCE | (TC-1, TYPE 2) | 6,000 SF | |
| FIBER ROLLS | (SE-5) | 5,500 LF | |
| SILT FENCE | (SE-1) | 9,000 LF | |
| GRAVEL BAGS (TYP) | (SE-8) | 6,600 EA | |

## EROSION CONTROL NOTES

1. IN CASE EMERGENCY WORK IS REQUIRED, CONTACT JEFF CADIEN AT PHONE NO. (951) 757-0045.

2. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

3. EROSION CONTROL DEVICES SHOWN ON PLANS SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE PUBLIC WORKS INSPECTOR.

4. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER, INCLUDING SILT AND OTHER DEBRIS REMOVAL, TO THE SATISFACTION OF THE PUBLIC WORKS INSPECTOR AFTER EACH RUN-OFF PRODUCING RAINFALL.

5. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE PUBLIC WORKS INSPECTOR DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.

7. ALL EROSION CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON.

8. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.

9. ALL REMOVABLE PROTECTIVE EROSION CONTROL DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.

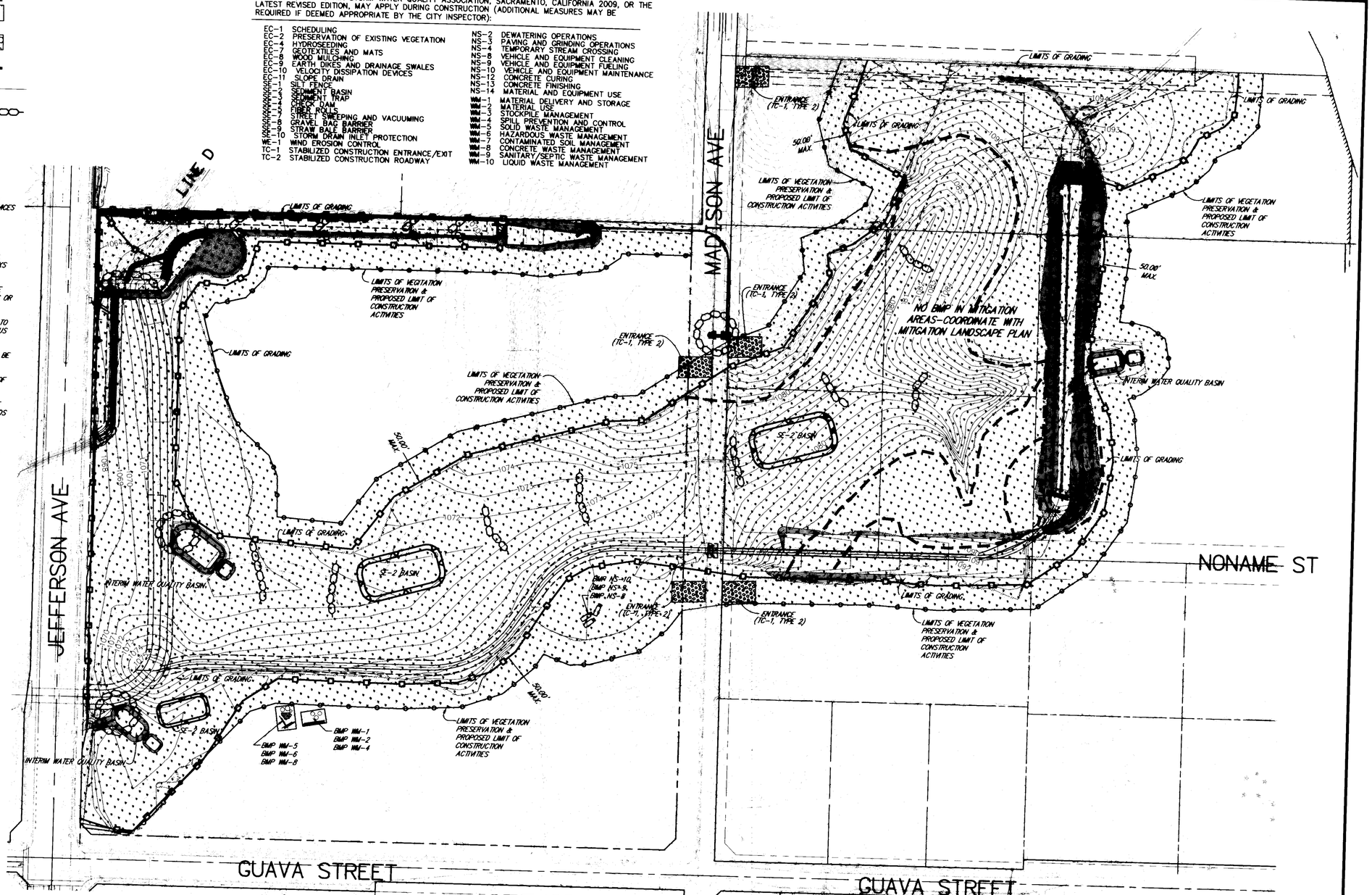
10. ALL GRAVEL BAGS SHALL BE BURLAP TYPE WITH 3/4" MINIMUM AGGREGATE.

11. SHOULD GERMINATION OF HYDROSEEDED SLOPES FAIL TO PROVIDE EFFECTIVE COVERAGE (90%) OF GRADED SLOPES PRIOR TO NOVEMBER 15, THE SLOPES SHALL BE STABILIZED BY PUNCH STRAW.

THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY ASSOCIATION, SACRAMENTO, CALIFORNIA 2009, OR THE LATEST REVISED EDITION, MAY APPLY DURING CONSTRUCTION (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE CITY INSPECTOR):

EC-1 SCHEDULING
EC-2 PRESERVATION OF EXISTING VEGETATION
EC-4 HYDROSEEDING
EC-7 GEOTEXTILES AND MATS
EC-8 WOOD MULCHING
EC-9 EARTH DIKES AND DRAINAGE SWALES
EC-10 VELOCITY DISSIPATION DEVICES
EC-11 SLOPE DRAIN
SE-1 SILT FENCE
SE-2 SEDIMENT BASIN
SE-3 SEDIMENT TRAP
SE-4 CHECK DAM
SE-5 FIBER ROLLS
SE-7 STREET SWEEPING AND VACUUMING
SE-8 GRAVEL BAG BARRIER
SE-9 STRAW BALE BARRIER
SE-10 STORM DRAIN INLET PROTECTION
WE-1 WIND EROSION CONTROL
TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT
TC-2 STABILIZED CONSTRUCTION ROADWAY

NS-2 DEWATERING OPERATIONS
NS-3 PAVING AND GRINDING OPERATIONS
NS-4 TEMPORARY STREAM CROSSING
NS-8 VEHICLE AND EQUIPMENT CLEANING
NS-9 VEHICLE AND EQUIPMENT FUELING
NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
NS-12 CONCRETE CURING
NS-13 CONCRETE FINISHING
NS-14 MATERIAL AND EQUIPMENT USE
WM-1 MATERIAL DELIVERY AND STORAGE
WM-2 MATERIAL USE
WM-3 STOCKPILE MANAGEMENT
WM-4 SPILL PREVENTION AND CONTROL
WM-5 SOLID WASTE MANAGEMENT
WM-6 HAZARDOUS WASTE MANAGEMENT
WM-7 CONTAMINATED SOIL MANAGEMENT
WM-8 CONCRETE WASTE MANAGEMENT
WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
WM-10 LIQUID WASTE MANAGEMENT




**NOTE ON SE-2:**
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE SEDIMENTATION POND SIZED PER SE-2. THESE PONDS ARE NOT THE SAME AS THE INTERIM WATER QUALITY BASINS SHOWN ON THE GRADING PLAN.

SCALE 1": 100'

0 100 200 300 400

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Engineer of work _____ Date _____
RCE _____ EXP. _____

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440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO 9/29/11
R.C.E. NO. 45629 DATE
EXP. DATE: 12/31/12

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RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11
BUREAU VERITAS DATE
R.C.E. NO. 45819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

SHEET 21 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

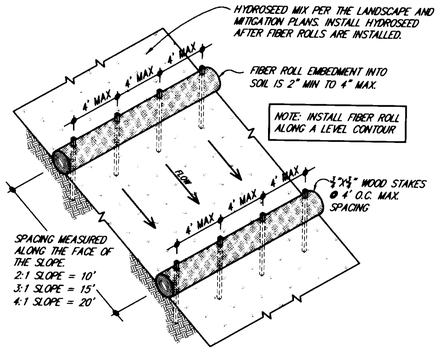
EROSION CONTROL PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS DATE:
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

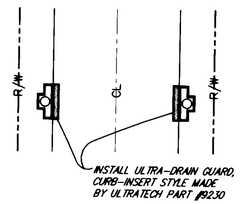
DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP #157 (ISD 6832)
DRAWING NO. 11-123

DRAWING NUMBER

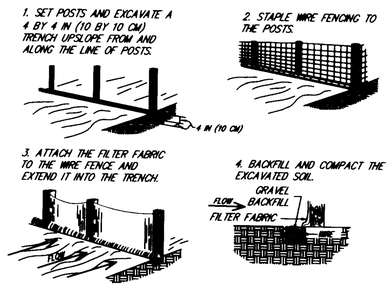
DRAWING NUMBER 11-123



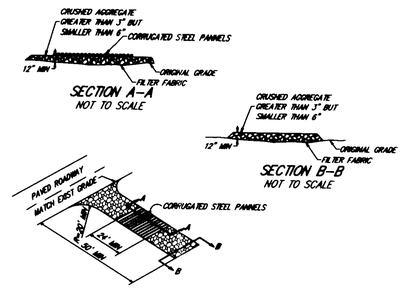

FIBER ROLL INSTALLATION
NOT TO SCALE



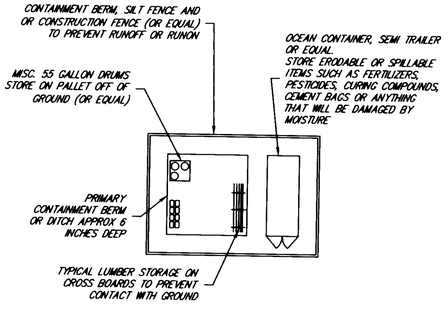

INLET PROTECTION @ SUMP & GRADE INLET
NOT TO SCALE



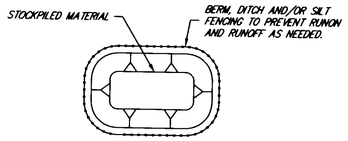

SILT FENCE DETAIL
NOT TO SCALE




STABILIZED CONSTRUCTION ENTRANCE
(TC-1/TYPE 2)
NOT TO SCALE



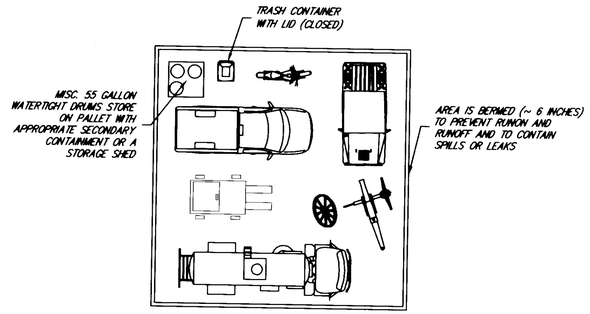

WM-1 MATERIALS DELIVERY AND STORAGE
NOT TO SCALE




COVER STOCKPILED MATERIALS FROM CONTACT WITH RAINFALL OR WIND EROSION PER WE-1, WE-7 AND OTHERS.

STOCKPILES ARE TO BE LOCATED 50 FEET MINIMUM FROM CONCENTRATED DRAINAGE COURSES AND STORM DRAIN INLETS

WM-3 STOCKPILE MANAGEMENT
NOT TO SCALE




NS-8 VEHICLE AND EQUIPMENT CLEANING
NS-9 VEHICLE AND EQUIPMENT FUELING
NS-10 VEHICLE AND EQUIPMENT MAINTENANCES
NOT TO SCALE

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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PREPARED BY
ROBERT D. DENTINO — DATE 2/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | ENGINEER OF WORK |
|---|---|---|

| SHT. NO. | REVISION DESCRIPTION | DATE | INITIAL |
|---|---|---|---|
| | | | |

CITY APPROVAL

SHEET 22 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

EROSION CONTROL DETAILS FOR LINE D & D-1

APPROVED
PATRICK THOMAS — DATE: 10/[illegible] 2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-124

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL |
|---|
| AS NOTED |
| SCALE VERTICAL |
| AS NOTED |

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

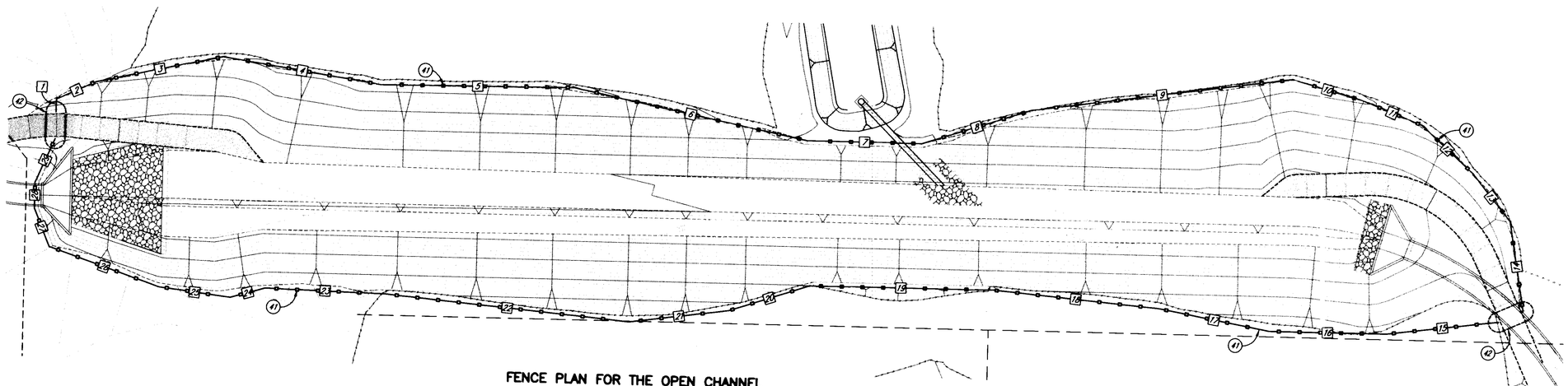
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

11-124

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

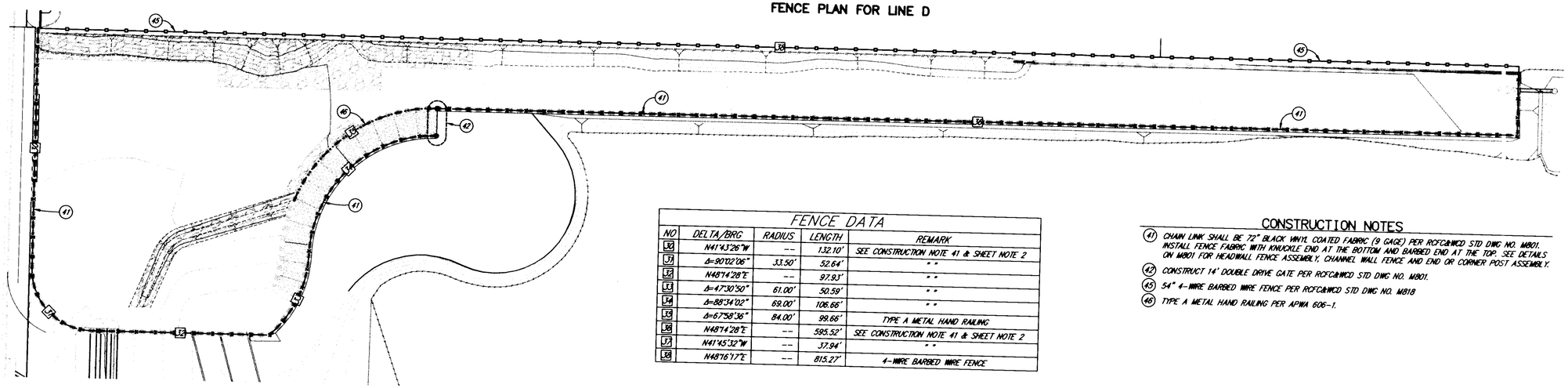
SCALE 1": 30'

| FENCE DATA | | | |
|---|---|---|---|
| NO | DELTA/BRG | LENGTH | REMARK |
| 1 | N48°54'18"E | 6.74' | SEE CONSTRUCTION NOTE #1 |
| 2 | N66°22'59"W | 22.91' | " " |
| 3 | N54°11'45"W | 67.82' | " " |
| 4 | N33°05'15"W | 83.75' | " " |
| 5 | N42°09'11"W | 101.38' | " " |
| 6 | N30°16'09"W | 124.99' | " " |
| 7 | N41°36'34"W | 58.94' | " " |
| 8 | N59°55'00"W | 58.79' | " " |
| 9 | N49°46'54"W | 138.45' | " " |
| 10 | N26°27'06"W | 37.93' | " " |
| 11 | N20°24'03"W | 33.96' | " " |
| 12 | N00°14'43"E | 36.14' | " " |
| 13 | N09°04'26"E | 32.18' | " " |
| 14 | N38°41'29"E | 47.42' | " " |
| 15 | N49°07'30"W | 58.95' | " " |
| 16 | N41°46'42"W | 61.64' | " " |
| 17 | N31°29'16"W | 58.82' | " " |
| 18 | N36°42'49"W | 88.30' | " " |
| 19 | N41°46'42"W | 95.42' | " " |
| 20 | N60°08'45"W | 44.29' | " " |
| 21 | N49°29'17"W | 52.50' | " " |
| 22 | N36°32'31"W | 128.54' | " " |
| 23 | N40°18'07"W | 62.94' | " " |
| 24 | N57°52'44"W | 18.93' | " " |
| 25 | N34°56'15"W | 37.84' | " " |
| 26 | N22°57'49"W | 61.32' | " " |
| 27 | N25°53'34"E | 21.33' | " " |
| 28 | N48°19'06"E | 13.75' | " " |
| 29 | N71°46'59"E | 24.92' | " " |




FENCE PLAN FOR THE OPEN CHANNEL
SECTION OF LINE D-1

FENCE PLAN FOR LINE D




| FENCE DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| J6 | N41°43'26"W | -- | 132.10' | SEE CONSTRUCTION NOTE 41 & SHEET NOTE 2 |
| J7 | Δ=90°02'06" | 33.50' | 52.64' | " " |
| J8 | N48°14'28"E | -- | 97.93' | " " |
| J9 | Δ=47°30'50" | 61.00' | 50.59' | " " |
| J10 | Δ=88°34'02" | 69.00' | 106.66' | " " |
| J11 | Δ=67°58'36" | 84.00' | 99.66' | TYPE A METAL HAND RAILING |
| J12 | N48°14'28"E | -- | 595.52' | SEE CONSTRUCTION NOTE 41 & SHEET NOTE 2 |
| J13 | N41°45'32"W | -- | 37.94' | " " |
| J14 | N48°16'17"E | -- | 815.27' | 4-WIRE BARBED WIRE FENCE |

## CONSTRUCTION NOTES

(41) CHAIN LINK SHALL BE 72" BLACK VINYL COATED FABRIC (9 GAGE) PER RCFC&WCD STD DWG NO. M801. INSTALL FENCE FABRIC WITH KNUCKLE END AT THE BOTTOM AND BARBED END AT THE TOP. SEE DETAILS ON M801 FOR HEADWALL FENCE ASSEMBLY, CHANNEL WALL FENCE AND END OR CORNER POST ASSEMBLY.

(42) CONSTRUCT 14' DOUBLE DRIVE GATE PER RCFC&WCD STD DWG NO. M801.

(45) 54" 4-WIRE BARBED WIRE FENCE PER RCFC&WCD STD DWG NO. M818

(46) TYPE A METAL HAND RAILING PER APWA 606-1.

SCALE 1": 30'

0 30 60 90 120

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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PREPARED BY
ROBERT D. DENTINO 7/28/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

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|---|---|---|---|---|---|
| | | | | | |

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SCALE VERTICAL: AS NOTED

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 23 | | 27 |

FENCE PLAN
FOR LINE D & D-1

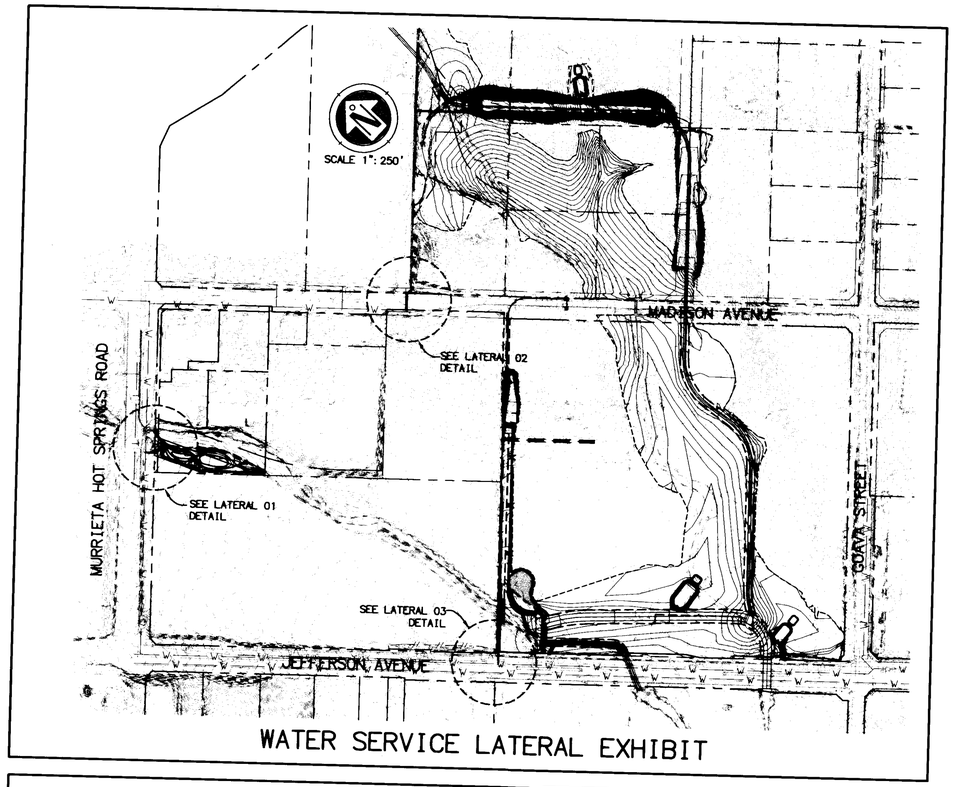
APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-125

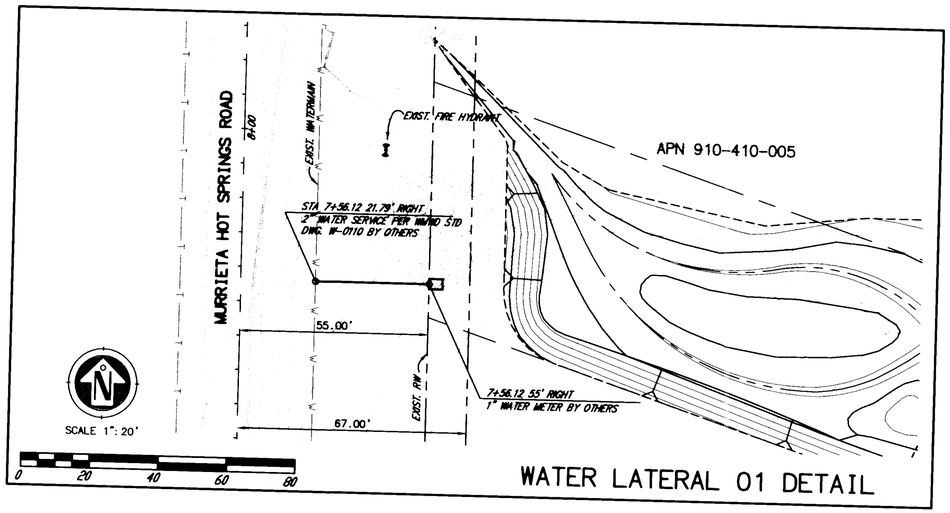
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6592

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6592

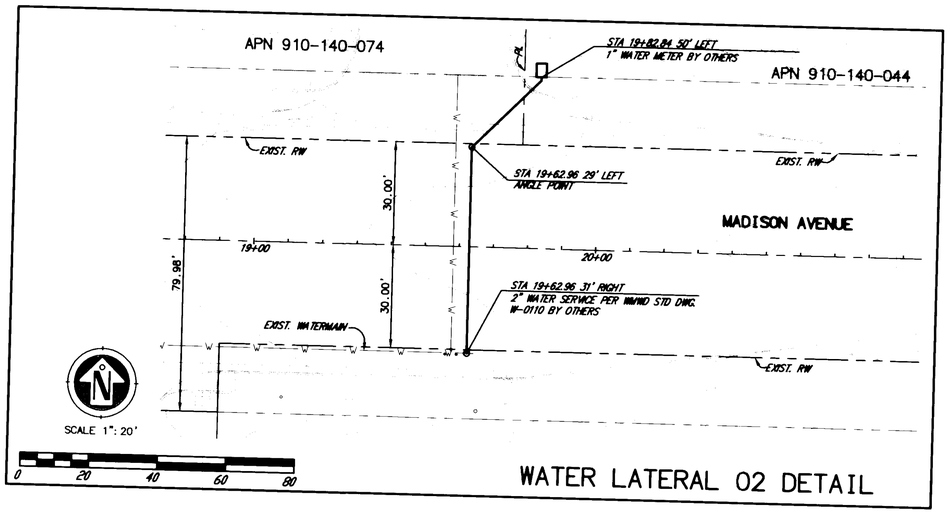
11-125



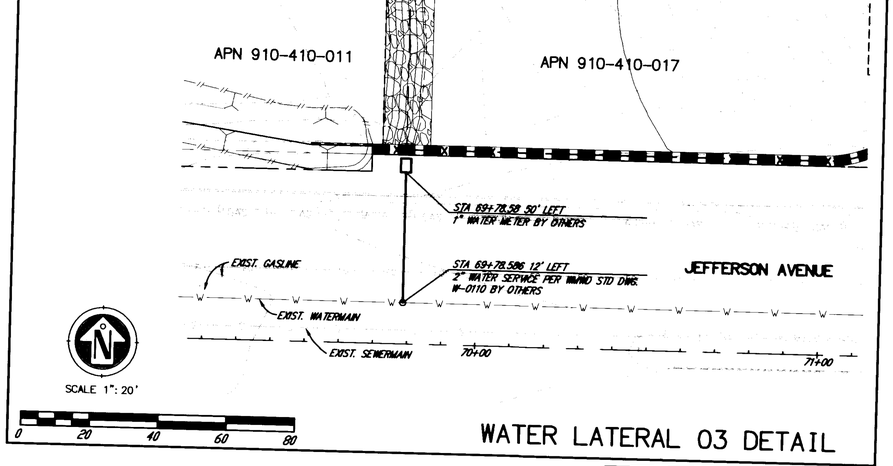

WATER SERVICE LATERAL EXHIBIT




WATER LATERAL 01 DETAIL




WATER LATERAL 02 DETAIL




WATER LATERAL 03 DETAIL

WATER LATERAL & METER INSTALLATIONS SHOWN ON THIS SHEET ARE SHOWN FOR REFERNCE ONLY & NOT PART OF THIS PLAN

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629 EXP. DATE: 12/31/12
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TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183307, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY DATE
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| SHEET 24 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

WATER SERVICE LATERAL EXHIBIT

APPROVED:
PATRICK THOMAS DATE:
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

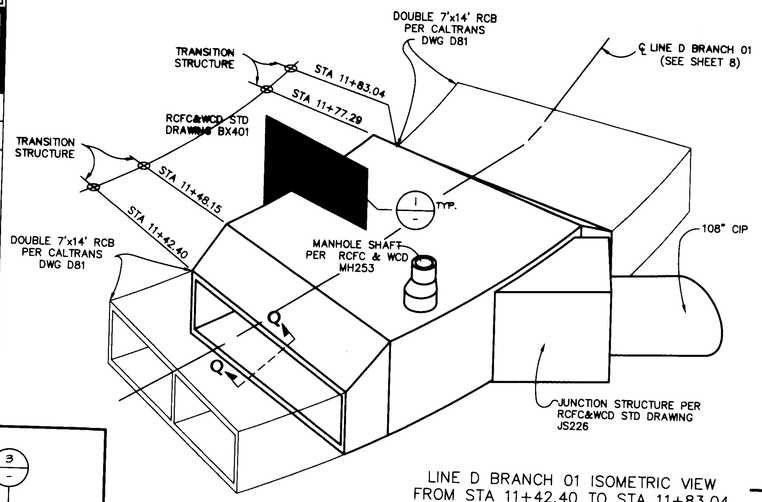
DRAWING NO. 11-126

DRAWING NUMBER 11-126

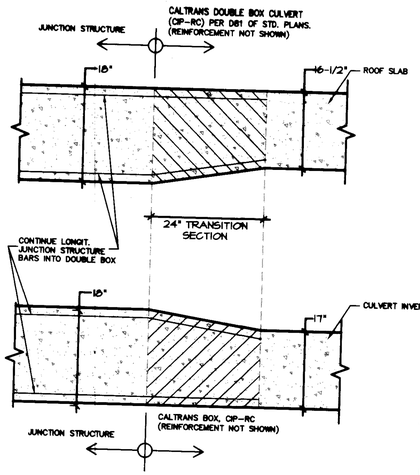
SAFCO PRODUCTS • 1-800-FOR-PETE, MINNESOTA
REORDER BY PART NUMBER 10336

## DESIGN SCHEDULE

| | | | | | |
|---|---|---|---|---|---|
| CONC. | ROOF | $T_1$ = 18" | SEE SHEET FOR ADD'L DESIGN NOTES & SPECIFICATIONS | | |
| | WALLS | $T_2$ = 16" | | | |
| | INVERT | $T_3$ = 16" | | | |
| REINFORCEMENT | | | | SPACING | NUMBER |
| | "a" | SIZE BAR | #6 | 4" | – |
| | "b" | SIZE BAR | #9 | 8" | – |
| | | DIMENSION "B" (Feet-inches) | 13'-0" | | |
| | | DIMENSION "$B_w$" (Feet-inches) | 4'-7" | | |
| | "c" | SIZE BAR | #8 | 8" | – |
| | | DIMENSION "C" (Feet-inches) | 6'-0" | | |
| | "d" | SIZE BAR | #5 | – | 50 |
| | "e" | SIZE BAR | #6 | 9" | – |
| QUANTITIES | CONCRETE CF/LF | 124 | | | |
| | REINF. #/LF | 600 | | | |



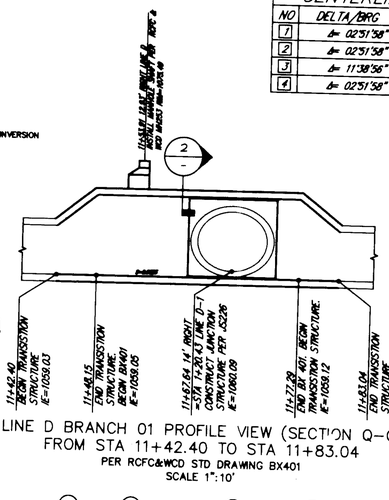

LINE D BRANCH 01 ISOMETRIC VIEW
FROM STA 11+42.40 TO STA 11+83.04
PER RCFC&WCD STD DRAWING BX401
ISOMETRIC NOT TO SCALE



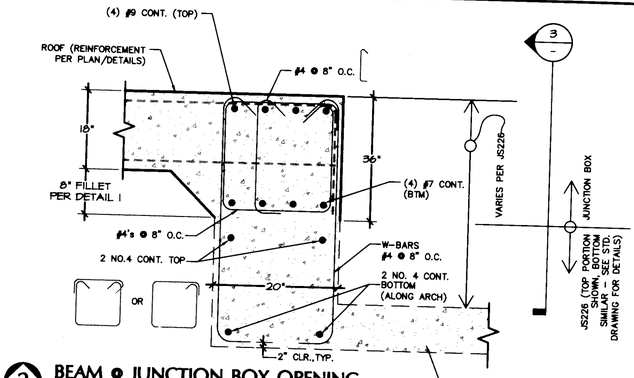

**JUNCTION STRUCT. TO CAL TRANS DOUBLE BOX TRANSITION**
SCALE: N.T.S.

**NOTE:**
FOR REFERENCES TO SITE LOCATIONS FOR THIS JUNCTION BOX, PLEASE CONSULT SHEET OF EXCEL ENGINEERING'S CIVIL PLANS.

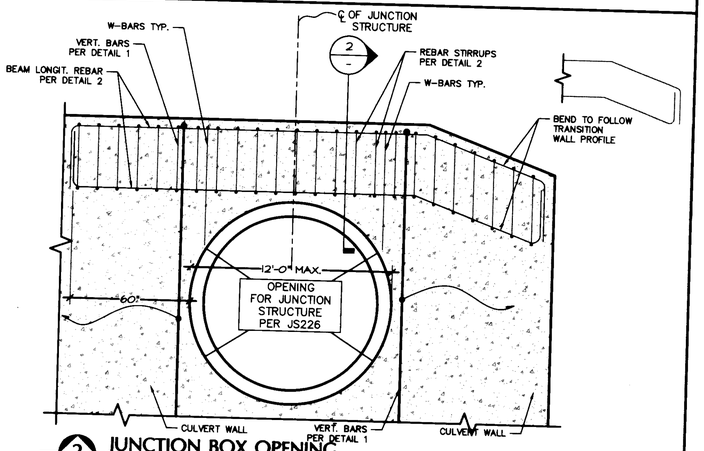
| CENTERLINE DATA | | | |
|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH |
| 1 | Δ= 02°51'58" | 115.00' | 5.75' |
| 2 | Δ= 02°51'58" | 115.00' | 5.75' |
| 3 | Δ= 11°38'56" | 115.00' | 23.38' |
| 4 | Δ= 02°51'58" | 115.00' | 5.75' |



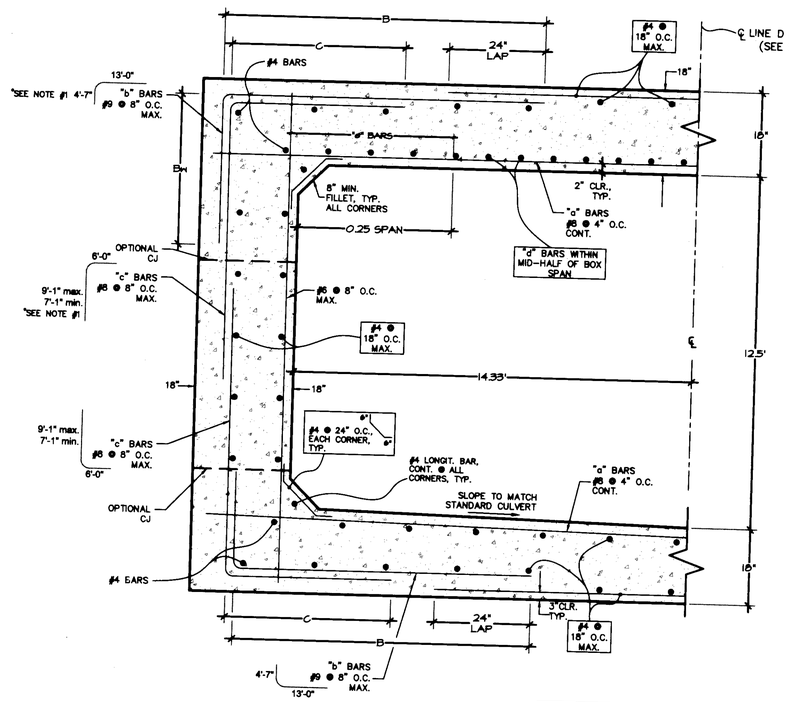

LINE D BRANCH 01 PROFILE VIEW (SECTION Q–Q)
FROM STA 11+42.40 TO STA 11+83.04
PER RCFC&WCD STD DRAWING BX401
SCALE 1":10'




**2 BEAM @ JUNCTION BOX OPENING**
SCALE: N.T.S.

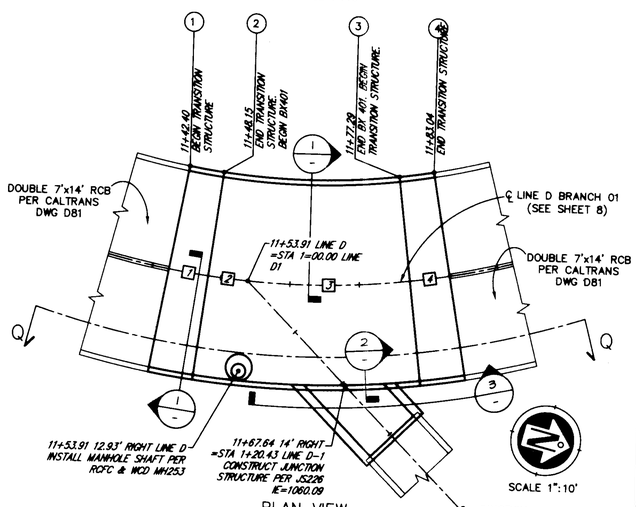



**3 JUNCTION BOX OPENING**
SCALE: N.T.S.




**1 TYPICAL SECTION @ JUNCTION BOX**
SCALE: N.T.S.

**NOTE:**
1. THIS DIMENSION TO BE 2'-8" @ BEAM OF JUNCTION STRUCTURE




PLAN VIEW
LINE D BRANCH 01 PLAN VIEW
FROM STA 11+42.40 TO STA 11+83.04
PER RCFC&WCD STD DRAWING BX401
SCALE 1":10'

SEE SHEET # FOR PLAN & PROFILE

**Underground Service Alert**
Call: TOLL FREE 1-800 422-4133
TWO WORKING DAYS BEFORE YOU DIG

GENERAL STATEMENTS ARE:
It is unlawful for any person that is a contractor with a currently unrevoked contractor's license, unrevocable contractor, or to respond to contract bid for construction of the work specified on the permit issued by the city for the construction activity to exercise all responsibility of the control, including safety of all persons and property during the performance of work, to the project, excepting liability arising from the sole negligence of design professional.

The private engineer signing these plans is responsible for assuring the accuracy and acceptability of the design hereon. In the event of discrepancies arising after city approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the city.

ENGINEER OF WORK:
**SKS Engineering, Inc.**
15008 ESPOLA ROAD
POWAY, CA 92064
No. C-62241 EXP. 12-31-2012

Plans Prepared Under Supervision Of
SAMSON J. ENGEDA 09/28/11
R.C.E. No. 52241 Expires 12-31-12
Date 04-11-2010

RECOMMEND FOR APPROVAL:
William G. Bird 10/13/11
RCE 48819
Bureau Veritas, NA

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL CITY APPROVAL |
|---|---|---|---|---|---|---|

SHEET 25 | **CITY OF MURRIETA** ENGINEERING DEPARTMENT | SHEETS 27

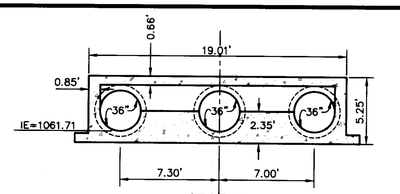
PUBLIC IMPROVEMENT PLAN FOR:
LINE D BRANCH 01 JUNCTION BOX
FROM STA 11+42.40 TO STA 11+83.04

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44233 DATE: 10/12/2011 EXP. DATE: 06/30/13

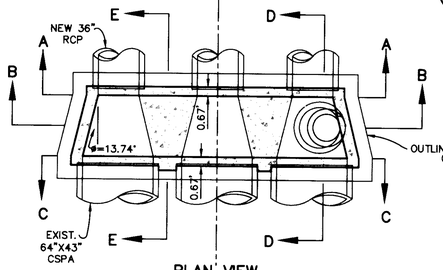
DRN BY: CHKD BY: FIELD BK: PROJECT NO. 10-335 CIP 8157 (ISD 6832) DRAWING NO. 11-127

DRAWING NUMBER 11-127

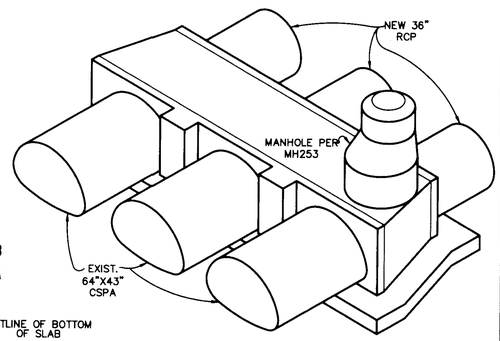
SAFCO PRODUCTS • 1-800-328-2665 MINNESOTA
REORDER BY PART NUMBER 8563



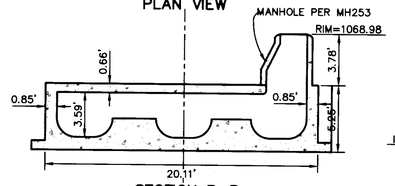

SECTION A–A



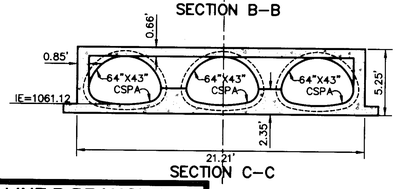

PLAN VIEW



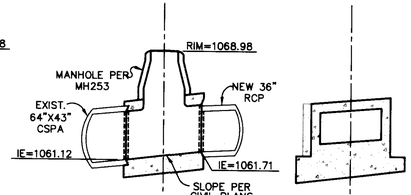

ISOMETRIC VIEW




SECTION B–B




SECTION C–C




SECTION D–D

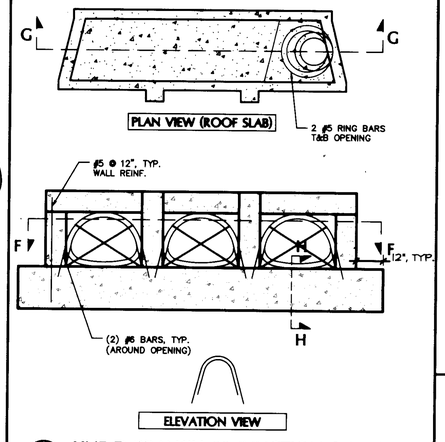


SECTION E–E

SEE SHEET # FOR PLAN & PROFILE

**LINE D BRANCH 02 JUNCTION STRUCTURE DIMENSIONS**

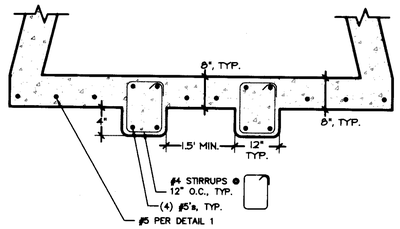
STORM DRAIN JUNCTION STRUCTURE
@ STA 15+88.52 LINE D BRANCH 02
SCALE 1":5'




PLAN VIEW (ROOF SLAB)

ELEVATION VIEW

## 1 LINE D BRANCH 02 JUNCTION STRUCTURE
SCALE: N.T.S.




## F SECTION F-F (PARTIAL SECTION)
SCALE: N.T.S.

# GENERAL NOTES

**LOAD FACTOR DESIGN (LFD)**

DESIGN:
- CALTRANS BRIDGE DESIGN SPECIFICATIONS - APRIL 2000 (LFD), (1996 AASHTO w/ INTERIMS & REVISIONS BY CALTRANS)
- CALTRANS BRIDGE DESIGN PRACTICE SECTION 6 - UNDERGROUND STRUCTURES

DEAD LOAD:
- 2' FILL HEIGHT
- 10' FILL HEIGHT

} $F_{SOIL}$ = 140 PCF

LIVE LOADING:
H520-44 TRUCK LOADING

REINFORCED CONCRETE:
$F_Y$ = 60,000 PSI

$F'_C$ = 4,000 PSI (ALL CULVERTS) UNLESS OTHERWISE NOTED

$F'_C$ = 3600 PSI (ALL RETAINING WALLS & OTHER STRUCTURES)

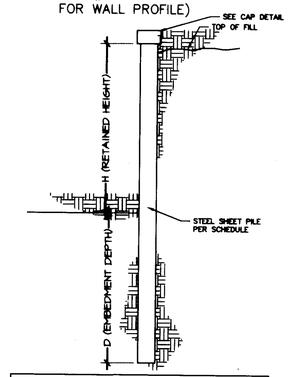
* ENGINEER TO DO A STRUCTURAL OBSERVATION AT THE FOLLOWING BENCHMARK STAGES:
- I) AFTER FOUNDATION EXCAVATION,
- II) AFTER STEEL PLACEMENT FOR CULVERT INVERT SLAB,
- III) AFTER STEEL PLACEMENT FOR CULVERT WALLS & ROOF

**FOUNDATION NOTES:**

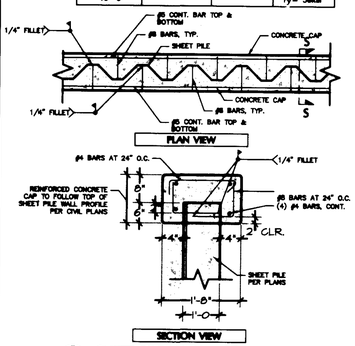
1. CULVERT AND ALL OTHER JUNCTION STRUCTURES TO BE PLACED ON SUITABLE FOUNDATION MATERIAL PER THE SOILS REPORT (DATED NOVEMBER 25, 2008, W.O. No. 1003501.00AA1)

**SPECIFICATIONS:**
- ALL WORK TO BE CONDUCTED PER RIVERSIDE COUNTY FLOOD CONTROL STANDARD DRAWINGS AND CALTRANS STANDARD SPECIFICATIONS, DATED MAY 2006
- REFER TO CALTRANS STANDARD PLANS DATED MAY 2006 FOR ALL STANDARD DETAILS NOT COVERED IN RCFC&WCD STANDARD DRAWINGS

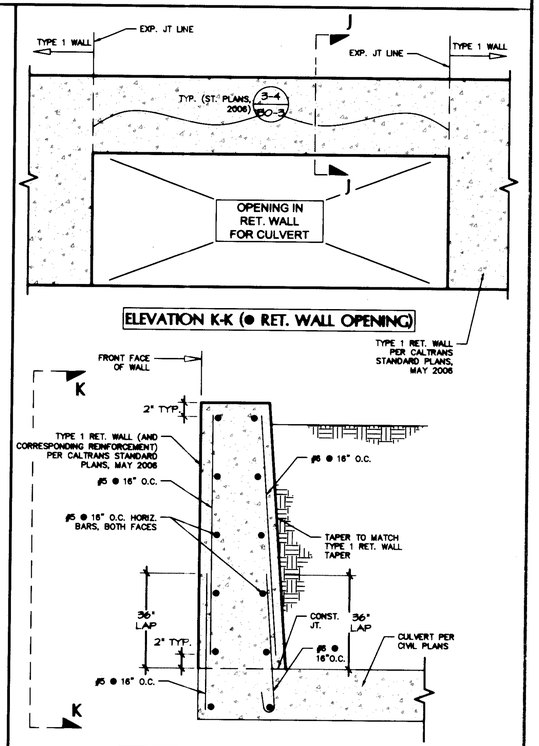
STEEL SHEET PILE RETAINING WALL
(SEE SHEET # ON CIVIL PLANS FOR WALL PROFILE)




| SHEET PILE SCHEDULE | | | |
|---|---|---|---|
| RETAINED SOIL HEIGHT, H | EMBEDMENT DEPTH OF PILE, D | STEEL PILE PROFILE TYPE | STEEL GRADE |
| 10'-0" & GREATER | 23'-0" | PZ-27 | A328 W/ $F_y$= 38ksi |
| LESS THEN 10'-0" | 15'-0" | PZ-27 | A328 W/ $F_y$= 38ksi |



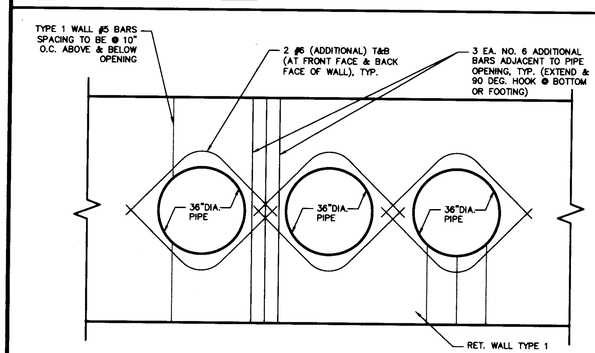

## S-5 SHEET PILE WALL - CONCRETE CAP DETAIL
SCALE: N.T.S.




ELEVATION K-K (@ RET. WALL OPENING)

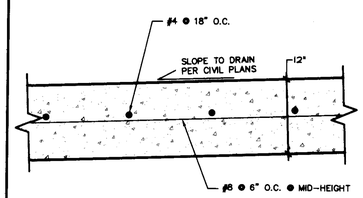
SECTION J-J (@ RET. WALL OPENING)

## 2 CULVERT OPENINGS @ NORTH RET. WALL
SCALE: N.T.S.



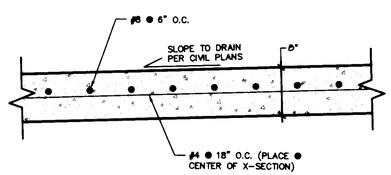

## 5 36" PIPE PENETRATION DETAIL @ RETAINING WALL TYPE 1
SCALE: N.T.S.

(SEE SHEET # )




NOTE: MAIN BARS TO TERMINATE WITH A 90° HOOK.

## H FOUNDATION MAT SECTION H-H
SCALE: N.T.S.




NOTE: MAIN BARS TO TERMINATE WITH A 90° HOOK.

## G ROOF SLAB SECTION G-G
SCALE: N.T.S.

**Underground Service Alert**

Call: TOLL FREE 1-800 422-4133

TWO WORKING DAYS BEFORE YOU DIG

The private engineer signing these plans is responsible for ensuring the accuracy and acceptability of the design herein. In the event of discrepancies arising after city approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the city.

ENGINEER OF WORK:
**SKS Engineering, Inc.**
15008 ESPOLA ROAD
POWAY, CA 92064

Plans Prepared Under Supervision Of
SAMSON L. ENGEDA 09/28/11
R.C.E. No. 52241 Date 04-11-2010 Expires 12-31-12

RECOMMEND FOR APPROVAL:
William G. Bixby 10/18/11
RCE 48819
Bureau Veritas, NA

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 26 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

PUBLIC IMPROVEMENT PLAN FOR:
GENERAL NOTES, RET. WALL OPENINGS, & LINE D BRANCH 02 JUNCTION STRUCTURE

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44833 DATE: 10/18/11 EXP. DATE: 08/30/13

DRWN BY: CHKD BY: FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

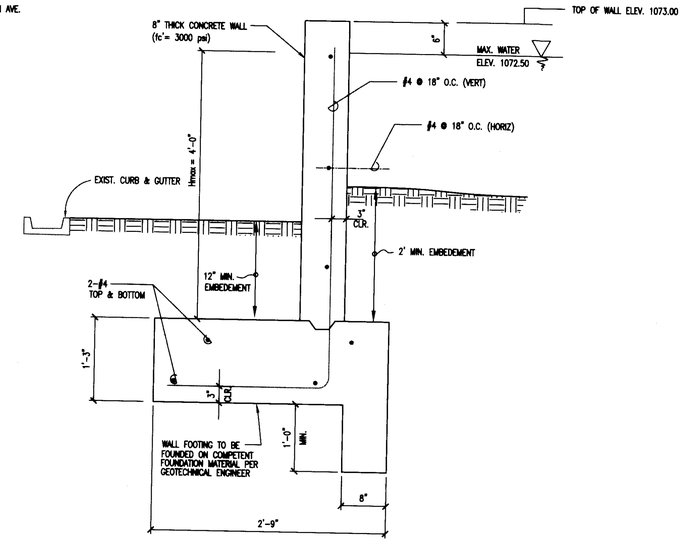
DRAWING NO. 11-128

DRAWING NUMBER

SAKCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 55302
PRINTED IMAGE OF PRINT ON THIS LINE

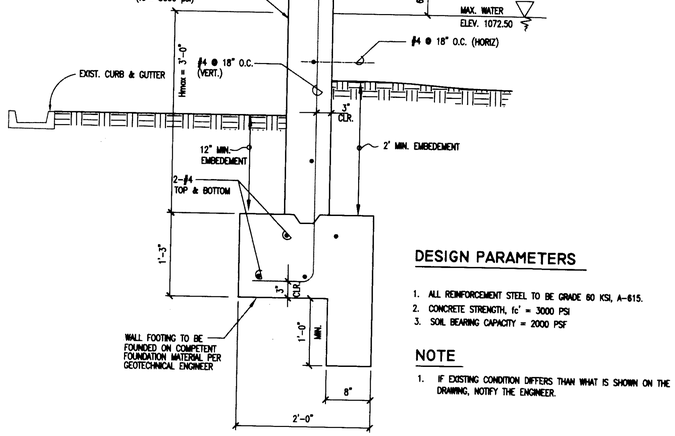
DRAWING NUMBER 11-128

SAKCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 55302
PRINTED IMAGE OF PRINT ON THIS LINE




## (A) FLOOD CONTROLWALL, REINFORCED CONCRETE
HMAX = 4'-0"

SCALE: 1"=1'-0"




## (B) FLOOD CONTROLWALL, REINFORCED CONCRETE
HMAX = 3'-0"

SCALE: 1"=1'-0"

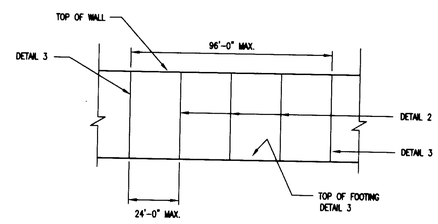
### DESIGN PARAMETERS

1. ALL REINFORCEMENT STEEL TO BE GRADE 60 KSI, A-615.
2. CONCRETE STRENGTH, fc' = 3000 PSI
3. SOIL BEARING CAPACITY = 2000 PSF

### NOTE

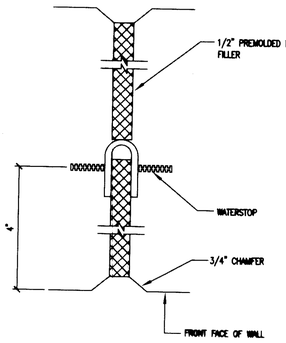
1. IF EXISTING CONDITION DIFFERS THAN WHAT IS SHOWN ON THE DRAWING, NOTIFY THE ENGINEER.

**ALL WORK SHOWN IN THE DRAWING SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS DATED MAY 2006.**



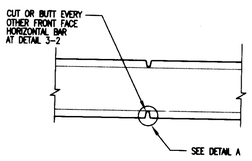

## DETAIL 1
SCALE: N.T.S.

**WALL EXPANSION JOINTS AND WEAKENED PLANES**

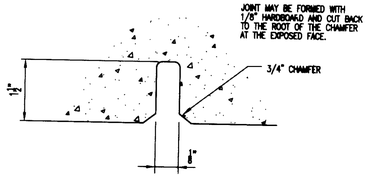



## DETAIL 3
SCALE: N.T.S.

**WALL EXPANSION JOINT**



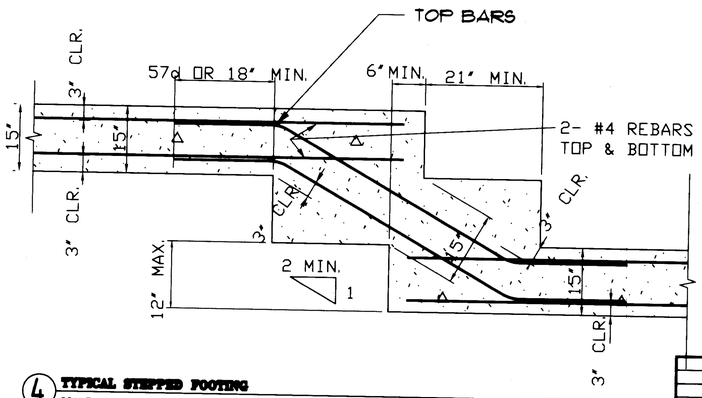

## SECTION




## DETAIL A

## DETAIL 2
SCALE: N.T.S.

**WEAKENED PLANES**




## (4) TYPICAL STEPPED FOOTING
SCALE: 1"=1'-0"

### SPECIAL INSPECTION:

THE FOLLOWING REQUIREMENT SHALL BE MET FOR SPECIAL INSPECTION:

1. SPECIAL INSPECTIONS, STRUCTURAL TESTS AND STRUCTURAL OBSERVATIONS SHALL COMPLY WITH THESE NOTES AND SPECIFICATIONS.
2. THE SPECIAL INSPECTOR MUST BE APPROVED BY THE CITY OF MURRIETA, IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION.
3. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE CITY OF MURRIETA FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS, AND EQUIPMENT.
4. FABRICATOR MUST BE REGISTERED AND APPROVED BY THE CITY OF MURRIETA FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP.
5. THE SPECIAL INSPECTIONS IDENTIFIED ON THE PLANS ARE, IN ADDITION TO THOSE INSPECTIONS REQUIRED BY CITY OF MURRIETA, AND ARE NOT A SUBSTITUTE FOR INSPECTION BY A CITY INSPECTOR.
6. A PROPERTY OWNER'S FINAL REPORT OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED BY THE PROPERTY OWNER, PROPERTY OWNER'S AGENT OF RECORD, ARCHITECT OF RECORD, OR ENGINEER OF RECORD AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.
7. AN APPLICATION TO PERFORM OFF-SITE FABRICATION MUST BE SUBMITTED TO THE INSPECTION SERVICES DIVISION FOR APPROVAL PRIOR TO FABRICATION.
8. A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION MUST BE COMPLETED AND SUBMITTED TO THE INSPECTION SERVICES DIVISION PRIOR TO ERECTION OF PREFABRICATED COMPONENTS.
9. OFF SITE FABRICATOR MUST BE REGISTERED AND APPROVED BY THE CITY OF MURRIETA FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP.

### REQUIRED VERIFICATION AND INSPECTION OF SOILS

| No. | VERIFICATION AND INSPECTION TASK | CONTINUOUS | PERIODICALLY |
|---|---|---|---|
| 1. | SOIL COMPLIANCE PRIOR TO FOUNDATION PLACEMENT | —— | X |
| 2. | VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY. | —— | X |
| 3. | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. | —— | X |
| 4. | PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS. | —— | X |
| 5. | VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL. | X | —— |
| 6. | PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY. | —— | X |

### REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION:

| No. | VERIFICATION AND INSPECTION TASK | CONTINUOUS DURING TASK LISTED | PERIODICALLY DURING TASK LISTED |
|---|---|---|---|
| 1. | INSPECTION OF REINFORCING STEEL | —— | X |
| 2. | VERIFYING USE OF REQUIRED CONCRETE MIX DESIGN | —— | X |
| 3. | AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. | X | —— |
| 4. | INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES. | X | —— |
| 5. | INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. | —— | X |

**Underground Service Alert**

Call: TOLL FREE 1-800 422-4133

TWO WORKING DAYS BEFORE YOU DIG

Plans approved are for permitting purposes only and shall not be construed as authority to violate, cancel or set aside any provisions of the codes or ordinances governing the work covered by these plans nor shall it be construed as giving authority to violate or cancel the orders or notices issued by any department or agency of this city or state. Approval of these plans does not relieve the owner or his agent of the responsibility to comply with all codes and ordinances of this city and state, and of others from whom permits are required. Any deviations must be approved in writing by the person who signed these plans or their successor in office.

The private engineer signing these plans is responsible for ensuring the accuracy and acceptability of the design hereon. In the event of discrepancies arising after city approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the city.

ENGINEER OF WORK

**SKS Engineering, Inc.**
15008 ESPOLA ROAD
POWAY, CA 92064

SAMSON J. ENGEDA — 04/28/11
R.C.E. No. 52241

Plans Prepared Under Supervision Of
SAMSON J. ENGEDA — 04/28/11
Date 04-11-2010
R.C.E. No. 52241 — Expires 12-31-12

RECOMMEND FOR APPROVAL:
William G. Burby — 10/3/11
William G. Burby
RCE 48819
Bureau Veritas, NA

| DATE | INITIAL | ENGINEER OF WORK |
|---|---|---|

| SHT. NO. | REVISION DESCRIPTION | DATE | INITIAL CITY APPROVAL |
|---|---|---|---|

SHEET 27 — **CITY OF MURRIETA** ENGINEERING DEPARTMENT — SHEETS 27

PUBLIC IMPROVEMENT PLAN FOR:
GENERAL NOTES, RET. WALL OPENINGS, & LINE D BRANCH 02 JUNCTION STRUCTURE

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44253 EXP. DATE: 06/30/13

DRWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-129

DRAWING NUMBER

SAVCO PRODUCTS • NEW ULM, MINNESOTA
RECORDER BY PART NUMBER 03302

DRAWING NUMBER
11-129

## Summary for Hydrograph Addition at 'Onsite Detention Basin'

| Upstream Link | Upstream Node |
|---|---|
| <Catchment to Outflow Node> | Unit Hydrograph (Onsite Runoff) |

## Node Inflows

| Inflow Type | Element | Volume ($ft^3$) | Time to Peak (hours) | Flow (Peak) ($ft^3/s$) |
|---|---|---|---|---|
| Flow (From) | Unit Hydrograph (Onsite Runoff) | 265,441.735 | 13.289 | 11.7700 |
| Flow (In) | Onsite Detention Basin | 265,549.217 | 13.300 | 11.7700 |

| | |
|---|---|
| Peak Discharge | 8.7647 ft³/s |
| Time to Peak | 15.000 hours |
| Hydrograph Volume | 125,693.510 ft³ |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 0.300 | 0.0008 | 0.0012 | 0.0016 | 0.0020 | 0.0024 |
| 0.550 | 0.0028 | 0.0033 | 0.0039 | 0.0044 | 0.0050 |
| 0.800 | 0.0055 | 0.0062 | 0.0068 | 0.0075 | 0.0081 |
| 1.050 | 0.0088 | 0.0094 | 0.0101 | 0.0108 | 0.0114 |
| 1.300 | 0.0121 | 0.0127 | 0.0133 | 0.0139 | 0.0145 |
| 1.550 | 0.0151 | 0.0157 | 0.0163 | 0.0169 | 0.0175 |
| 1.800 | 0.0181 | 0.0188 | 0.0194 | 0.0201 | 0.0208 |
| 2.050 | 0.0214 | 0.0222 | 0.0229 | 0.0237 | 0.0244 |
| 2.300 | 0.0251 | 0.0259 | 0.0267 | 0.0274 | 0.0282 |
| 2.550 | 0.0290 | 0.0298 | 0.0306 | 0.0315 | 0.0323 |
| 2.800 | 0.0332 | 0.0341 | 0.0350 | 0.0360 | 0.0369 |
| 3.050 | 0.0379 | 0.0388 | 0.0398 | 0.0407 | 0.0416 |
| 3.300 | 0.0426 | 0.0436 | 0.0445 | 0.0455 | 0.0464 |
| 3.550 | 0.0474 | 0.0483 | 0.0493 | 0.0502 | 0.0512 |
| 3.800 | 0.0522 | 0.0532 | 0.0542 | 0.0552 | 0.0562 |
| 4.050 | 0.0573 | 0.0584 | 0.0595 | 0.0606 | 0.0617 |
| 4.300 | 0.0628 | 0.0640 | 0.0652 | 0.0664 | 0.0676 |
| 4.550 | 0.0689 | 0.0702 | 0.0715 | 0.0728 | 0.0741 |
| 4.800 | 0.0754 | 0.0768 | 0.0781 | 0.0795 | 0.0809 |
| 5.050 | 0.0823 | 0.0836 | 0.0849 | 0.0863 | 0.0872 |
| 5.300 | 0.0878 | 0.0885 | 0.0891 | 0.0897 | 0.0903 |
| 5.550 | 0.0909 | 0.0916 | 0.0923 | 0.0930 | 0.0936 |
| 5.800 | 0.0944 | 0.0951 | 0.0958 | 0.0965 | 0.0973 |
| 6.050 | 0.0980 | 0.0988 | 0.0995 | 0.1003 | 0.1011 |
| 6.300 | 0.1019 | 0.1027 | 0.1036 | 0.1044 | 0.1052 |
| 6.550 | 0.1061 | 0.1070 | 0.1079 | 0.1089 | 0.1098 |
| 6.800 | 0.1108 | 0.1118 | 0.1128 | 0.1138 | 0.1149 |
| 7.050 | 0.1159 | 0.1170 | 0.1180 | 0.1191 | 0.1201 |
| 7.300 | 0.1213 | 0.1224 | 0.1235 | 0.1247 | 0.1259 |
| 7.550 | 0.1271 | 0.1284 | 0.1297 | 0.1307 | 0.1318 |
| 7.800 | 0.1328 | 0.1339 | 0.1351 | 0.1362 | 0.1374 |
| 8.050 | 0.1386 | 0.1399 | 0.1413 | 0.1426 | 0.1440 |
| 8.300 | 0.1454 | 0.1469 | 0.1484 | 0.1499 | 0.1514 |
| 8.550 | 0.1530 | 0.1546 | 0.1562 | 0.1578 | 0.1594 |
| 8.800 | 0.1611 | 0.1626 | 0.1641 | 0.1655 | 0.1670 |
| 9.050 | 0.1686 | 0.1702 | 0.1718 | 0.1734 | 0.1751 |
| 9.300 | 0.1768 | 0.1786 | 0.1804 | 0.1822 | 0.1841 |
| 9.550 | 0.1859 | 0.1879 | 0.1896 | 0.1913 | 0.1931 |
| 9.800 | 0.1948 | 0.1966 | 0.1985 | 0.2003 | 0.2020 |

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 10.050 | 0.2037 | 0.2053 | 0.2069 | 0.2085 | 0.2101 |
| 10.300 | 0.2115 | 0.2126 | 0.2138 | 0.2149 | 0.2161 |
| 10.550 | 0.2174 | 0.2186 | 0.2199 | 0.2212 | 0.2225 |
| 10.800 | 0.2239 | 0.2254 | 0.2269 | 0.2284 | 0.2298 |
| 11.050 | 0.2313 | 0.2328 | 0.2341 | 0.2355 | 0.2369 |
| 11.300 | 0.2382 | 0.2395 | 0.2409 | 0.2422 | 0.2435 |
| 11.550 | 0.2448 | 0.2461 | 0.2474 | 0.2486 | 0.2499 |
| 11.800 | 0.2511 | 0.2523 | 0.2535 | 0.2546 | 0.2558 |
| 12.050 | 0.2571 | 0.2585 | 0.2599 | 0.2612 | 0.2627 |
| 12.300 | 0.2643 | 0.2659 | 0.2676 | 0.2693 | 0.2709 |
| 12.550 | 0.2726 | 0.2743 | 0.2760 | 0.2778 | 0.2795 |
| 12.800 | 0.2813 | 0.2832 | 0.2850 | 0.2869 | 0.4513 |
| 13.050 | 0.9120 | 1.3634 | 1.7940 | 2.2050 | 2.6094 |
| 13.300 | 3.0184 | 3.4195 | 3.8022 | 4.4040 | 4.9888 |
| 13.550 | 5.4692 | 5.8842 | 6.2644 | 6.6130 | 6.8894 |
| 13.800 | 7.0646 | 7.1903 | 7.3055 | 7.4110 | 7.5125 |
| 14.050 | 7.6138 | 7.7103 | 7.7987 | 7.8798 | 7.9642 |
| 14.300 | 8.0590 | 8.1534 | 8.2399 | 8.3192 | 8.3902 |
| 14.550 | 8.4523 | 8.5081 | 8.5592 | 8.6060 | 8.6459 |
| 14.800 | 8.6775 | 8.7044 | 8.7291 | 8.7517 | 8.7647 |
| 15.050 | 8.7636 | 8.7574 | 8.7518 | 8.7465 | 8.7324 |
| 15.300 | 8.7047 | 8.6734 | 8.6447 | 8.6178 | 8.5723 |
| 15.550 | 8.4979 | 8.4171 | 8.3431 | 8.2743 | 8.1911 |
| 15.800 | 8.0842 | 7.9745 | 7.8739 | 7.7780 | 7.6292 |
| 16.050 | 7.4019 | 7.1597 | 6.9377 | 6.7285 | 6.4637 |
| 16.300 | 6.1143 | 5.7550 | 5.4257 | 5.1221 | 4.8252 |
| 16.550 | 4.5263 | 4.2428 | 3.9830 | 3.8049 | 3.6764 |
| 16.800 | 3.5463 | 3.4195 | 3.2985 | 3.1832 | 3.0739 |
| 17.050 | 2.9707 | 2.8726 | 2.7790 | 2.6900 | 2.6078 |
| 17.300 | 2.5329 | 2.4626 | 2.3956 | 2.3317 | 2.2714 |
| 17.550 | 2.2147 | 2.1609 | 2.1095 | 2.0603 | 2.0118 |
| 17.800 | 1.9637 | 1.9173 | 1.8729 | 1.8303 | 1.7876 |
| 18.050 | 1.7445 | 1.7026 | 1.6626 | 1.6244 | 1.5874 |
| 18.300 | 1.5515 | 1.5170 | 1.4841 | 1.4525 | 1.4210 |
| 18.550 | 1.3894 | 1.3587 | 1.3294 | 1.3009 | 1.2707 |
| 18.800 | 1.2387 | 1.2071 | 1.1770 | 1.1481 | 1.1199 |
| 19.050 | 1.0921 | 1.0654 | 1.0400 | 1.0162 | 0.9961 |
| 19.300 | 0.9795 | 0.9644 | 0.9500 | 0.9363 | 0.9236 |
| 19.550 | 0.9119 | 0.9008 | 0.8902 | 0.8795 | 0.8668 |
| 19.800 | 0.8520 | 0.8372 | 0.8232 | 0.8096 | 0.7964 |
| 20.050 | 0.7833 | 0.7708 | 0.7588 | 0.7477 | 0.7382 |
| 20.300 | 0.7303 | 0.7229 | 0.7159 | 0.7093 | 0.7031 |
| 20.550 | 0.6974 | 0.6921 | 0.6869 | 0.6817 | 0.6753 |
| 20.800 | 0.6680 | 0.6607 | 0.6538 | 0.6472 | 0.6407 |

Subsection: Diverted Hydrograph
Scenario: Base
Label: Outlet-1

**HYDROGRAPH ORDINATES (ft³/s)**
**Output Time Increment = 0.050 hours**
**Time on left represents time for first value in each row.**

| Time (hours) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) | Flow (ft³/s) |
|---|---|---|---|---|---|
| 21.050 | 0.6342 | 0.6281 | 0.6222 | 0.6166 | 0.6113 |
| 21.300 | 0.6062 | 0.6013 | 0.5967 | 0.5922 | 0.5877 |
| 21.550 | 0.5832 | 0.5790 | 0.5749 | 0.5710 | 0.5673 |
| 21.800 | 0.5637 | 0.5604 | 0.5571 | 0.5541 | 0.5511 |
| 22.050 | 0.5483 | 0.5457 | 0.5431 | 0.5407 | 0.5383 |
| 22.300 | 0.5361 | 0.5340 | 0.5320 | 0.5296 | 0.5258 |
| 22.550 | 0.5212 | 0.5165 | 0.5121 | 0.5077 | 0.5031 |
| 22.800 | 0.4985 | 0.4939 | 0.4896 | 0.4855 | 0.4816 |
| 23.050 | 0.4779 | 0.4743 | 0.4709 | 0.4676 | 0.4642 |
| 23.300 | 0.4608 | 0.4576 | 0.4545 | 0.4515 | 0.4487 |
| 23.550 | 0.4460 | 0.4434 | 0.4410 | 0.4386 | 0.4364 |
| 23.800 | 0.4343 | 0.4323 | 0.4303 | 0.4273 | 0.4214 |

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# Project Specific Water Quality Management Plan

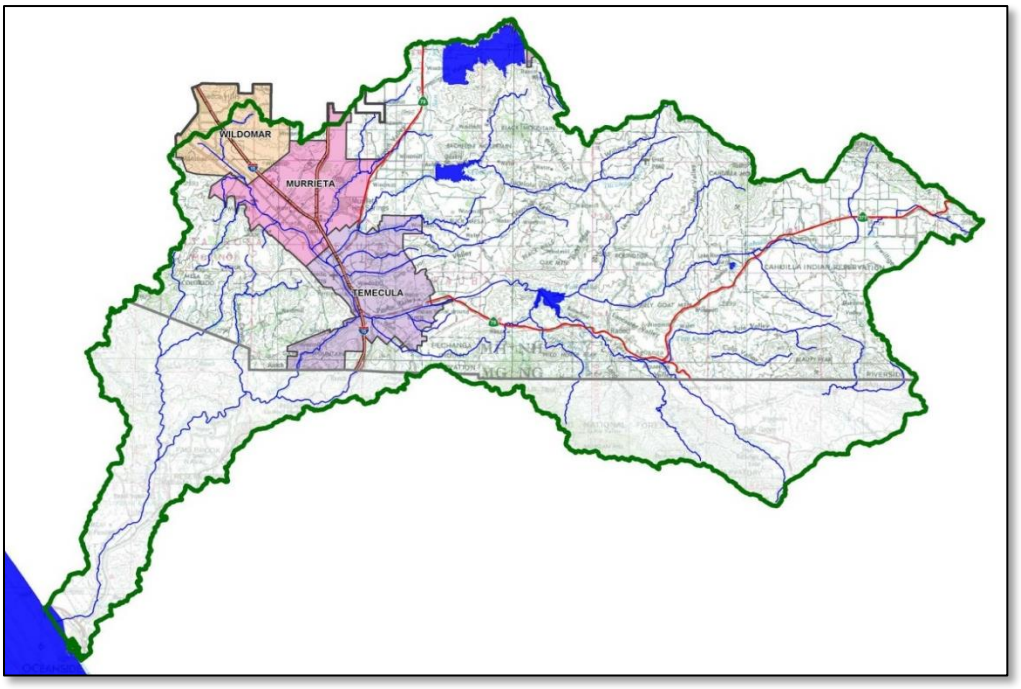
*A Template for preparing Project Specific WQMPs for Priority Development Projects located within the **Santa Margarita Region** of **Riverside County**. This template does not apply to projects in other watersheds within Riverside County. It does not apply to projects in San Diego or Orange County.*

Attention: This submittal package only applies to "Priority Development Projects" and does not apply to "Other Development Projects". Proceed only if the Applicabilty Checklist completed for your project categorizes project activities as a "Priority Development Project."

**Project Title:** LMC Murrieta Apartments

**Development No:**

**Design Review/Case No:** DP 2022-2605




☒ **Preliminary**
☐ **Final**

**Original Date Prepared**: June 16, 2022

**Revision Date(s)**: September 14, 2022

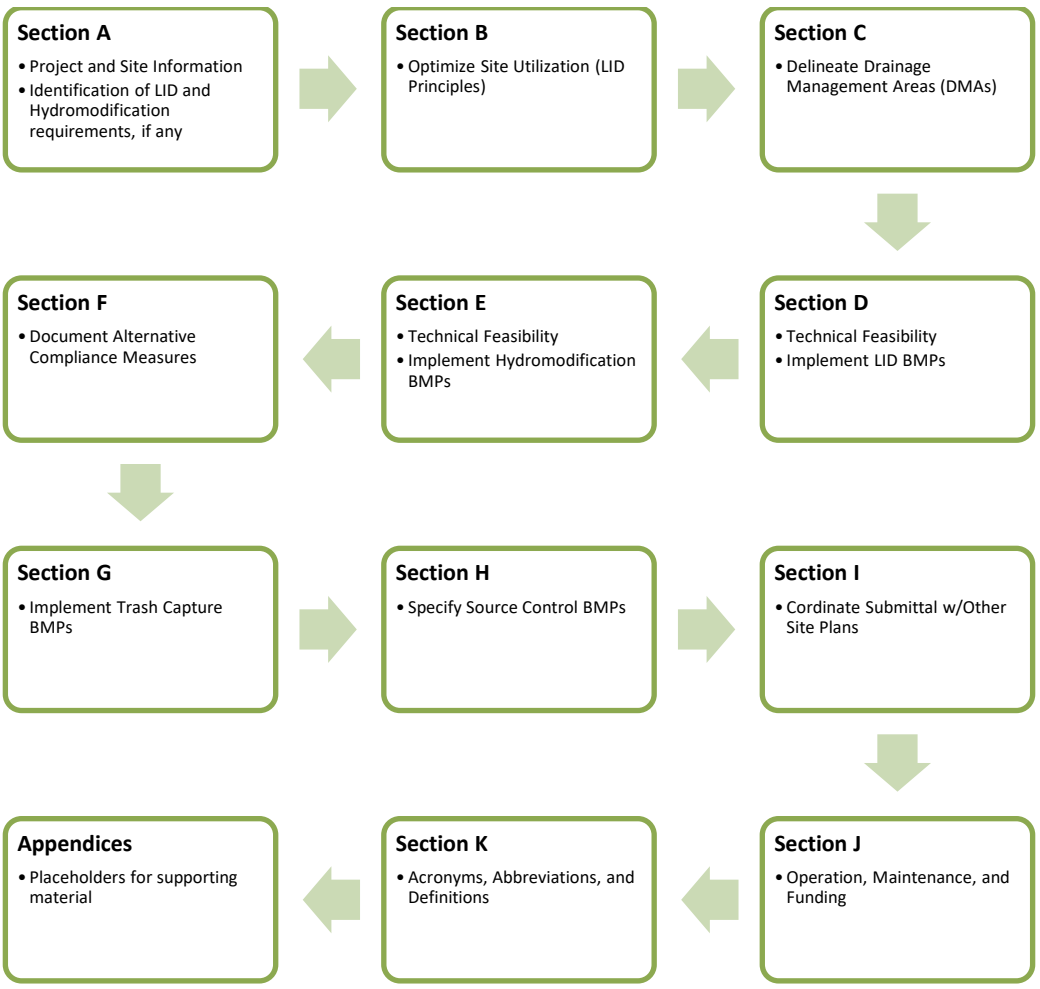
**Prepared for:**
Lennar Multifamily Communities, LLC
95 Enterprise, Suite 200
Aliso Viejo, CA 92656

**Prepared by:**
Kimley-Horn and Associates, Inc.
1100 Town and Country Rd, Suite 700
Orange, CA 92868

*Prepared for Compliance with Regional Board Order No.* **R9-2013-0001** *as amended by Order No.* **R9-2015-0001** *and Order No.* **R9-2015-0100**

## A Brief Introduction

The Regional Municipal Separate Stormwater Sewer System (MS4) Permit[1] requires that a Project-Specific WQMP be prepared for all development projects within the Santa Margarita Region (SMR) that meet the 'Priority Development Project' categories and thresholds listed in the SMR Water Quality Management Plan (WQPM). This Project-Specific WQMP Template for Development Projects in the **Santa Margarita Region** has been prepared to help document compliance and prepare a WQMP submittal. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.




[1] Order No. R9-2013-0001 as amended by Order Nos. R9-2015-0001 and R9-2015-0100, NPDES No. CAS0109266, National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the MS4s Draining the Watersheds within the San Diego Region, California Regional Water Quality Control Board, May 8, 2013.

DocuSign Envelope ID: BAF51574-D838-429F-ABE3-C44F25ABF2B1



## OWNER'S CERTIFICATION

This Project-Specific WQMP has been prepared for LMC Murrieta Holdings, LLC by Kimley-Horn and Associates, Inc. for the LMC Murrieta Apartments project.

This WQMP is intended to comply with the requirements of City of Murrieta Stormwater and Runoff Management and Discharge Controls Municipal Code Section 8.36.320, Water Quality Management Plan, which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater Best Management Practices until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under the City of Murrieta Stormwater and Runoff Management and Discharge Controls (Municipal Code Section 8.36).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

DocuSigned by:
Dan Ferguson
590C4FA4FE4C494...

Owner's Signature

9/13/2022
Date

Dan Ferguson
Owner's Printed Name

Vice President
Owner's Title/Position

## PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control Best Management Practices in this plan meet the requirements of Regional Water Quality Control Board Order No. **R9-2013-0001** as amended by Order Nos. **R9-2015-0001 and R9-2015-0100**."

Erica M Kawata

Preparer's Signature

09/21/2022
Date

Erica Kawata, PE
Preparer's Printed Name

Project Engineer
Preparer's Title/Position

Preparer's Licensure: 92986

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# Section A: Project and Site Information

Use the table below to compile and summarize basic site information that will be important for completing subsequent steps. Subsections A.1 through A.4 provide additional detail on documentation of additional project and site information.

| | | |
|---|---|---|
| **PROJECT INFORMATION** | | |
| Type of PDP: | New Development | |
| Type of Project: | Multi-Family Residential | |
| Planning Area: | N/A | |
| Community Name: | N/A | |
| Development Name: | LMC Murrieta Apartments | |
| **PROJECT LOCATION** | | |
| Latitude & Longitude (DMS): | 33.550284, -117.197121 | |
| Project Watershed and Sub-Watershed: | Santa Margarita River | |
| 24-Hour 85$^{th}$ Percentile Storm Depth (inches): | 0.81 | |
| Is project subject to Hydromodification requirements? | ☒ Y ☐ N (Select based on Section A.3) | |
| APN(s): | 910-410-011 | |
| Map Book and Page No.: | Parcel Map 15420, Pages: 95,81,82 | |
| **PROJECT CHARACTERISTICS** | | |
| Proposed or Potential Land Use(s) | | Multi-Family Residential |
| Proposed or Potential SIC Code(s) | | N/A |
| Existing Impervious Area of Project Footprint (SF) | | 571,744 SF |
| Total area of <u>proposed</u> Impervious Surfaces within the Project Limits (SF)/or Replacement | | 467,888 SF |
| Total Project Area (ac) | | 13.35 acres |
| Does the project consist of offsite road improvements? | | ☐ Y ☒ N |
| Does the project propose to construct unpaved roads? | | ☐ Y ☒ N |
| Is the project part of a larger common plan of development (phased project)? | | ☐ Y ☒ N |
| Is the project exempt from Hydromodification Performance Standards? | | ☐ Y ☒ N |
| Does the project propose the use of Alternative Compliance to satisfy BMP requirements? (note, alternative compliance is not allowed for coarse sediment performance standards) | | ☐ Y ☒ N |
| Has preparation of Project-Specific WQMP included coordination with other site plans? | | ☐ Y ☒ N |
| **EXISTING SITE CHARACTERISTICS** | | |
| Is the project located within any Multi-Species Habitat Conservation Plan area (MSHCP Criteria Cell?) | | ☐ Y ☒ N<br>If "Y" insert Cell Number |
| Are there any natural hydrologic features on the project site? | | ☐ Y ☒ N |
| Is a Geotechnical Report attached? | | ☒ Y ☐ N |
| If no Geotech. Report, list the Natural Resources Conservation Service (NRCS) soils type(s) present on the site (A, B, C and/or D) | | N/A |

## A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the Project vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Vicinity and location maps
- Parcel Boundary and Project Footprint
- Existing and Proposed Topography
- Drainage Management Areas (DMAs)
- Proposed Structural Best Management Practices (BMPs)
- Drainage Paths
- Drainage infrastructure, inlets, overflows
- Source Control BMPs
- Site Design BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Pervious Surfaces (i.e. Landscaping)
- Standard Labeling

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Copermittee plan reviewer must be able to easily analyze your Project utilizing this template and its associated site plans and maps. Complete the checklists in Appendix 1 to verify that all exhibits and components are included.

## A.2 Identify Receiving Waters

Using Table A-1 below, list in order of upstream to downstream, the Receiving Waters that the Project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated Beneficial Uses, and proximity, if any, to a RARE Beneficial Use. Include a map of the Receiving Waters in Appendix 1. This map should identify the path of the stormwater discharged from the site all the way to the outlet of the Santa Margarita River to the Pacific Ocean. Use the most recent 303(d) list available from the State Water Resources Control Board Website.
*(http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/)*

**Table A-1** Identification of Receiving Waters

| Receiving Waters | USEPA Approved 303(d) List Impairments | Designated Beneficial Uses | Proximity to RARE Beneficial Use |
|---|---|---|---|
| Murrietta Creek | Chlorpyrifos, Indicator Bacteria, Copper, Iron, Manganese, Nitrogen, Phosphorus, Toxicity | MUNI, AGR, IND, PROC, REC2, WARM, WILD | |
| Santa Margarita River (Upper) | Indicator bacteria, Iron, Manganese, Nitrogen, Phosphorus, Selenium, Toxicity | MUN, AGR, IND, REC1, REC2, WARN, COLD, WILD, **RARE** | The site is approximately 6.2 miles northwest from the confluence of Murrieta Creek and the Santa Margarita River. |
| Santa Margarita River (Lower) | Benthic Community Effect, Chlorpyrifos, Indicator Bacteria, Nitrogen, Phosphorus, Toxicity | | |

## A.3 Drainage System Susceptibility to Hydromodification

Using Table A-2 below, list in order of the point of discharge at the project site down to the Santa Margarita River[2], each drainage system or receiving water that the project site is tributary to. Continue to fill each row with the material of the drainage system, and any exemption (if applicable). Based on the results, summarize the applicable hydromodification performance standards that will be documented in Section E. Exempted categories of receiving waters include:

- Existing storm drains that discharge directly to water storage reservoirs, lakes, or enclosed embayments, or
- Conveyance channels whose bed and bank are concrete lined all the way from the point of discharge to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.
- Other water bodies identified in an approved WMAA (See Exhibit G to the WQMP)

Include a map exhibiting each drainage system and the associated susceptibility in Appendix 1.

**Table A-2** Identification of Susceptibility to Hydromodification

| Drainage System | Drainage System Material | Hydromodification Exemption | Hydromodification Exempt |
|---|---|---|---|
| Murrietta Creek<br>6.2 miles | Native bottom | Exempt at the confluence and downstream of Warm Springs Creek | ☐ Y ☒ N |
| Santa Margarita River<br>26 miles | Engineered bottom | Exempt. | ☒ Y ☐ N |
| | | | ☐ Y ☐ N |
| **Summary of Performance Standards** | | | |
| ☐ **Hydromodification Exempt** – Select if "Y" is selected in the Hydromodification Exempt column above, project is exempt from hydromodification requirements.<br>☒ **Not Exempt**-Select if "N" is selected in any row of the Hydromodification Exempt column above. Project is subject to hydrologic control requirements and may be subject to sediment supply requirements. | | | |

## A.4 Additional Permits/Approvals required for the Project:

**Table A-3** Other Applicable Permits

| Agency | Permit Required | |
|---|---|---|
| State Department of Fish and Game, 1602 Streambed Alteration Agreement | ☐ Y | ☒ N |
| State Water Resources Control Board, Clean Water Act Section 401 Water Quality Certification | ☐ Y | ☒ N |
| US Army Corps of Engineers, Clean Water Act Section 404 Permit | ☐ Y | ☒ N |
| US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion | ☐ Y | ☒ N |

[2] Refer to Exhibit G of the WQMP for a map of exempt and potentially exempt areas. These maps are from the Draft SMR WMAA as of January 5, 2018 and will be replaced upon acceptance of the SMR WMAA.

| | | |
|---|---|---|
| Statewide Construction General Permit Coverage | ☒ Y | ☐ N |
| Statewide Industrial General Permit Coverage | ☐ Y | ☒ N |
| Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP) | ☐ Y | ☒ N |
| Other *(please list in the space below as required)* | ☐ Y | ☒ N |

If yes is answered to any of the questions above, the Copermittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

# Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for LID Bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your Low Impact Development (LID) design and explain your design decisions to others.

Apply the following LID Principles to the layout of the PDP to the extent they are applicable and feasible. Putting thought upfront about how best to organize the various elements of a site can help to significantly reduce the PDP's potential impact on the environment and reduce the number and size of Structural LID BMPs that must be implemented. Integrate opportunities to accommodate the following LID Principles within the preliminary PDP site layout to maximize implementation of LID Principles.

## Site Optimization

Complete checklist below to determine applicable Site Design BMPs for your site.

## Project- Specific WQMP Site Design BMP Checklist

The following questions below are based upon Section 3.2 of the SMR WQMP will help you determine how to best optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

### SITE DESIGN REQUIREMENTS

Answer the following questions below by indicating "Yes," "No," or "N/A" (Not Applicable). Justify all "No" and "N/A" answers by inserting a narrative at the end of the section. The narrative should include identification and justification of any constraints that would prevent the use of those categories of LID BMPs. Upon identifying Site Design BMP opportunities, include these on your WQMP Site plan in Appendix 1.

☒ Yes ☐ No ☐ N/A

**Did you identify and preserve existing drainage patterns?**

Integrating existing drainage patterns into the site plan helps to maintain the time of concentration and infiltration rates of runoff, decreasing peak flows, and may also help preserve the contribution of Critical Coarse Sediment (i.e., Bed Sediment Supply) from the PDP to the Receiving Water. Preserve existing drainage patterns by:

- Minimizing unnecessary site grading that would eliminate small depressions, where appropriate add additional "micro" storage throughout the site landscaping.
- Where possible conform the PDP site layout along natural landforms, avoid excessive grading and disturbance of vegetation and soils, preserve or replicate the sites natural drainage features and patterns.
- Set back PDP improvements from creeks, wetlands, riparian habitats and any other natural water bodies.
- Use existing and proposed site drainage patterns as a natural design element, rather than using expensive impervious conveyance systems. Use depressed landscaped areas, vegetated buffers, and bioretention areas as amenities and focal points within the site and landscape design.

Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.

*Yes, under existing conditions, stormwater runoff sheetflows to an existing outfall located on the southwest corner of the site. Under proposed conditions, storm water will generally flow the same drainage patterns and be collected in a detention basin designed to release storm water at a calculated rate to mimic existing conditions.*

☒ Yes ☐ No ☐ N/A

**Did you identify and protect existing vegetation?**

Identify any areas containing dense native vegetation or well-established trees, and try to avoid disturbing these areas. Soils with thick, undisturbed vegetation have a much higher capacity to store and infiltrate runoff than do disturbed soils. Reestablishment of a mature vegetative community may take decades. Sensitive areas, such as streams and floodplains should also be avoided.

- Define the development envelope and protected areas, identifying areas that are most suitable for development and areas that should be left undisturbed.
- Establish setbacks and buffer zones surrounding sensitive areas.
- Preserve significant trees and other natural vegetation where possible.

Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.

*Existing vegetation will be redeveloped as part of the project. Additionally, vegetation strips and buffers have been proposed. On the northern edge of the site, the creek and its side slopes will be protected, as will the outfall basin.*

| Project- Specific WQMP Site Design BMP Checklist | |
|---|---|
| ☒ Yes ☐ No ☐ N/A | **Did you identify and preserve natural infiltration capacity?**<br>A key component of LID is taking advantage of a site's natural infiltration and storage capacity. A site survey and geotechnical investigation can help define areas with high potential for infiltration and surface storage.<br>• Identify opportunities to locate LID Principles and Structural BMPs in highly pervious areas. Doing so will maximize infiltration and limit the amount of runoff generated.<br>• Concentrate development on portions of the site with less permeable soils, and preserve areas that can promote infiltration. |
| Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.<br>*According to the web soil survey pulled for our site, low infiltration rates are expected on site due to poor soil conditions. No infiltration BMPs have been identified. Infiltration rates will be confirmed prior to final design.* | |
| ☒ Yes ☐ No ☐ N/A | **Did you minimize impervious area?**<br>Look for opportunities to limit impervious cover through identification of the smallest possible land area that can be practically impacted or disturbed during site development.<br>• Limit overall coverage of paving and roofs. This can be accomplished by designing compact, taller structures, narrower and shorter streets and sidewalks, clustering buildings and sharing driveways, smaller parking lots (fewer stalls, smaller stalls, and more efficient lanes), and indoor or underground parking.<br>• Inventory planned impervious areas on your preliminary site plan. Identify where permeable pavements, or other permeable materials, such as crushed aggregate, turf block, permeable modular blocks, pervious concrete or pervious asphalt could be substituted for impervious concrete or asphalt paving. This will help reduce the amount of Runoff that may need to be addressed through Structural BMPs.<br>• Examine site layout and circulation patterns and identify areas where landscaping can be substituted for pavement, such as for overflow parking.<br>• Consider green roofs. Green roofs are roofing systems that provide a layer of soil/vegetative cover over a waterproofing membrane. A green roof mimics pre-development conditions by filtering, absorbing, and evapotranspiring precipitation to help manage the effects of an otherwise impervious rooftop. |
| Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.<br>*Impervious areas have been minimized to the maximum extent practicable. Impervious areas are included for parking, sidewalks, and the proposed multifamily residences. Parking lots, drive aisles, and sidewalks have all been designed to the minimum dimensions allowed. In addition, permeable pavement has been implanted in all available areas to increase infiltration capacity otherwise. Permeable pavement has been included in pervious area as shown in calculations in Appendix 6.* | |

## Project- Specific WQMP Site Design BMP Checklist

☐ Yes ☒ No ☐ N/A

**Did you identify and disperse runoff to adjacent pervious areas or small collection areas?**
Look for opportunities to direct runoff from impervious areas to adjacent landscaping, other pervious areas, or small collection areas where such runoff may be retained. This is sometimes referred to as reducing Directly Connected Impervious Areas.

- Direct roof runoff into landscaped areas such as medians, parking islands, planter boxes, etc., and/or areas of pervious paving. Instead of having landscaped areas raised above the surrounding impervious areas, design them as depressed areas that can receive Runoff from adjacent impervious pavement. For example, a lawn or garden depressed 3"-4" below surrounding walkways or driveways provides a simple but quite functional landscape design element.
- Detain and retain runoff throughout the site. On flatter sites, smaller Structural BMPs may be interspersed in landscaped areas among the buildings and paving.
- On hillside sites, drainage from upper areas may be collected in conventional catch basins and piped to landscaped areas and LID BMPs and/or Hydrologic Control BMPs in lower areas. Low retaining walls may also be used to create terraces that can accommodate LID BMPs. Wherever possible, direct drainage from landscaped slopes offsite and not to impervious surfaces like parking lots.
- Reduce curb maintenance and provide for allowances for curb cuts.
- Design landscaped areas or other pervious areas to receive and infiltrate runoff from nearby impervious areas.
- Use Tree Wells to intercept, infiltrate, and evapotranspire precipitation and runoff before it reaches structural BMPs. Tree wells can be used to limit the size of Drainage Management Areas that must be treated by structural BMPs. Guidelines for Tree Wells are included in the Tree Well Fact Sheet in the LID BMP Design Handbook.

Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.

*Based on the provided WQMP Exhibit, runoff will be dispersed from the parking lot aisles to the main drive aisle and be collected via catch basins before entering the proposed storm drain system. The easternmost drainage area will have the longest time of concentration, however it will still flow to a catch basin and all runoff on site will be treated via Bio Clean Modular Wetland Systems*

☒ Yes ☐ No ☐ N/A

**Did you utilize native or drought tolerant species in site landscaping?**

Wherever possible, use native or drought tolerant species within site landscaping instead of alternatives. These plants are uniquely suited to local soils and climate and can reduce the overall demands for potable water use associated with irrigation.

Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.

*Native or drought tolerant species to be provided in final landscape design.*

| Project- Specific WQMP Site Design BMP Checklist | |
|---|---|
| ☐ Yes ☒ No ☐ N/A | **Did implement harvest and use of runoff?**<br>Under the Regional MS4 Permit, Harvest and Use BMPs must be employed to reduce runoff on any site where they are applicable and feasible. However, Harvest and Use BMPs are effective for retention of stormwater runoff only when there is adequate demand for non-potable water during the wet season. If demand for non-potable water is not sufficiently large, the actual retention of stormwater runoff will be diminished during larger storms or during back-to-back storms.<br>For the purposes of planning level Harvest and Use BMP feasibility screening, Harvest and Use is only considered to be a feasible if the total average wet season demand for non-potable water is sufficiently large to use the entire DCV within 72 hours. If the average wet season demand for non-potable water is not sufficiently large to use the entire DCV within 72 hours, then Harvest and Use is not considered to be feasible and need not be considered further.<br>The general feasibility and applicability of Harvest and Use BMPs should consider:<br>• Any downstream impacts related to water rights that could arise from capturing stormwater (not common).<br>• Conflicts with recycled water used – where the project is conditioned to use recycled water for irrigation, this should be given priority over stormwater capture as it is a year-round supply of water.<br>• Code Compliance - If a particular use of captured stormwater, and/or available methods for storage of captured stormwater would be contrary to building codes in effect at the time of approval of the preliminary Project-Specific WQMP, then an evaluation of harvesting and use for that use would not be required.<br>• Wet season demand – the applicant shall demonstrate, to the acceptance of the [Insert Jurisdiction], that there is adequate demand for harvested water during the wet season to drain the system in a reasonable amount of time. |
| Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.<br>*Project does not provide enough demand to meet harvest and use drawdown requirements.* | |
| ☐ Yes ☒ No ☐ N/A | **Did you keep the runoff from sediment producing pervious area hydrologically separate from developed areas that require treatment?**<br>Pervious area that qualify as self-treating areas or off-site open space should be kept separate from drainage to structural BMPs whenever possible. This helps limit the required size of structural BMPs, helps avoid impacts to sediment supply, and helps reduce clogging risk to BMPs. |
| Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer.<br>*Landscaped areas will be mostly in parking islands which will have a curb. However, during a large enough storm event, flow would enter the proposed BMPs. Sedimentation will be reduced through the implementation of vegetation and through inspection and maintenance of landscaped areas.* | |

# Section C: Delineate Drainage Management Areas (DMAs)

This section provides streamlined guidance and documentation of the DMA delineation and categorization process, for additional information refer to the procedure in Section 3.3 of the SMR WQMP which discusses the methods of delineating and mapping your project site into individual DMAs. Complete Steps 1 to 4 to successfully delineate and categorize DMAs.

## Step 1: Identify Surface Types and Drainage Pathways

Carefully delineate pervious areas and impervious areas (including roofs) throughout site and identify overland flow paths and above ground and below ground conveyances. Also identify common points (such as BMPs) that these areas drain to.

## Step 2: DMA Delineation

Use the information in Step 1 to divide the entire PDP site into individual, discrete DMAs. Typically, lines delineating DMAs follow grade breaks and roof ridge lines. Where possible, establish separate DMAs for each surface type (e.g., landscaping, pervious paving, or roofs). Assign each DMA a unique code and determine its size in square feet. The total area of your site should total the sum of all of your DMAs (unless water from outside the project limits comingles with water from inside the project limits, i.e. run-on). Complete Table C-1

**Table C-1** DMA Identification

| DMA Name or Identification | Surface Type(s)[1] | Area (Sq. Ft.) | DMA Type |
|---|---|---|---|
| 1 | Asphalt, Concrete, Permeable Pavement, and Landscape | 122,126 | Type D |
| 2 | Asphalt, Concrete, Permeable Pavement, and Landscape | 140,165 | Type D |
| 3 | Asphalt, Concrete, Permeable Pavement, and Landscape | 51,427 | Type D |
| 4 | Asphalt, Concrete, Permeable Pavement, and Landscape | 75,292 | Type D |
| 5 | Asphalt, Concrete, Permeable Pavement, and Landscape | 178,824 | Type D |
| 6 | Walk, Concrete, and Landscape | 13,621 | Type A |

*Add Columns as Needed*

## Step 3: DMA Classification

Determine how drainage from each DMA will be handled by using information from Steps 1 and 2 and by completing Steps 3.A to 3.C. Each DMA will be classified as one of the following four types:

- Type 'A': Self-Treating Areas:
- Type 'B': Self-Retaining Areas

- Type 'C': Areas Draining to Self-Retaining Areas
- Type 'D': Areas Draining to BMPs

**Step 3.A – Identify Type 'A' Self-Treating Area**

Indicate if the DMAs meet the following criteria by answering "Yes" or "No".

| | |
|---|---|
| ☐ Yes ☒ No | Area is undisturbed from their natural condition OR restored with Native and/or California Friendly vegetative covers. |
| ☐ Yes ☒ No | Area is irrigated, if at all, with appropriate low water use irrigation systems to prevent irrigation runoff. |
| ☐ Yes ☒ No | Runoff from the area will not comingle with runoff from the developed portion of the site, or across other landscaped areas that do not meet the above criteria. |

If all answers indicate "Yes," complete Table C-2 to document the DMAs that are classified as Self-Treating Areas.

**Table C-2** Type 'A', Self-Treating Areas

| DMA Name or Identification | Area (Sq. Ft.) | Stabilization Type | Irrigation Type (if any) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

**Step 3.B – Identify Type 'B' Self-Retaining Area and Type 'C' Areas Draining to Self-Retaining Areas**

Type 'B' Self-Retaining Area: A Self-Retaining Area is shallowly depressed 'micro infiltration' areas designed to retain the Design Storm rainfall that reaches the area, without producing any Runoff.

Indicate if the DMAs meet the following criteria by answering "Yes," "No," or "N/A".

| | |
|---|---|
| ☐ Yes ☐ No ☒ N/A | Slopes will be graded toward the center of the pervious area. |
| ☐ Yes ☐ No ☒ N/A | Soils will be freely draining to not create vector or nuisance conditions. |
| ☐ Yes ☐ No ☒ N/A | Inlet elevations of area/overflow drains, if any, should be clearly specified to be three inches or more above the low point to promote ponding. |
| ☐ Yes ☐ No ☒ N/A | Pervious pavements (e.g., crushed stone, porous asphalt, pervious concrete, or permeable pavers) can be self-retaining when constructed with a gravel base course four or more inches deep below any underdrain discharge elevation. |

If all answers indicate "Yes," DMAs may be categorized as Type 'B', proceed to identify Type 'C' Areas Draining to Self-Retaining Areas.

Type 'C' Areas Draining to Self-Retaining Areas: Runoff from impervious or partially pervious areas can be managed by routing it to Self-Retaining Areas consistent with the LID Principle discussed in SMR WQMP Section 3.2.5 for 'Dispersing Runoff to Adjacent Pervious Areas'.
Indicate if the DMAs meet the following criteria by answering "Yes" or "No".

☐ Yes ☒ No — The drainage from the tributary area must be directed to and dispersed within the Self-Retaining Area.

☐ Yes ☒ No — Area must be designed to retain the entire Design Storm runoff without flowing offsite.

If all answers indicate "Yes," DMAs may be categorized as Type 'C'.

Complete Table C-3 and Table C-4 to identify Type 'B' Self-Retaining Areas and Type 'C' Areas Draining to Self-Retaining Areas.

**Table C-3** Type 'B', Self-Retaining Areas

| Self-Retaining Area | | | | Type 'C' DMAs that are draining to the Self-Retaining Area | | |
|---|---|---|---|---|---|---|
| DMA Name/ ID | Post-project surface type | Area (square feet) [A] | Storm Depth (inches) [B] | DMA Name / ID | [C] from Table C-4= [C] | Required Retention Depth (inches) [D] = $[B] + \frac{[B]\cdot[C]}{[A]}$ |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Table C-4** Type 'C', Areas that Drain to Self-Retaining Areas

| DMA | | | | | Receiving Self-Retaining DMA | | |
|---|---|---|---|---|---|---|---|
| DMA Name/ ID | Area (square feet) [A] | Post-project surface type | Runoff factor [B] | Product [C] = [A] x [B] | DMA name /ID | Area (square feet) [D] | Ratio [C]/[D] |
| | | | | | | | |
| | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |

*Note: (See Section 3.3 of SMR WQMP) Ensure that partially pervious areas draining to a Self-Retaining area do not exceed the following ratio:*

$$\left(\frac{2}{Impervious\ Fraction}\right) : 1$$

(Tributary Area**:** Self-Retaining Area)

**Step 3.C – Identify Type 'D' Areas Draining to BMPs**

Areas draining to BMPs are those that could not be fully managed through LID Principles (DMA Types A through C) and will instead drain to an LID BMP and/or a Conventional Treatment BMP designed to manage water quality impacts from that area, and Hydromodification where necessary.

Complete Table C-5 to document which DMAs are classified as Areas Draining to BMPs

**Table C-5** Type 'D', Areas Draining to BMPs

| DMA Name or ID | BMP Name or ID Receiving Runoff from DMA |
|---|---|
| 1 | BMP 1 |
| 2 | BMP 1 |
| 3 | BMP 2 |
| 4 | BMP 2 |
| 5 | BMP 3 |

*Note: More than one DMA may drain to a single LID BMP; however, one DMA may not drain to more than one BMP.*

# Section D: Implement LID BMPs

The Regional MS4 Permit requires the use of LID BMPs to provide retention or treatment of the DCV and includes a BMP hierarchy which requires Full Retention BMPs (Priority 1) to be considered before Biofiltration BMPs (Priority 2) and Flow-Through Treatment BMPs and Alternative Compliance BMPs (Priority 3). LID BMP selection must be based on technical feasibility and should be considered early in the site planning and design process. Use this section to document the selection of LID BMPs for each DMA. Note that feasibility is based on the DMA scale and may vary between DMAs based on site conditions.

## D.1 Full Infiltration Applicability

An assessment of the feasibility of utilizing full infiltration BMPs is required for all projects, *except where it can be shown that site design LID principals fully retain the DCV (i.e., all DMAs are Type A, B, or C), or where Harvest and Use BMPs fully retain the DCV. Check the following box if applicable:*

☐ Site design LID principals fully retain the DCV (i.e., all DMAs are Type A, B, or C), (Proceed to Section E).

If the above box remains unchecked, perform a site-specific evaluation of the feasibility of Infiltration BMPs using each of the applicable criteria identified in Chapter 2.3.3 of the SMR WQMP and complete the remainder of Section D.1.

### Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Copermittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the SMR WQMP. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

*An updated Geotechnical Investigation Report dated April 8, 2022 was prepared for the site by Leighton and Associates, Inc. and can be found in Appendix 3. Six borings were advanced onsite. An upper fill layer in the upper 0 to 5 feet below ground surface (bgs) consists of clayey sand fill. Other loose silt and sand layers were encountered at depths greater than 10 feet bgs. A final geotechnical report with infiltration rates will be provided at final design. In addition to the geotechnical report, web soil survey was used to confirm an overall site soil type of C was to be used for this design.*

### Infiltration Feasibility

Table D-1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the SMR WQMP in Chapter 2.3.3. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

**Table D-1** Infiltration Feasibility

| Downstream Impacts (SMR WQMP Section 2.3.3.a) | | |
|---|---|---|
| **Does the project site…** | **YES** | **NO** |
| …have any DMAs where infiltration would negatively impact downstream water rights or other Beneficial Uses[3]? | | X |
| If Yes, list affected DMAs: | | |
| **Groundwater Protection (SMR WQMP Section 2.3.3.b)** | | |
| **Does the project site…** | **YES** | **NO** |
| …have any DMAs with industrial, and other land uses that pose a high threat to water quality, which cannot be treated by Bioretention BMPs? Or have DMAs with active industrial process areas? | | X |
| If Yes, list affected DMAs: | | |
| …have any DMAs with a seasonal high groundwater mark shallower than 10 feet? | X | |
| If Yes, list affected DMAs: | 1-5 | |
| …have any DMAs located within 100 feet horizontally of a water supply well? | | X |
| If Yes, list affected DMAs: | | |
| …have any DMAs that would restrict BMP locations to within a 2:1 (horizontal: vertical) influence line extending from any septic leach line? | | X |
| If Yes, list affected DMAs: | | |
| …have any DMAs been evaluated by a licensed Geotechnical Engineer, Hydrogeologist, or Environmental Engineer, who has concluded that the soils do not have adequate physical and chemical characteristics for the protection of groundwater, and has treatment provided by amended media layers in Bioretention BMPs been considered in evaluating this factor? | | X |
| If Yes, list affected DMAs: | | |
| **Public Safety and Offsite Improvements (SMR WQMP Section 2.3.3.c)** | | |
| **Does the project site…** | **YES** | **NO** |
| …have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact? | | X |
| If Yes, list affected DMAs: | | |
| **Infiltration Characteristics For LID BMPs (SMR WQMP Section 2.3.3.d)** | | |
| **Does the project site…** | **YES** | **NO** |
| …have factored infiltration rates of less than 0.8 inches / hour?<br>(Note: on a case-by-case basis, the Local Jurisdiction may allow a factor of safety as low as 1.0 to support selection of full infiltration BMPs. Therefore, measured infiltration rates could be as low as 0.8 in/hr to support full infiltration. A higher factor of safety would be required for design in accordance with the LID BMP Deign Handbook). | | X |
| If Yes, list affected DMAs: A geotechnical report with infiltration rates is not available at this time but will be provided prior to final design. | | |
| **Cut/Fill Conditions (SMR WQMP Section 2.3.3.e)** | | |
| **Does the project site…** | **YES** | **NO** |
| …have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface? | | X |
| If Yes, list affected DMAs: | | |
| **Other Site-Specific Factors (SMR WQMP Section 2.3.3.f)** | | |
| **Does the project site…** | **YES** | **NO** |
| …have DMAs where the geotechnical investigation discovered other site-specific factors that would preclude effective and/or safe infiltration? | | X |
| Describe here: | | |

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs that rely solely on infiltration should not be used for those DMAs and you should proceed to the assessment for Biofiltration

[3] Such a condition must be substantiated by sufficient modeling to demonstrate an impact and would be subject to [Insert Jurisdiction] discretion. There is not a standardized method for assessing this criterion. Water rights evaluations should be site-specific.

BMPs below. Biofiltration BMPs that provide partial infiltration may still be feasible and should be assessed in Section D.2. Summarize concerns identified in the Geotechnical Report, if any, that resulted in a "YES" response above in the table below.

**Table D-2** Geotechnical Concerns for Onsite Infiltration

| Type of Geotechnical Concern | DMAs Feasible (By Name or ID) | DMAs Infeasible (By Name or ID) |
|---|---|---|
| Collapsible Soil | | |
| Expansive Soil | | |
| Slopes | | |
| Liquefaction | | |
| Other (infiltration rate) | | DMA 1-5 |

## D.2 Biofiltration Applicability

This section should document the applicability of biofiltration BMPs for Type D DMAs that are not feasible for full infiltration BMPs. The key decisions to be documented in this section include:

1. Are biofiltration BMPs with partial infiltration feasible?
    a. Biofiltration BMPs must be designed to maximize incidental infiltration via a partial infiltration design unless it is demonstrated that this design is not feasible.
    b. These designs can be used at sites with low infiltration rates where other feasibility factors do not preclude incidental infiltration.

    Document summary in Table D-3.
2. If not, what are the factors that require the use of biofiltration with no infiltration? This may include:
    a. Geotechnical hazards
    b. Water rights issues
    c. Water balance issues
    d. Soil contamination or groundwater quality issues
    e. Very low infiltration rates (factored rates < 0.1 in/hr)
    f. Other factors, demonstrated to the acceptance of the local jurisdiction

    If this applies to any DMAs, then rationale must be documented in Table D-3.
3. Are biofiltration BMPs infeasible?
    a. If yes, then provide a site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee with jurisdiction over the Project site to discuss this option. Proceed to Section F to document your alternative compliance measures.

**Table D-3** Evaluation of Biofiltration BMP Feasibility

| DMA ID | Is Partial/ Incidental Infiltration Allowable? (Y/N) | Basis for Infeasibility of Partial Infiltration (provide summary and include supporting basis if partial infiltration not feasible) |
|---|---|---|
| 1 | N | High groundwater |
| 2 | N | High groundwater |
| 3 | N | High groundwater |
| 4 | N | High groundwater |
| 5 | N | High groundwater |

## Proprietary Biofiltration BMP Approval Criteria

If the project will use proprietary BMPs as biofiltration BMPs, then this section is completed to document that the proprietary BMPs are selected in accordance with Section 2.3.7 of the SMR WQMP. Proprietary Biofiltration BMPs must meet both of the following approval criteria:

1. Approval Criteria for All Proprietary BMPs, and
2. Acceptance Criteria for Proprietary Biofiltration BMPs.

When the use of proprietary biofiltration BMPs is proposed to meet the Pollutant Control performance standards, use Table D-4 to document that appropriate approval criteria have been met for the proposed BMPs. Add additional rows to document approval criteria are met for each type of BMP proposed.

**Table D-4 Proprietary BMP Approval Requirement Summary**

| Proposed Proprietary Biofiltration BMP | Approval Criteria | Notes/Comments |
|---|---|---|
| Bioclean Modular Wetland System | ☒ Proposed BMP has an active TAPE GULD Certification for the project pollutants of concern[4] or equivalent 3rd party demonstrated performance. | |
| | ☒ The BMP is used in a manner consistent with manufacturer guidelines and conditions of its third-party certification. | |
| | ☒ The BMP includes biological features including vegetation supported by engineered or other growing media. | |
| | ☐ The BMP is designed to maximize infiltration, or supplemental infiltration is provided to achieve retention equivalent to Biofiltration with Partial Infiltration BMPs if factored infiltration rate is between 0.1 and 0.8 inches/hour. | |

[4] Use Table F-1 and F-2 to identify and document the pollutants of concern and include these tables in Appendix 5.

| | | |
|---|---|---|
| | ☒ The BMP is sized using one of two Biofiltration LID sizing options in Section 2.3.2 of the SRM WQMP. | The Bioclean Modular Wetland System was sized using the calculation provided by the WQMP guidance document using 0.2 in/hr. Water quality design flow rate for this site is 1.6250 cfs |

Low flow runoff entering the proposed storm drain system will all be treated by the Bio Clean Modular Wetland Systems. The treated runoff from the system will discharge to the proposed underground detention vault system. All overflow from the system will bypass the MWS and discharge directly into the detention system.

## D.3 Feasibility Assessment Summaries

From the Infiltration, Biofiltration with Partial Infiltration and Biofiltration with No Infiltration Sections above, complete Table D-5 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

**Table D-5** LID Prioritization Summary Matrix

| DMA Name/ID | LID BMP Hierarchy | | | No LID (Alternative Compliance) |
|---|---|---|---|---|
| | 1. Infiltration | 2. Biofiltration with Partial Infiltration | 3. Biofiltration with No Infiltration | |
| 1 | ☐ | ☐ | ☒ | ☐ |
| 2 | ☐ | ☐ | ☒ | ☐ |
| 3 | ☐ | ☐ | ☒ | ☐ |
| 4 | ☐ | ☐ | ☒ | ☐ |
| 5 | ☐ | ☐ | ☒ | ☐ |

For those DMAs where LID BMPs are not feasible, provide a narrative in Table D-6 below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section F below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

This is based on the clarification letter titled "San Diego Water Board's Expectations of Documentation to Support a Determination of Priority Development Project Infiltration Infeasibility" (April 28, 2017, Via email from San Diego Regional Water Quality Control Board to San Diego County Municipal Storm Water Copermittees[5]).

**Table D-6** Summary of Infeasibility Documentation

| Question | Narrative Summary (include reference to applicable appendix/attachment/report, as applicable) |
|---|---|
| a) When in the entitlement process did a | |

[5] http://www.projectcleanwater.org/download/pdp-infiltration-infeasibility/

| | |
|---|---|
| geotechnical engineer analyze the site for infiltration feasibility? | |
| b) When in the entitlement process were other investigations conducted (e.g., groundwater quality, water rights) to evaluate infiltration feasibility? | |
| c) What was the scope and results of testing, if conducted, or rationale for why testing was not needed to reach findings? | |
| d) What public health and safety requirements affected infiltration locations? | |
| e) What were the conclusions and recommendations of the geotechnical engineer and/or other professional responsible for other investigations? | |
| f) What was the history of design discussions between the permittee and applicant for the proposed project, resulting in the final design determination related locations feasible for infiltration? | |
| g) What site design alternatives were considered to achieve infiltration or partial infiltration on site? | |
| h) What physical impairments (i.e., fire road egress, public safety considerations, utilities) and public safety concerns influenced site | |

| | | |
|---|---|---|
| | layout and infiltration feasibility? | |
| i) | What LID Principles (site design BMPs) were included in the project site design? | Existing drainage patterns were preserved in proposed conditions to the maximum extent possible. Impervious areas were minimized by designing the parking lots to the minimum dimensions required for impervious areas (parking stalls and drive aisles) and maximizing landscaped areas. |

## D.4 LID BMP Sizing

Each LID BMP must be designed to ensure that the DCV will be captured by the selected BMPs with no discharge to the storm drain or surface waters during the DCV size storm. Infiltration BMPs must at minimum be sized to capture the DCV to achieve pollutant control requirements.

Biofiltration BMPs must at a minimum be sized to:

- Treat 1.5 times the DCV not reliably retained on site using a volume-base or flow-based sizing method, or
- Include static storage volume, including pore spaces and pre-filter detention volume, at least 0.75 times the portion of the DCV not reliably retained on site.

First**,** calculate the DCV for each LID BMP using the $V_{BMP}$ worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required $V_{BMP}$ using the methods included in Section 3 of the LID BMP Design Handbook. Utilize the worksheets found in the LID BMP Design Handbook or consult with the Copermittee to assist you in correctly sizing your LID BMPs. Use Table D-7 below to document the DCV each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

**Table D-7** DCV Calculations for LID BMPs

| DMA Type/ID | DMA (square feet) | Post-Project Surface Type | Effective Impervious Fraction, $I_f$ | DMA Runoff Factor | DMA Areas x Runoff Factor | *Total Site* | | |
|---|---|---|---|---|---|---|---|---|
| | [A] | | [B] | [C] | [A] x [C] | | | |
| ***1*** | *122,126* | *Mixed* | *0.82* | *0.62* | *75,718* | | | |
| ***2*** | *140,165* | *Mixed* | *0.82* | *0.62* | *86,902* | | | |
| ***3*** | *51,427* | *Mixed* | *0.82* | *0.62* | *31,885* | | | |
| ***4*** | *75,292* | *Mixed* | *0.82* | *0.62* | *46,681* | | | |
| ***5*** | *178,824* | *Mixed* | *0.82* | *0.62* | *110,871* | | | |
| | | | | | | *Design Storm Depth (in)* | *DCV, $V_{BMP}$ (cubic feet)* | *Proposed Volume on Plans (cubic feet)* |
| ***Total*** | 567,834 | | | | 273,491 | 0.81 | 24,669 | *** |

[B], [C] is obtained as described in Section 2.6.1.b of the SMR WQMP

[E] is obtained from Exhibit A in the SMR WQMP

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6.

*** Proposed propriety BMPs are sized based on Design Capture Flow (cfs). Proposed Volume not applicable as all biofiltration systems will be upstream of detention system.*

Complete Table D-8 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. You can add rows to the table as needed. Alternatively, the Santa Margarita Hydrology Model (SMRHM) can be used to size LID BMPs to address the DCV and, if applicable, to size Hydrologic Control BMPs to meet the Hydrologic Performance Standard described in the SMR WQMP, as identified in Section E.

**Table D-8** LID BMP Sizing

| BMP Name / ID | DMA No. | BMP Type / Description | Design Capture Flow (cfs) | Proposed Flow (cfs) |
|---|---|---|---|---|
| BMP 1 | 1-2 | Bio Clean MWS | 0.7506 | 0.764 |
| BMP 2 | 3-4 | Bio Clean MWS | 0.3627 | 0.462 |
| BMP 3 | 5 | Bio Clean MWS | 0.5117 | 0.693 |

If bioretention will include a capped underdrain, then include sizing calculations demonstrating that the BMP will meet infiltration sizing requirements with the underdrain capped and also meet biofiltration sizing requirements if the underdrain is uncapped.

As mentioned in the H&H Report, imperviousness percentages were calculated per drainage area, accounting for permeable pavement as pervious area in each DMA. See Appendix 6 for supporting calculations.

# Section E: Implement Hydrologic Control BMPs and Sediment Supply BMPs

If a completed Table 1.2 demonstrates that the project is exempt from Hydromodification Performance Standards, specify N/A and proceed to Section G.

☐ N/A Project is Exempt from Hydromodification Performance Standards.

If a PDP is not exempt from hydromodification requirements than the PDP must satisfy the requirements of the performance standards for hydrologic control BMPs and Sediment Supply BMPs. The PDP may choose to satisfy hydrologic control requirements using onsite or offsite BMPs (i.e. Alternative Compliance). Sediment supply requirements cannot be met via alternative compliance. If N/A is not selected above, select one of the two options below and complete the applicable sections.

☒ Project is Not Hydromodification Exempt and chooses to implement Hydrologic Control and Sediment Supply BMPs Onsite (complete Section E).

☐ Project is Not Hydromodification Exempt and chooses to implement Hydrologic Control Requirements using Alternative Compliance (complete Section F). Selection of this option must be approved by the Copermittee.

## E.1 Hydrologic Control BMP Selection

Capture of the DCV and achievement of the Hydrologic Performance Standard may be met by combined and/or separate structural BMPs. The user should consider the full suite of Hydrologic Control BMPs to manage runoff from the post-development condition and meet the Hydrologic Performance Standard identified in this section.

The Hydrologic Performance Standard consists of matching or reducing the flow duration curve of post-development conditions to that of pre-existing, naturally occurring conditions, for the range of geomorphically significant flows (10% of the 2-year runoff event up to the 10-year runoff event). Select each of the hydrologic control BMP types that are applied to meet the above performance standard on the site.

☐ LID principles as defined in Section 3.2 of the SMR WQMP.

☐ Structural LID BMPs that may be modified or enlarged, if necessary, beyond the DCV.

☒ Structural Hydrologic Control BMPs that are distinct from the LID BMPs above. The LID BMP Design Handbook provides information not only on Hydrologic Control BMP design, but also on BMP design to meet the combined LID requirement and Hydrologic Performance Standard. The Handbook specifies the type of BMPs that can be used to meet the Hydrologic Performance Standard.

## E.2 Hydrologic Control BMP Sizing

Hydrologic Control BMPs must be designed to ensure that the flow duration curve of the post-development DMA will not exceed that of the pre-existing, naturally occurring, DMA for the range of geomorphically significant flows. Using SMRHM, (or another acceptable continuous simulation model if approved by the Copermittee) the applicant shall demonstrate that the performance of the Hydrologic Control BMPs complies with the Hydrologic Performance Standard. Complete Table E-1 below and identify, for each DMA, the type of Hydrologic Control BMP, if the SMRHM model confirmed the management (Identified as "passed" in SMRHM), the total volume capacity of the Hydrologic Control BMP, the Hydrologic Control BMP footprint at top floor elevation, and the drawdown time of the Hydrologic Control BMP. SMRHM summary reports should be documented in Appendix 7. Refer to the SMRHM Guidance Document for additional information on SMRHM. You can add rows to the table as needed.

**Table E-1** Hydrologic Control BMP Sizing

| BMP Name / ID | DMA No. | BMP Type / Description | SMRHM Passed | BMP Volume (ac-ft) | BMP Footprint (ac) | Drawdown time (hr) |
|---|---|---|---|---|---|---|
| 5 | Total | Underground vault detention system | ☒ | 4.94 | 0.85 | 120 |
| | | | ☐ | | | |
| | | | ☐ | | | |
| | | | ☐ | | | |

*Runoff collected in catch basins throughout the site will be routed into the Bio Clean Modular Wetland System via the proposed underground storm drain system. After this stage, the treated stormwater will discharge into the onsite underground vault detention system. Runoff exceeding the Bio Clean Modular Wetland System capacity will bypass and discharge directly to the underground vault detention system. Outflow from the detention system will be controlled with a orifice and riser with a weir.*

If a bioretention BMP with capped underdrain is used and hydromodification requirements apply, then sizing calculations must demonstrate that the BMP meets flow duration control criteria with the underdrain capped and uncapped. Both calculations must be included.

## E.3 Implement Sediment Supply BMPs

The sediment supply performance standard applies to PDPs for which hydromodification applied that have the potential to impact Potential Critical Coarse Sediment Yield Areas. Refer to Exhibit G of the WQMP to determine if there are onsite Potential Critical Coarse Sediment Yield Areas or Potential Sediment Source Areas. Select one of the two options below and include the Potential Critical Coarse Sediment Yield Area Exhibit showing your project location in Appendix 7.

☒ There are no mapped Potential Critical Coarse Sediment Yield Areas or Potential Sediment Source Areas on the site. The Sediment Supply Performance Standard is met with no further action.

☐ There are mapped Potential Critical Coarse Sediment Yield Areas or Potential Sediment Source Areas on the site, the Sediment Supply Performance Standard will be met through Option 1 or Option 2 below.

The applicant may refer to Section 3.6.4 of the SMR WQMP for a description of the methodology to meet the Sediment Supply Performance Standard. Select the applicable compliance pathway and complete the appropriate sections to demonstrate compliance with the Sediment Supply Performance Standard if the second box is selected above:

☐ Avoid impacts related to any PDP activities to Potential Critical Coarse Sediment Yield Areas. Proceed to Section E.3.1.

☐ Complete a Site-Specific Critical Coarse Sediment Analysis. Proceed to Section E.3.2.

**E.3.1 Option 1: Avoid Potential Critical Coarse Sediment Yield Areas and Potential Sediment Source Areas**

The simplest approach for complying with the Sediment Supply Performance Standard is to avoid impacts to areas identified as Potential Critical Coarse Sediment Yield Areas or Potential Sediment Supply Areas. If a portion of PDP is identified as a Potential Critical Coarse Sediment Yield Area or a Potential Sediment Source Area, that PDP may still achieve compliance with the Sediment Supply Performance Standards if Potential Critical Coarse Sediment Yield Areas and Potential Sediment Supply Areas are avoided, i.e. areas are not developed and thereby delivery of Critical Coarse Sediment to the receiving waters is not impeded by site developments.

Provide a narrative describing how the PDP has avoided impacts to Potential Critical Coarse Sediment Yield Areas and/or Potential Sediment Source Areas below.

Insert narrative description here

If it is not feasible to avoid these areas, proceed to Option 2 to complete a Site-Specific Critical Coarse Sediment Analysis.

**E.3.2 Option 2: Site-Specific Critical Coarse Sediment Analysis**

Perform a stepwise assessment to ensure the maintenance of the pre-project source(s) of Critical Coarse Sediment (i.e., Bed Sediment Supply):

1. Determine whether the site or a portion of the site is a Significant Source of Bed Sediment Supply to the Receiving Channel (i.e., an actual verified Critical Coarse Sediment Yield Area);
2. Avoid areas identified as actual verified Critical Coarse Sediment Yield Areas in the PDP design and maintain pathways for discharge of Bed Sediment Supply from these areas to receiving waters.

**Step 1:** Identify if the site is an actual verified Critical Coarse Sediment Yield Area supplying Bed Sediment Supply to the receiving channel

☐ **Step 1.A** – Is the Bed Sediment of onsite streams similar to that of receiving streams?

Rate the similarity: ☐ High

☐ Medium

☐ Low

Results from the geotechnical and sieve analysis to be performed both onsite and in the receiving channel should be documented in Appendix 7. Of particular interest, the results of the sieve analysis, the soil erodibility factor, a description of the topographic relief of the project area, and the lithology of onsite soils should be reported in Appendix 7.

☐ **Step 1.B** – Are onsite streams capable of delivering Bed Sediment Supply from the site, if any, to the receiving channel?

Rate the potential: ☐ High

☐ Medium

☐ Low

Results from the analyses of the sediment delivery potential to the receiving channel should be documented in Appendix 7 and identify, at a minimum, the Sediment Source, the distance to the receiving channel, the onsite channel density, the project watershed area, the slope, length, land use, and rainfall intensity.

☐ **Step 1.C** – Will the receiving channel adversely respond to a change in Bed Sediment Load?

Rate the need for bed sediment supply:

☐ High

☐ Medium

☐ Low

Results from the in-stream analysis to be performed both onsite should be documented in Appendix 7. The analysis should, at a minimum, quantify the bank stability and the degree of incision, provide a gradation of the Bed Sediment within the receiving channel, and identify if the channel is sediment supply-limited.

☐ **Step 1.D** – Summary of Step 1

Summarize in Table E.3 the findings of Step 1 and associate a score (in parenthesis) to each step. The sum of the three individual scores determines if a stream is a significant contributor to the receiving stream.

- Sum is equal to or greater than eight - Site is a significant source of sediment bed material – all on-site streams must be preserved or by-passed within the site plan. The applicant shall proceed to Step 2 for all onsite streams.
- Sum is greater than five but lower than eight. Site is a source of sediment bed material – some of the on-site streams must be preserved (with identified streams noted). The applicant shall proceed to Step 2 for the identified streams only.

- Sum is equal to or lower than five. Site is not a significant source of sediment bed material. The applicant may advance to Section F.

**Table E-2 Triad Assessment Summary**

| Step | Rating | | | Total Score |
|---|---|---|---|---|
| 1.A | ☐ High (3) | ☐ Medium (2) | ☐ Low (1) | |
| 1.B | ☐ High (3) | ☐ Medium (2) | ☐ Low (1) | |
| 1.C | ☐ High (3) | ☐ Medium (2) | ☐ Low (1) | |
| Significant Source Rating of Bed Sediment to the receiving channel(s) | | | | |

**Step 2:** Avoid Development of Critical Coarse Sediment Yield Areas, Potential Sediment Sources Areas, and Preserve Pathways for Transport of Bed Sediment Supply to Receiving Waters

Onsite streams identified as a actual verified Critical Coarse Sediment Yield Areas should be avoided in the site design and transport pathways for Critical Coarse Sediment should be preserved

*Check those that apply:*

☐ The site design does avoid all onsite channels identified as actual verified Critical Coarse Sediment Yield Areas

*AND*

☐ The drainage design bypasses flow and sediment from onsite upstream drainages identified as actual verified Critical Coarse Sediment Yield Areas to maintain Critical Coarse Sediment supply to receiving waters

*(If both are yes, the applicant may disregard subsequent steps of Section E.3 and directly advance directly to Section G*).

- *Or* -

☐ The site design **does NOT avoid** all onsite channels identified as actual verified Critical Coarse Sediment Yield Areas

*OR*

☐ The project impacts transport pathways of Critical Coarse Sediment from onsite upstream drainages.

*(If either of these are the case, the applicant may proceed with the subsequent steps of Section E.3).*

Provide in Appendix 7 a site map that identifies all onsite channels and highlights those onsite channels that were identified as a Significant Source of Bed Sediment. The site map shall demonstrate, if feasible, that the site design avoids those onsite channels identified as a Significant Source of Bed Sediment. In addition, the applicant shall describe the characteristics of each onsite channel identified as a Significant

Source of Bed Sediment. If the design plan cannot avoid the onsite channels, please provide a rationale for each channel individually.

The site map shall demonstrate that the drainage design bypasses those onsite channels that supply Critical Coarse Sediment to the receiving channel(s). In addition, the applicant shall describe the characteristics of each onsite channel identified as an actual verified Critical Coarse Sediment Yield Area.

Identified Channel #1 - Insert narrative description here

Identified Channel #2 - Insert narrative description here

Identified Channel #3 - Insert narrative description here

**E.3.3 Sediment Supply BMPs to Result in No Net Impact to Downstream Receiving Waters**

If impacts to Critical Coarse Sediment Yield Areas cannot be avoided, sediment supply BMPs must be implemented such there is no net impact to receiving waters. Sediment supply BMPs may consist of approaches that permit flux of bed sediment supply from Critical Coarse Sediment Yield Areas within the project boundary. This approach is subject to acceptance by the [Insert Jurisdiction]. It may require extensive documentation and analysis by qualified professionals to support this demonstration.

Appendix H of the San Diego Model BMP Design Manual provides additional information on site-specific investigation of Critical Coarse Sediment Supply areas.

http://www.projectcleanwater.org/download/2018-model-bmp-design-manual/

If applicable, insert narrative description here

Documentation of sediment supply BMPs should be detailed in Appendix 7.

# Section F: Alternative Compliance

Alternative Compliance may be used to achieve compliance with pollutant control and/or hydromodification requirements for a given PDP. Alternative Compliance may be used under two scenarios, check the applicable box if the PDP is proposing to use Alternative Compliance to satisfy all or a portion of the Pollutant Control and/or Hydrologic Control requirements (but not sediment supply requirements)

☐ If it is not feasible to fully implement Infiltration or Biofiltration BMPs at a PDP site, Flow-Through Treatment Control BMPs may be used to treat pollutants contained in the portion of DCV not reliably retained on site and Alternative Compliance measures must also be implemented to mitigate for those pollutants in the DCV that are not retained or removed on site prior to discharging to a receiving water.

☐ Alternative Compliance is selected to comply with either pollutant control or hydromodification flow control requirements even if complying with these requirements is potentially feasible on-site. If such voluntary Alternative Compliance is implemented, Flow-Through Treatment Control BMPs must still be used to treat those pollutants in the portion of the DCV not reliably retained on site prior to discharging to a receiving water.

Refer to Section 2.7 of the SMR WQMP and consult the Local Jurisdiction for currently available Alternative Compliance pathways. Coordinate with the Copermittee if electing to participate in Alternative Compliance and complete the sections below to document implementation of the Flow-Through BMP component of the program.

## F.1 Identify Pollutants of Concern

The purpose of this section is to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs and to document compliance and.

Utilize Table A-1 from Section A, which noted your project's Receiving Waters, to identify impairments for Receiving Waters (including downstream receiving waters) by completing Table F-1. Table F-1 includes the watersheds identified as impaired in the Approved 2010 303(d) list; check box corresponding with the PDP's receiving water. The most recent 303(d) lists are available from the State Water Resources Control Board website:
https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml).https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml.

**Table F-1** Summary of Approved 2010 303(d) listed waterbodies and associated pollutants of concern for the Riverside County SMR Region and downstream waterbodies.

| | Water Body | Nutrients[1] | Metals[2] | Toxicity | Bacteria and Pathogens | Pesticides and Herbicides | Sulfate | Total Dissolved Solids |
|---|---|---|---|---|---|---|---|---|
| ☐ | De Luz Creek | X | X | | | | X | |
| ☐ | Long Canyon Creek | | X | | X | X | | |
| ☐ | Murrieta Creek | X | X | X | | X | | |
| ☐ | Redhawk Channel | X | X | | X | X | | X |
| ☐ | Santa Gertudis Creek | X | X | | X | X | | |
| ☐ | Santa Margarita Estuary | X | | | | | | |
| ☐ | Santa Margarita River (Lower) | X | | | X | | | |
| ☐ | Santa Margarita River (Upper) | X | | X | | | | |
| ☐ | Temecula Creek | X | X | X | | X | | X |
| ☐ | Warm Springs Creek | X | X | | X | X | | |

[1] Nutrients include nitrogen, phosphorus and eutrophic conditions caused by excess nutrients.

[2] Metals includes copper, iron, and manganese.

Use Table F-2 to identify the pollutants identified with the project site. Indicate the applicable PDP Categories and/or Project Features by checking the boxes that apply. If the identified General Pollutant Categories are the same as those listed for your Receiving Waters, then these will be your Pollutants of Concern; check the appropriate box or boxes in the last row.

**Table F-2** Potential Pollutants by Land Use Type

| Priority Development Project Categories and/or Project Features (check those that apply) | | General Pollutant Categories | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bacterial Indicators | Metals | Nutrients | Pesticides | Toxic Organic Compounds | Sediments | Trash & Debris | Oil & Grease | Total Dissolved Solids | Sulfate |
| ☐ | Detached Residential Development | P | N | P | P | N | P | P | P | N | N |
| ☐ | Attached Residential Development | P | N | P | P | N | P | P | P[(2)] | N | N |
| ☐ | Commercial/Industrial Development | P[(3)] | P[(7)] | P[(1)] | P[(1)] | P | P[(1)] | P | P | N | N |
| ☐ | Automotive Repair Shops | N | P | N | N | P[(4, 5)] | N | P | P | N | N |
| ☐ | Restaurants (>5,000 ft$^2$) | P | N | N | P[(1)] | N | N | P | P | N | N |
| ☐ | Hillside Development (>5,000 ft$^2$) | P | N | P | P | N | P | P | P | N | N |
| ☐ | Parking Lots (>5,000 ft$^2$) | P[(6)] | P[(7)] | P[(1)] | P[(1)] | P[(4)] | P | P | P | N | N |
| ☐ | Streets, Highways, and Freeways | P[(6)] | P[(7)] | P[(1)] | P[(1)] | P[(4)] | P | P | P | N | N |
| ☐ | Retail Gasoline Outlets | N | P[(7)] | N | N | P[(4)] | N | P | P | N | N |
| **Project Priority Pollutant(s) of Concern** | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

*P = Potential*

*N = Not Potential*

*(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected*

*(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected*

*(3) A potential Pollutant is land use involving animal waste products; otherwise not expected*

*(4) Including petroleum hydrocarbons*

*(5) Including solvents*

*(6) Bacterial indicators are routinely detected in pavement runoff*

*(7) A potential source of metals, primarily copper and zinc. Iron, magnesium, and aluminum are commonly found in the environment and are commonly associated with soils, but are not primarily of anthropogenic stormwater origin in the municipal environment.*

## F.2 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential Pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must be selected to address the Project Priority Pollutants of Concern (identified above) and meet the acceptance criteria described in Section 2.3.7 of the SMR WQMP. Documentation of acceptance criteria must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

**Table F-3** Treatment Control BMP Selection

| Selected Treatment Control BMP Name or ID[1] | Priority Pollutant(s) of Concern to Mitigate[2] | Removal Efficiency Percentage[3] |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

*[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.*
*[2] Cross Reference Table E.1 above to populate this column.*
*[3] As documented in a Copermittee Approved Study and provided in Appendix 6.*

## F.3 Sizing Criteria

Utilize Table F-4 below to appropriately size flow-through BMPs to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.1 of the SMR WQMP for further information.

**Table F-4** Treatment Control BMP Sizing

| DMA Type/ID | DMA Area (square feet) | Post-Project Surface Type | Effective Impervious Fraction, $I_f$ | DMA Runoff Factor | DMA Areas x Runoff Factor | *Project Site* | |
|---|---|---|---|---|---|---|---|
| | [A] | | [B] | [C] | [A] x [C] | | |
| | | | | | | *Design Storm (in)* | *Design Flow Rate (cfs)* |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

[B], [C] is obtained as described in Section 2.6.1.b from the SMR WQMP
[E] either 0.2 inches or 2 times the 85th percentile hourly rainfall intensity
[G] = 43,560,.

# F.4 Hydrologic Performance Standard – Alternative Compliance Approach

Alternative compliance options are only available if the governing Copermittee has acknowledged the infeasibility of onsite Hydrologic Control BMPs and approved an alternative compliance approach. See Section 3.5 and 3.6 of the SMR WQMP.

*Select the pursued alternative and describe the specifics of the alternative:*

☐ Offsite Hydrologic Control Management within the same channel system

☐ In-Stream Restoration Project

**For Offsite Hydrologic Control BMP Option**

Each Hydrologic Control BMP must be designed to ensure that the flow duration curve of the post-development DMA will not exceed that of the pre-existing, naturally occurring, DMA by more than ten percent over a one-year period. Using SMRHM, the applicant shall demonstrate that the performance of each designed Hydrologic Control BMP is equivalent with the Hydrologic Performance Standard for onsite conditions. Complete Table F-5 below and identify, for each Hydrologic Control BMP, the equivalent DMA the Hydrologic Control BMP mitigates, that the SMRHM model passed, the total volume capacity of the BMP, the BMP footprint at top floor elevation, and the drawdown time of the BMP. SMRHM summary reports for the alternative approach should be documented in Appendix 7. Refer to the SMRHM Guidance Document for additional information on SMRHM. You can add rows to the table as needed.

**Table F-5** Offsite Hydrologic Control BMP Sizing

| BMP Name / Type | Equivalent DMA (ac) | SMRHM Passed | BMP Volume (ac-ft) | BMP Footprint (ac) | Drawdown time (hr) |
|---|---|---|---|---|---|
| | | ☐ | | | |
| | | ☐ | | | |
| | | ☐ | | | |
| | | ☐ | | | |

**For Instream Restoration Option**

Attach to Appendix 7 the technical report detailing the condition of the receiving channel subject to the proposed hydrologic and sediment regimes. Provide the full design plans for the in-stream restoration project that have been approved by the Copermittee. Utilize the San Diego Regional Water Quality Equivalency Guidance Document.

# Section G: Implement Trash Capture BMPs

The Local Jurisdiction may require full trash capture BMPs to be installed as part of the project. Consult with the Local Jurisdiction to determine applicability.

Trash Capture BMPs may be applicable to Type 'D' DMAs, as defined in Section 2.3.4 of the SMR WQMP. Trash Capture BMPs are designed to treat $Q_{TRASH}$, the runoff flow rate generated during the 1-year 1-hour precipitation depth. Utilize Table G-1 to size Trash Capture BMP. Refer to Table G-2 to determine the Trash Capture Design Storm Intensity (E).

**Table G-1 Sizing Trash Capture BMPs**

| DMA Type/ID | DMA Area (square feet) | Post-Project Surface Type | Effective Impervious Fraction, $I_f$ | DMA Runoff Factor | DMA Areas x Runoff Factor | *Project Site* | |
|---|---|---|---|---|---|---|---|
| | [A] | | [B] | [C] | [A] x [C] | | |
| ***1*** | *122,126* | *Mixed* | *0.82* | *0.62* | *75,718* | | |
| ***2*** | *140,165* | *Mixed* | *0.82* | *0.62* | *86,902* | | |
| ***3*** | *51,427* | *Mixed* | *0.82* | *0.62* | *31,885* | | |
| ***4*** | *75,292* | *Mixed* | *0.82* | *0.62* | *46,681* | | |
| ***5*** | *178,824* | *Mixed* | *0.82* | *0.62* | *110,871* | | |
| | | | | | | *Trash Capture Design Storm Intensity (in/hr) [E]* | *Trash Capture Design Flow Rate (cubic feet or cfs) [D]*[E]/[G]* |
| | 567,834 [A] | | | | 357,735 [D] | 0.47 | ***3.86*** |

[B], [C] is obtained as described in Section 2.6.1.b from the SMR WQMP
[G] = 43,560

Trash capture flow rates required to pre-treat flow have been identified for each drainage area. Design per catch basin and identification of each catch basin insert capacity will be provided during final design.

**Table G-2 Approximate precipitation depth/intensity values for calculation of the Trash Capture Design Storm**

| City | 1-year 1-hour Precipitation Depth/Intensity (inches/hr) |
|---|---|
| Murrieta | 0.47 |
| Temecula | 0.50 |
| Wildomar | 0.37 |

Use Table G-3 to summarize and document the selection and sizing of Trash Capture BMPs.

**Table G-3** Trash Capture BMPs

| BMP Name / ID | DMA No(s) | BMP Type / Description | Required Trash Capture Flowrate (cfs) | Provided Trash Capture Flowrate (cfs) |
|---|---|---|---|---|
| FloGard Catch Basin Insert Filter | 1 | FloGard Catch Basin Insert Filter | 3.86 | ** |
| | | | | |
| | | | | |
| | | | | |

**Catch Basin Insert Filters will be designed to meet the required trash capture flowrate. Final catch basin insert details to be provided during final design.

# Section H: Source Control BMPs

Source Control BMPs include permanent, structural features that may be required in your Project plans, such as roofs over and berms around trash and recycling areas, and Operational BMPs, such as regular sweeping and "housekeeping," that must be implemented by the site's occupant or user. The Maximum Extent Practicable (MEP) standard typically requires both types of BMPs. In general, Operational Source Control BMPs cannot be substituted for a feasible and effective Structural Source Control BMP. Complete checklist below to determine applicable Source Control BMPs for your site.

**Project-Specific WQMP Source Control BMP Checklist**

All development projects must implement Source Control BMPs. Source Control BMPs are used to minimize pollutants that may discharge to the MS4. Refer to Chapter 3 (Section 3.8) of the SMR WQMP for additional information. Complete Steps 1 and 2 below to identify Source Control BMPs for the project site.

STEP 1: IDENTIFY POLLUTANT SOURCES

Review project site plans and identify the applicable pollutant sources. "Yes" indicates that the pollutant source is applicable to project site. "No" indicates that the pollutant source is not applicable to project site.

| | | | | | |
|---|---|---|---|---|---|
| ☒ Yes ☐ No | Storm Drain Inlets | | ☐ Yes ☒ No | Outdoor storage areas | |
| ☐ Yes ☒ No | Floor Drains | | ☐ Yes ☒ No | Material storage areas | |
| ☐ Yes ☒ No | Sump Pumps | | ☐ Yes ☒ No | Fueling areas | |
| ☒ Yes ☐ No | Pets Control/Herbicide Application | | ☐ Yes ☒ No | Loading Docks | |
| ☐ Yes ☒ No | Food Service Areas | | ☒ Yes ☐ No | Fire Sprinkler Test/Maintenance water | |
| ☒ Yes ☐ No | Trash Storage Areas | | ☒ Yes ☐ No | Plazas, Sidewalks and Parking Lots | |
| ☐ Yes ☒ No | Industrial Processes | | ☐ Yes ☒ No | Pools, Spas, Fountains and other water features | |
| ☐ Yes ☒ No | Vehicle and Equipment Cleaning and Maintenance/Repair Areas | | | | |

STEP 2: REQUIRED SOURCE CONTROL BMPS

List each Pollutant source identified above in column 1 and fill in the corresponding Structural Source Control BMPs and Operational Control BMPs by referring to the Stormwater Pollutant Sources/Source Control Checklist included in Appendix 8. The resulting list of structural and operational source control BMPs must be implemented as long as the associated sources are present on the project site. Add additional rows as needed.

| Pollutant Source | Structural Source Control BMP | Operational Source Control BMP |
|---|---|---|
| Storm Drain Inlets | Mark inlets with "Only Rain Down the Storm Drain" | Maintain and Periodically repaint of replace inlet markings. See CASQA Fact Sheet SC-44. |
| Trash Storage Areas | Refuse areas to be covered and marked with "Do Not Dump Hazardous Materials Here". | Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Pick liter up litter daily and clean up spills immediately. See CAQA Fact Sheet SC-34. |

| | | |
|---|---|---|
| Fire Sprinkler Test/Maintenance Water | Provide means to drain fire sprinkler test water to the sanitary sewer. | Prevent and reduce the discharge of pollutants to stormwater from building. See CASQA Fact Sheet SC-22. |
| Plazas, Sidewalks, and Parking Lots | | Sweep sidewalks and parking lots regularly to prevent accumulation of litter and debris. |
| Pets Control/Herbicide Application | | Maintain landscaping using minimum or no pesticides. Provide Integrated Pest management (IPM) information to new owners, lessees and operators. |
| | | |
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# Section I: Coordinate Submittal with Other Site Plans

Populate Table I-1 below to assist the plan checker in an expeditious review of your project. During construction and at completion, City of Murrieta inspectors will verify the installation of BMPs against the approved plans. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

**Table I-1** Construction Plan Cross-reference

| BMP No. or ID | BMP Identifier and Description | Corresponding Plan Sheet(s) |
|---|---|---|
| Bio Clean MWS | Proposed BMP | Prelim Utility Plan |
| | | |
| | | |
| | | |
| | | |

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. The Copermittee with jurisdiction over the Project site can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Use

Table I-2 to identify other applicable permits that may impact design of the site. If yes is answered to any of the items below, the Copermittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

**Table I-2** Other Applicable Permits

| Agency | Permit Required | |
|---|---|---|
| State Department of Fish and Game, 1602 Streambed Alteration Agreement | ☐ Y | ☒ N |
| State Water Resources Control Board, Clean Water Act Section 401 Water Quality Certification | ☐ Y | ☒ N |
| US Army Corps of Engineers, Clean Water Act Section 404 Permit | ☐ Y | ☒ N |
| US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion | ☐ Y | ☒ N |
| Statewide Construction General Permit Coverage | ☒ Y | ☐ N |
| Statewide Industrial General Permit Coverage | ☐ Y | ☒ N |
| Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP) | ☐ Y | ☒ N |
| Other *(please list in the space below as required)* | ☐ Y | ☐ N |

# Section J: Operation, Maintenance and Funding

The Copermittee with jurisdiction over the Project site will periodically verify that BMPs on your Project are maintained and continue to operate as designed. To make this possible, the Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement maintenance of BMPs in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized Operations and Maintenance or inspections but will require typical landscape maintenance as noted in Chapter 5, in the SMR WQMP. Include a brief description of typical landscape maintenance for these areas.

The Copermittee with jurisdiction over the Project site will also require that you prepare and submit a detailed BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a BMP Operation and Maintenance Plan are in Chapter 5 of the SMR WQMP.

**Maintenance Mechanism:** Maintenance agreement recorded against the property.

Will the proposed BMPs be maintained by a Homeowners' Association (HOA) or Property Owners Association (POA)?

☒ Y ☐ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

## Section K: Acronyms, Abbreviations and Definitions

| | |
|---|---|
| **Regional MS4 Permit** | Order No. R9-2013-0001 as amended by Order No. R9-2015-0001 and Order No. R9-2015-0100 an NPDES Permit issued by the San Diego Regional Water Quality Control Board. |
| **Applicant** | Public or private entity seeking the discretionary approval of new or replaced improvements from the Copermittee with jurisdiction over the project site. The Applicant has overall responsibility for the implementation and the approval of a Priority Development Project. The WQMP uses consistently the term "user" to refer to the applicant such as developer or project proponent.<br>The WQMP employs also the designation "user" to identify the Registered Professional Civil Engineer responsible for submitting the Project-Specific WQMP, and designing the required BMPs. |
| **Best Management Practice (BMP)** | Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits. |
| **BMP Fact Sheets** | BMP Fact Sheets are available in the LID BMP Design Handbook. Individual BMP Fact Sheets include sitting considerations, and design and sizing guidelines for seven types of structural BMPs (infiltration basin, infiltration trench, permeable pavement, harvest-and-use, bioretention, extended detention basin, and sand filter). |
| **California Stormwater Quality Association (CASQA)** | Publisher of the California Stormwater Best Management Practices Handbooks, available at www.cabmphandbooks.com. |
| **Conventional Treatment Control BMP** | A type of BMP that provides treatment of stormwater runoff. Conventional treatment control BMPs, while designed to treat particular Pollutants, typically do not provide the same level of volume reduction as LID BMPs, and commonly require more specialized maintenance than LID BMPs. As such, the Regional MS4 Permit and this WQMP require the use of LID BMPs wherever feasible, before Conventional Treatment BMPs can be considered or implemented. |
| **Copermittees** | The Regional MS4 Permit identifies the Cities of Murrieta, Temecula, and Wildomar, the County, and the District, as Copermittees for the SMR. |

| | |
|---|---|
| **County** | The abbreviation refers to the County of Riverside in this document. |
| **CEQA** | California Environmental Quality Act - a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. |
| **CIMIS** | California Irrigation Management Information System - an integrated network of 118 automated active weather stations all over California managed by the California Department of Water Resources. |
| **CWA** | Clean Water Act - is the primary federal law governing water pollution. Passed in 1972, the CWA established the goals of eliminating releases of high amounts of toxic substances into water, eliminating additional water pollution by 1985, and ensuring that surface waters would meet standards necessary for human sports and recreation by 1983.<br>CWA Section 402(p) is the federal statute requiring NPDES permits for discharges from MS4s. |
| **CWA Section 303(d) Waterbody** | Impaired water in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA. The discharge of urban runoff to these water bodies by the Copermittees is significant because these discharges can cause or contribute to violations of applicable water quality standards. |
| **Design Storm** | The Regional MS4 Permit has established the 85th percentile, 24-hour storm event as the "Design Storm". The applicant may refer to Exhibit A to identify the applicable Design Storm Depth (D85) to the project. |
| **DCV** | Design Capture Volume (DCV) is the volume of runoff produced from the Design Storm to be mitigated through LID Retention BMPs, Other LID BMPs and Volume Based Conventional Treatment BMPs, as appropriate. |
| **Design Flow Rate** | The design flow rate represents the minimum flow rate capacity that flow-based conventional treatment control BMPs should treat to the MEP, when considered. |
| **DCIA** | Directly Connected Impervious Areas - those impervious areas that are hydraulically connected to the MS4 (i.e. street curbs, catch basins, storm drains, etc.) and thence to the structural BMP without flowing over pervious areas. |
| **Discretionary Approval** | A decision in which a Copermittee uses its judgment in deciding whether and how to carry out or approve a project. |
| **District** | Riverside County Flood Control and Water Conservation District. |

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|---|---|
| **DMA** | A Drainage Management Area - a delineated portion of a project site that is hydraulically connected to a common structural BMP or conveyance point. The Applicant may refer to Section 3.3 for further guidelines on how to delineate DMAs. |
| **Drawdown Time** | Refers to the amount of time the design volume takes to pass through the BMP. The specified or incorporated drawdown times are to ensure that adequate contact or detention time has occurred for treatment, while not creating vector or other nuisance issues. It is important to abide by the drawdown time requirements stated in the fact sheet for each specific BMP. |
| **Effective Area** | Area which 1) is suitable for a BMP (for example, if infiltration is potentially feasible for the site based on infeasibility criteria, infiltration must be allowed over this area) and 2) receives runoff from impervious areas. |
| **ESA** | An Environmental Sensitive Area (ESA) designates an area "in which plants or animals life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which would be easily disturbed or degraded by human activities and developments". (Reference: California Public Resources Code § 30107.5). |
| **ET** | Evapotranspiration (ET) is the loss of water to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues). It is also an indicator of how much water crops, lawn, garden, and trees need for healthy growth and productivity |
| **FAR** | The Floor Area Ratio (FAR) is the total square feet of a building divided by the total square feet of the lot the building is located on. |
| **Flow-Based BMP** | Flow-based BMPs are conventional treatment control BMPs that are sized to treat the design flow rate. |
| **FPPP** | Facility Pollution Prevention Plan |
| **HCOC** | Hydrologic Condition of Concern - Exists when the alteration of a site's hydrologic regime caused by development would cause significant impacts on downstream channels and aquatic habitats, alone or in conjunction with impacts of other projects. |
| **HMP** | Hydromodification Management Plan – Plan defining Performance Standards for PDPs to manage increases in runoff discharge rates and durations. |
| **Hydrologic Control BMP** | BMP to mitigate the increases in runoff discharge rates and durations and meet the Performance Standards set forth in the HMP. |
| **HSG** | Hydrologic Soil Groups – soil classification to indicate the minimum rate of infiltration obtained for bare soil after prolonged wetting. The HSGs are A (very low runoff potential/high infiltration rate), B, C, and D (high runoff potential/very low infiltration rate) |

| | |
|---|---|
| **Hydromodification** | The Regional MS4 Permit identifies that increased volume, velocity, frequency and discharge duration of storm water runoff from developed areas has the potential to greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses. |
| **JRMP** | A separate Jurisdictional Runoff Management Plan (JRMP) has been developed by each Copermittee and identifies the local programs and activities that the Copermittee is implementing to meet the Regional MS4 Permit requirements. |
| **LID** | Low Impact Development (LID) is a site design strategy with a goal of maintaining or replicating the pre-development hydrologic regime through the use of design techniques. LID site design BMPs help preserve and restore the natural hydrologic cycle of the site, allowing for filtration and infiltration which can greatly reduce the volume, peak flow rate, velocity, and pollutant loads of storm water runoff. |
| **LID BMP** | A type of stormwater BMP that is based upon Low Impact Development concepts. LID BMPs not only provide highly effective treatment of stormwater runoff, but also yield potentially significant reductions in runoff volume – helping to mimic the pre-project hydrologic regime, and also require less ongoing maintenance than Treatment Control BMPs. The applicant may refer to Chapter 2. |
| **LID BMP Design Handbook** | The LID BMP Design Handbook was developed by the Copermittees to provide guidance for the planning, design and maintenance of LID BMPs which may be used to mitigate the water quality impacts of PDPs within the County. |
| **LID Bioretention BMP** | LID Bioretention BMPs are bioretention areas are vegetated (i.e., landscaped) shallow depressions that provide storage, infiltration, and evapotranspiration, and provide for pollutant removal (e.g., filtration, adsorption, nutrient uptake) by filtering stormwater through the vegetation and soils. In bioretention areas, pore spaces and organic material in the soils help to retain water in the form of soil moisture and to promote the adsorption of pollutants (e.g., dissolved metals and petroleum hydrocarbons) into the soil matrix. Plants use soil moisture and promote the drying of the soil through transpiration.<br>The Regional MS4 Permit defines "retain" as to keep or hold in a particular place, condition, or position without discharge to surface waters. |
| **LID Biofiltration BMP** | BMPs that reduce stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration, and other biological and chemical processes. As stormwater passes down through the planting soil, pollutants are filtered, adsorbed, biodegraded, and sequestered by the soil and plants, and collected through an underdrain. |

| | |
|---|---|
| **LID Harvest and Reuse BMP** | BMPs used to facilitate capturing Stormwater Runoff for later use without negatively impacting downstream water rights or other Beneficial Uses. |
| **LID Infiltration BMP** | BMPs to reduce stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Typical LID Infiltration BMPs include infiltration basins, infiltration trenches and pervious pavements. |
| **LID Retention BMP** | BMPs to ensure full onsite retention without runoff of the DCV such as infiltration basins, bioretention, chambers, trenches, permeable pavement and pavers, harvest and reuse. |
| **LID Principles** | Site design concepts that prevent or minimize the causes (or drivers) of post-construction impacts, and help mimic the pre-development hydrologic regime. |
| **MEP** | Maximum Extent Practicable - standard established by the 1987 amendments to the CWA for the reduction of Pollutant discharges from MS4s. Refer to Attachment C of the Regional MS4 Permit for a complete definition of MEP. |
| **MF** | Multi-family – zoning classification for parcels having 2 or more living residential units. |
| **MS4** | Municipal Separate Storm Sewer System (MS4) is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26. |
| **New Development Project** | Defined by the Regional MS4 Permit as 'Priority Development Projects' if the project, or a component of the project meets the categories and thresholds described in Section 1.1.1. |
| **NPDES** | National Pollution Discharge Elimination System - Federal program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA. |
| **NRCS** | Natural Resources Conservation Service |

| | |
|---|---|
| **PDP** | Priority Development Project - Includes New Development and Redevelopment project categories listed in Provision E.3.b of the Regional MS4 Permit. |
| **Priority Pollutants of Concern** | Pollutants expected to be present on the project site and for which a downstream water body is also listed as Impaired under the CWA Section 303(d) list or by a TMDL. |
| **Project-Specific WQMP** | A plan specifying and documenting permanent LID Principles and Stormwater BMPs to control post-construction Pollutants and stormwater runoff for the life of the PDP, and the plans for operation and maintenance of those BMPs for the life of the project. |
| **Receiving Waters** | Waters of the United States. |
| **Redevelopment Project** | The creation, addition, and or replacement of impervious surface on an already developed site. Examples include the expansion of a building footprint, road widening, the addition to or replacement of a structure, and creation or addition of impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Redevelopment does not include trenching and resurfacing associated with utility work; resurfacing existing roadways; new sidewalk construction, pedestrian ramps, or bike lane on existing roads; and routine replacement of damaged pavement, such as pothole repair.<br>Project that meets the criteria described in Section 1. |
| **Runoff Fund** | Runoff Funds have not been established by the Copermittees and are not available to the Applicant.<br>If established, a Runoff Fund will develop regional mitigation projects where PDPs will be able to buy mitigation credits if it is determined that implementing onsite controls is infeasible. |
| **San Diego Regional Board** | San Diego Regional Water Quality Control Board - The term "Regional Board", as defined in Water Code section 13050(b), is intended to refer to the California Regional Water Quality Control Board for the San Diego Region as specified in Water Code Section 13200. State agency responsible for managing and regulating water quality in the SMR. |
| **SCCWRP** | Southern California Coastal Water Research Project |
| **Site Design BMP** | Site design BMPs prevent or minimize the causes (or drivers) of post-construction impacts, and help mimic the pre-development hydrologic regime. |
| **SF** | Parcels with a zoning classification for a single residential unit. |
| **SMC** | Southern California Stormwater Monitoring Coalition |
| **SMR** | The Santa Margarita Region (SMR) represents the portion of the Santa Margarita Watershed that is included within the County of Riverside. |

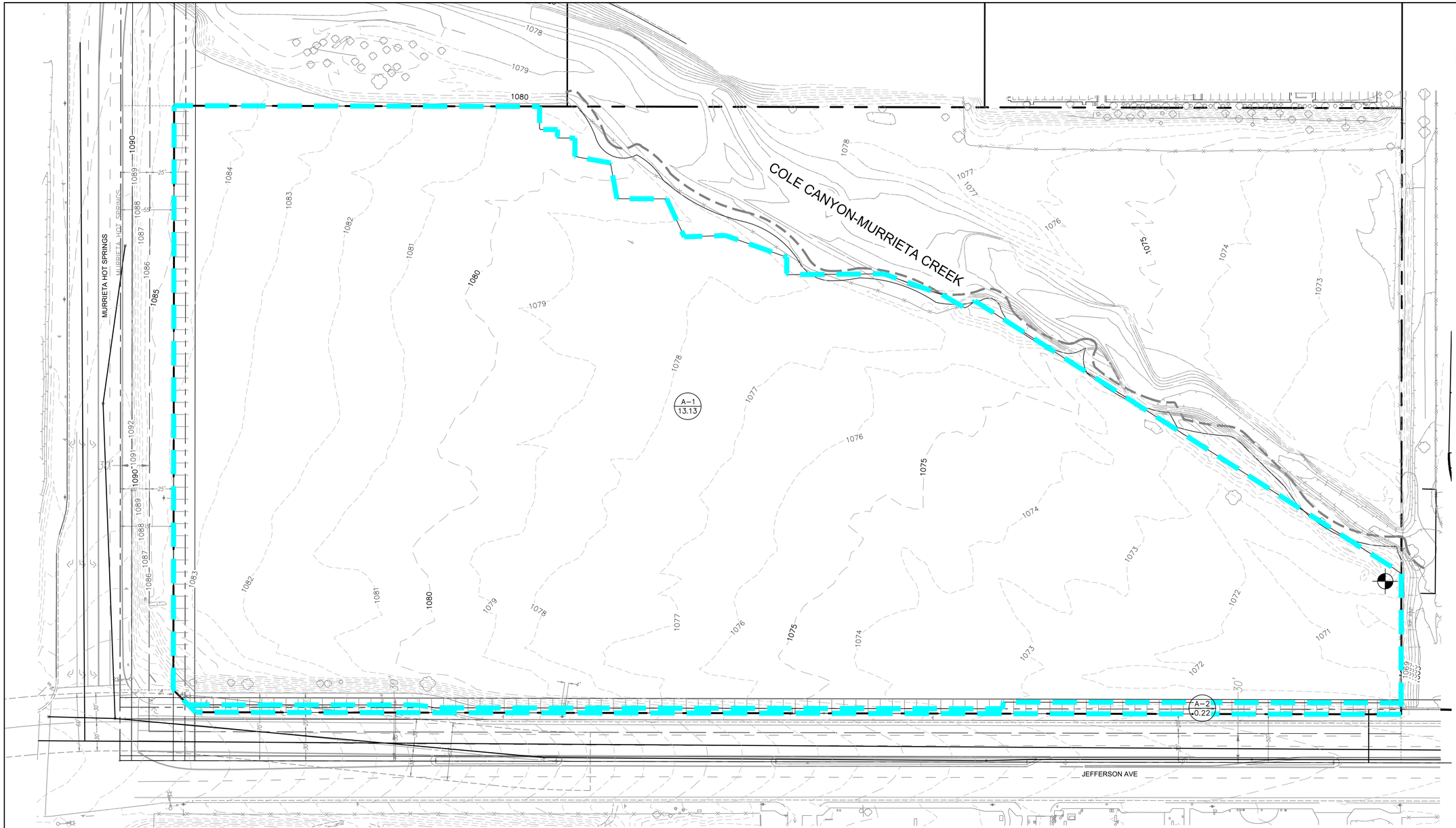
| | |
|---|---|
| **Source Control BMP** | Source Control BMPs land use or site planning practices, or structural or nonstructural measures that aim to prevent runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between Pollutants and runoff. |
| **Structural BMP** | Structures designed to remove pollutants from stormwater runoff and mitigate hydromodification impacts. |
| **SWPPP** | Storm Water Pollution Prevention Plan |
| **Tentative Tract Map** | Tentative Tract Maps are required for all subdivision creating five (5) or more parcels, five (5) or more condominiums as defined in Section 783 of the California Civil Code, a community apartment project containing five (5) or more parcels, or for the conversion of a dwelling to a stock cooperative containing five (5) or more dwelling units. |
| **TMDL** | Total Maximum Daily Load - the maximum amount of a Pollutant that can be discharged into a waterbody from all sources (point and non-point) and still maintain Water Quality Standards. Under CWA Section 303(d), TMDLs must be developed for all waterbodies that do not meet Water Quality Standards after application of technology-based controls. |
| **USEPA** | United States Environmental Protection Agency |
| **Volume-Based BMP** | Volume-Based BMPs applies to BMPs where the primary mode of pollutant removal depends upon the volumetric capacity such as detention, retention, and infiltration systems. |
| **WQMP** | Water Quality Management Plan |
| **Wet Season** | The Regional MS4 Permit defines the wet season from October 1 through April 30. |

# Appendix 1: Maps and Site Plans

*Location Map, WQMP Site Plan and Receiving Waters Map*

Complete the checklist below to verify all exhibits and components are included in the Project-Specific WQMP. Refer Section 4 of the SMR WQMP and Section D of this Template.

| **Map and Site Plan Checklist** |
|---|
| Indicate all Maps and Site Plans are included in your Project-Specific WQMP by checking the boxes below. |
| ☒ Vicinity and Location Map |
| ☒ Existing Site Map (unless exiting conditions are included in WQMP Site Plan): *Refer to Demolition Plan in Appendix 2.* |
| ☒ WQMP Site Plan |
| ☒ Parcel Boundary and Project Footprint |
| ☒ Existing and Proposed Topography |
| ☒ Drainage Management Areas (DMAs) |
| ☒ Proposed Structural Best Management Practices (BMPs) |
| ☒ Drainage Paths |
| ☒ Drainage infrastructure, inlets, overflows |
| ☒ Source Control BMPs |
| ☒ Site Design BMPs |
| ☒ Buildings, Roof Lines, Downspouts |
| ☒ Impervious Surfaces |
| ☒ Pervious Surfaces (i.e. Landscaping) |
| ☒ Standard Labeling |




## LEGEND

- 575 — PROPOSED CONTOUR
- 575 — EXISTING CONTOUR
- PROPERTY LINE
- DMA BOUNDARY
- FLOW PATH
- DA XX / XX AC — DRAINAGE AREA NAME / AREA (IN ACRES)
- NODE 10 / 50.00 FS — NODE ID AND ELEVATION
- ROADWAY CENTERLINE
- POINT OF COMPLIANCE #1

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

SCALE 1" = 50'
WHEN PRINTED FULL SIZE
24" X 36"

| DRAINAGE AREAS SUMMARY | | | |
|---|---|---|---|
| DRAINAGE MANAGEMENT AREA | ACREAGE | IMPERVIOUSNESS (%) | WATER QUALITY FLOW RATE (CFS) |
| A–1 | 13.13 | 0.00 | 0.59 |
| A–2 | 0.22 | 0.00 | – |

PRELIMINARY WQMP
EXISTING CONDITIONS

FIG 1

DATE: 06-14-22
JOB NO.: 194422001

# JEFFERSON AVE,

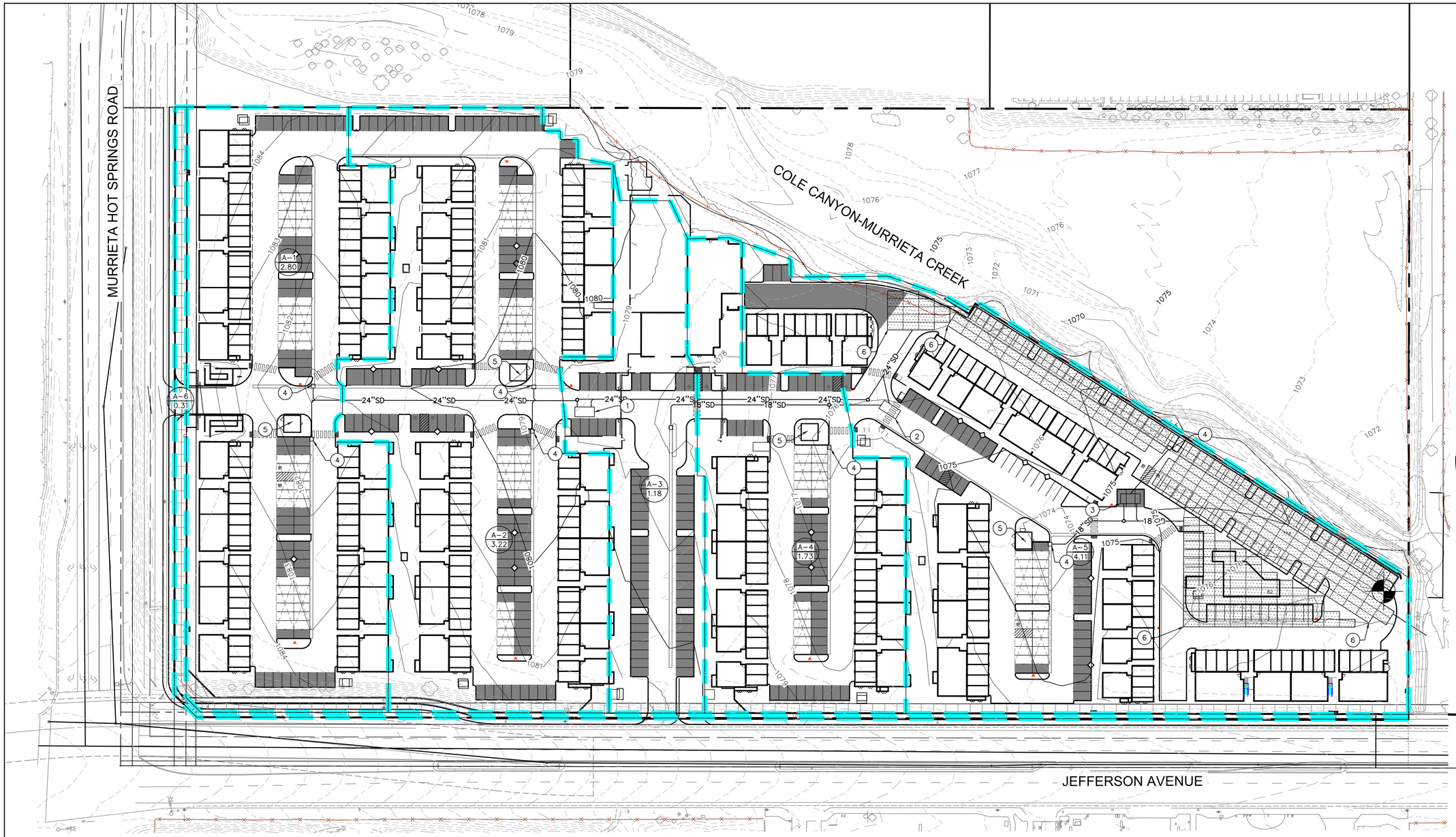
MURRIETA, CA

LMC
95 ENTERPRISE, SUITE 200 ALISO VIEGO, CA 92656
949.606.5536

DEVELOPER INFORMATIONAL BLOCK, AS IS, SHALL ONLY BE USED FOR CLIENTS THAT DO NOT HAVE A SPECIFIC LOGO. THIS DEVELOPER INFORMATIONAL BLOCK MUST BE REPLACED WITH THE APPROPRIATE BLOCK WHICH ALSO HOUSES THE CLIENT LOGO. IF THE CLIENT LOGO BLOCK HAS NOT BEEN CREATED YET, CONTACT YOUR DEPARTMENT'S AUTOCAD SUPPORT TEAM.

Kimley»Horn
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PHONE: 714–939–1030 FAX: 714–938–9488
WWW.KIMLEY–HORN.COM

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## LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPERTY LINE
- DMA BOUNDARY
- FLOW PATH
- ROADWAY CENTERLINE
- PROPOSED STORM DRAIN PIPE
- DRAINAGE AREA NAME
- AREA (IN ACRES)
- NODE ID AND ELEVATION
- PROPOSED PERMEABLE PAVEMENT
- PROPOSED DETENTION SYSTEM
- POINT OF COMPLIANCE #1

## BMP NOTES

1. BMP #1 – BIOCLEAN MWS (10x20)
2. BMP #2 – BIOCLEAN MWS (8x16)
3. BMP #3 – BIOCLEAN MWS (10X20)
4. OLD CASTLE FLOGARD CATCH BASIN FILTER INSERT
5. TRASH ENCLOSURE
6. BMP #5 – OLD CASTLE STORMCAPTURE DETENTION SYSTEM

### DRAINAGE AREAS SUMMARY

| DRAINAGE MANAGEMENT AREA | ACREAGE | IMPERVIOUSNESS (%) | WATER QUALITY FLOW RATE (CFS) | TREATMENT METHOD (BMP #) |
|---|---|---|---|---|
| A–1 | 2.80 | 80.00 | 0.3495 | PROPRIETARY BIOFILTRATION MWS (BMP #1) |
| A–2 | 3.22 | 80.00 | 0.4011 | PROPRIETARY BIOFILTRATION MWS (BMP #1) |
| A–3 | 1.18 | 80.00 | 0.1472 | PROPRIETARY BIOFILTRATION MWS (BMP #2) |
| A–4 | 1.73 | 80.00 | 0.2155 | PROPRIETARY BIOFILTRATION MWS (BMP #2) |
| A–5 | 4.11 | 80.00 | 0.5117 | PROPRIETARY BIOFILTRATION MWS (BMP #3) |
| A–6 | 0.31 | 80.00 | SELF TREATING | SELF TREATING |
| TOTAL | 13.35 | – | 1.6250 | – |

### HYDROMODIFICATION SUMMARY

| BMP NAME / ID | DMA NO. | BMP TYPE / DESCRIPTION | SMRHM PASSED | BMP VOLUME (AC–FT) | BMP FOOTPRINT (AC) | DRAWDOWN TIME (HR) |
|---|---|---|---|---|---|---|
| 5 | 1–5 | UNDERGROUND VAULT DETENTION SYSTEM | YES | 4.94 | 0.85 | 120 |

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

SCALE 1" = 50'
WHEN PRINTED FULL SIZE
24" X 36"

PRELIMINARY WQMP
PROPOSED CONDITIONS

FIG 2

DATE: 06-14-22
JOB NO.: 194422001

# JEFFERSON AVE,

MURRIETA, CA

LMC
95 ENTERPRISE, SUITE 200 ALISO VIEGO, CA 92656
949.606.5536

DEVELOPER INFORMATIONAL BLOCK. AS IS, SHALL ONLY BE USED FOR CLIENTS THAT DO NOT HAVE A SPECIFIC LOGO. THIS DEVELOPER INFORMATIONAL BLOCK MUST BE REPLACED WITH THE APPROPRIATE BLOCK WHICH ALSO HOUSES THE CLIENT LOGO. IF THE CLIENT LOGO BLOCK HAS NOT BEEN CREATED YET, CONTACT YOUR DEPARTMENT'S AUTOCAD SUPPORT TEAM.

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# Appendix 2: Construction Plans

The latest set of Grading, Drainage and Street Improvement Plans **shall be included.**

For Bioretention and Biofiltration facilities, the following construction notes shall be shown on the Grading and/or Drainage plans.

1) BSM and Aggregates should not be delivered or placed in frozen, wet or muddy conditions. The Contractor should protect materials from absorbing excess water and from erosion at all times. The Contractor shall not store materials unprotected during large rainfall events (>.25 inches). If water is introduced into material while it is stockpiled, the Contractor shall allow the material to drain to an acceptable level before it is placed.
2) The Engineer shall furnish to the City a copy of the source testing and a signed certification that the fully blended Bioretention/Biofiltration Soil Media (BSM) material meets all of the WQMP requirements before the material is imported or if the material is mixed onsite prior to installation. Onsite mixing may only occur if sand or topsoil components are sourced from the Project site. Onsite mixing may be conducted by using loaders.
3) BSM shall be lightly compacted and placed in loose lifts of 12 inches thick. Compaction should not exceed 75% standard procter. Machinery should not be used in the BSM area to place BSM. As BSM material is being installed, Quality Assurance (QA) tests shall be conducted or for every 1,200 tons or 800 cubic yards mixed on-site from a completely mixed stockpile or windrow, with a minimum of three tests. For imported material from a supplier with a quality control program the QA tests shall be conducted 2,400 tons or 1,600 cubic yards from the supplier.
4) The Engineer conducting the Quality Control testing shall furnish to the City a copy of the QA testing and a certification that the BSM for the project meets all of the following requirements.
    a. BSM shall consist of 60-80% clean sand, up to 20% clean topsoil, and 20% of a nutrient-stabilized organic amendment. The initial infiltration rate shall be greater than 8 inches per hour per laboratory test.
    b. pH: 6.0 – 8.5; Salinity: 0.5 to 3.0 mmho/cm as electrical conductivity; sodium absorption ratio: < 6.0; Chloride: <800 ppm in saturated extract; Cation Exchange Capacity (CEC): > 10 meq/100 g; Organic Matter: 2 to 5 percent on a dry weight basis; Carbon: Nitrogen ratio: 12 to 40, preferably 15 to 40; Gravel larger than 2mm: 0 to 25-percent of the total sample; Clay smaller than 0.005 mm: 0 to 5 percent of the non-gravel fraction.
    c. BSM shall be tested to limit the leaching of potential inherent pollutants. BSM used in Biofiltration BMPs shall conform to the following limits for pollutant concentrations in saturated extract: Phosphorous: < 1 mg/L; Nitrate < 3 mg/L, Copper <0.025 mg/L. These pollutant limits are for the amount that is leached from the sample, not from the soil sample itself. Testing may be performed after laboratory rinsing of media with up to 15 pore volumes of water. Equivalent test results will be accepted if certified by a laboratory or appropriate testing facility.

# Appendix 3: Soils Information

*Geotechnical Study, Other Infiltration Testing Data, and/or Other Documentation*

Examples of material to provide in Appendix 3 may include but are not limited to the following:

- Geotechnical Study/Report prepared for the project,
- Additional soils testing data (if not included in the Geotechnical Study),
- Exhibits/Maps/Other Documentation of the Hydrologic Soils Groups (HSG)s at the project site.

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 2.3 of the SMR WQMP and Sections A and D of this Template.

# UPDATE GEOTECHNICAL EXPLORATION
# MULTI-FAMILY RESIDENTIAL DEVELOPMENT
# MURRIETA HOT SPRINGS ROAD &
# JEFFERSON AVENUE
# MURRIETA, CALIFORNIA

DRAFT

Prepared For

**LENNAR MULTIFAMILY COMMUNITIES, LLC**
95 ENTERPRISE, SUITE 200
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Prepared By

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Project Number 13343.004

April 8, 2022

Leighton and Associates, Inc.
A Leighton Group Company

April 8, 2022

Project No. 13343-004

Lennar Multifamily Communities, LLC
95 Enterprise, Suite 200
Aliso Viejo, California 92656

Attention: Mr. Alec Chaseman, Development Manager

**Subject: Update Geotechnical Exploration**
**Multi-Family Residential Development: APN 910-410-011**
**Murrieta Hot Springs Road & Jefferson Avenue**
**City of Murrieta, California**

In accordance with your request and authorization, we are pleased to provide herein the results of our update geotechnical exploration for the subject site. The purpose of our investigation was to evaluate the onsite subsurface conditions and provide preliminary geotechnical recommendations for site development in view of the proposed grading plan. Based on the results of our exploration, it is our opinion that the subject site is generally suitable for the intended use provided the recommendations included in this report are implemented during design and construction. As discussed further in this report, the major geotechnical concern on this site is the presence of shallow groundwater and compressible soil layers that underlie the majority of the site.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,

LEIGHTON & ASSOCIATES, INC.

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Distribution: (1) Addressee (PDF via email)

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# 1.0 EXECUTIVE SUMMARY

Based on the results of this update geotechnical exploration, the proposed development of the subject property appears feasible from a geotechnical viewpoint provided the preliminary recommendations included in this report are incorporated into the design and construction phases of development. The main geotechnical/geologic concern associated with this parcel is the presence of compressible and/or liquefiable layers which can induce excessive differential settlement if subjected to additional loads or seismic shaking. The following is a summary of the geotechnical concerns and/or opportunities that exist on this site:

- The site is underlain by alluvial deposits and weathered Pauba Formation to the maximum depth explored. Groundwater has been encountered at a depth of 4.5 feet to 6.5 feet below existing ground surface within the low lying portions of the site.
- Remedial grading (over-excavation) will be required to reduce the anticipated excessive differential settlement. However, due to the presence of shallow groundwater and in view of the proposed site development, the depth of over-excavation should be limited to 4 feet below existing ground surface or 3 feet below bottom of footings, whichever is deeper.
- The western portion of the site (~350 to 400 feet) lies within a designated Alquist-Priolo (AP) and Riverside County Fault Hazard Zone. However, according to a site-specific fault investigation performed within this zone (Leighton, 1980), no evidence for faults were found to exist within the site or fault zone area.
- Based on the proposed site grading and anticipated building loads, consolidation induced settlement of up to 2.8 inches is estimated to occur over a period of 16 month. Approximately 50 percent of this settlement will occur within 4 months of applied load.
- Liquefaction-induced settlement is estimated to range up to 3.3 inches. However, due to the depth of the liquefiable layers and presence of cohesive/clay layers at shallow depth, settlement is estimated to be relatively global. Differential settlement is not expected to exceed 1-inch in a 30-foot horizontal distance.
- Typical 2- to 3-story multi-family residential and/or retail commercial structures may be founded on conventional shallow spread or continuous wall footings based on a net allowable bearing capacity of 2,500 pounds-per-square-foot.
- The site, like much of the Murrieta area, could be subjected to relatively strong shaking due to earthquakes on active faults in the region. Thus, the potential for relatively high seismic forces should be considered in the design of the proposed buildings.

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# 2.0 INTRODUCTION

## 2.1 Purpose and Scope of Work

The purpose of this update geotechnical exploration is to further evaluate the overall geotechnical/geologic conditions and the potential for settlement on this site in view of the new proposed site pln. In addition, this report provides preliminary geotechnical recommendations for foundation design and remedial grading. As such, this report is a stand-alone document and supersedes the previous reports referenced herein. Our scope of services for this update geotechnical evaluation included the following:

- Review of published geologic hazard maps for this area including site-specific geotechnical reports as listed in the references at the end of this report;
- Site reconnaissance to observe and document the current surface conditions; During this task, we marked the proposed exploration locations and notified DigAlert for utility clearance,
- Drilled six (6) hollow-stem auger soil borings at select locations across the site. The borings were drilled to target depths ranging from 21 to 31 feet below ground surface (BGS) and were logged by a geologist from our office. Representative bulk and relatively undisturbed soil samples were collected at specified intervals of approximately 2½ to 5 feet to the proposed target depth. Samples were then transported to our laboratory for testing. Upon completion of drilling, the borings were backfilled with soil cuttings to the ground surface,
- Laboratory testing of selected soil samples to determine in-situ moisture and density, soil classification, maximum dry density and optimum moisture content, Atterberg limits, consolidation, and R-value;
- Engineering evaluation and analysis including: general subsurface soil characterization (thickness of various subsurface soil strata and their classification), settlement, time rate of consolidation, liquefaction, slope stability analysis, geotechnical seismic design parameters; and
- Preparation of this report summarizing our findings, conclusions, and preliminary recommendations regarding the development of this site as described herein.

## 2.2 Site Location and Description

The vacant 18-acre parcel (APN 910-410-011) is located at the southeast corner of Murrieta Hot Springs Road and Jefferson Avenue, City of Murrieta, California (see Figure 1). The site is relatively flat and appears to have been partially graded during previous site work or grading activities associated with the construction of adjacent roads. At the time of our field exploration, the site was covered with native grasses/weeds and brush. The

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adjacent Murrieta Hot Springs Road and Jefferson Avenue appear to be improved to their maximum width with existing curbs along the frontage of the parcel. The existing drainage dissecting the parcel in a southerly direction appears to be concrete lined near Jefferson Avenue, just outside the southern boundary of the site.

## 2.3 Proposed Development

Review of the preliminary grading plans (Option 2) provided by Kimley-Horn (December 6, 2021), indicate nineteen (19) buildings consisting of two- to three-story residential apartment buildings, rental offices, and associated facilities. The preliminary grading plans depict conventional cut and fill grading with a net import of approximately 13,200 cubic yards to construct the design building pad elevations. The Option 2 grading plan also depicts 10 to 15 feet high retaining walls bordering the western edges along Murrieta Hot Springs Road and Jefferson Avenue. Site plan reflects minor cut and fill grading (±2 feet) for proposed building pads. Structural loads for the proposed wood-frame buildings are expected to be typical and not exceed 125 kips for column loads and 7.5 kips/ft for continuous wall footings. If site development significantly differs from the above assumptions and the plans referenced herein, the recommendations included in this report should be subject to further review and evaluation.

## 2.4 Previous Investigations

Based on our in-house data, four site-specific geologic/geotechnical investigations were reviewed for this site.

- The first investigation was a geologic study performed for Riverside County Parcel 15420 by Leighton, in 1980 to evaluate whether or not the Wildomar fault underlies the site. As shown on Figure 2, *Geotechnical Map*, the exploratory trench extended 350 into the subject parcel and slightly beyond the limits of the designated AP fault zone. The results of this investigation indicate that the mapped Wildomar fault does not exist within the limits of this property and no building restrictions or setbacks are necessary for site development.
- The second site-specific geotechnical investigation (LGC, 2004) was performed to explore the subsurface soils conditions and included four (4) geotechnical borings (B-1 through B-4). The results LGC's study indicated the presence of compressible and liquefiable layers underlying the site and thus the recommendations required the removal of the upper 7 to 10 feet of surficial soils. Groundwater was encountered during drilling at a depth a depth of 7.5 to 10 feet below existing ground surface.
- A third investigation of this property consisted of an Updated Geotechnical Exploration performed by Leighton in 2011 and consisted of advancing five (5) geotechnical borings (LB-1 through LB-5) to verify and amend the previous findings as applicable. Results of this update study confirmed the presence of groundwater at

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shallower depths than encountered in 2004 by LGC and potentially liquefiable soils. However, recommended remedial grading was limited to 3 feet below existing ground surface in view of the proposed placement of 5 to 8 feet of import fill across the site at that time. A consolidation settlement in the underlying compressible silt and clay layers on the order of 2 to 4 inches was estimated. This settlement was expected to occur over a period of 6 to 18 months.

- In December of 2021 Leighton provided Due-Diligence level (desktop) review of the site for Lennar Multifamily Communities wherein Leighton reviewed the previous reports and provided recommendations for an additional investigation based on current land improvement plans.

Boring and fault trench logs from the previous studies are included in Appendix A, *Exploration Data.* Laboratory tests data is included in Appendix B, *Geotechnical Laboratory Test Results.*

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# 3.0 FIELD EXPLORATION AND LABORATORY TESTING

## 3.1 Field Exploration

On March 8th, 2022, we conducted a subsurface field exploration of the subject site using a CME 75, truck-mounted hollow-stem auger drill rig. Site exploration consisted of the excavation, sampling and logging of six (6) exploratory borings. The borings were advanced to depths ranging from a depth of 21.5 to 31.5 feet below existing ground surface. Approximate locations of the borings are depicted on the Boring Location Plan (Figure 2). The borings were loosely backfilled after drilling with the excavated cuttings.

The exploratory borings were sampled utilizing a 140-pound automatic safety hammer dropping 30-inches. During the drilling operation, bulk and relatively undisturbed samples were obtained from the borings for laboratory testing and evaluation. The relatively undisturbed samples were obtained utilizing a modified California drive sampler (2⅜-inch inside diameter and 3-inch outside diameter) driven 18-inches (where possible), in general accordance with ASTM Test Method D3550. Sampling and logging of the exploratory borings were performed by a Geologist from our office. Soil materials were visually classified according to the Unified Soil Classification System and further classified in the laboratory.

## 3.2 Laboratory Testing

Laboratory tests were performed on representative bulk samples to provide a basis for development of remedial earthwork and geotechnical design parameters. Selected samples were tested to determine the following parameters: in-situ moisture content, Atterberg limits, maximum dry density and optimum moisture, expansion index, R-value, soluble sulfate content, and consolidation test. The results of our laboratory testing are presented in Appendix B.

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# 4.0 GEOLOGIC AND SOILS CONDITIONS

## 4.1 Regional Geology

The subject property is located within a prominent natural geomorphic province in southwestern California known as the Peninsular Ranges. This northwest-trending geomorphic region is characterized, by steep, elongated mountain ranges and intervening valleys. The most common rock types found in the Peninsular Ranges consist of early Cretaceous age (140 to 105 million-year old) formations including the metasedimentary Bedford Canyon Formation and Santiago Peak Volcanics. These formations were intruded by granodiorite, quartz monzonite and other granitics of the Southern California Batholith during the Cretaceous period (Kennedy, 1977).

More specifically, the subject property is located along the eastern edge of the fault controlled, down dropped graben of Temecula Valley where it forms the southern end of the Elsinore Trough (Mann, 1955; Kennedy, 1977). The active Wildomar segment of the Elsinore Fault Zone forms a part of the eastern margin of the graben in this area and the Willard segment of the fault zone extends along the western margin of the trough to the west of the site. The Elsinore Fault Zone extends from the San Gabriel River Valley southeasterly towards, and then beyond the United States-Mexico border.

The Santa Ana Mountains lie along the western side of the Elsinore Fault Zone and the Perris Block is located along the northeastern side of the fault zone. The mountain ranges nearest to the site are comprised predominantly of pre-Cretaceous metasedimentary and metavolcanic rocks and Cretaceous plutonic rocks of the Southern California batholith. Tertiary aged sediments, different volcanic rock types and Quaternary aged sediments and sedimentary rocks flank the igneous, or other crystalline basement rocks within these mountain ranges. The Tertiary and Quaternary rocks are generally comprised of non-marine sediments consisting of sandstones, mudstones, conglomerates, and localized volcanic units. Alluvial deposits (recent and older Pleistocene-aged) and Pauba Formation sedimentary materials fill in the lower valley and drainage areas.

## 4.2 Site Geologic Units

Based on the results of this and previous studies, the site is underlain by alluvial deposits and weathered Pauba formation to the depth explored. Although not encountered in our borings, some portions of the site along the existing roads may be covered with a thin layer of artificial fill due to past grading activities associated with the existing street improvements.

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Our field exploration and laboratory testing results indicate that the alluvial deposits and/or weathered Pauba formation beneath portions of this site include layers of relatively loose and compressible soils. These soils can undergo significant settlement if subjected to higher loading conditions or seismic shaking. Based on the field and laboratory testing performed during this and previous studies, the pertinent engineering properties for the underlying loose/soft silt and clay deposits can be summarized as follows:

- A coefficient of compressibility (Cc) ranging from 0.06 to 0.12 was estimated based on applied loads of less than 2.5 ksf. A higher Cc should be considered for higher loads.
- A coefficient of consolidation (Cv) ranging from 0.08 to 0.16 square-ft/day was measured for the encountered sandy silt, clayey silt and silty clay layers.
- Expansion Index (EI) is expected to vary from very low (EI<21) for sandy soils to low (EI<51) for the surficial silt and clay layers.

### 4.3 Surface and Groundwater

Surface water was not encountered within the site boundaries during our field exploration, except for the existing creek channel that had storm water ponding in some areas. Groundwater was encountered at a depths of 5.75 to 8.8 feet in our current phase of exploration borings. However, previous borings drilled on this site document groundwater as shallow as 4.5 feet below ground surface (Leighton, 2011). Thus, groundwater is anticipated to be a construction challenge during site development if proposed site grading or site utilities extend below groundwater levels.

### 4.4 Faulting

Murrieta, like the rest of Southern California, is located within a seismically active region located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity is movement along the northwest-trending regional faults such as the San Andreas, San Jacinto and Elsinore fault zones. These fault systems produce approximately 55 millimeters per year of slip between the plates. The Elsinore fault zone comprised of the Willard Fault and the Wildomar Fault, are estimated to accommodate 10 to 15 percent of the plate boundary slip (WGCEP, 1995). The location of the site in relationship to known active faults in the subject area is depicted Figure 3, Regional Fault Map. Per published geologic hazards maps, the State Alquist-Priolo (AP) and Riverside County Fault Zones extend into the property for approximately 350 feet (see Figure 2). As previously discussed in this report, fault trench T-1 (Leighton, 1980) extended 350 into the subject parcel or slightly beyond the limits of the designated AP/County Fault Zones indicate that the mapped Wildomar fault

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does not exist within the limits of this property and no building restrictions or setbacks are necessary for site development

## 4.5 Ground Shaking and Seismic Coefficients

Strong ground shaking can be expected at the site during moderate to severe earthquakes in this general region. This is common to virtually all of Southern California. Intensity of ground shaking at a given location depends primarily upon earthquake magnitude, site distance from the source, and site response (soil type) characteristics. Based on the previous explorations, the site is underlain by shallow soft alluvial materials and highly weathered Pauba formation at depth. As such, the site is classified as a Class D site, and in accordance with ASCE 7-16 as the Design Code Reference Document, the 2019 CBC seismic coefficients are listed in table below. These seismic coefficients are generated based on interactive tools/programs currently available on USGS website and/or OSHPD seismic maps.

**Table 1. 2019 CBC Seismic Coefficients per USGS General Procedure**

| CBC Categorization/Coefficient | Value[1] |
|---|---|
| Site Longitude (decimal degrees) | -117.1971° |
| Site Latitude (decimal degrees) | 33.5503° |
| Site Class Definition | **D** |
| Mapped Spectral Response Acceleration at 0.2s Period, $S_s$ | **1.63 g** |
| Mapped Spectral Response Acceleration at 1s Period, $S_1$ | **0.61 g** |
| Adjusted Spectral Response Acceleration at 0.2s Period, $S_{MS}$ | **1.63 g** |
| Adjusted Spectral Response Acceleration at 1s Period, $S_{M1}$ | **1.04g** |
| *Design Spectral Response Acceleration at 0.2s Period, $S_{DS}$* | **1.09 g** |
| *Design Spectral Response Acceleration at 1s Period, $S_{D1}$* | **0.69g** |
| *Site-Specific Modified Peak Ground Acceleration, $PGA_m$* | **0.80 g** |
| **Note**: The seismic coefficients for Site Class D follows Exception (2) in Section 11.4.8 of ASCE 7-16 that assumes a fundamental period of vibration less than 0.5s for the proposed structures. The project structural engineer should confirm such assumption or else a site–specific ground motion analysis will be required | |

g = Gravity acceleration

## 4.6 Secondary Seismic Hazards

Secondary seismic hazards generally associated with severe ground shaking during an earthquake include shallow ground rupture, liquefaction, seismically-induced settlement, and flooding. These hazards are discussed in the following sections.

### 4.6.1 Liquefaction

Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose granular soils below a near-surface groundwater table are most susceptible to liquefaction,

while the stability of most clayey material is not adversely affected by vibratory motion. When loose to medium dense, saturated granular deposits are subjected to strong seismic shaking of significant duration without substantial dissipation of excess pore water pressure, then soil deposits may liquefy (i.e., behave like a liquid) and lose bearing strength.

Based on our analysis of the subsurface exploration data and laboratory test results, there is a potential for liquefaction in relatively loose silt and sand layers at depth greater than 10 BGS. The total seismically induced settlement in the upper 50 feet is estimated to range up to 3.3 inches where shallow groundwater exists. However, due to the depth of the liquefiable layers and presence of cohesive/clay layers at shallow depth (upper 10 feet), differential settlement is estimated to be relatively global and on the order of 1 inch or less over a horizontal distance of 30 feet.

### 4.6.2 Lateral Spreading Potential

Lateral spreading is a phenomenon in which large blocks of intact, non-liquefied soil move down slope on a liquefied soil layer. Lateral spreading is often a regional event. For lateral spreading to occur, the liquefiable soil zone must be laterally continuous, unconstrained laterally, and free to move along sloping ground. Due to relatively flat terrain, fine and cohesive nature of the shallow layers (upper 10 to 15 feet), it is our opinion that the potential for lateral spreading is low.

### 4.6.3 Ground Rupture

Ground rupture is generally considered most likely to occur along pre-existing active faults. Based on the results of the previous Leighton fault trench investigation, the potential for ground rupture within this site is considered low.

### 4.6.4 Flooding

Risk of flooding on this site is not within the scope of this study. However, a moderate drainage course traverses the eastern margin of the property from the north. The design civil engineer should consider potential impacts of this drainage or flooding on the site development.

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# 5.0 PRELIMINARY RECOMMENDATIONS

## 5.1 General

The proposed development of the site appears feasible from a geotechnical viewpoint provided that the following recommendations are incorporated into the design and construction phases of the site's development. The main geotechnical concern associated with site development is the presence of potentially shallow groundwater and compressible alluvium in upper 5 to 10 feet BGS. If subjected to additional loads from proposed building, the underlying alluvium may settle up 2.8 inches that is estimated to occur over a period of 16 month.

## 5.2 Earthwork Considerations

Earthwork should be performed in accordance with the General Earthwork and Grading Specifications in Appendix D as well as the following recommendations. The recommendations contained in Appendix B are general grading specifications provided for typical grading projects and some of the recommendations may not be strictly applicable to this project. The specific recommendations contained in the text of this report supersede the general recommendations in Appendix D.

The contract between the developer and earthwork contractor should be worded such that it is the responsibility of the contractor to place the fill properly in accordance with the recommendations of this report and the specifications in Appendix D, notwithstanding the testing and observation of the geotechnical consultant.

### 5.2.1 Site Preparation and Removal

Prior to grading, the proposed structural improvement areas (i.e. all-structural fill areas, pavement areas, buildings, etc.) of the site should be cleared of surface and subsurface obstructions and organic material. Heavy vegetation, roots, and debris should be disposed of offsite. Voids created by removal of buried material should be backfilled with properly compacted soil in general accordance with the recommendations of this report.

To reduce the potential for adverse differential settlement, we recommend that onsite soils be over-excavated and recompacted to a depth of 4 feet below existing grades or 3 feet below bottom of footings, whichever is deeper. Local conditions may require deeper over-excavation. Such areas should be evaluated by Leighton during grading and depth of removal should not encroach to within 2 feet of groundwater that is expected to be as shallow as 5.75 feet below existing ground surface in some areas. Grading contractor should confirm

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the depth to groundwater with local test pit explorations at the time of earthwork cost estimating and grading.

After completion of the recommended removal/over-excavation and prior to placing additional fill, the approved surface should be scarified a minimum of 8 inches, moisture conditioned and compacted to a minimum 90 percent of the maximum dry density in accordance with ASTM D1557. If saturated/unstable subgrade conditions are encountered in some areas during remedial grading, it is the responsibility of the contractor to provide stable bottom prior to fill placement. The limits of subgrade instability will be determined during site grading based on field observations. The means-and-method of subgrade stabilization is the contractor's responsibility and may include placement of Geogrid and/or 12-inch rock fill layer.

### 5.2.2 Structural Fills

The onsite soils are generally suitable for re-use as compacted fill, provided they are free of debris and organic matter. Fills placed within 10 vertical feet of finish pad grades or slope faces should contain no rocks over 12 inches in maximum dimension.

Placement and compaction of fill should be performed in accordance with local grading ordinances under the observation and testing of Leighton. The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in thickness. Fill soils should be placed at a minimum of 90 percent relative compaction (based on ASTM D1557) and at near or above optimum moisture content.

### 5.2.3 Import Soils

Import soils and borrow sites (if needed) should be evaluated by Leighton prior to importation. Import soils should be granular in nature, free of organic material, and have a low expansion potential, a minimum R-value of 35, and a low corrosion impact to the proposed improvements.

### 5.2.4 Trench Excavations and Backfill

The onsite soils may generally be suitable as trench backfill provided they are free of rocks over 3 inches in diameter (or per governing agency requirements) and free of organic matter. Trench backfill should be compacted in uniform lifts (not exceeding 8 inches in compacted thickness) by mechanical means to at least 90 percent relative compaction (ASTM Test Method D1557).

Excavation of utility trenches should be performed in accordance with the project plans, specifications, and all applicable OSHA requirements. The contractor should be responsible for providing the "competent person" required by OSHA standards. Contractors should be advised that sandy soils could make excavations particularly unsafe, even and necessary safety precautions should

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be taken. Groundwater and/or saturated soils may be encountered during excavations and construction of underground utilities, if to be installed a depth greater than 5 feet BGS.

#### 5.2.5 Shrinkage and Bulking

The volume change of excavated onsite materials upon recompaction is expected to vary with materials, density, insitu moisture content, location, and compaction effort. The in-place and compacted densities of soil materials vary and accurate overall determination of shrinkage and bulking cannot be made. Therefore, we recommend site grading include, if possible, a balance area or ability to adjust import quantities to accommodate some variation.

Based on our experience with similar materials and the laboratory data, we anticipate shrinkage of approximately 5 to 15 percent in the onsite surficial soils. A subsidence value of 0.3 should be used to account for potential settlement in underlying materials.

## 5.3 Foundation Recommendations

#### 5.3.1 General

Our recommendations below are provided as minimum and do not supersede local or State ordinances or Codes, the requirements of the project structural engineer or the 2019 CBC. Grading and foundation plans should be reviewed to confirm foundation design parameters as provided below.

#### 5.3.2 Foundation Design Criteria

Based on our preliminary analysis, the proposed structures may be founded on a conventional foundation system in accordance with the design criteria provided below. The proposed foundations and slabs should be designed in accordance with the structural consultants' design, the geotechnical recommendations presented herein, and the 2019 CBC. In utilizing the minimum geotechnical foundation recommendations, the structural consultant should design the foundation system to the acceptable deflection criteria as determined by the structural engineer and/or architect.

Foundation footings for the proposed buildings may be designed in accordance with the following parameters:

- A net allowable bearing capacity of 2,400 pounds per square foot (psf), or a modulus of subgrade reaction of 150 pci may be used for design of footings founded entirely into compacted fill. The footings should extend a minimum of 12 inches below lowest adjacent grade. A minimum base width of 18 inches for continuous footings and a minimum bearing area of 3 square feet (1.75 ft by 1.75 ft) for pad foundations should be used. Additionally, an

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increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind).

- The passive earth pressure may be computed as an equivalent fluid having a density of 300 psf per foot of depth, to a maximum earth pressure of 3000 pounds per square foot. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third

It should be noted that the above recommendation is based on soil support characteristics only. The footing width, depth, reinforcement, slab reinforcement, and the slab-on-grade thickness should be designed by the structural consultant based on recommendations and soil characteristics indicated herein and the most recently adopted edition of the CBC.

A moisture retarder should be installed underneath all slabs where moisture condensation is undesirable. The vapor retarder should be properly installed in accordance with the recommendations of the architect, concrete subcontractor, and the manufacturer's recommendations. Moisture vapor retarders may retard but not eliminate moisture vapor movement from the underlying soils up through the slabs. Moisture vapor transmission may be additionally reduced by use of concrete additives. A slipsheet or equivalent should be utilized above the concrete slab if crack-sensitive floor coverings (such as ceramic tiles, etc.) are to be placed directly on the concrete slab.

## 5.4 Settlement Considerations

The project civil engineer, structural engineer, and architect should consider the potential effects of both static settlement and dynamic settlement presented below.

### 5.4.1 Static Settlement

Due to presence of potentially compressible alluvium at shallow depth (~5' to 15' BGS), long-term consolidation settlement will occur and expected to generally take place within 16 months of applied loads. This consolidation settlement is estimated to be on the order of 2.8 inches in some areas. Fifty percent of this consolidation settlement will generally occur within four month period of applied load. As such, differential static settlement of 1 inch over a 30-foot span should be considered for design purposes.

### 5.4.2 Dynamic Settlement

Based on our analysis we estimate that total dynamic settlement may be on the order of 3.3 inches. However, due to the depth of the liquefiable layers and presence of cohesive/clay layers at shallow depth and proposed compacted fill cap, this settlement is estimated to be relatively global and on the order of 1-inch over a horizontal distance of 30 feet. This post mass-grading total/ differential

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settlement is expected to decrease if the underlying materials are allowed to consolidate under the proposed loading. The project civil, structural engineer and architect should consider the potential combined effects of both static and dynamic settlement as presented in this report. If the above settlements are considered excessive for building design, other methods of ground improvements should be considered such as deeper removal or surcharging.

## 5.5 Footing Setback

We recommend a minimum horizontal setback distance from the face of slopes for all structural footings (retaining and decorative walls, building footings, etc.). This distance is measured from the outside bottom edge of the footing horizontally to the slope face (or to the face of a retaining wall) and should be a minimum of H/2 (or as required by the CBC), where H is the slope height (in feet). The setback should not be less than 7 feet and need not be greater than 15 feet.

The soils within the structural setback area may possess poor lateral stability and improvements (such as retaining walls, sidewalks, fences, pavements, etc.) constructed within this setback area may be subject to lateral movement and/or differential settlement. Potential distress to such improvements may be mitigated by providing a deepened footing or a pier and grade-beam foundation system to support the improvement. The deepened footing should meet the setback as described above.

## 5.6 Sulfate Attack

The results of the laboratory testing on representative soils samples indicate negligible exposure to concrete per ACI 318. Further testing should be performed at the completion of site grading to confirm soluble-sulfate content of finish subgrade soils.

## 5.7 Concrete Flatwork

Sidewalk/Flatwork should conform to City of Murrieta standards. A representative of Leighton should verify subgrade soil expansion, moisture conditions and compaction prior to formwork and reinforcement placement. If subgrade soils possess expansion index greater than 21, we recommend a minimum 8-inch deepened edge be constructed for all flatwork to reduce moisture variation in subgrade soils along concrete edges adjacent to open (unfinished) or irrigated landscape areas.

Concrete flatwork should be constructed of uniformly cured, low-slump concrete and should contain sufficient control/contraction joints. Additional provisions such as ascending/descending slope conditions, perched (irrigation) water, special surcharge loading conditions, potential expansive soil pressure and differential settlement/heave

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should be incorporated into the design of exterior improvements. Additional exterior slab details are suggested in the American Concrete Institute (ACI) guidelines. Homeowners (HOA) should be advised of their maintenance responsibilities as well as geotechnical issues that could affect performance of site improvements.

### 5.8 Site Drainage and Erosion Control

Surface drainage should be controlled at all times. Positive surface drainage should be provided to direct surface water away from structures toward the street or suitable drainage facilities. Positive drainage may be accomplished by providing a minimum 2 percent gradient away from the structures for a distance of at least 5 feet. Below grade planters should not be situated adjacent to structures or pavements unless provisions for drainage such as catch basins and drains are made. In general, ponding of water should be avoided adjacent to the structures or pavements. Over-watering of the site should be avoided. Protective measures to mitigate excessive site erosion during construction should also be implemented in accordance with the latest Riverside County grading ordinances.

### 5.9 Slope Stability

The existing 2:1 or flatter descending slopes along the exiting channel and cut slopes in the western portion of the site (Cross-Sections AA' and BB' - see Figure 2) were evaluated for long-term stability. As presented in Appendix C, the results of our analyses indicate that both slopes are considered stable under static and pseudo-static conditions.

Slope faces are inherently subject to erosion, particularly if exposed to rainfall and storm drainage water. It is recommended that proper erosion control measures be provided that may include breakwater berms and rip-rap in accordance with recommendations of the project Civil Engineer or erosion control specialist.

### 5.10 Preliminary Pavement Design

Our preliminary pavement design is based on an R-value of 18 for onsite soils (clayey sand). For planning and estimating purposes, the pavement sections are calculated based on a range of Traffic Indexes (TI) as indicated in Table below and the Caltrans Highway Design Manual:

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**Table 2. Preliminary Asphalt Pavement Sections**

| General Traffic Condition | Design Traffic Index (TI) | Asphalt Concrete (inches) | Aggregate Base* (inches) |
|---|---|---|---|
| Automobile Parking Lanes | 4.5 | 3.0 | 6.0 |
| | 5.0 | 3.0 | 7.50 |
| Truck Access & Driveways | 6.0 | 3.5 | 8.0 |
| | 6.5 | 3.5 | 12.0 |

Appropriate Traffic Index (TI) data should be selected or verified by the project civil engineer or traffic engineering consultant and appropriate R-value of the subgrade soils will need to be verified after completion of site grading to finalize the pavement design. Final pavement sections should be constructed in general accordance with local, county and industry standards. The Caltrans pavement section design calculations were based on a pavement life of approximately 20 years with a normal amount of flexible pavement maintenance. A minimum of 6 inches of Portland Cement Concrete (PCC) pavement over 6-inch of AB may be used, rather than asphalt, in high impact load areas such as loading docks, trash truck bin loading areas, etc. The PCC pavement may be placed directly on a compacted subgrade with an R-Value of 40 or higher. The PCC pavement should be adequately reinforced to prevent shrinkage cracking and have a minimum of 28-day flexural strength of 550 psi. Other requirements of Caltrans Standard Specifications regarding mixing and placing of concrete should be followed.

The upper 12 inches of the subgrade soils should be moisture-conditioned to near optimum moisture content, compacted to at least 95 percent relative compaction (ASTM D1557) and kept in this condition until the pavement section is constructed. Minimum relative compaction requirements for aggregate base should be 95 percent of the maximum laboratory density as determined by ASTM D1557. Aggregate base should conform to the “Standard Specifications for Public Works Construction” (green book) current edition or Caltrans Class 2 aggregate base having a minimum R-value of 78.

If pavement areas are adjacent to heavily watered landscape areas, some deterioration of the subgrade load bearing capacity may result. Moisture control measures such as deepened curbs or other moisture barrier materials may be used to prevent the subgrade soils from becoming saturated. The use of concrete cutoff or edge barriers should be considered when pavement is planned adjacent to either open (unfinished) or irrigated landscaped areas.

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## 5.11 Retaining Walls

Retaining wall earth pressures are a function of the amount of wall yielding horizontally under load. If the wall can yield enough to mobilize full shear strength of backfill soils, then the wall can be designed for "active" pressure. If the wall cannot yield under the applied load, the shear strength of the soil cannot be mobilized and the earth pressure will be higher. Such walls should be designed for "at rest" conditions. If a structure moves toward the soils, the resulting resistance developed by the soil is the "passive" resistance. Retaining walls backfilled with non-expansive soils can be designed using the following equivalent fluid pressures:

**Table 3. Retaining Wall Design Earth Pressures (Static, Drained)**

| Loading Conditions | Equivalent Fluid Density (pcf) | |
|---|---|---|
| | Level Backfill | 2:1 Backfill |
| Active | 33 | 55 |
| At-Rest | 52 | 85 |
| Passive* | 350 | 125 (2:1, sloping down) |

* This assumes level condition in front of the wall will remain for the duration of the project, not to exceed 2,000 psf at depth.

For walls retaining more than 6 feet of soils, we recommend for non-restrained walls with level backfill, a uniform pressure distribution of 14H psf with resultant force applied at mid-height of wall, where H is the retaining wall stem height in feet. For walls with 2:1 sloping backfill, a uniform pressure distribution of 28H psf with resultant force applied at mid-height. These seismic pressures should be added to static pressures above or any applicable surcharge loads.

Unrestrained (yielding) cantilever walls should be designed for the active equivalent-fluid weight value provided above for very low to low expansive soils that are free draining. In the design of walls restrained from movement at the top (non-yielding) such as basement or elevator pit/utility vaults, the at-rest equivalent fluid weight value should be used. Total depth of retained earth for design of cantilever walls should be measured as the vertical distance below the ground surface measured at the wall face for stem design, or measured at the heel of the footing for overturning and sliding calculations. Should a sloping backfill other than a 2:1 (horizontal:vertical) be constructed above the wall (or a backfill is loaded by an adjacent surcharge load), the equivalent fluid weight values provided above should be re-evaluated on an individual case basis by us. Non-standard wall designs should also be reviewed by us prior to construction to check that the proper soil parameters have been incorporated into the wall design.

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All retaining walls should be provided with appropriate drainage. The outlet pipe should be sloped to drain to a suitable outlet. Wall backfill should be non-expansive (EI $\leq$ 21) sands compacted by mechanical methods to a minimum of 90 percent relative compaction (ASTM D 1557). Clayey site soils should not be used as wall backfill. Walls should not be backfilled until wall concrete attains the 28-day compressive strength and/or as determined by the Structural Engineer that the wall is structurally capable of supporting backfill. Lightweight compaction equipment should be used, unless otherwise approved by the Structural Engineer.

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# 6.0 GEOTECHNICAL REVIEW

Geotechnical review is of paramount importance in engineering practice. The poor performances of many foundation and earthwork projects have been attributed to inadequate construction review. We recommend that Leighton be provided the opportunity to review all geotechnical aspects of the project including the following.

## 6.1 Plan Review

Leighton should review the rough-grading plans prior to release for bidding and construction. Such review is necessary to evaluate whether the geotechnical recommendations have been effectively incorporated into the plans. Leighton should also review the proposed commercial building layout, retaining wall plans, and foundation plans to determine whether the preliminary recommendations provided in this report are adequate or whether additional recommendations are required.

## 6.2 Construction Observation and Testing

Observation and testing should be performed by Leighton during grading and onsite construction. It should be anticipated that the substrata exposed during grading may vary from that encountered in the previously excavated borings. Reasonably continuous geotechnical observation and testing during site grading allows for evaluation of the actual soil conditions and the ability to provide appropriate revisions during grading, if required.

Site preparation, removal of unsuitable soils, approval of imported earth materials, fill placement and other site geotechnically-related operations should be observed and tested by Leighton. Additional tests of subsurface materials to confirm compacted density and moisture content, corrosive potential, expansion potential, and resistance value (R-value) should be performed during or prior to grading.

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# 7.0 LIMITATIONS

This report was necessarily based in part upon data obtained from a limited number of observances, site visits, soil samples, tests, analyses, histories of occurrences, spaced subsurface explorations and limited information on historical events and observations. Such information is necessarily incomplete. The nature of many sites is such that differing characteristics can be experienced within small distances and under various climatic conditions. Changes in subsurface conditions can and do occur over time. This investigation was performed with the understanding that the subject site is proposed for development as described in Section 2.3 of this report.

This report was prepared for Lennar Multifamily Communities, LLC based on Lennar Multifamily Communities, LLC's needs, directions, and requirements at the time of our investigation. This report is not authorized for use by, and is not to be relied upon by any party except Lennar Multifamily Communities, LLC, and its successors and assigns as owner of the property, with whom Leighton Consulting, Inc. has contracted for the work. Use of or reliance on this report by any other party is at that party's risk. Unauthorized use of or reliance on this report constitutes an agreement to defend and indemnify Leighton Consulting, Inc. from and against any liability which may arise as a result of such use or reliance, regardless of any fault, negligence, or strict liability of Leighton Consulting, Inc.

The client is referred to Appendix E regarding important information provided by the Geoprofessional Business Association (GBA).on geotechnical engineering studies and report and their applicability.

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| | |
|---|---|
| Project: 13343.004 | Eng/Geol: SIS/MSB |
| Scale: 1 " = 2,000 ' | Date: March 2022 |

Basemap Reference: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS © 2022 TomTom

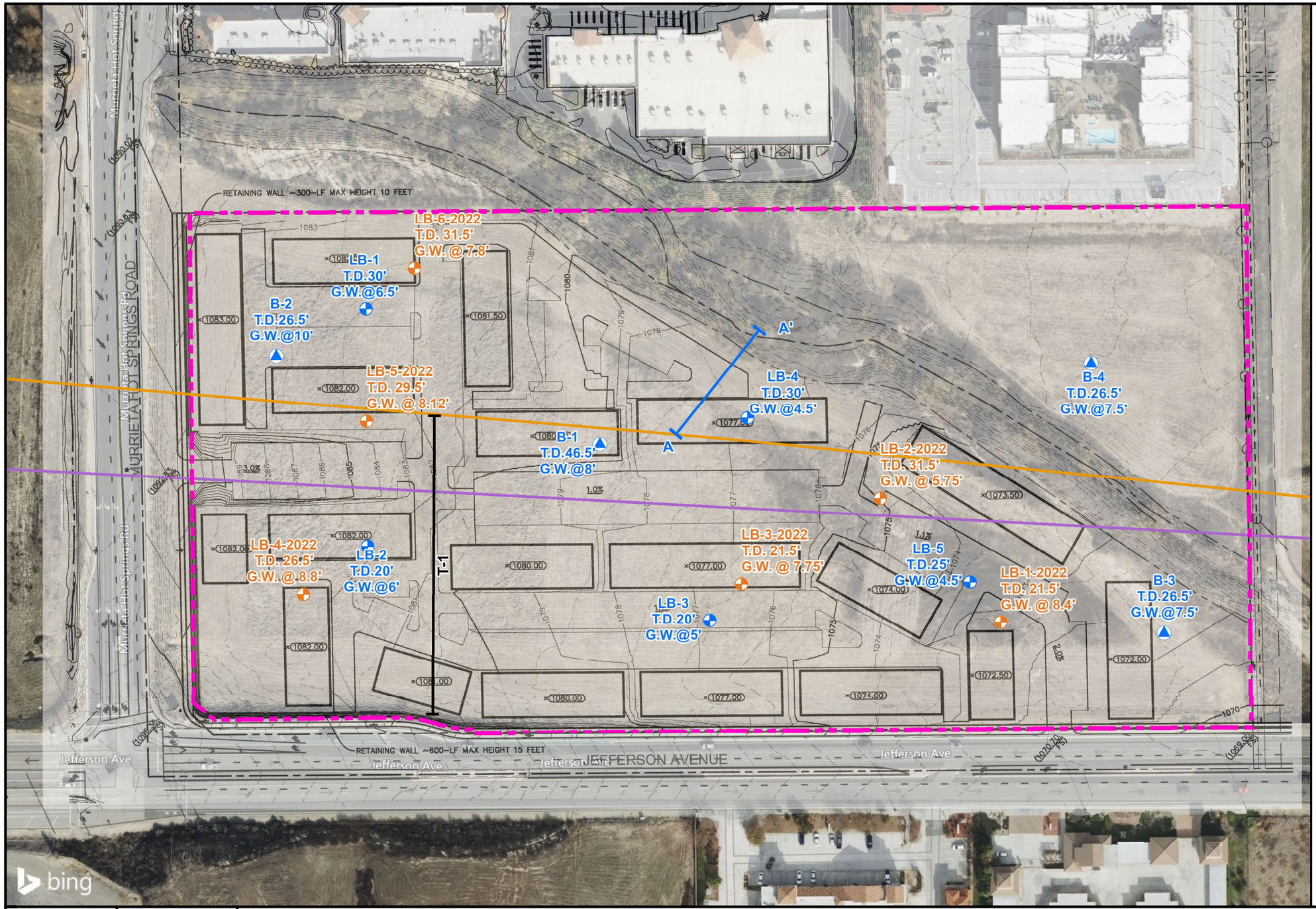
# SITE LOCATION MAP

Proposed Multifamily Residential Development
APN: 910-410-011
Murrieta, California

**FIGURE 1**

Leighton

Map Saved as J:\Drafting\13343\004\Maps\13343-004_F01_SLM_2022-03-14.mxd on 3/21/2022 10:27:48 AM Author: (kmanchikanti)




## LEGEND

LB-6-2022 T.D. 31.5' G.W. @ 7.8' — Approximate Location of Boring shown with Total Depth (T.D.) and Groundwater (G.W.) Depth at Time of Exploration in Feet Below Ground (Leighton 2022)

LB-5 T.D 25' G.W.@4.5' — Approximate Location of shown with Total Depth (T.D.) and Groundwater (G.W.) Depth at Time of Exploration in Feet Below Ground (Leighton, 2011)

B-4 T.D. 26.5' G.W.@7.5' — Approximate Location of Boring shown with Total Depth (T.D.) and Groundwater (G.W.) Depth at Time of Exploration in Feet Below Ground (LGC, 2004)

A — A' Slope Stability Cross-section

T-1 Approximate Locatoin of Fault Trench (Leighton, 1980)

Eastern Limits of Alquist-Priolo Fault Zone

Eastern Limits of Riverside County Fault Zone

Approximate Site Boundary

N

0 120 240
Feet

| | |
|---|---|
| Project: 13343.004 | Eng/Geol: SIS/MSB |
| Scale: 1 " = 120 ' | Date: April 2022 |

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DS © 2022 TomTom

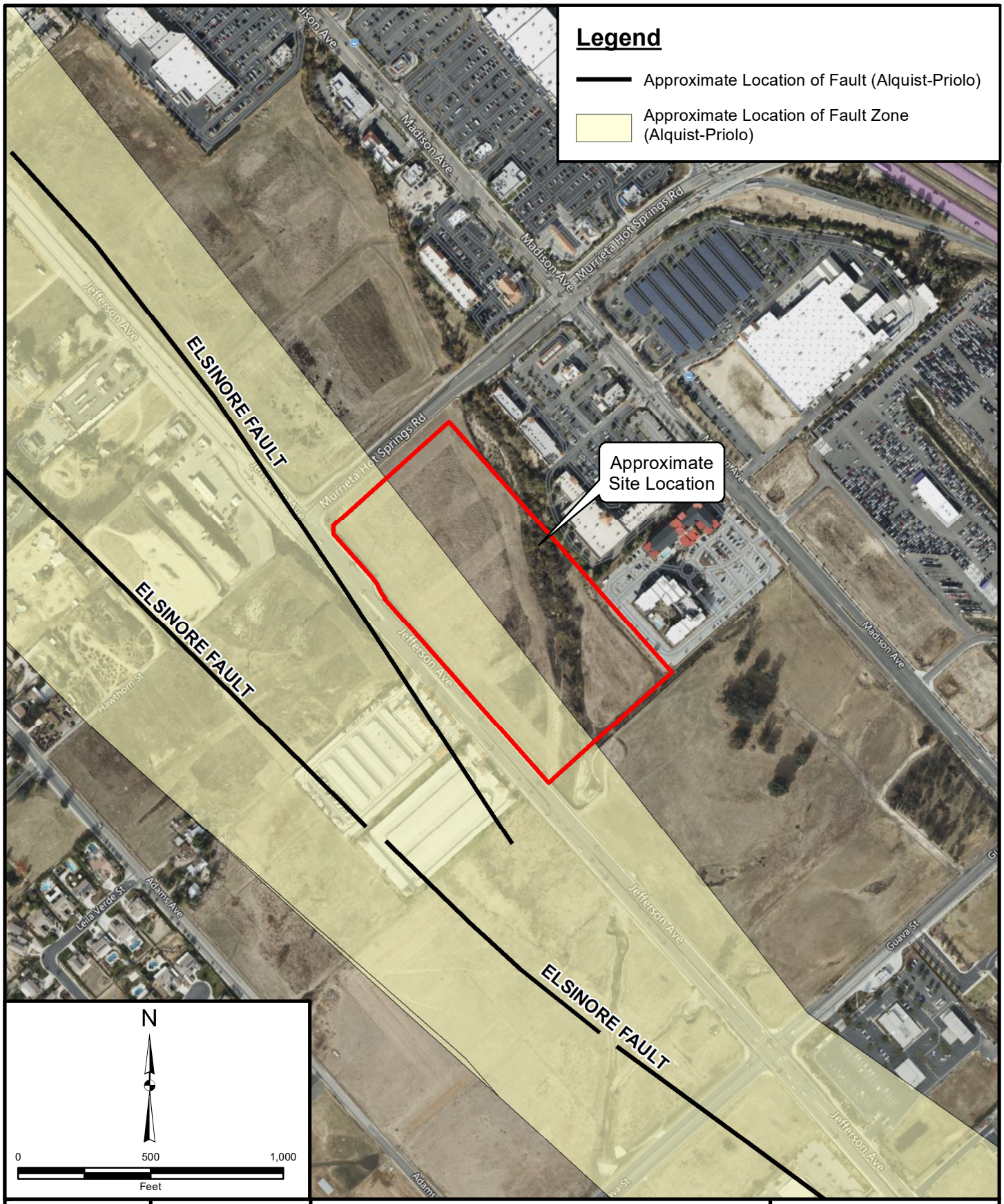
# GEOTECHNICAL MAP/BORING LOCATION PLAN

Proposed Multifamily Residential Development
APN: 910-410-011
Murrieta, California

**FIGURE 2**

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Map Saved as J:\Drafting\13343\004\Maps\13343-004_F02_BLP_2022-04-05.mxd on 4/6/2022 12:28:59 PM Author: (kmanchikanti)




| | |
|---|---|
| Project: 13343.004 | Eng/Geol: SIS/MSB |
| Scale: 1 " = 500 ' | Date: March 2022 |

Base Map: ESRI ArcGIS Online 2022
Reference: Riverside County Mapping Portal, 9/9/2019.

Author: (kmanchikanti)

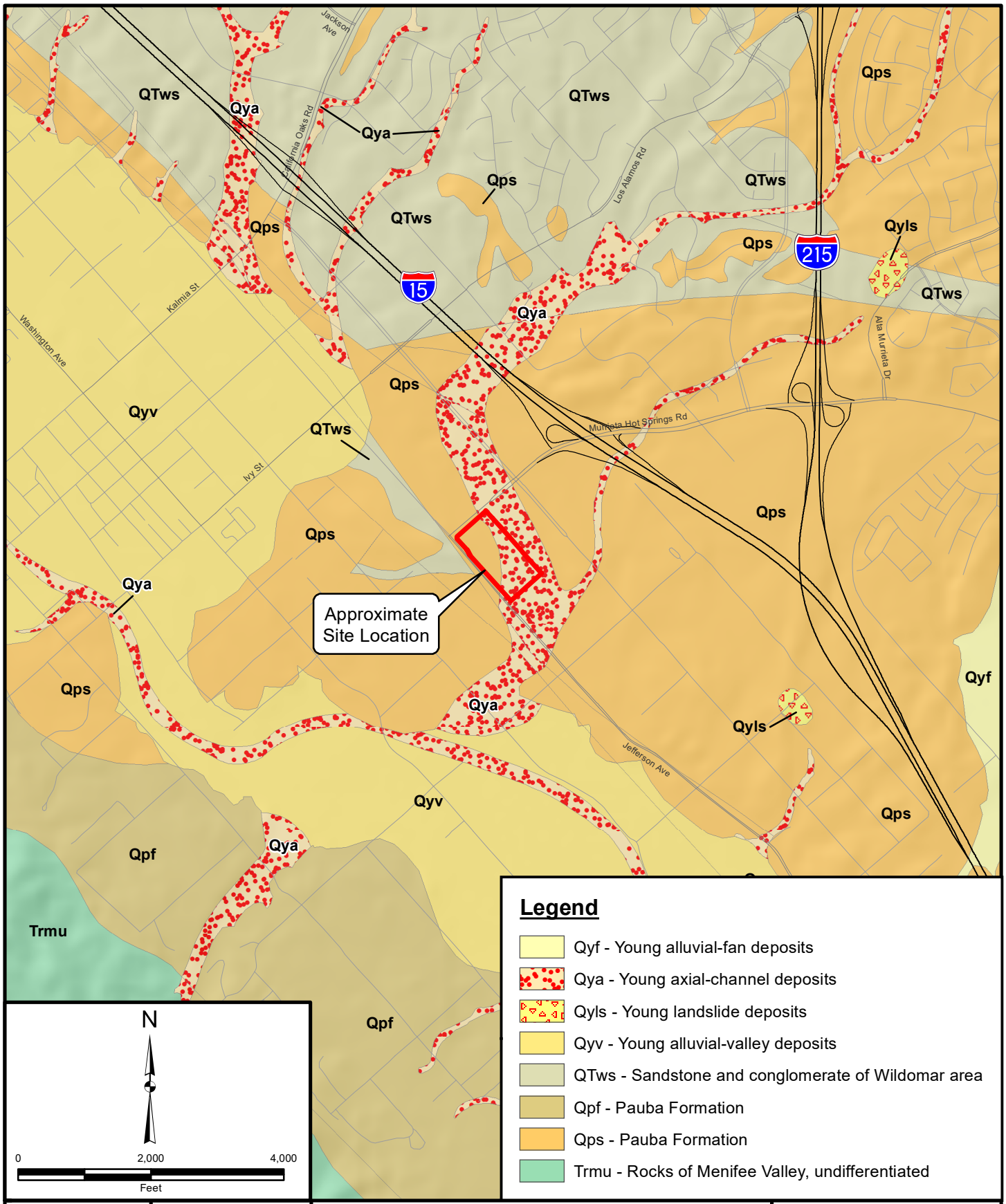
# REGIONAL FAULT MAP

Proposed Multifamily Residential Development
APN: 910-410-011
Murrieta, California

**FIGURE 3**

Leighton

Map Saved as J:\Drafting\13343\004\Maps\13343-004_F03_RFM_2022-03-14.mxd on 3/21/2022 10:52:29 AM




| | |
|---|---|
| Project: 13343.004 | Eng/Geol: SIS/MSB |
| Scale: 1 " = 2,000 ' | Date: March 2022 |

Reference: USGS, 2006 Geologic map of the San Bermardino and Santa Ana 30'x60 quadrangle, California Version 1,0 Open File Report 2006-1217.

# REGIONAL GEOLOGY MAP

Proposed Multifamily Residential Development
APN: 910-410-011
Murrieta, California

**FIGURE 4**

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# APPENDIX A

## Field Boring Logs (This and Previous Studies)

The exploration logs included within Appendix A and related information depicts subsurface conditions only at the locations indicated and at the particular date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these borings locations. The passage of time may result in altered subsurface conditions. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual

# GEOTECHNICAL BORING LOG LB-1-22

| | | | |
|---|---|---|---|
| **Project No.** | 13343.004 | **Date Drilled** | 3-8-22 |
| **Project** | LMC - Murrieta Hot Springs | **Logged By** | JWJ |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | ' |
| **Location** | See Figure 2 - *Boring Location Map* | **Sampled By** | JWJ |

| Elevation Feet | Depth Feet | Graphic Log (N / S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | BB-1 | | | | CL-SM | **QUATERNARY ALLUVIUM (Qal)**<br>CLAYEY, SILTY SAND, loose, yellow to brown, dry, fine sand, sparse vegetation | |
| | | | | | | | | SM | SANDY SILT with clay, black to brown, moist, fine sand, low plasticity | |
| | 5 | | | R-1 | 4<br>6<br>8 | 109 | 21 | CL | SANDY LEAN CLAY, stiff, black to brown, moist, fine sand, carbonate stringers prevalent | PP=1.5 tsf |
| ▽ | 10 | | | R-2 | 2<br>2<br>4 | 96 | 29 | | SANDY LEAN CLAY, reddish brown, very moist, fine sand, low plasticity, mottled with light gray, carbonate stringers prevalent | |
| | 15 | | | R-3 | 5<br>13<br>15 | 116 | 19 | SM | **PAUBA FORMATION (Qps)**<br>SILTY SAND, medium dense, gray, very moist, very fine sand | |
| | 20 | | | R-4 | 4<br>5<br>13 | | | | SILTY SAND, gray, moist, very fine sand, micaceous | |
| | | | | | | | | | Total Depth 21.5'<br>GW measured @ 8.35'<br>Backfilled upon completion of drilling | |
| | 25 | | | | | | | | | |
| | 30 | | | | | | | | | |
| | 35 | | | | | | | | | |

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-2-22

| | | | |
|---|---|---|---|
| **Project No.** | 13343.004 | **Date Drilled** | 3-8-22 |
| **Project** | LMC - Murrieta Hot Springs | **Logged By** | JWJ |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | ' |
| **Location** | See Figure 2 - *Boring Location Map* | **Sampled By** | JWJ |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | BB-1 | | | | SC | **QUATERNARY ALLUVIUM (Qal)**<br>CLAYEY SAND, loose, brown, vegetation, trace subangular granitc gravel | |
| | | | | R-1 | 7<br>5<br>8 | 117<br>113 | 3<br>15 | SP<br>CL | Poorly graded SAND with silt, gray to light yellowish brown, moist, fine to medium sand<br>Sandy Lean CLAY, black to brown, moist, fine sand, low plasticity, transition in sample | PP=3.5 tsf |
| | 5 | | | R-2 | 5<br>8<br>11 | 112 | 17 | CL-CH | Lean CLAY to high porosity Fat CLAY, very stiff, black to brown, moist, medium to high plasticity, carbonate stringers prevalent | |
| | | | | R-3 | 3<br>4<br>6 | 106 | 21 | ML/CL | SANDY SILT with few clay, gray to olive brown, moist, fine sand, low plasticity | PP=1.0 |
| | 10 | | | R-4 | 2<br>4<br>4 | 94 | 27 | | SILT with clay, light gray to gray, wet, low plasticity, little fine grained sand | PP=0.5 |
| | 15 | | | S-1 | 2<br>2<br>4 | | | | SILT with clay, medium stiff to stiff, olive gray, wet, low plasticity, few fine grained sand | |
| | | | | | | | | SP | transition in sample, medium to coarse sand ~ 1/8" in diameter over | |
| | | | | | | | | CH | high plasticity fat clay, olive gray to olive brown, moist | |
| | 20 | | | R-5 | 3<br>6<br>10 | 108 | 22 | SM-SW | **PAUBA FORMATION (Qps)**<br>SILTY SAND, medium dense, gray to olive brown, moist, primarily fine grained sand with few medium grained sand | |
| | 25 | | | S-2 | 7<br>12<br>15 | | | | Well graded SAND, wet, medium sand, well-rounded grains, trace fine gravel | |
| | 30 | | | R-6 | 11<br>21<br>28 | 124 | 14 | SW | Same as above, dense, gray, medium to coarse sand, fine gravels | |
| | 35 | | | | | | | | Total Depth 31.5'<br>GW measured @ 5.75'<br>Backfilled upon completion of drilling | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-3-22

| | | | |
|---|---|---|---|
| **Project No.** | 13343.004 | **Date Drilled** | 3-8-22 |
| **Project** | LMC - Murrieta Hot Springs | **Logged By** | JWJ |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | ' |
| **Location** | See Figure 2 - *Boring Location Map* | **Sampled By** | JWJ |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | BB-1 | | | | SC | **QUATERNARY ALLUVIUM (Qal)**<br>CLAYEY SAND, yellowish brown, slightly moist, fine sand, vegetation (EI=19, RV=18) | EI, RV |
| | | | | R-1 | 11<br>11<br>14 | 111 | 8 | CL/ML | SANDY SILT, loose, dark brown, slightly moist, fine sand | |
| | 5 | | | R-2 | 6<br>9<br>11 | 118 | 16 | CL | SANDY LEAN CLAY, very stiff, dark brown, moist, fine sand | PP=2.75 |
| | | | | R-3 | 4<br>5<br>8 | 109 | 20 | | SANDY LEAN CLAY, gray to dark brown, wet, low plasticity, few to little fine grained sand | |
| | 10 | | | R-4 | 3<br>5<br>10 | 116 | 18 | CL/ML | SANDY SILT with few clay, brown, wet, little fine grained sand | |
| | 15 | | | R-5 | 4<br>5<br>6 | 93 | 23 | SM | **PAUBA FORMATION (Qps)**<br>SILTY SAND, gray, wet, fine sand, trace to few medium grained sand | |
| | 20 | | | S-1 | 1<br>1<br>2 | | | SW | Well graded SAND, white to yellowish brown, wet, medium to coarse sand, with few subrounded gravels, well rounded sand grains | |
| | | | | | | | | ML\CL | SANDY SILT with clay, very stiff, gray, very moist, fine sand, medium plasticity | PP=2.75 |
| | 25 | | | | | | | | Total Depth 21.5'<br>GW measured @ 7.75'<br>Backfilled upon completion of drilling | |
| | 30 | | | | | | | | | |
| | 35 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LB-4-22

| | | | |
|---|---|---|---|
| **Project No.** | 13343.004 | **Date Drilled** | 3-8-22 |
| **Project** | LMC - Murrieta Hot Springs | **Logged By** | JWJ |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | ' |
| **Location** | See Figure 2 - *Boring Location Map* | **Sampled By** | JWJ |

| Elevation Feet | Depth Feet | Graphic Log (N / S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | BB-1 | | | | SC-SM | **QUATERNARY ALLUVIUM (Qal)**<br>CLAYEY SILTY SAND, yellowish brown, slightly moist, vegetated | |
| | | | | R-1 | 6<br>10<br>12 | 120 | 14 | SC | CLAYEY SAND, hard, black to brown, moist, micaceous | PP>4.0 |
| | 5 | | | R-2 | 11<br>9<br>11 | 118 | 14 | CL | SANDY LEAN CLAY, hard, black to brown, moist, low plasticity, few to little fine grained sand | |
| | | | | R-3 | 2<br>2<br>2 | 104 | 22 | CL-ML | SILTY CLAY, olive gray, wet, fine to medium sand | |
| | 10 | | | R-4 | 3<br>5<br>5 | 102 | 23 | ML | CLAYEY SILT, medium stiff to stiff, gray, moist, very fine sand, trace coarse grained sand | PP=1.0 |
| | 15 | | | S-1 | 3<br>5<br>9 | | | | SANDY SILT with clay, very stiff, gray, low to medium plasticity | PP=2.0 |
| | 20 | | | R-5 | 10<br>22<br>37 | 114 | 19 | SM | SILTY SAND, dense, moist, fine sand, few to little medium grained sand | |
| | | | | | | | | | **PAUBA FORMATION (Qps)** | |
| | 25 | | | S-2 | 4<br>8<br>18 | | | CH | FAT CLAY, very stiff, gray to dark gray, moist, high plasticity | PP=3.25 |
| | | | | | | | | SC | CLAYEY SAND with gravel, medium dense to dense, gray, moist, fine to medium sand, with fine subangular granitic gravels | |
| | 30 | | | | | | | | Total Depth 26.5'<br>GW measured @ 8.80'<br>Backfilled upon completion of drilling | |
| | 35 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-5-22

| | | | |
|---|---|---|---|
| **Project No.** | 13343.004 | **Date Drilled** | 3-8-22 |
| **Project** | LMC - Murrieta Hot Springs | **Logged By** | JWJ |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | ' |
| **Location** | See Figure 2 - *Boring Location Map* | **Sampled By** | JWJ |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | BB-1 | | | | SC | **QUATERNARY ALLUVIUM (Qal)**<br>CLAYEY SAND, loose, yellowish brown, moist, vegetation | |
| | | | | R-1 | 5<br>8<br>12 | 125 | 10 | SC | SANDY LEAN CLAY, hard, dark brown, moist, fine sand, low plasticity, trace coarse grained sand | PP=>4 |
| | 5 | | | R-2 | 11<br>15<br>18 | 131 | 10 | SM/SC | SILTY CLAYEY SAND, medium dense, light reddish brown, very moist, fine to coarse sand | |
| | | | | R-3 | 6<br>6<br>10 | 120 | 14 | | SILTY CLAYEY SAND, medium dense, light reddish brown, moist, fine to coarse sand, few fine gravels, subangular to subrounded, trace subangular black slate gravel, flatted | |
| | 10 | | | R-4 | 7<br>6<br>11 | 120 | 13 | | SILTY CLAYEY SAND with gravels, light reddish brown, wet, fine to coarse sand, subangular fine granitic gravels | |
| | 15 | | | S-1 | 2<br>3<br>5 | | | SW | Poorly graded SAND with SILT, loose to medium dense, light olive gray, wet, fine to coarse sand, trace fine subangular gravel | |
| | 20 | | | R-5 | 6<br>7<br>8 | 110 | 22 | SM | SILTY SAND with few clay, gray to dark gray, wet, fine sand, few to little medium to coarse grained sand | |
| | | | | | | | | SW | transition to Well graded SAND, light gray to gray, wet, fine to coarse sand, few fine subangular granitic gravels | |
| | | | | | | | | SW | **PAUBA FORMATION (Qps)** | |
| | 25 | | | S-2 | 3<br>4<br>4 | | | CL | Well graded SAND with Silt, gray, wet, fine sand, few to little medium coarse grains, few fine granitic gravel, subangular<br>SILTY CLAY, medium stiff to very stiff, dark gray to yellowish red, moist, low plasticity, laminated | PP=2.0 |
| | | | | R-6 | 12<br>37<br>50/6" | 107 | 22 | ML<br>SW | SANDY SILT with few clay, gray to yellowish brown, very moist, micaceous<br>Poorly graded SAND with Silt, very dense, gray, moist, fine sand, few to little medium grains | |
| | 30 | | | | | | | | Total Depth 29.5'<br>GW measured @ 8.12'<br>Backfilled upon completion of drilling | |
| | 35 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LB-6-22

| | | | |
|---|---|---|---|
| **Project No.** | 13343.004 | **Date Drilled** | 3-8-22 |
| **Project** | LMC - Murrieta Hot Springs | **Logged By** | JWJ |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | ' |
| **Location** | See Figure 2 - *Boring Location Map* | **Sampled By** | JWJ |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | BB-1 | | | | SC | **QUATERNARY ALLUVIUM (Qal)**<br>CLAYEY SAND with slit, yellowish brown, slightly moist, fine sand, trace fine granitic gravel, (MD= 131.0 @ 10.0, EI=31) | AL, MD, EI, CR |
| | | | | R-1 | 8<br>11<br>13 | 125 | 11 | SC | SANDY LEAN CLAY, vey stiff, black to brown, moist, medium plasticity, few to little fine gravel | PP=3.75 |
| | 5 | | | R-2 | 5<br>8<br>11 | 121 | 14 | SC | CLAYEY SAND, medium dense, light reddish brown, moist, fine sand, trace coarse grains | |
| | | | | R-3 | 3<br>3<br>4 | 113 | 17 | | CLAYEY SAND with silt, loose, reddish brown, wet, fine sand, trace to few medium to coarse grains | |
| | 10 | | | R-4 | 4<br>6<br>7 | 111 | 20 | SC-SM | SILTY SAND, medium dense, olive gray to brown, wet, fine sand, few coarse grains, trace clay | |
| | 15 | | | R-5 | 5<br>8<br>11 | 109 | 20 | SM/ML | SILTY SAND to SANDY SILT, olive brown, moist, very fine sand, grades silter, trace clay | |
| | 20 | | | S-1 | 2<br>2<br>4 | | | ML | SANDY SILT with few clay, stiff to very stiff, olive gray to brown, fine sand, low to medium plasticity | PP=2.0 |
| | 25 | | | R-6 | 2<br>5<br>14 | | | | SANDY SILT with clay, medium stiff, olive gray to red, mottled with reddish yellow brown | PP=1.5 |
| | | | | | | | | | **PAUBA FORMATION (Qps)** | |
| | 30 | | | S-2 | 7<br>14<br>17 | | | SW | Well-graded SAND with silt, dense, gray, wet, fine to coarse sand, primarly medium grained, well rounded grains, few to little silt | |
| | 35 | | | | | | | | Total Depth 31.5'<br>GW measured @ 7.80'<br>Backfilled upon completion of drilling | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LB-1

| | | | |
|---|---|---|---|
| **Project No.** | 603181-001 | **Date Drilled** | 5-16-11 |
| **Project** | Regent Murrieta 18 | **Logged By** | BSS |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140 - Automatic - 30" Drop | **Ground Elevation** | 1082' |
| **Location** | See Borings Location Plan | **Sampled By** | BSS |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | | Surface covered with grass and weeds | |
| 1080 | | | | R-1 | 14<br>19<br>14 | 126 | 8 | SC | CLAYEY SAND, medium dense, dark brown, moist, fine to medium sand, trace fine roots | |
| | 5 | | | R-2 | 3<br>4<br>5 | 109 | 20 | ML | SILT with SAND, medium stiff, dark brown, moist to wet, fine to coarse sand, some clay (PP = 0.5 TSF) | PP |
| 1075 | | | | | | | | | | |
| | 10 | | | R-3 | 4<br>6<br>9 | 112 | 19 | SM | SILTY SAND, loose, brown, wet, fine sand, (34% fines) | CN, -200 |
| 1070 | | | | | | | | | | |
| | 15 | | | R-4 | 8<br>16<br>11 | 112 | 17 | | SILTY SAND, medium dense, brown, wet, fine to coarse sand | |
| 1065 | | | | | | | | | | |
| | 20 | | | R-5 | 8<br>13<br>17 | 100 | 23 | ML | SANDY SILT, stiff, dark grayish brown, wet, fine to medium sand | |
| 1060 | | | | | | | | | | |
| | 25 | | | R-6 | 4<br>9<br>13 | 110 | 21 | SM | SILTY SAND, medium dense, grayish brown, moist to wet, fine to medium sand, some oxidation | |
| 1055 | | | | | | | | | | |
| | 30 | | | R-7 | 4<br>7<br>19 | | | SW-SM | Well-graded SAND, medium dense, grayish brown, wet, fine to coarse sand, trace silt | |
| 1050 | | | | | | | | | Drilled to 30'<br>Sampled to 31.5'<br>Groundwater at 6.5'<br>Backfilled with soil cuttings (5/16/2011) | |
| | 35 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH



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# GEOTECHNICAL BORING LOG LB-2

| | | | |
|---|---|---|---|
| **Project No.** | 603181-001 | **Date Drilled** | 5-16-11 |
| **Project** | Regent Murrieta 18 | **Logged By** | BSS |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140 - Automatic - 30" Drop | **Ground Elevation** | 1081' |
| **Location** | See Borings Location Plan | **Sampled By** | BSS |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | | Surface covered with weeds | |
| 1080 | | | | B-1 | | | | SC | CLAYEY SAND, loose, dark brown, moist, fine to medium sand, (EI = 33) | EI |
| | | | | R-1 | 5<br>7<br>9 | 123 | 14 | | dark brown, moist, fine sand, to sandy silt | |
| | 5 | | | R-2 | 6<br>9<br>10 | 123 | 13 | | medium dense, brown, moist to wet, fine to coarse sand, (PP = 4 TSF) | PP |
| 1075 ▼ | | | | | | | | | | |
| | | | | R-3 | 2<br>3<br>10 | 119 | 15 | SW-SM | Well-graded SAND with SILT, medium dense, brown, wet, fine to coarse sand | |
| | 10 | | | R-4 | 6<br>10<br>12 | 120 | 14 | | medium dense, grayish brown, wet, fine to coarse sand, trace silt | |
| 1070 | | | | | | | | | | |
| | 15 | | | R-5 | 7<br>10<br>10 | 119 | 15 | | with silt, medium dense, light brownish gray, wet, medium to coarse sand, (7% fines) | -200 |
| 1065 | | | | | | | | | | |
| | 20 | | | R-6 | 4<br>5<br>8 | 112 | 26 | CL | SILTY SAND, medium stiff, grayish brown, wet, trace fine to medium sand | |
| 1060 | | | | | | | | | Drilled to 20'<br>Sampled to 21.5'<br>Groundwater at 6'<br>Backfilled with soil cuttings (5/16/2011) | |
| | 25 | | | | | | | | | |
| 1055 | | | | | | | | | | |
| | 30 | | | | | | | | | |
| 1050 | | | | | | | | | | |
| | 35 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |



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# GEOTECHNICAL BORING LOG LB-3

| | | | |
|---|---|---|---|
| **Project No.** | 603181-001 | **Date Drilled** | 5-16-11 |
| **Project** | Regent Murrieta 18 | **Logged By** | BSS |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140 - Automatic - 30" Drop | **Ground Elevation** | 1076' |
| **Location** | See Borings Location Plan | **Sampled By** | BSS |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| | 0 | | | | | | | | Surface covered with weeds | |
| 1075 | | | | | | | | SC | CLAYEY SAND, loose, brown, dry to moist, fine to medium sand | |
| | | | | R-1 | 4<br>6<br>10 | 119 | 15 | CL | SANDY Lean CLAY, medium stiff, dark brown, moist, fine sand, (PP = 2.5 - 3.5 TSF) | PP |
| | 5 | | | R-2 | 6<br>8<br>8 | 117 | 16 | | SANDY Lean CLAY, medium stiff, dark grayish brown, moist to wet, fine sand, (PP = 2.5 TSF) | PP |
| 1070 | | | | | | | | | | |
| | 10 | | | R-3 | 9<br>10<br>12 | 118 | 18 | SW-SM | Well-graded SAND with SILT, medium dense, brown, wet, fine to coarse sand, trace gravel | |
| 1065 | | | | | | | | | | |
| | 15 | | | R-4 | 6<br>7<br>10 | | | SW | Well-graded SAND, medium dense, light brownish gray, wet, fine to coarse sand | |
| 1060 | | | | | | 109 | 20 | ML | SILT with SAND, stiff, brown, moist to wet, fine sand, some clay | |
| | 20 | | | R-5 | 5<br>6<br>7 | 98 | 26 | CL-ML | SILTY CLAY with SAND, loose, light brown, wet, fine sand, more sand in the top of sample | |
| 1055 | | | | | | | | | Drilled to 20'<br>Sampled to 21.5'<br>Groundwater at 5'<br>Backfilled with soil cuttings (5/16/2011) | |
| | 25 | | | | | | | | | |
| 1050 | | | | | | | | | | |
| | 30 | | | | | | | | | |
| 1045 | | | | | | | | | | |
| | 35 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |



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# GEOTECHNICAL BORING LOG LB-4

| | | | |
|---|---|---|---|
| **Project No.** | 603181-001 | **Date Drilled** | 5-16-11 |
| **Project** | Regent Murrieta 18 | **Logged By** | BSS |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140 - Automatic - 30" Drop | **Ground Elevation** | 1078' |
| **Location** | See Borings Location Plan | **Sampled By** | BSS |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | B-1 | | | | SC | Surface covered with weeds<br>CLAYEY SAND, loose, dark brown, dry to moist, fine to coarse sand, some rootlets | |
| 1075 | | | | R-1 | 4<br>8<br>10 | 120 | 15 | | medium dense, dark grayish brown, moist, fine to medium sand, (PP = 2 - 4 TSF) | PP |
| | 5 | | | R-2 | 4<br>5<br>7 | 109 | 19 | CL | SILTY CLAY with sand, medium stiff, dark gray, moist to wet, fine sand, (PP = 0.5 - 0.75 TSF) | PP |
| 1070 | | | | B-2<br>R-3 | 3<br>3<br>4 | | | | soft, dark grayish brown, wet, fine sand, mottled (EI = 60) (PP = 0.25 - 0.5 TSF) | EI<br>PP |
| | 10 | | | R-4 | 2<br>7<br>10 | 105 | 20 | ML | SANDY SILT, stiff, brown, wet, fine sand, some clay in the top | |
| 1065 | | | | | | | | | | |
| | 15 | | | R-5 | 5<br>9<br>12 | 105 | 21 | | stiff, grayish brown, wet, fine to coarse gravel, trace clay, mottled (LL = 26, PL = 24, PI = 2) (PP = .05 TSF) | AL, PP |
| 1060 | | | | | | | | | | |
| | 20 | | | R-6 | 5<br>8<br>13 | 105 | 21 | | stiff, brown, wet, fine to medium sand | |
| 1055 | | | | | | | | | | |
| | 25 | | | R-7 | 4<br>8<br>10 | 115 | 19 | SW | Well-graded SAND, medium dense, light brownish gray, wet, fine to coarse sand with fine gravel, trace silt | |
| 1050 | | | | | | | | | | |
| | 30 | | | R-8 | 5<br>6<br>7 | 112 | 19 | | Well-graded SAND, loose, light brownish gray, wet, fine to coarse sand with fine gravel, trace silt | |
| 1045 | | | | | | | | | Drilled to 30'<br>Sampled to 31.5'<br>Groundwater at 4.5'<br>Backfilled with soil cuttings (5/16/2011) | |
| | 35 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH



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# GEOTECHNICAL BORING LOG LB-5

| | | | |
|---|---|---|---|
| **Project No.** | 603181-001 | **Date Drilled** | 5-16-11 |
| **Project** | Regent Murrieta 18 | **Logged By** | BSS |
| **Drilling Co.** | 2R Drilling, Inc. | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140 - Automatic - 30" Drop | **Ground Elevation** | 1080' |
| **Location** | See Borings Location Plan | **Sampled By** | BSS |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 1080 | 0 | | | | | | | SC | Surface coved with weeds<br>CLAYEY SAND, loose, dark brown, moist, fine sand | |
| | | | | R-1 | 2<br>4<br>7 | 107 | 19 | CL | Lean CLAY with SAND, medium stiff, dark grayish brown, moist, fine sand, more clay (PP=1.5 TSF) | PP |
| 1075 | 5 | | | R-2 | 4<br>7<br>11 | 111 | 19 | | Lean CLAY with SAND, medium stiff, dark grayish brown, moist, fine sand, mottled (PP=2.0 - 2.5 TSF) | PP |
| | | | | R-3 | 3<br>3<br>7 | | | | grayish brown, moist to wet, fine sand, (PP=0.5 TSF) | PP |
| 1070 | 10 | | | R-4 | 3<br>4<br>8 | 113 | 19 | ML | SANDY SILT, medium stiff, brown, wet, fine to coarse sand, trace clay, mottled (PP=1.25 TSF) | PP |
| 1065 | 15 | | | R-5 | 3<br>7<br>9 | 103 | 24 | | light brown, wet, fine sand, more coarse sand in the top of the sample | |
| 1060 | 20 | | | R-6 | 4<br>5<br>7 | 108 | 21 | SW-SM | Well-graded SAND with SILT, medium dense, light brown, wet, fine to coarse sand, more silt toward the bottom | |
| 1055 | 25 | | | R-7 | 8<br>13<br>20 | 116 | 17 | SW | Well-graded SAND, medium dense, grayish brown, wet, fine to coarse sand with fine gravel, trace silt | |
| | | | | | | | | | Drilled to 25'<br>Sampled to 26.5'<br>Groundwater at 4.5'<br>Backfilled with soil cuttings (5/16/2011) | |
| 1050 | 30 | | | | | | | | | |
| 1045 | 35 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH



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# Geotechnical Boring Log B-1

| | | |
|---|---|---|
| Date: April 28, 2004 | Project Name: Murrieta Hot Springs Road / Jefferson Road | Page 1 of 2 |
| Project Number: 042423 | Logged By: AW | |
| Drilling Company: 2R Drilling | Type of Rig: CME-55 | |
| Drive Weight (lbs): 140 | Drop (in): 30 Hole Dia (in): 8 | |
| Top of Hole Elevation (ft): | Hole Location: See Geotechnical Map | |

| Depth (ft) | Blow Count / 6" | Sample No. | Dry Density (pcf) | Moisture (%) | Geologic / ASTM Symbol | DESCRIPTION | Type of Test |
|---|---|---|---|---|---|---|---|
| 0 | 8<br>17<br>20 | Bag<br>R-1 | 0-4<br>115.3 | 7.1 | SM | ***Alluvium:***<br>Silty SAND; dark yellowish brown, dry, medium dense, fine to coarse SAND. | Max, EI |
| 5 | 7<br>9<br>12 | R-2 | 114.9 | 16.6 | CL | Sandy CLAY; dark yellowish brown, slightly moist, medium dense, fine to coarse sand. | -200 |
| | | | | | ¥ | ***Groundwater @ 8 Feet 4 Inches.*** | |
| 10 | 3<br>6<br>12 | R-3 | 112.2 | 18.6 | SM | Silty SAND; dary yellowish brown, moist, medium dense, fine to coarse sand. | -200 |
| 15 | 1<br>4<br>4 | SPT-1 | | 18.0 | ML | Sandy SILT; dark yellowish brown, wet, loose, fine sand. | -200 |
| 20 | 2<br>6<br>8 | SPT-2 | | 24.5 | | Sandy SILT; reddish brown, wet, medium dense, fine to medium sand. | -200 |
| | | | | | SP | SAND; dark yellowish brown, wet, dense, fine to coarse sand fine to medium gravel, trace of silt interlayed with | |
| 25 | 7<br>22<br>34 | R-4 | 127.3 | 8.7 | SM | Silty SAND; dark yellowish brown, wet, medium dense, fine to medium sand trace coarse sand. | |
| 30 | | | | | | | |

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# Geotechnical Boring Log B-1

| | | |
|---|---|---|
| Date: April 28, 2004 | Project Name: Murrieta Hot Springs Road / Jefferson Road | Page 2 of 2 |
| Project Number: 042423 | Logged By: AW | |
| Drilling Company: 2R Drilling | Type of Rig: CME-55 | |
| Drive Weight (lbs): 140 | Drop (in): 30 Hole Dia (in): 8 | |
| Top of Hole Elevation (ft): | Hole Location: See Geotechnical Map | |

| Depth (ft) | Blow Count / 6" | Sample No. | Dry Density (pcf) | Moisture (%) | Geologic / ASTM Symbol | DESCRIPTION | Type of Test |
|---|---|---|---|---|---|---|---|
| 30 | 4<br>15<br>24 | SPT-3 | | 15.4 | SP | SAND; yellowish brown, wet, medium dense, fine to coarse sand, fine to medium gravel. | -200 |
| | | | | | | SAND interlayed with | |
| 35 | 6<br>10<br>15 | R-5 | 104.7 | 22.6 | ML | Sandy SILT; dark olive brown, wet, medium dense, fine sand. | |
| 40 | 3<br>6<br>10 | SPT-4 | | 28.7 | | | |
| 45 | 15<br>42<br>50/<br>3½ | R-6 | 119.6 | 14.9 | | Sandy SILT; dark olive brown, moist, very stiff, fine to medium sand, trace coarse sand. | |
| | | | | | | ***Total Depth - 46½ Feet*** | |
| 50 | | | | | | ***Groundwater @ 8 Feet 4 Inches*** | |
| | | | | | | ***Backfilled with Cuttings.*** | |
| 55 | | | | | | | |
| 60 | | | | | | | |

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# Geotechnical Boring Log B-2

| | |
|---|---|
| Date: April 28, 2004 | Project Name: Murrieta Hot Springs Road / Jefferson Road — Page 1 of 1 |
| Project Number: 042423 | Logged By: AW |
| Drilling Company: 2R Drilling | Type of Rig: CME-55 |
| Drive Weight (lbs): 140 | Drop (in): 30 — Hole Dia (in): 8 |
| Top of Hole Elevation (ft): | Hole Location: See Geotechnical Map |

| Depth (ft) | Blow Count / 6" | Sample No. | Dry Density (pcf) | Moisture (%) | Geologic / ASTM Symbol | DESCRIPTION | Type of Test |
|---|---|---|---|---|---|---|---|
| 0 | 11<br>20<br>18 | Bag<br>R-1 | 0-5<br>124.0 | 6.4 | SM | ***Alluvium:***<br>Silty SAND; dark yellowish brown, slightly moist, medium dense, fine to coarse sand, porosity. | R-value<br>SS, Chem. |
| 5 | 4<br>4<br>7 | R-2 | 115.3 | 14.5 | ML | Sandy SILT; dark yellowish brown, moist, medium dense. | |
| 10 | 3<br>7 | R-3 | 112.2 | 18.5 | ¥ | ***Goundwater @ 10 Feet.*** | |
| | 10 | | | | SM | Silty SAND, dark yellowish brown, moist, medium dense. | |
| 15 | 4<br>13<br>14 | R-4 | 107.9 | 20.3 | ML | Sandy SILT; dark yellowish brown, moist, medium stiff, fine sand interlayed with | |
| | | | | | SP | Poorly graded SAND with SILT; yellowish brown, saturated, fine to coarse sand, trace of silt. | |
| 20 | 2<br>4<br>9 | SPT-1 | | 19.5 | SM<br>SC | Silty SAND with CLAY; dark yellowish brown, moist, loose, fine to coarse sand, trace of clay. | |
| 25 | 12<br>30<br>39 | R-5 | 112.1 | 17.9 | SP | SAND; yellowish brown with lens of dark red, wet, very dense, fine to coarse sand, trace of silt. | |
| 30 | | | | | | ***Total Depth- 26½ Feet***<br>***Groundwater @ 10 Feet***<br>***Backfilled with Cuttings.*** | |

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# Geotechnical Boring Log B-3

| | | |
|---|---|---|
| Date: April 28, 2004 | Project Name: Murrieta Hot Springs Road / Jefferson Road | Page 1 of 1 |
| Project Number: 042423 | Logged By: AW | |
| Drilling Company: 2R Drilling | Type of Rig: CME-55 | |
| Drive Weight (lbs): 140 | Drop (in): 30 Hole Dia (in): 8 | |
| Top of Hole Elevation (ft): | Hole Location: See Geotechnical Map | |

| Depth (ft) | Blow Count / 6" | Sample No. | Dry Density (pcf) | Moisture (%) | Geologic / ASTM Symbol | DESCRIPTION | Type of Test |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | ***Alluvium:*** | |
| | 5<br>9<br>10 | Bag<br>R-1 | 0-5<br>101.0 | 8.6 | SM | Silty SAND; dark yellowish brown, slightly moist, medium dense, fine to coarse sand, porosity. | |
| 5 | 3<br>4<br>7 | R-2 | 103.5 | 22.3 | CL | Sandy CLAY; black, moist, stiff, fine to coarse sand. | |
| | | | | | ¥ | ***Groundwater @ 7½ Feet.*** | |
| 10 | 2<br>2<br>4 | R-3 | 102.8 | 24.5 | ML | Clayey SILT; dark yellowish brown, moist, soft, trace of sand. | |
| 15 | 2<br>4<br>7 | R-4 | 92.9 | 31.1 | SM | Silty SAND; dark yellowish brown, moist, medium dense, fine to medium sand, trace coarse sand. | |
| 20 | 4<br>5<br>5 | SPT-5 | | 17.4 | | | |
| 25 | 4<br>15<br>13 | R-6 | 111.3 | 19.9 | CL | Silty CLAY; dark yellowish brown, wet, very stiff, fine to medium sand, trace of sand. | |
| | | | | | | ***Total Depth - 26½ Feet***<br>***Groundwater @ 7½ Feet***<br>***Backfilled with Cuttings.*** | |
| 30 | | | | | | | |

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# Geotechnical Boring Log B-4

| | | | |
|---|---|---|---|
| Date: April 28, 2004 | Project Name: Murrieta Hot Springs Road / Jefferson Road | | Page 1 of 2 |
| Project Number: 042423 | Logged By: AW | | |
| Drilling Company: 2R Drilling | Type of Rig: CME-55 | | |
| Drive Weight (lbs): 140 | Drop (in): 30 | Hole Dia (in): 8 | |
| Top of Hole Elevation (ft): | Hole Location: See Geotechnical Map | | |

| Depth (ft) | Blow Count / 6" | Sample No. | Dry Density (pcf) | Moisture (%) | Geologic / ASTM Symbol | DESCRIPTION | Type of Test |
|---|---|---|---|---|---|---|---|
| 0 | 7<br>10<br>13 | Bag<br>R-1 | 0-5<br>109.9 | 5.1 | SM | ***Alluvium:***<br>Silty SAND; dark yellowish brown, slightly moist, medium dense, fine to corse sand. | |
| 5 | 7<br>8<br>12 | R-2 | 114.5 | 16.2 | SC<br>¥ | Clayey SAND; dark yellowish brown, slightly moist, medium dense, fine to coarse sand.<br>***Groundwater @ 7½ Feet.*** | |
| 10 | 4<br>11<br>12 | R-3 | 107.0 | 18.5 | SM | Silty SAND; yellowish brown, saturated, medium dense, fine to corse sand. | |
| 15 | 13<br>22<br>28 | R-4 | 119.5 | 14.2 | SP | SAND; yellowish brown, saturated, dense, fine to corse sand (7% silty). | |
| 20 | 2<br>4<br>6 | SPT-1 | | 21.9 | CL | Clayey SILT; olive brown, wet, firm, fine sand. | |
| | | | | | SP | SAND; yellowish brown, saturated, dense, fine to coarse sand interlayed with | |
| 25 | 10<br>15<br>40 | R-6 | 117.1 | 16.5 | CL | Sandy SILT; olive brown, wet, very stiff, fine to medium sand. | |
| 30 | | | | | | ***Total Depth - 26½ Feet***<br>***Groundwater @ 7½ Feet***<br>***Backfilled with Cuttings.*** | |

LGC INLAND

501-A - (3/77)

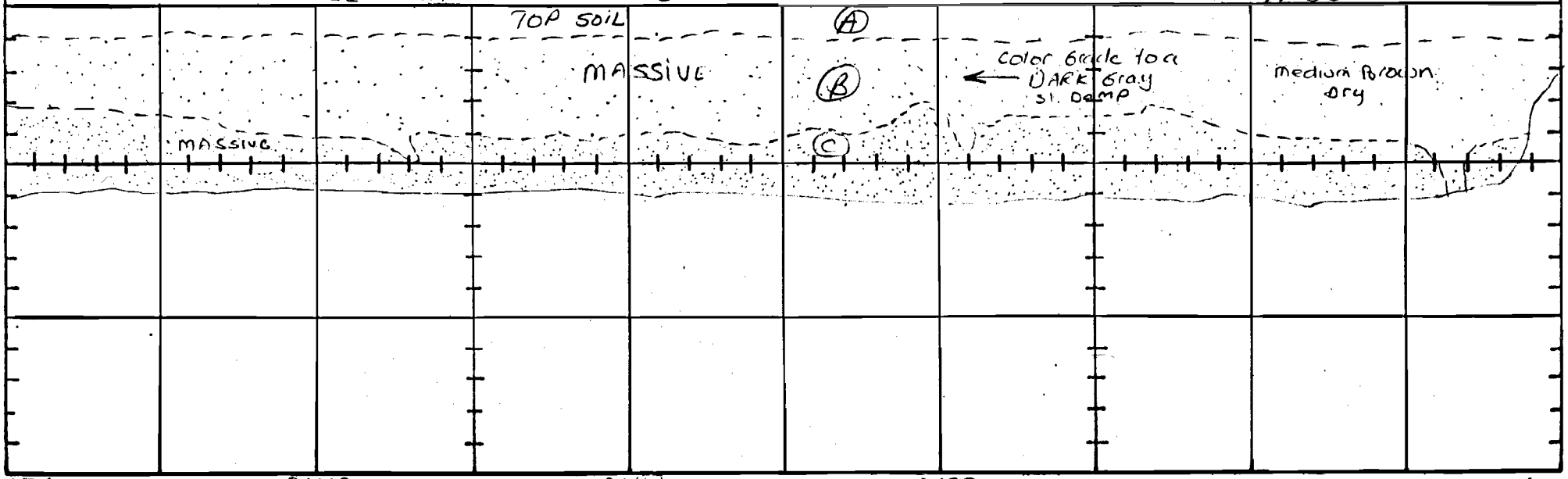
Project Name: Ralph Pacific Engineering & Logged By: DS

Project Number: 680073-01 Elevation: 1084± TRENCH NO. T-1

Equipment: JD 500 Backhoe Location: SHEET 1 of 7

| GEOLOGIC ATTITUDES | DATE: 7/21/80 DESCRIPTION: | GEOLOGIC UNIT | ENGINEERING PROPERTIES U.S.C.S. | Sample No. | Moisture (%) | Density (pcf) |
|---|---|---|---|---|---|---|
| | (A) 0-1' Sandy SILT: LT Brown, Dry, Dense, roots in upper 6" (TOP SOIL) | Qal | | | | |
| | (B) 1'-4½' Sandstone: Med Brown - DARK Gray, MASSIVE w/coarse angular rock Fragments Very dense. Dry - slightly damp non cohesive. OCCASIONAL roots. some silt present with OCCASIONAL 1-3" cobbles - <1%. | Qps | | | | |
| | (C) 4½-6' Sandstone: Med Brown, Fine Grained, MASSIVE micaceous, moderately dense, cohesive slightly damp. OCCASIONAL roots. Angular grains | | | | | |

GRAPHIC REPRESENTATION SE WALL SCALE: 1" = 5' SURFACE SLOPE: 0 TREND: N 50 E ←




LOG OF TRENCH NO: T-1

Leighton & Associates

501-A - (3/77)

Project Name: Rancho Pacific Engineering Corp. Logged By: DS

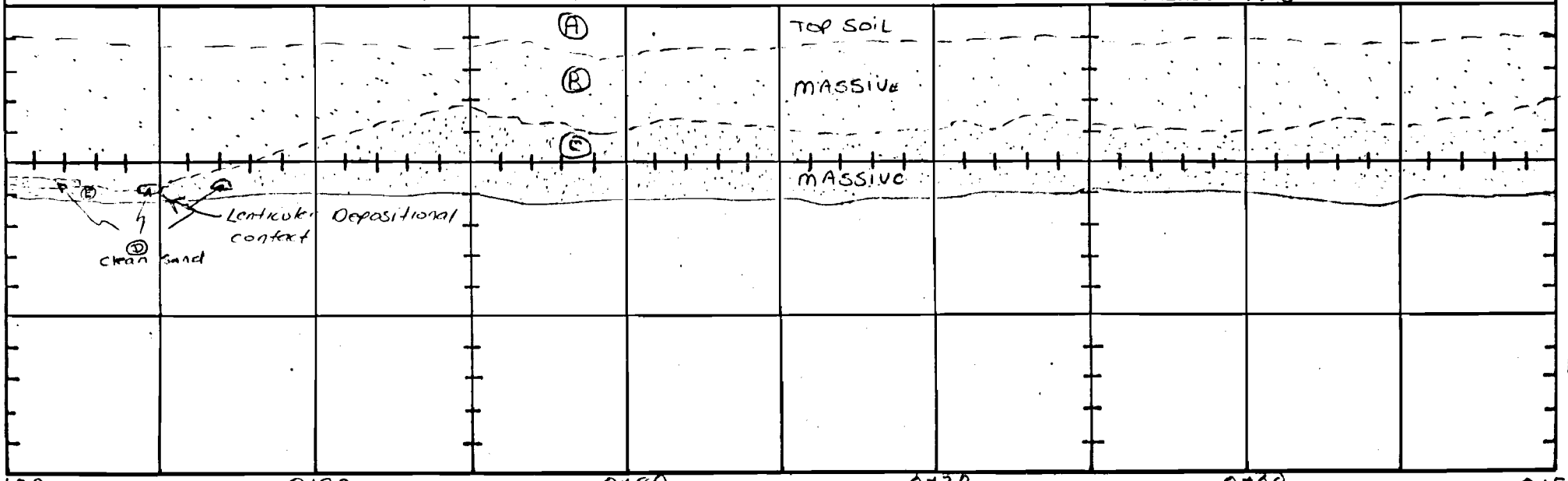
Project Number: 680073-01 Elevation: 1084 ± TRENCH NO. T-1

Equipment: JD 500 Backhoe Location: SHEET 2 of 7

ENGINEERING PROPERTIES

| GEOLOGIC ATTITUDES | DATE: 7/21/80 DESCRIPTION: | GEOLOGIC UNIT | U.S.C.S. | Sample No. | Moisture (%) | Density (pcf) |
|---|---|---|---|---|---|---|
| | (A) (B) (C) } SEE SHEET 1 | Qal Qps | | | | |
| | (D) Clean Sand: medium brown poorly sorted, very coarse w/ angular grains | | | | | |
| | (E) 5½-6' Siltstone: medium brown, micaceous, moderately dense, slightly damp, cohesive | | | | | |

GRAPHIC REPRESENTATION SE WALL SCALE: 1" = 5' SURFACE SLOPE: 0 TREND: N50E ←




LOG OF TRENCH NO: T-1

Leighton & Associates

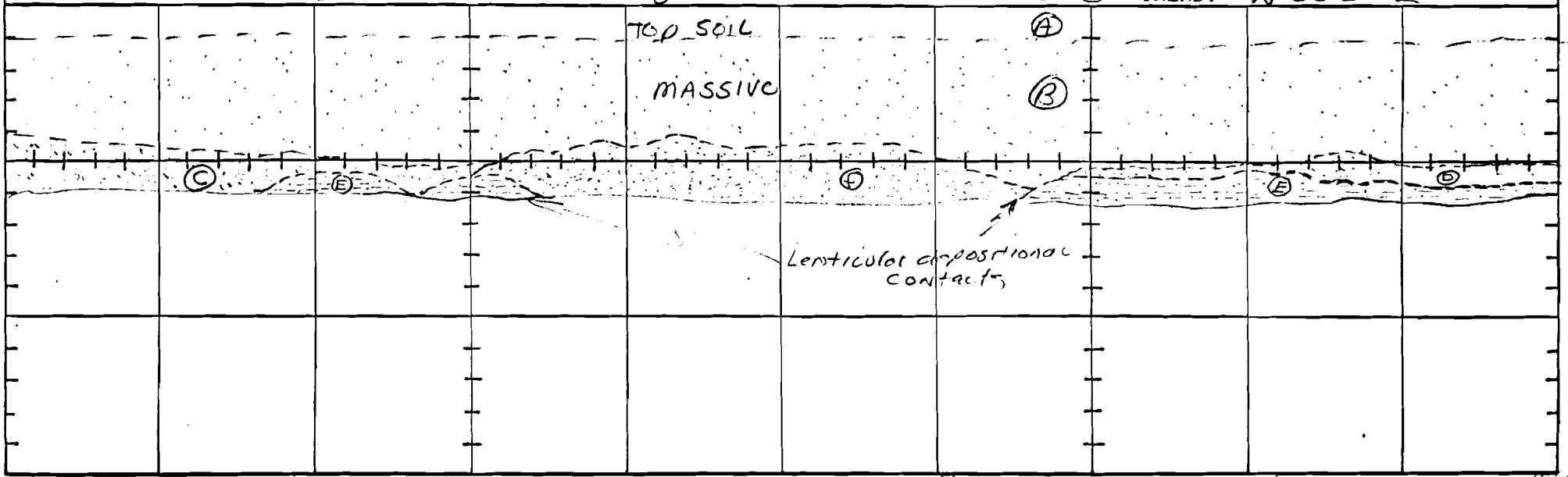
Project Name: Rancho Pacific Engineering Corp. Logged By: DS

Project Number: 680073-01 Elevation: 1083± TRENCH NO. T-1

Equipment: JD 500 Backhoe Location: SHEET 3 of 7

| GEOLOGIC ATTITUDES | DATE: 7/21/80 DESCRIPTION: | GEOLOGIC UNIT | ENGINEERING PROPERTIES U.S.C.S. | Sample No. | Moisture (%) | Density (pcf) |
|---|---|---|---|---|---|---|
| | Ⓐ-Ⓔ SEE SHEETS 1 & 2 | Qal / QPs | | | | |
| | Ⓕ 4'-6' Sandstone: massive, fine grained, medium brown, mod dense, non cohesive, loose angular coarse grains. Slightly damp | | | | | |

GRAPHIC REPRESENTATION SE wall SCALE: 1" = 5' SURFACE SLOPE: 0 TREND: N 50 E




LOG OF TRENCH NO: T-1

501-A - (3/77) Leighton & Associates

501-A - (3/77)

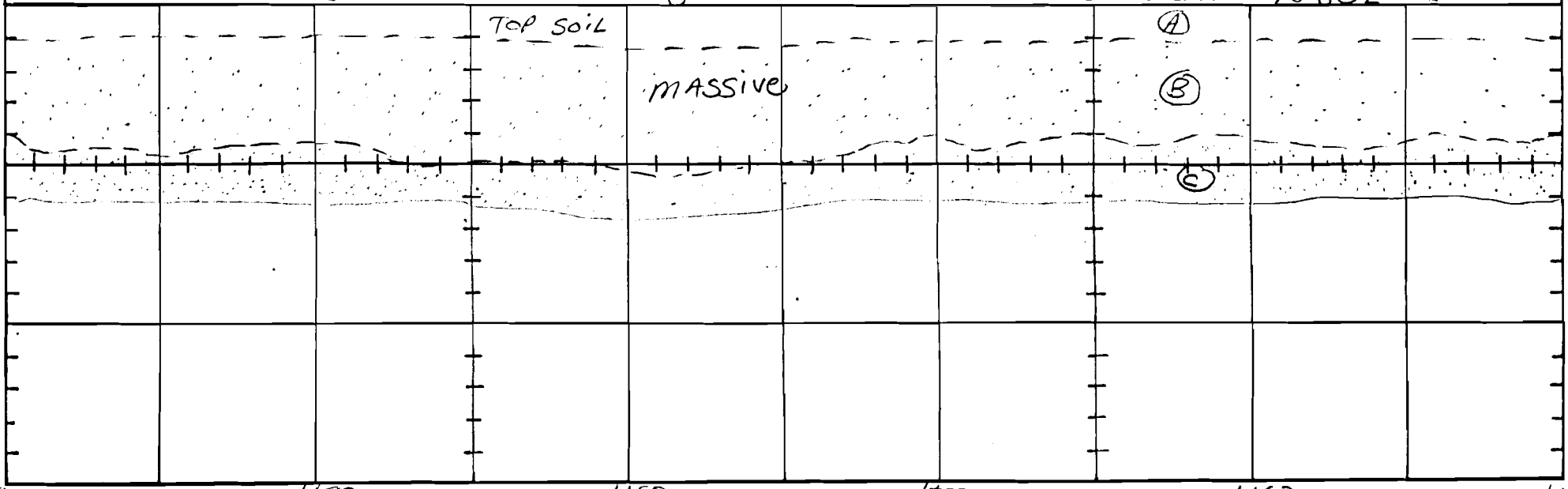
Project Name: Rancho Pacific Engineering Corp  Logged By: DS

Project Number: 680073-01  Elevation: 1082±  TRENCH NO. T-1

Equipment: JD 500 Backhoe  Location:  SHEET 4 of 7

| GEOLOGIC ATTITUDES | DATE: 7/21/80 DESCRIPTION: | GEOLOGIC UNIT | ENGINEERING PROPERTIES: U.S.C.S. | Sample No. | Moisture (%) | Density (pcf) |
|---|---|---|---|---|---|---|
| | (A) (B) (C) SEE SHEET 1 | Qal Qps ↓ | | | | |

GRAPHIC REPRESENTATION SE WALL  SCALE: 1" = 5'  SURFACE SLOPE: 0  TREND: N 60 E ←




LOG OF TRENCH NO: T-1

Leighton & Associates

501-A - (3/77)

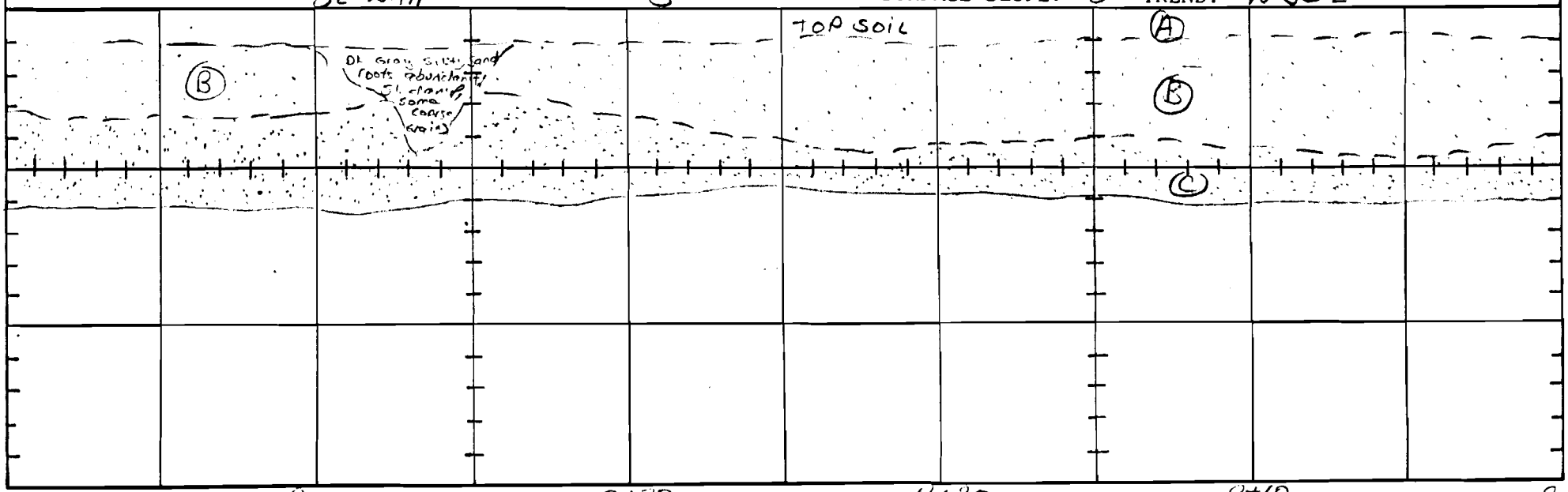
Project Name: Rancho Pacific Engineering Corp  Logged By: DS

Project Number: 680073-01  Elevation: 1082 ±  TRENCH NO. T-1

Equipment: JD 500 Backhoe  Location:  SHEET 5 of 7

| GEOLOGIC ATTITUDES | DATE: 7/21/80 DESCRIPTION: | GEOLOGIC UNIT | ENGINEERING PROPERTIES: U.S.C.S. | Sample No. | Moisture (%) | Density (pcf) |
|---|---|---|---|---|---|---|
| | (A) (B) (C) SEE SHEET 1 | Qol Qps ↓ | | | | |

GRAPHIC REPRESENTATION SE WALL  SCALE: 1" = 5'  SURFACE SLOPE: 0  TREND: N 50 E ←




LOG OF TRENCH NO: _____

Leighton & Associates

501-A - (3/77)

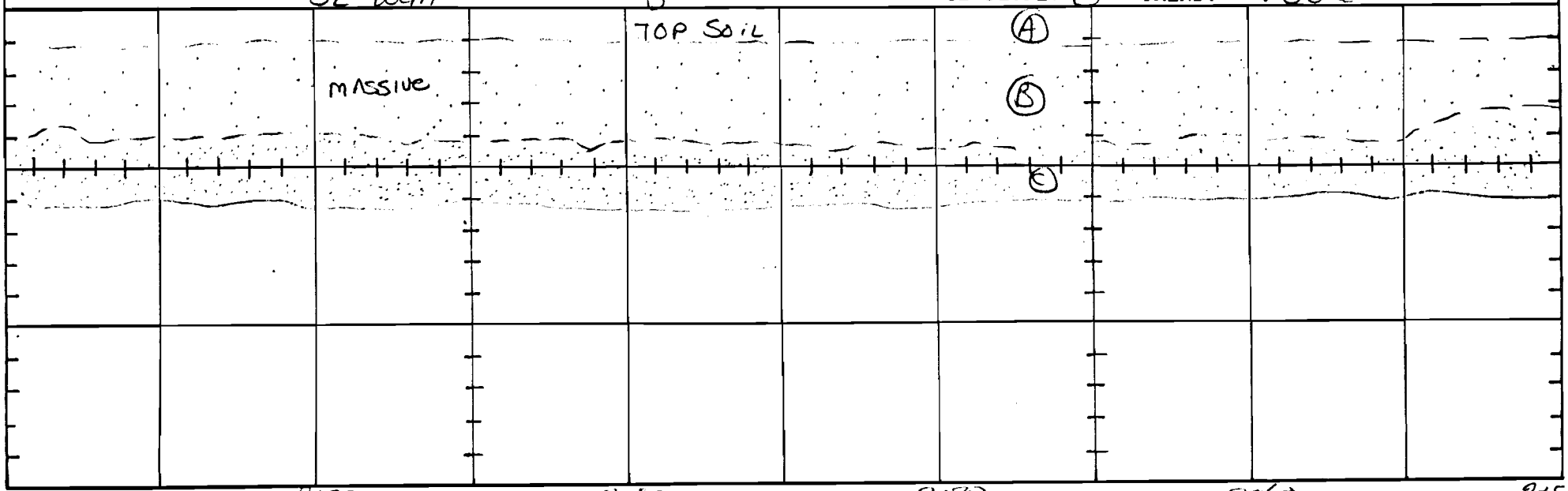
Project Name: Rancho Pacific Engineering Corp  Logged By: DS

Project Number: 680073-01  Elevation: 1082 ±  TRENCH NO. T-1

Equipment: JD 500 Backhoe  Location:  SHEET 6 of 7

| GEOLOGIC ATTITUDES | DATE: 7/21/80 DESCRIPTION: | GEOLOGIC UNIT | ENGINEERING PROPERTIES: U.S.C.S. | Sample No. | Moisture (%) | Density (pcf) |
|---|---|---|---|---|---|---|
| | (A) (B) (C) SEE SHEET 1 | Qal Qps ↓ | | | | |

GRAPHIC REPRESENTATION SE Wall  SCALE: 1" = 5'  SURFACE SLOPE: 0  TREND: N 50 E ←




LOG OF TRENCH NO: T-1

Leighton & Associates

Project Name: Rancho Pacific Engineering Corp. Logged By: DS

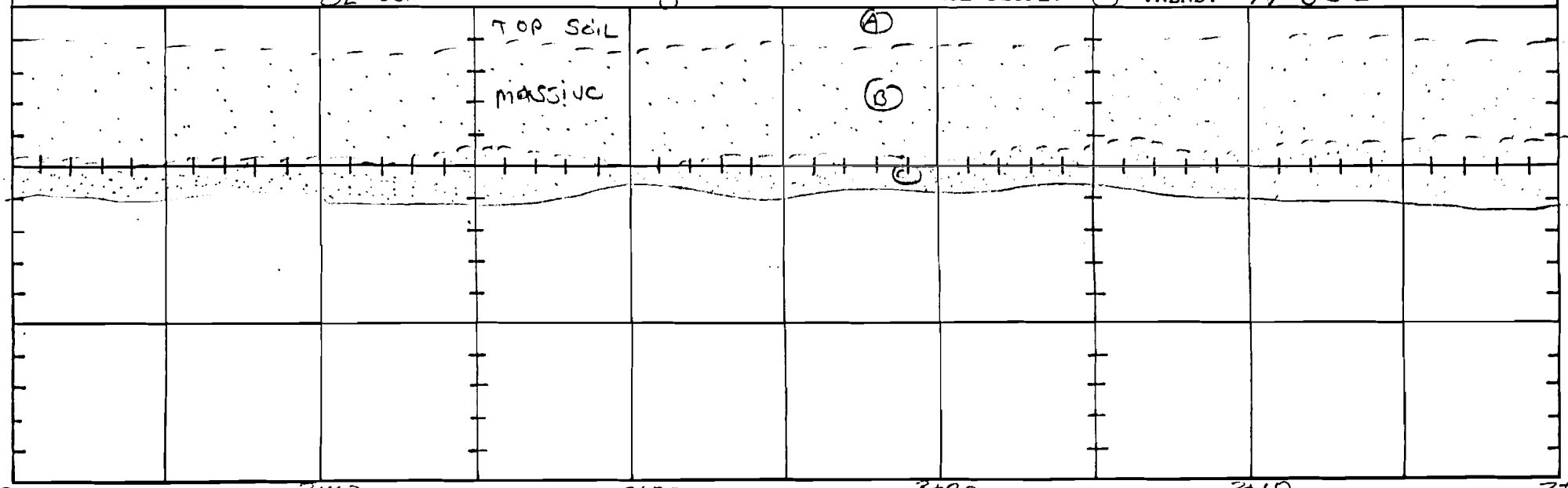
Project Number: 680023-01 Elevation: 1082± TRENCH NO. T-1

Equipment: JD 500 Backhoe Location: SHEET 7 of 7

ENGINEERING PROPERTIES

| GEOLOGIC ATTITUDES | DATE: 7/21/80 DESCRIPTION: | GEOLOGIC UNIT | U.S.C.S. | Sample No. | Moisture (%) | Density (pcf) |
|---|---|---|---|---|---|---|
| | (A) (B) (C) SEE SHEET 1 | Qal / Qps | | | | |

GRAPHIC REPRESENTATION SE WALL SCALE: 1" = 5' SURFACE SLOPE: 0 TREND: N 50 E




LOG OF TRENCH NO: T-1

Leighton & Associates

501-A - (3/77)

# APPENDIX B

## Laboratory Test Results (This and Previous Studies)

# R-VALUE TEST RESULTS

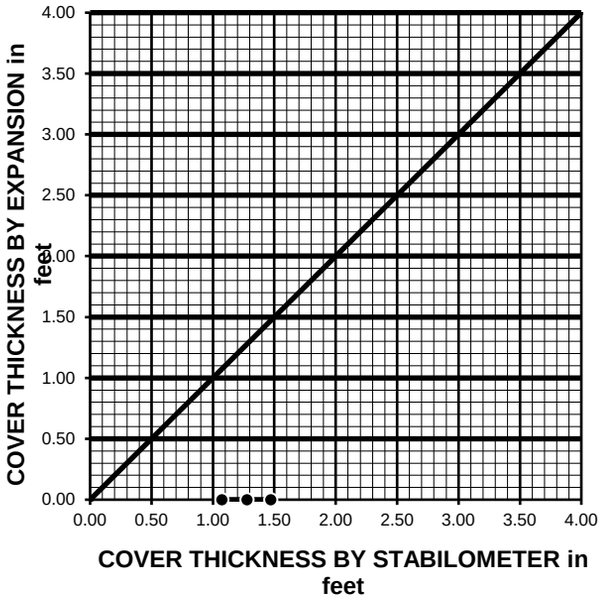
## ASTM D 2844

| | | | |
|---|---|---|---|
| Project Name: | LMC/Murrieta Hot Springs/Geo | Date: | 3/11/22 |
| Project Number: | 13343.004 | Technician: | F. Mina |
| Boring Number: | LB-3 | Depth (ft.): | 0 - 5.0 |
| Sample Number: | B-1 | Sample Location: | N/A |
| Sample Description: | Lean Clay with Sand (CL)s, Dark Brown. | | |

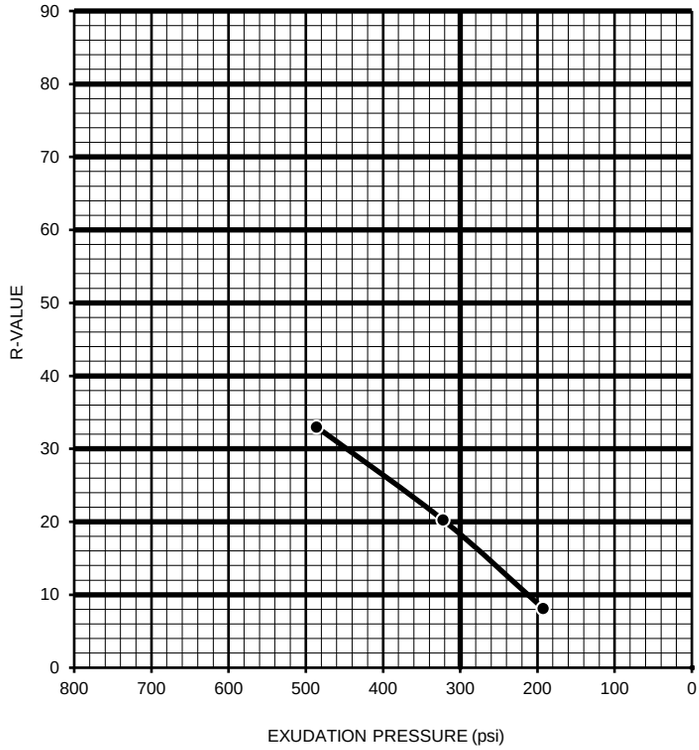
| TEST SPECIMEN | A | B | C |
|---|---|---|---|
| MOISTURE AT COMPACTION % | 12.7 | 13.8 | 15.5 |
| HEIGHT OF SAMPLE, Inches | 2.58 | 2.48 | 2.55 |
| DRY DENSITY, pcf | 113.2 | 111.6 | 114.2 |
| COMPACTOR AIR PRESSURE, psi | 125 | 100 | 50 |
| EXUDATION PRESSURE, psi | 486 | 322 | 193 |
| EXPANSION, Inches x 10exp-4 | 0 | 0 | 0 |
| STABILITY Ph 2,000 lbs (160 psi) | 90 | 111 | 137 |
| TURNS DISPLACEMENT | 4.28 | 4.35 | 4.75 |
| R-VALUE UNCORRECTED | 31 | 20 | 8 |
| R-VALUE CORRECTED | 33 | 20 | 8 |

| DESIGN CALCULATION DATA | a | b | c |
|---|---|---|---|
| GRAVEL EQUIVALENT FACTOR | 1.0 | 1.0 | 1.0 |
| TRAFFIC INDEX | 5.0 | 5.0 | 5.0 |
| STABILOMETER THICKNESS, ft. | 1.07 | 1.28 | 1.47 |
| EXPANSION PRESSURE THICKNESS, ft. | 0.00 | 0.00 | 0.00 |

EXPANSION PRESSURE CHART




EXUDATION PRESSURE CHART




| | |
|---|---|
| R-VALUE BY EXPANSION: | N/A |
| R-VALUE BY EXUDATION: | 18 |
| EQUILIBRIUM R-VALUE: | 18 |

# TESTS for SULFATE CONTENT

Project Name: LMC/Murrieta Hot Springs/Geo  Tested By : M. Vinet  Date: 03/14/22

Project No. : 13343.004  Data Input By: M. Vinet  Date: 03/14/22

| | | | | |
|---|---|---|---|---|
| Boring No. | LB-6 | | | |
| Sample No. | B-1 | | | |
| Sample Depth (ft) | 0 - 5.0 | | | |
| Soil Identification: | Clayey Sand (SC) | | | |
| Wet Weight of Soil + Container (g) | 100.00 | | | |
| Dry Weight of Soil + Container (g) | 100.00 | | | |
| Weight of Container (g) | 0.00 | | | |
| Moisture Content (%) | 0.00 | | | |
| Weight of Soaked Soil (g) | 100.00 | | | |

**SULFATE CONTENT, DOT California Test 417, Part II**

| | | | | |
|---|---|---|---|---|
| Beaker No. | 1 | | | |
| Crucible No. | 1 | | | |
| Furnace Temperature (°C) | 850 | | | |
| Time In / Time Out | Timer | | | |
| Duration of Combustion (min) | 45 | | | |
| Wt. of Crucible + Residue (g) | 25.0362 | | | |
| Wt. of Crucible (g) | 25.0319 | | | |
| Wt. of Residue (g) (A) | 0.0043 | | | |
| PPM of Sulfate (A) x 41150 | 176.95 | | | |
| **PPM of Sulfate, Dry Weight Basis** | **177** | | | |

# EXPANSION INDEX of SOILS

## ASTM D 4829

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | LMC/Murrieta Hot Springs/Geo | Tested By: | M. Vinet | Date: | 3/11/22 |
| Project No. : | 13343.004 | Checked By: | M. Vinet | Date: | 3/14/22 |
| Boring No.: | LB-3 | Depth: | 0 - 5.0 | | |
| Sample No. : | B-1 | Location: | N/A | | |
| Sample Description: | Lean Clay with Sand (CL)s, Dark Brown. | | | | |

| | |
|---|---|
| Dry Wt. of Soil + Cont. (gm.) | 2012.3 |
| Wt. of Container No. (gm.) | 0.0 |
| Dry Wt. of Soil (gm.) | 2012.3 |
| Weight Soil Retained on #4 Sieve | 2.5 |
| Percent Passing # 4 | 99.9 |

| **MOLDED SPECIMEN** | Before Test | After Test |
|---|---|---|
| Specimen Diameter (in.) | 4.01 | 4.01 |
| Specimen Height (in.) | 1.0000 | 1.0186 |
| Wt. Comp. Soil + Mold (gm.) | 604.5 | 633.4 |
| Wt. of Mold (gm.) | 200.0 | 200.0 |
| Specific Gravity (Assumed) | 2.70 | 2.70 |
| Container No. | 8 | 8 |
| Wet Wt. of Soil + Cont. (gm.) | 629.1 | 633.4 |
| Dry Wt. of Soil + Cont. (gm.) | 601.8 | 367.7 |
| Wt. of Container (gm.) | 329.1 | 200.0 |
| Moisture Content (%) | 10.0 | 17.9 |
| Wet Density (pcf) | 122.0 | 128.3 |
| Dry Density (pcf) | 110.9 | 108.9 |
| Void Ratio | 0.520 | 0.548 |
| Total Porosity | 0.342 | 0.354 |
| Pore Volume (cc) | 70.8 | 74.6 |
| Degree of Saturation (%) [ S meas] | **51.9** | **88.0** |

**SPECIMEN INUNDATION** in distilled water for the period of 24 h or expansion rate < 0.0002 in./h.

| Date | Time | Pressure (psi) | Elapsed Time (min.) | Dial Readings (in.) |
|---|---|---|---|---|
| | | | | |
| 3/11/22 | 11:15 | 1.0 | 0 | 0.5000 |
| 3/11/22 | 11:25 | 1.0 | 10 | 0.5000 |
| | Add Distilled Water to the Specimen | | | |
| 3/12/22 | 8:00 | 1.0 | 1235 | 0.5186 |
| 3/12/22 | 9:00 | 1.0 | 1295 | 0.5186 |

| | |
|---|---|
| Expansion Index (EI meas) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000 | 18.6 |
| Expansion Index ( Report ) = Nearest Whole Number or Zero (0) if Initial Height is > than Final Heigh | **19** |

Rev. 03-08

# EXPANSION INDEX of SOILS

## ASTM D 4829

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | LMC/Murrieta Hot Springs/Geo | Tested By: | M. Vinet | Date: | 3/11/22 |
| Project No. : | 13343.004 | Checked By: | M. Vinet | Date: | 3/14/22 |
| Boring No.: | LB-6 | Depth: | 0 - 5.0 | | |
| Sample No. : | B-1 | Location: | N/A | | |
| Sample Description: | Clayey Sand (SC), Dark Brown. | | | | |

| | |
|---|---|
| Dry Wt. of Soil + Cont. (gm.) | 10123.2 |
| Wt. of Container No. (gm.) | 0.0 |
| Dry Wt. of Soil (gm.) | 10123.2 |
| Weight Soil Retained on #4 Sieve | 0.0 |
| Percent Passing # 4 | 100.0 |

| **MOLDED SPECIMEN** | Before Test | After Test |
|---|---|---|
| Specimen Diameter (in.) | 4.01 | 4.01 |
| Specimen Height (in.) | 1.0000 | 1.0307 |
| Wt. Comp. Soil + Mold (gm.) | 579.4 | 613.8 |
| Wt. of Mold (gm.) | 178.0 | 178.0 |
| Specific Gravity (Assumed) | 2.70 | 2.70 |
| Container No. | 7 | 7 |
| Wet Wt. of Soil + Cont. (gm.) | 633.0 | 613.8 |
| Dry Wt. of Soil + Cont. (gm.) | 605.7 | 364.9 |
| Wt. of Container (gm.) | 333.0 | 178.0 |
| Moisture Content (%) | 10.0 | 19.4 |
| Wet Density (pcf) | 121.1 | 127.5 |
| Dry Density (pcf) | 110.1 | 106.8 |
| Void Ratio | 0.532 | 0.579 |
| Total Porosity | 0.347 | 0.367 |
| Pore Volume (cc) | 71.8 | 78.2 |
| Degree of Saturation (%) [ S meas] | **50.8** | **90.7** |

**SPECIMEN INUNDATION** in distilled water for the period of 24 h or expansion rate < 0.0002 in./h.

| Date | Time | Pressure (psi) | Elapsed Time (min.) | Dial Readings (in.) |
|---|---|---|---|---|
| | | | | |
| 3/11/22 | 10:55 | 1.0 | 0 | 0.5000 |
| 3/11/22 | 11:05 | 1.0 | 10 | 0.5000 |
| | Add Distilled Water to the Specimen | | | |
| 3/12/22 | 8:00 | 1.0 | 1255 | 0.5307 |
| 3/12/22 | 9:00 | 1.0 | 1315 | 0.5307 |

| | |
|---|---|
| Expansion Index (EI meas) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000 | 30.7 |
| Expansion Index ( Report ) = Nearest Whole Number or Zero (0) if Initial Height is > than Final Heigh | **31** |

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# MODIFIED PROCTOR COMPACTION TEST

**ASTM D 1557**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | LMC/Murrieta Hot Springs/Geo | Tested By: | M. Vinet | Date: | 03/11/22 |
| Project No.: | 13343.004 | Input By: | M. Vinet | Date: | 03/14/22 |
| Boring No.: | LB-6 | Depth (ft.): | 0 - 5.0 | | |
| Sample No.: | B-1 | | | | |
| Soil Identification: | Clayey Sand (SC), Dark Brown. | | | | |

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

**Mold Volume (ft³)** 0.03340 *Ram Weight = 10 lb.; Drop = 18 in.*

| TEST NO. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Wt. Compacted Soil + Mold (g) | 5585 | 5719 | 5693 | | | |
| Weight of Mold (g) | 3540 | 3540 | 3540 | | | |
| Net Weight of Soil (g) | 2045 | 2179 | 2153 | | | |
| Wet Weight of Soil + Cont. (g) | 1132.2 | 1023.2 | 896.7 | | | |
| Dry Weight of Soil + Cont. (g) | 1069.8 | 956.0 | 836.7 | | | |
| Weight of Container (g) | 280.1 | 277.4 | 333.0 | | | |
| Moisture Content (%) | 7.9 | 9.9 | 11.9 | | | |
| Wet Density (pcf) | 135.0 | 143.8 | 142.1 | | | |
| Dry Density (pcf) | 125.1 | 130.9 | 127.0 | | | |

**Maximum Dry Density (pcf)** 131.0 **Optimum Moisture Content (%)** 10.0

**PROCEDURE USED**

[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

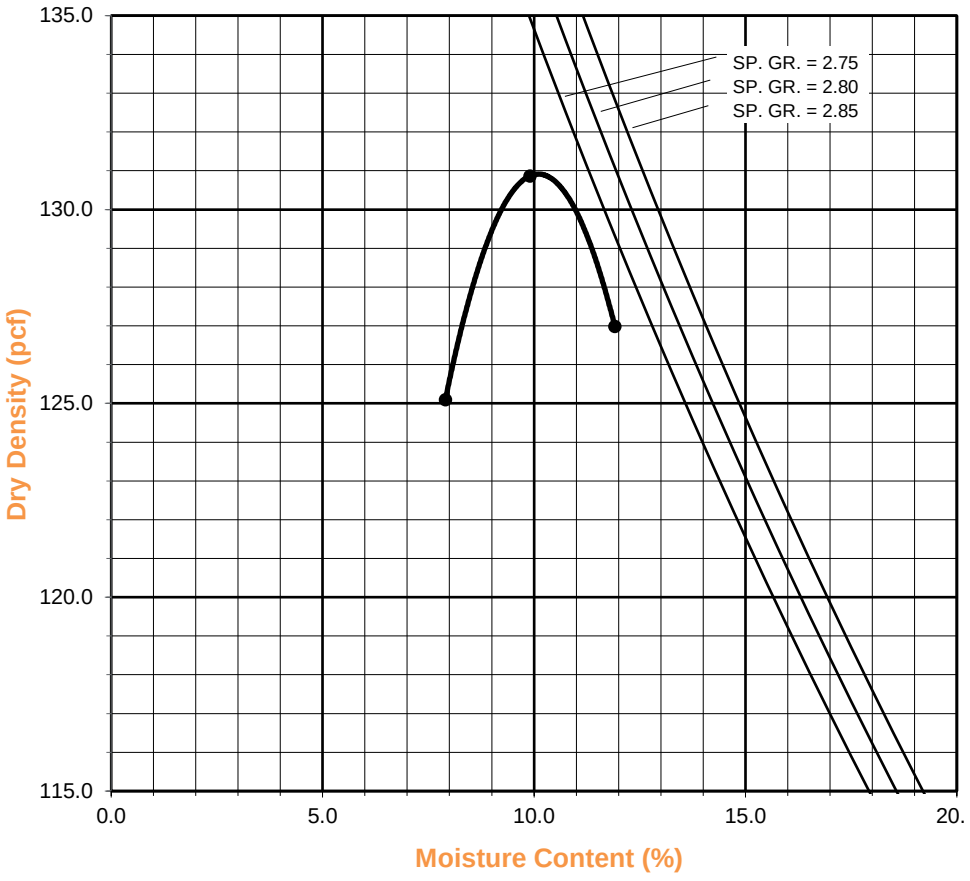
[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

**Particle-Size Distribution:**

GR:SA:FI

**Atterberg Limits:**

LL,PL,PI



# ATTERBERG LIMITS

## ASTM D 4318

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | LMC/Murrieta Hot Springs/Geo | Tested By: | M. Vinet | Date: | 03/14/22 |
| Project No. : | 13343.004 | Input By: | M. Vinet | Date: | 03/14/22 |
| Boring No.: | LB-6 | Checked By: | M. Vinet | | |
| Sample No.: | B-1 | Depth (ft.) | 0 - 5.0 | | |
| Soil Identification: | Clayey Sand (SC), Dark Brown. | | | | |

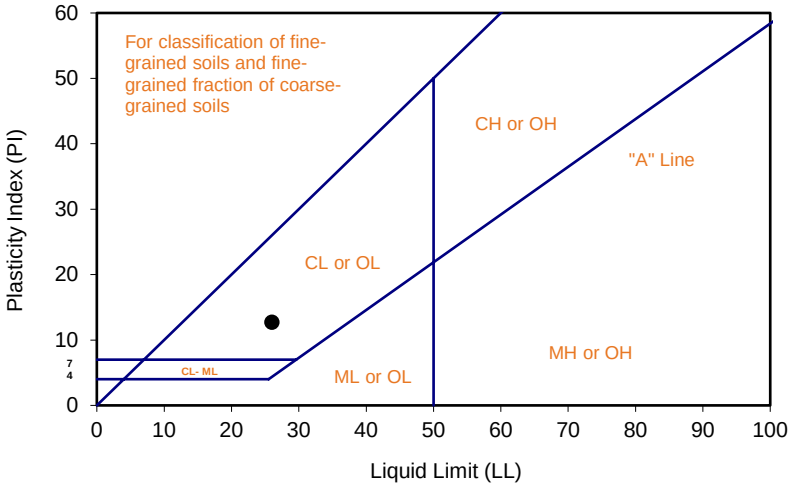
| TEST | PLASTIC LIMIT | | LIQUID LIMIT | | | |
|---|---|---|---|---|---|---|
| NO. | 1 | 2 | 1 | 2 | 3 | 4 |
| Number of Blows [N] | | | 17 | 25 | 34 | |
| Wet Wt. of Soil + Cont. (g) | 21.26 | 20.81 | 24.13 | 23.82 | 22.76 | |
| Dry Wt. of Soil + Cont. (g) | 20.37 | 20.00 | 21.90 | 21.74 | 20.95 | |
| Wt. of Container (g) | 13.79 | 13.78 | 13.66 | 13.67 | 13.67 | |
| Moisture Content (%) [Wn] | 13.53 | 13.02 | 27.06 | 25.77 | 24.86 | |

| | |
|---|---|
| **Liquid Limit** | **26** |
| **Plastic Limit** | **13** |
| **Plasticity Index** | **13** |
| **Classification** | **CL** |

PI at "A" - Line = 0.73(LL-20) 4.38

One - Point Liquid Limit Calculation

$LL = Wn(N/25)^{0.121}$



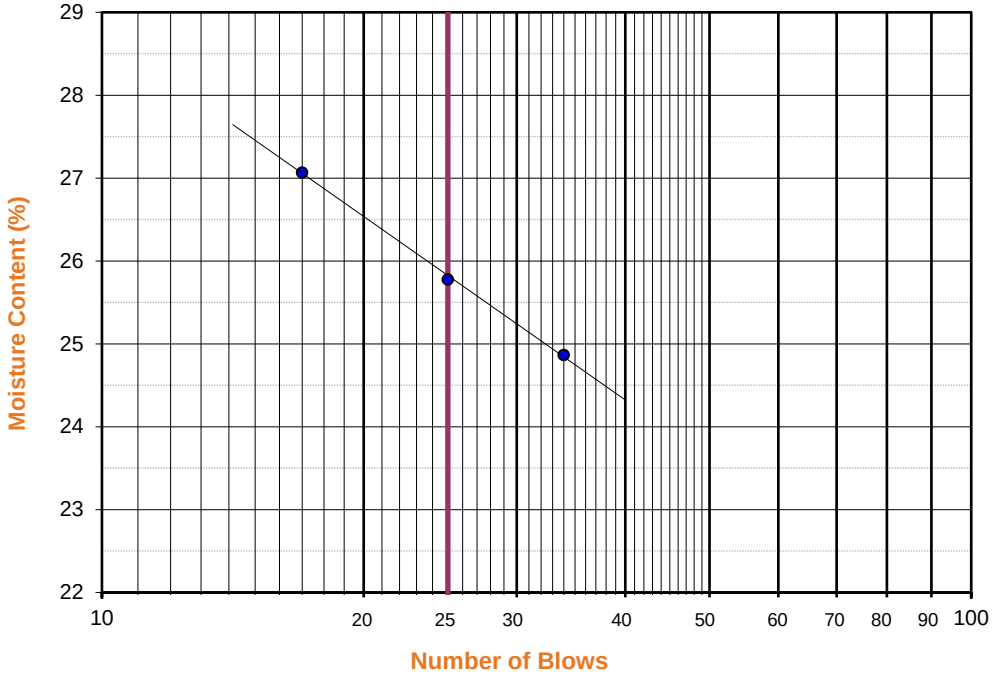

**PROCEDURES USED**

☐ Wet Preparation
Multipoint - Wet

☒ Dry Preparation
Multipoint - Dry

☒ Procedure A
Multipoint Test

☐ Procedure B
One-point Test



Leighton

# ATTERBERG LIMITS

**ASTM D 4318**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | MURRIETA 18 | Tested By: | JMB | Date: | 5/26/11 |
| Project No. : | 603181-001 | Input By: | JMB | Date: | 5/26/11 |
| Boring No.: | **LB-4** | Checked By: | JMB | Date: | 5/26/11 |
| Sample No.: | **R-5** | Depth (ft.) | 15.0 | | |

Sample Description: SILT WITH SAND (ML)s, dark grayish brown.

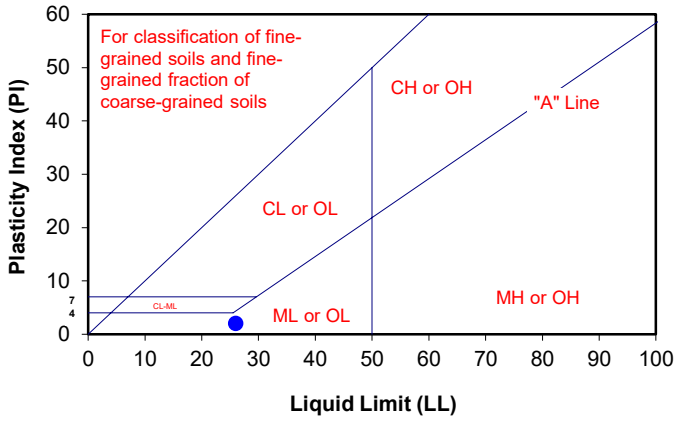
| | PLASTIC LIMIT | | LIQUID LIMIT | | | **IN-SITU |
|---|---|---|---|---|---|---|
| TEST NO. | 1 | 2 | 1 | 2 | 3 | MOISTURE |
| Number of Blows [N] | | | 29 | 22 | 17 | |
| Wet Wt. of Soil + Cont. (gm) | 23.888 | 23.936 | 29.086 | 27.895 | 25.156 | 974.0 |
| Dry Wt. of Soil + Cont. (gm) | 21.906 | 21.924 | 25.952 | 24.830 | 22.549 | 841.5 |
| Wt. of Container (gm) | 13.646 | 13.556 | 13.626 | 13.623 | 13.575 | 214.2 |
| Moisture Content (%) [Wn] | 24.0 | 24.0 | 25.4 | 27.3 | 29.1 | 21.1 |

| | |
|---|---|
| **Liquid Limit** | **26** |
| **Plastic Limit** | **24** |
| **Plasticity Index** | **2** |
| **Classification** | **(ML)s** |

PI at "A" - Line = 0.73(LL-20) = 4.38

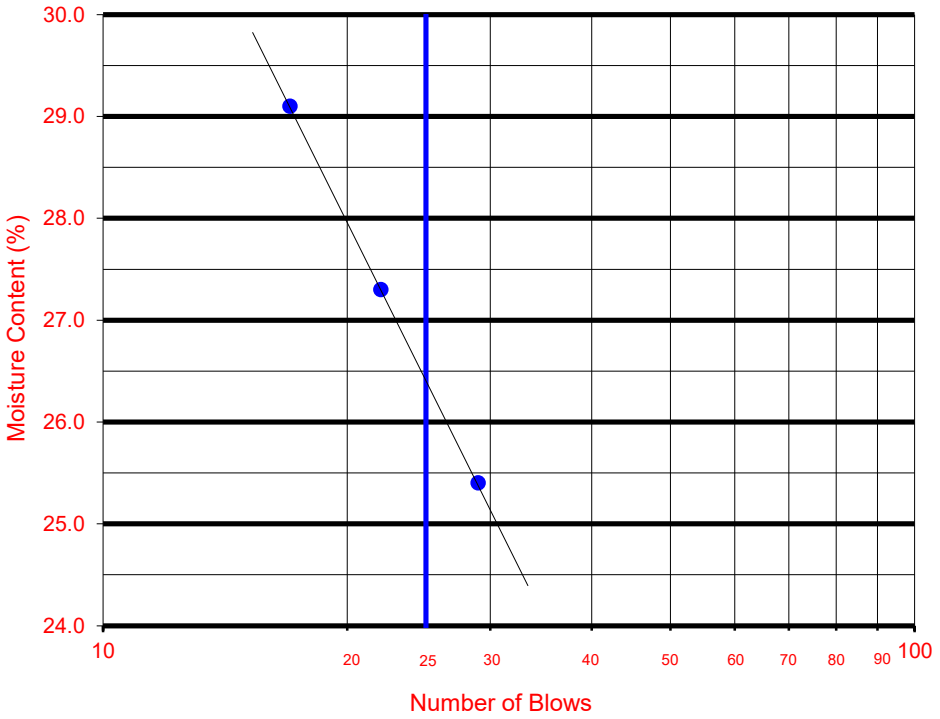
One - Point Liquid Limit Calculation

LL =Wn(N/25) $^{0.121}$




**PROCEDURES USED**

- [ ] Wet Preparation
  Multipoint - Wet
- [X] Dry Preparation
  Multipoint - Dry
- [X] Procedure A
  Multipoint Test
- [ ] Procedure B
  One-point Test



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# EXPANSION INDEX of SOILS

**ASTM D 4829**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | MURRIETA 18 | Tested By: | JAP | Date: | 5/25/11 |
| Project No. : | 603181-001 | Checked By: | JMB | Date: | 5/26/11 |
| Boring No: | **LB-2** | Depth (ft.) | 0-5.0 | | |
| Sample No. : | **B-1** | Location: | ** | | |
| Sample Description: | SILT WITH SAND AND TRACE GRAVEL (ML)s, dark brown. | | | | |

| | |
|---|---|
| Dry Wt. of Soil + Cont. (gm.) | 3089.6 |
| Wt. of Container No. (gm.) | 0.0 |
| Dry Wt. of Soil (gm.) | 3089.6 |
| Weight Soil Retained on #4 Sieve | 35.3 |
| Percent Passing # 4 | 98.9 |

| **MOLDED SPECIMEN** | Before Test | After Test |
|---|---|---|
| Specimen Diameter (in.) | 4.01 | 4.01 |
| Specimen Height (in.) | 1.0000 | 1.0329 |
| Wt. Comp. Soil + Mold (gm.) | 607.1 | 640.5 |
| Wt. of Mold (gm.) | 189.8 | 189.8 |
| Specific Gravity (Assumed) | 2.70 | 2.70 |
| Container No. | 5 | 5 |
| Wet Wt. of Soil + Cont. (gm.) | 418.4 | 640.5 |
| Dry Wt. of Soil + Cont. (gm.) | 396.2 | 386.4 |
| Wt. of Container (gm.) | 118.4 | 189.8 |
| Moisture Content (%) | 8.0 | 16.6 |
| Wet Density (pcf) | 125.9 | 135.8 |
| Dry Density (pcf) | 116.6 | 116.4 |
| Void Ratio | 0.446 | 0.494 |
| Total Porosity | 0.309 | 0.331 |
| Pore Volume (cc) | 63.9 | 70.7 |
| Degree of Saturation (%) [ S meas] | **48.4** | **91.0** |

**SPECIMEN INUNDATION** in distilled water for the period of 24 h or expansion rate < 0.0002 in./h.

| Date | Time | Pressure (psi) | Elapsed Time (min.) | Dial Readings (in.) |
|---|---|---|---|---|
| | | | | |
| 5/25/11 | 10:45 | 1.0 | 0 | 0.5000 |
| 5/25/11 | 10:55 | 1.0 | 10 | 0.5000 |
| | Add Distilled Water to the Specimen | | | |
| 5/26/11 | 5:25 | 1.0 | 1110 | 0.5329 |
| 5/26/11 | 6:25 | 1.0 | 1170 | 0.5329 |

| | |
|---|---|
| Expansion Index (EI meas) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000 | 32.9 |
| Expansion Index ( Report ) = Nearest Whole Number or Zero (0) if Initial Height is > than Final Height | **33** |

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# EXPANSION INDEX of SOILS

**ASTM D 4829**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | MURRIETA 18 | Tested By: | JAP | Date: | 5/25/11 |
| Project No. : | 603181-001 | Checked By: | JMB | Date: | 5/26/11 |
| Boring No: | **LB-4** | Depth (ft.) | 5-7.0 | | |
| Sample No. : | **B-2** | Location: | ** | | |
| Sample Description: | LEAN CLAY WITH SAND AND TRACE GRAVEL (CL)s, brown. | | | | |

| | |
|---|---|
| Dry Wt. of Soil + Cont. (gm.) | 3640.2 |
| Wt. of Container No. (gm.) | 0.0 |
| Dry Wt. of Soil (gm.) | 3640.2 |
| Weight Soil Retained on #4 Sieve | 2.8 |
| Percent Passing # 4 | 99.9 |

| **MOLDED SPECIMEN** | Before Test | After Test |
|---|---|---|
| Specimen Diameter (in.) | 4.01 | 4.01 |
| Specimen Height (in.) | 1.0000 | 1.0600 |
| Wt. Comp. Soil + Mold (gm.) | 597.7 | 641.4 |
| Wt. of Mold (gm.) | 191.0 | 191.0 |
| Specific Gravity (Assumed) | 2.70 | 2.70 |
| Container No. | 4 | 4 |
| Wet Wt. of Soil + Cont. (gm.) | 444.1 | 641.4 |
| Dry Wt. of Soil + Cont. (gm.) | 419.8 | 373.8 |
| Wt. of Container (gm.) | 144.1 | 191.0 |
| Moisture Content (%) | 8.8 | 20.5 |
| Wet Density (pcf) | 122.7 | 135.7 |
| Dry Density (pcf) | 112.8 | 112.6 |
| Void Ratio | 0.495 | 0.585 |
| Total Porosity | 0.331 | 0.369 |
| Pore Volume (cc) | 68.5 | 81.0 |
| Degree of Saturation (%) [ S meas] | **48.0** | **94.6** |

**SPECIMEN INUNDATION** in distilled water for the period of 24 h or expansion rate < 0.0002 in./h.

| Date | Time | Pressure (psi) | Elapsed Time (min.) | Dial Readings (in.) |
|---|---|---|---|---|
| | | | | |
| 5/25/11 | 9:23 | 1.0 | 0 | 0.5000 |
| 5/25/11 | 9:33 | 1.0 | 10 | 0.4999 |
| | Add Distilled Water to the Specimen | | | |
| 5/26/11 | 5:25 | 1.0 | 1192 | 0.5600 |
| 5/26/11 | 6:25 | 1.0 | 1252 | 0.5600 |

| | |
|---|---|
| Expansion Index (EI meas) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000 | 60.1 |
| Expansion Index ( Report ) = Nearest Whole Number or Zero (0) if Initial Height is > than Final Height | **60** |

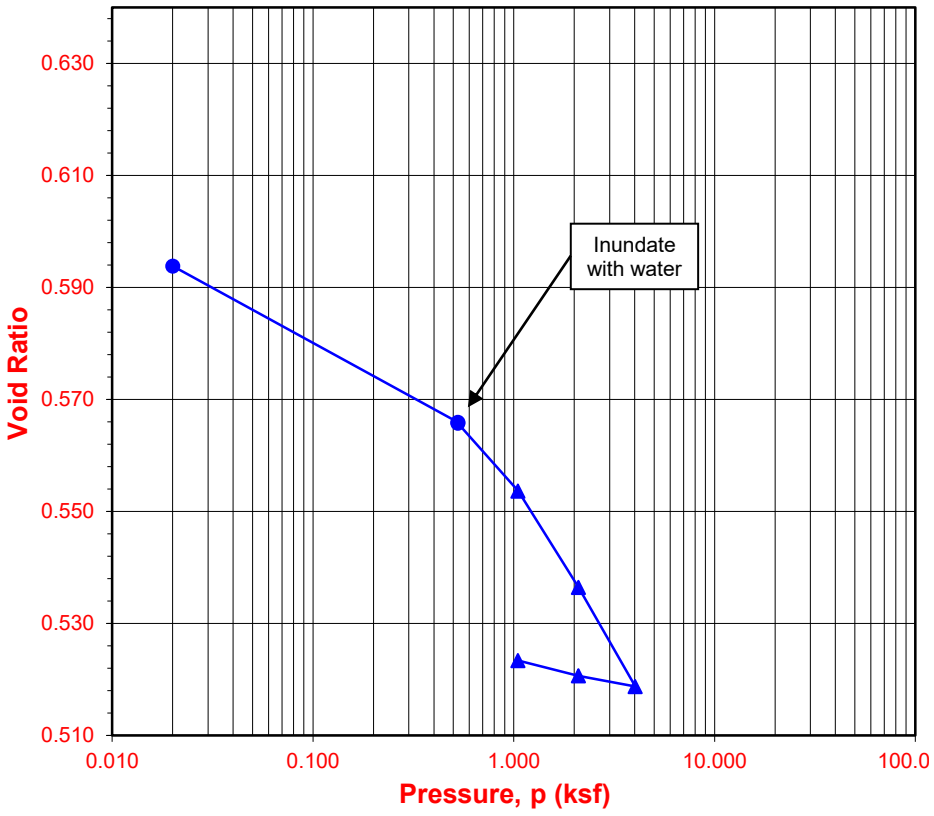
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# CONSOLIDATION TEST RESULTS

(ASTM D 2435)

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | MURRIETA 18 | | Tested By: | JAP | Date: 5/20/11 |
| Project No.: | 603181-001 | | Checked By: | JMB | Date: 5/31/11 |
| Boring No.: | LB-1 | | Depth (ft.): | 10.0 | |
| Sample No.: | R-3 | | | | |
| Sample Description: | SILTY SAND (SM), brown. | | | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.421 |
| Sample Thickness (in.): | 0.997 |
| Weight of Sample + ring (g): | 198.8 |
| Weight of Ring (g): | 44.2 |
| Height after consol. (in.): | 0.9557 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 198.8 |
| Wt. of Dry Sample+Cont. (g): | 172.0 |
| Weight of Container (g): | 44.2 |
| Initial Moisture Content (%) | 21.0 |
| Initial Dry Density (pcf) | 106.1 |
| Initial Saturation (%): | 96 |
| Initial Vertical Reading (in.) | 0.2500 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 198.2 |
| Wt. of Dry Sample+Cont. (g): | 172.0 |
| Weight of Container (g): | 44.2 |
| Final Moisture Content (%) | 20.5 |
| Final Dry Density (pcf): | 110.7 |
| Final Saturation (%): | 100 |
| Final Vertical Reading (in.) | 0.2942 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |



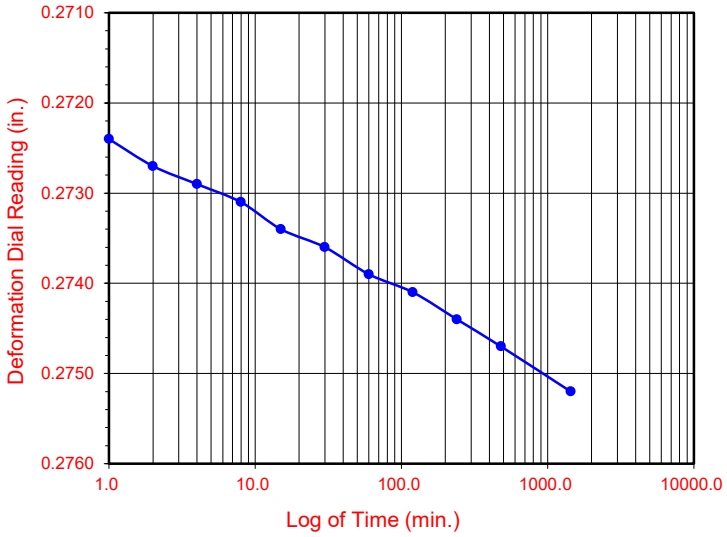

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.020 | 0.2500 | 1.0000 | 0.00 | -0.30 | 0.594 | -0.30 |
| 0.526 | 0.2675 | 0.9825 | 0.00 | 1.45 | 0.566 | 1.45 |
| 0.526 | 0.2676 | 0.9824 | 0.00 | 1.46 | 0.566 | 1.46 |
| 1.051 | 0.2752 | 0.9748 | 0.00 | 2.23 | 0.554 | 2.23 |
| 2.101 | 0.2860 | 0.9640 | 0.00 | 3.31 | 0.536 | 3.31 |
| 4.026 | 0.2971 | 0.9529 | 0.00 | 4.42 | 0.519 | 4.42 |
| 2.101 | 0.2959 | 0.9541 | 0.00 | 4.30 | 0.521 | 4.30 |
| 1.051 | 0.2942 | 0.9558 | 0.00 | 4.13 | 0.523 | 4.13 |

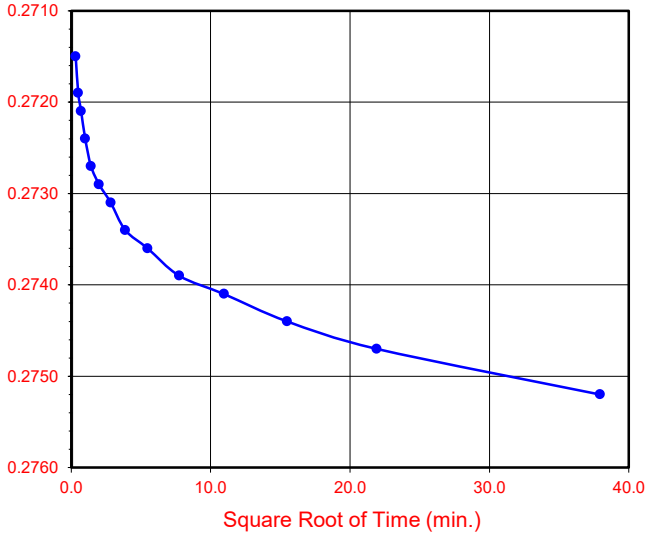
Time Readings @ 1.051 ksf

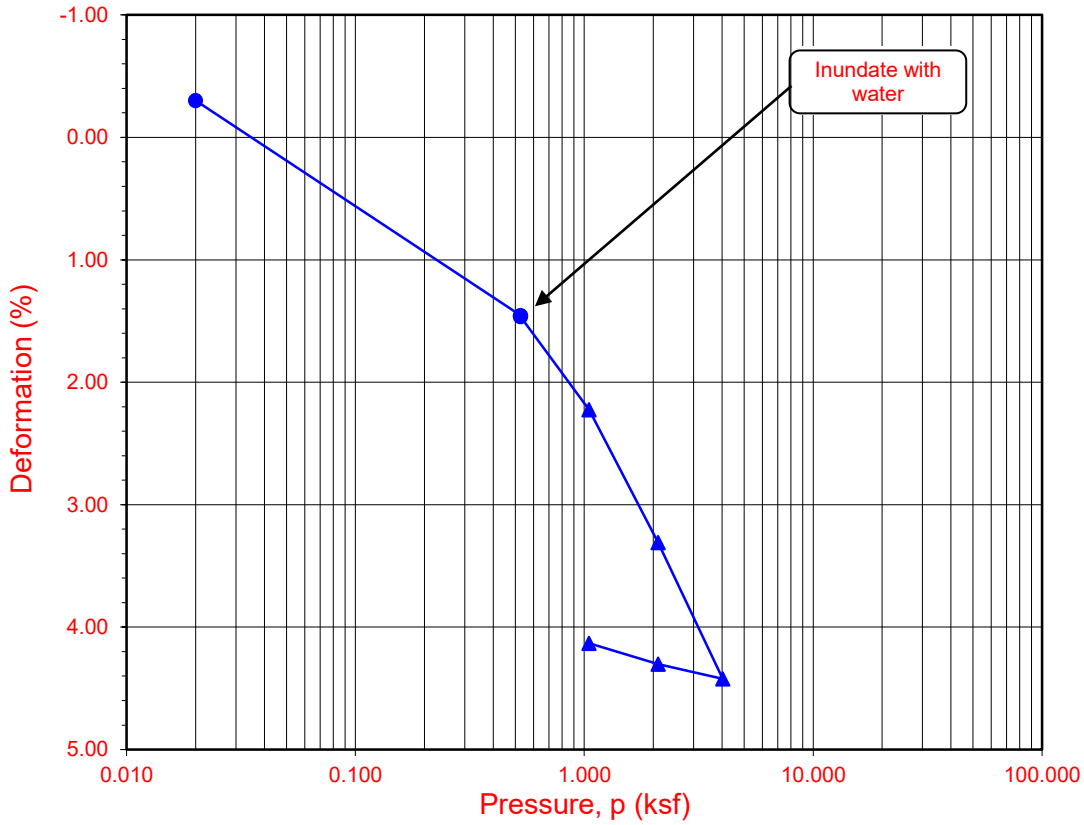
| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 5/24/11 | 5:30:00 | 0.0 | 0.0 | 0.2676 |
| 5/24/11 | 5:30:06 | 0.1 | 0.3 | 0.2715 |
| 5/24/11 | 5:30:15 | 0.2 | 0.5 | 0.2719 |
| 5/24/11 | 5:30:30 | 0.5 | 0.7 | 0.2721 |
| 5/24/11 | 5:31:00 | 1.0 | 1.0 | 0.2724 |
| 5/24/11 | 5:32:00 | 2.0 | 1.4 | 0.2727 |
| 5/24/11 | 5:34:00 | 4.0 | 2.0 | 0.2729 |
| 5/24/11 | 5:38:00 | 8.0 | 2.8 | 0.2731 |
| 5/24/11 | 5:45:00 | 15.0 | 3.9 | 0.2734 |
| 5/24/11 | 6:00:00 | 30.0 | 5.5 | 0.2736 |
| 5/24/11 | 6:30:00 | 60.0 | 7.7 | 0.2739 |
| 5/24/11 | 7:30:00 | 120.0 | 11.0 | 0.2741 |
| 5/24/11 | 9:30:00 | 240.0 | 15.5 | 0.2744 |
| 5/24/11 | 13:30:00 | 480.0 | 21.9 | 0.2747 |
| 5/25/11 | 5:30:00 | 1440.0 | 37.9 | 0.2752 |

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Time Readings @ 1.051 ksf




| Boring No. | Sample No.: | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-1** | **R-3** | **10.0** | **21.0** | **20.5** | **106.1** | **110.7** | **0.589** | **0.523** | **96** | **100** |

Sample Description:

SILTY SAND (SM), brown.

Leighton

Project No.: 603181-001

Project Name: MURRIETA 18

ONE - DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

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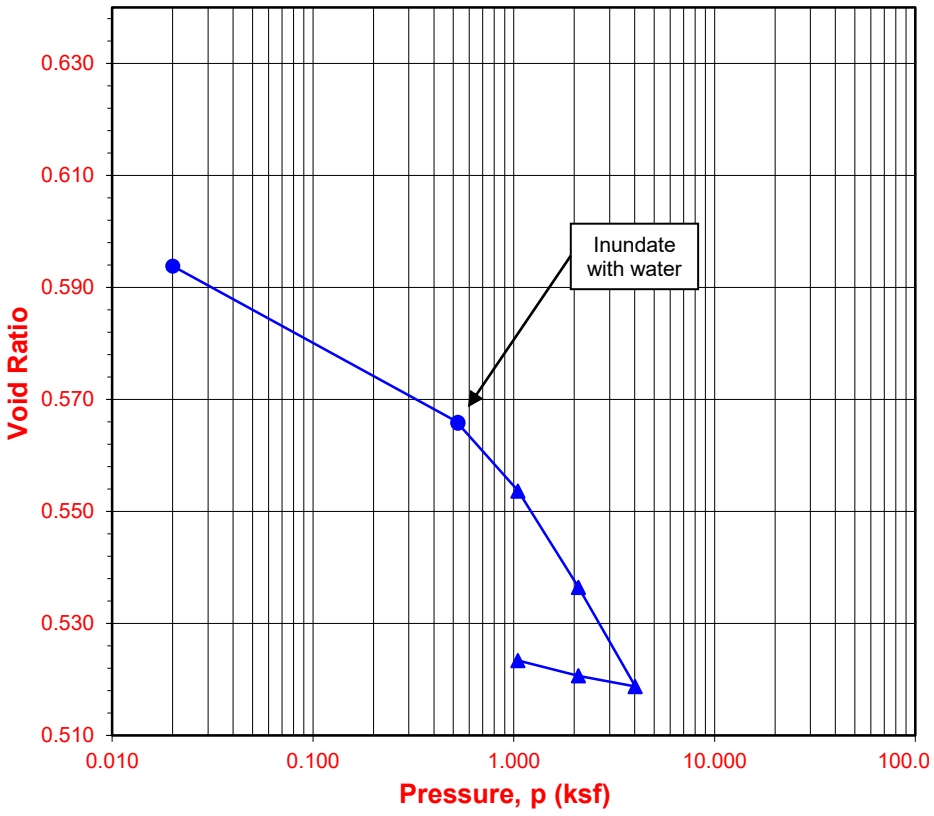
Leighton

# CONSOLIDATION TEST RESULTS

(ASTM D 2435)

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | MURRIETA 18 | | Tested By: | JAP | Date: 5/20/11 |
| Project No.: | 603181-001 | | Checked By: | JMB | Date: 5/31/11 |
| Boring No.: | LB-1 | | Depth (ft.): | 10.0 | |
| Sample No.: | R-3 | | | | |
| Sample Description: | SILTY SAND (SM), brown. | | | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.421 |
| Sample Thickness (in.): | 0.997 |
| Weight of Sample + ring (g): | 198.8 |
| Weight of Ring (g): | 44.2 |
| Height after consol. (in.): | 0.9557 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 198.8 |
| Wt. of Dry Sample+Cont. (g): | 172.0 |
| Weight of Container (g): | 44.2 |
| Initial Moisture Content (%) | 21.0 |
| Initial Dry Density (pcf) | 106.1 |
| Initial Saturation (%): | 96 |
| Initial Vertical Reading (in.) | 0.2500 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 198.2 |
| Wt. of Dry Sample+Cont. (g): | 172.0 |
| Weight of Container (g): | 44.2 |
| Final Moisture Content (%) | 20.5 |
| Final Dry Density (pcf): | 110.7 |
| Final Saturation (%): | 100 |
| Final Vertical Reading (in.) | 0.2942 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |



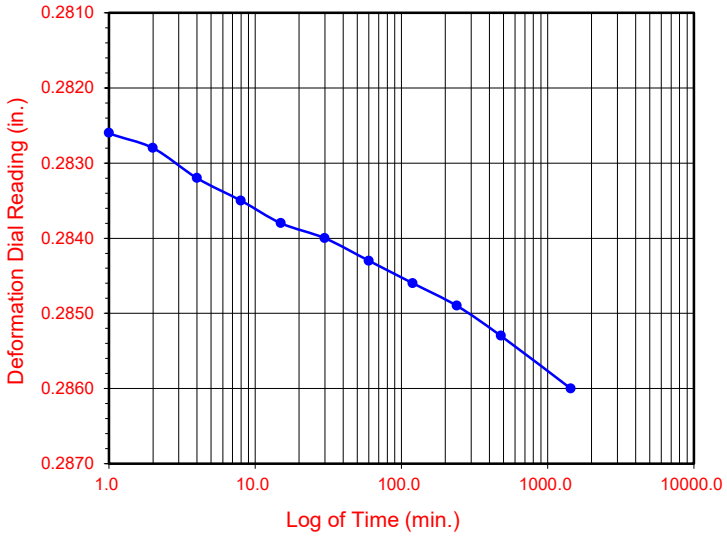

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.020 | 0.2500 | 1.0000 | 0.00 | -0.30 | 0.594 | -0.30 |
| 0.526 | 0.2675 | 0.9825 | 0.00 | 1.45 | 0.566 | 1.45 |
| 0.526 | 0.2676 | 0.9824 | 0.00 | 1.46 | 0.566 | 1.46 |
| 1.051 | 0.2752 | 0.9748 | 0.00 | 2.23 | 0.554 | 2.23 |
| 2.101 | 0.2860 | 0.9640 | 0.00 | 3.31 | 0.536 | 3.31 |
| 4.026 | 0.2971 | 0.9529 | 0.00 | 4.42 | 0.519 | 4.42 |
| 2.101 | 0.2959 | 0.9541 | 0.00 | 4.30 | 0.521 | 4.30 |
| 1.051 | 0.2942 | 0.9558 | 0.00 | 4.13 | 0.523 | 4.13 |

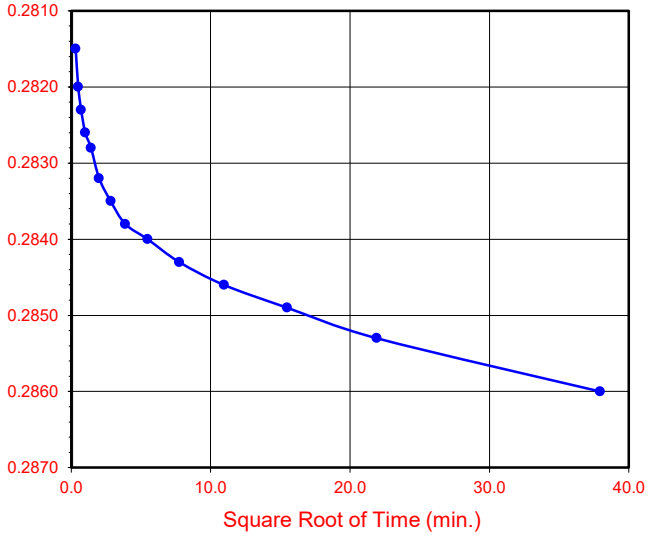
Time Readings @ 2.101 ksf

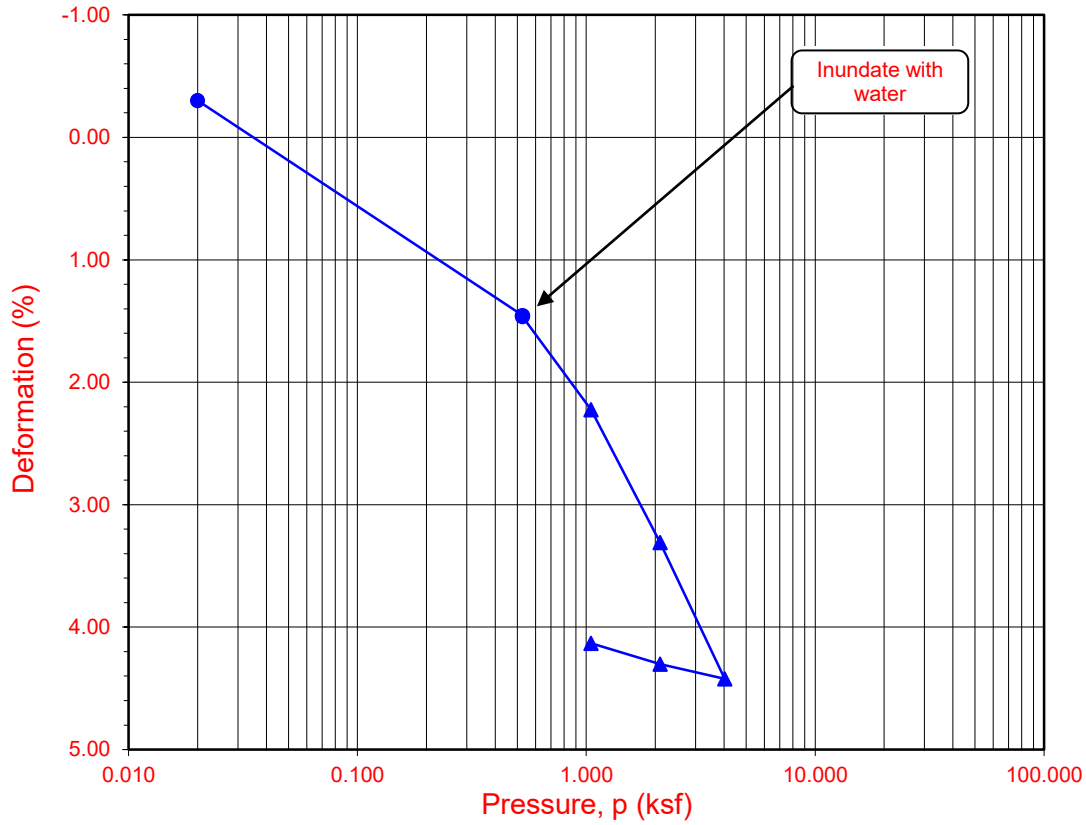
| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 5/25/11 | 5:30:00 | 0.0 | 0.0 | 0.2752 |
| 5/25/11 | 5:30:06 | 0.1 | 0.3 | 0.2815 |
| 5/25/11 | 5:30:15 | 0.2 | 0.5 | 0.2820 |
| 5/25/11 | 5:30:30 | 0.5 | 0.7 | 0.2823 |
| 5/25/11 | 5:31:00 | 1.0 | 1.0 | 0.2826 |
| 5/25/11 | 5:32:00 | 2.0 | 1.4 | 0.2828 |
| 5/25/11 | 5:34:00 | 4.0 | 2.0 | 0.2832 |
| 5/25/11 | 5:38:00 | 8.0 | 2.8 | 0.2835 |
| 5/25/11 | 5:45:00 | 15.0 | 3.9 | 0.2838 |
| 5/25/11 | 6:00:00 | 30.0 | 5.5 | 0.2840 |
| 5/25/11 | 6:30:00 | 60.0 | 7.7 | 0.2843 |
| 5/25/11 | 7:30:00 | 120.0 | 11.0 | 0.2846 |
| 5/25/11 | 9:30:00 | 240.0 | 15.5 | 0.2849 |
| 5/25/11 | 13:30:00 | 480.0 | 21.9 | 0.2853 |
| 5/26/11 | 5:30:00 | 1440.0 | 37.9 | 0.2860 |

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Time Readings @ 2.101 ksf




| Boring No. | Sample No.: | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-1** | **R-3** | **10.0** | **21.0** | **20.5** | **106.1** | **110.7** | **0.589** | **0.523** | **96** | **100** |

Sample Description:

SILTY SAND (SM), brown.

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Project No.: 603181-001

Project Name: MURRIETA 18

ONE - DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

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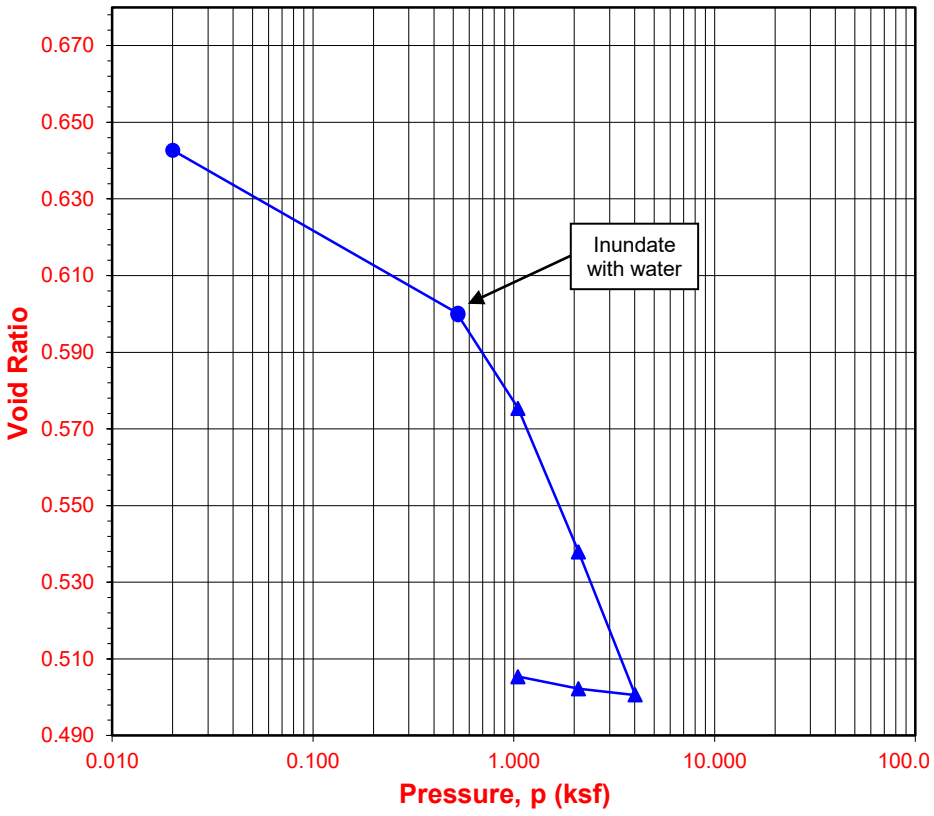
Leighton

# CONSOLIDATION TEST RESULTS

(ASTM D 2435)

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | MURRIETA 18 | | Tested By: | JAP | Date: 5/20/11 |
| Project No.: | 603181-001 | | Checked By: | JMB | Date: 5/31/11 |
| Boring No.: | LB-4 | | Depth (ft.): | 7.5 | |
| Sample No.: | R-3 | | | | |
| Sample Description: | LEAN CLAY (CL), brown. | | | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.422 |
| Sample Thickness (in.): | 0.993 |
| Weight of Sample + ring (g): | 196.8 |
| Weight of Ring (g): | 43.4 |
| Height after consol. (in.): | 0.9159 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 196.8 |
| Wt. of Dry Sample+Cont. (g): | 167.5 |
| Weight of Container (g): | 43.4 |
| Initial Moisture Content (%) | 23.6 |
| Initial Dry Density (pcf) | 103.3 |
| Initial Saturation (%): | 100 |
| Initial Vertical Reading (in.) | 0.2500 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 192.8 |
| Wt. of Dry Sample+Cont. (g): | 167.5 |
| Weight of Container (g): | 43.4 |
| Final Moisture Content (%) | 20.4 |
| Final Dry Density (pcf): | 112.0 |
| Final Saturation (%): | 100 |
| Final Vertical Reading (in.) | 0.3336 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |



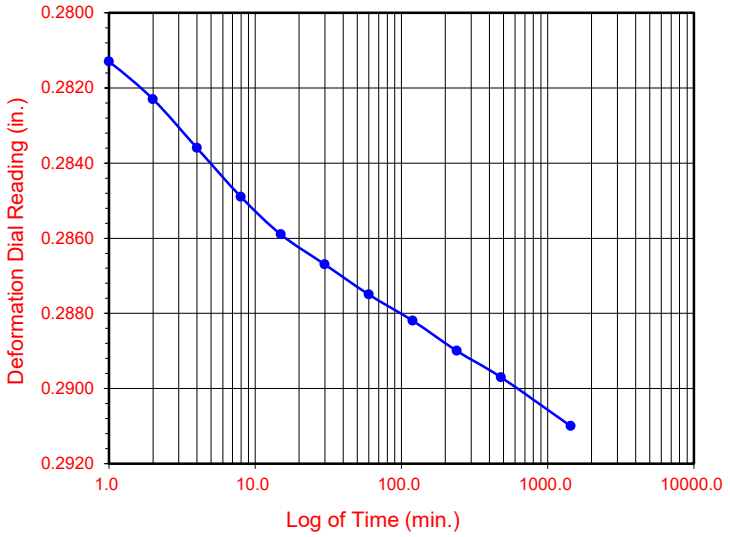

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.020 | 0.2500 | 1.0000 | 0.00 | -0.70 | 0.643 | -0.70 |
| 0.526 | 0.2759 | 0.9741 | 0.00 | 1.90 | 0.600 | 1.90 |
| 0.526 | 0.2761 | 0.9739 | 0.00 | 1.92 | 0.600 | 1.92 |
| 1.051 | 0.2910 | 0.9590 | 0.00 | 3.42 | 0.575 | 3.42 |
| 2.101 | 0.3138 | 0.9362 | 0.00 | 5.72 | 0.538 | 5.72 |
| 4.029 | 0.3365 | 0.9135 | 0.00 | 8.01 | 0.501 | 8.01 |
| 2.101 | 0.3355 | 0.9145 | 0.00 | 7.91 | 0.502 | 7.91 |
| 1.051 | 0.3336 | 0.9164 | 0.00 | 7.71 | 0.505 | 7.71 |

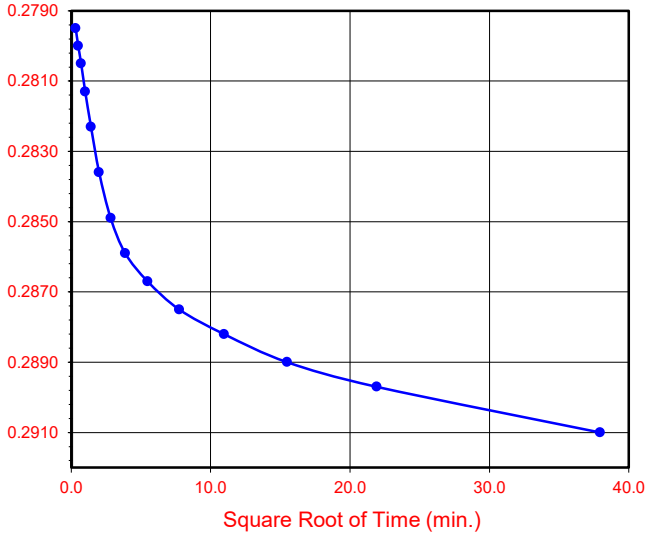
Time Readings @ 1.051 ksf

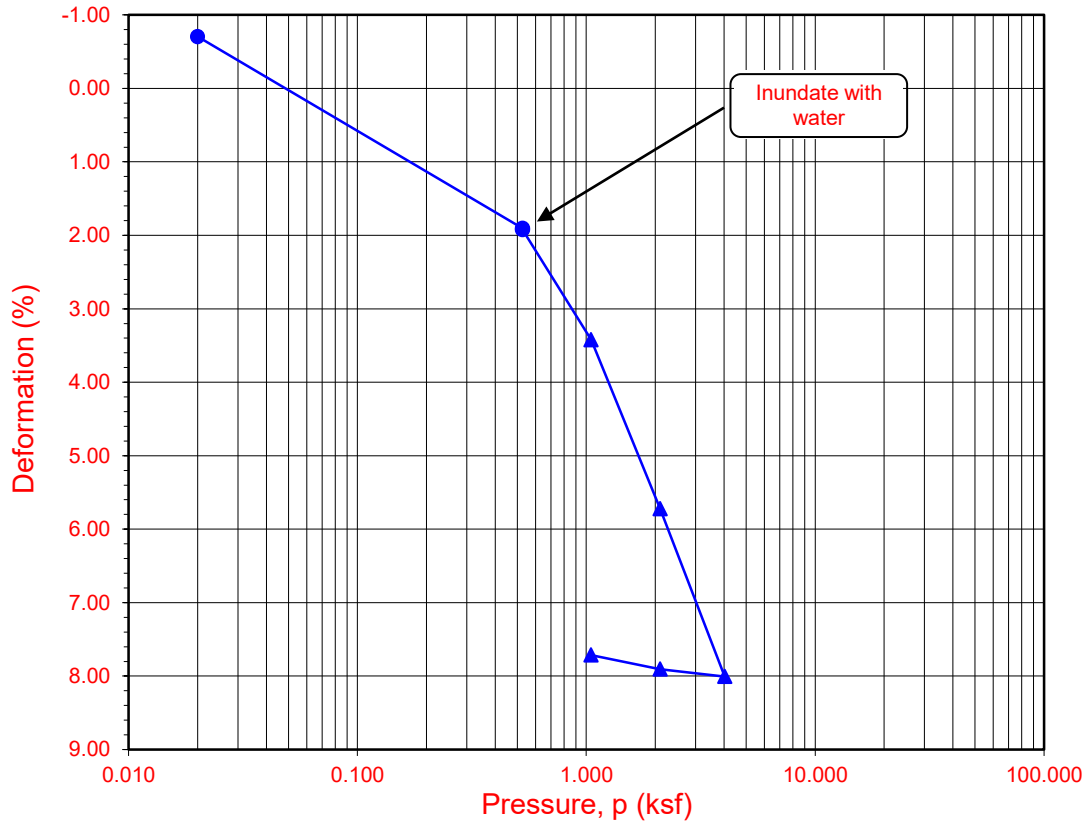
| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 5/24/11 | 5:35:00 | 0.0 | 0.0 | 0.2761 |
| 5/24/11 | 5:35:06 | 0.1 | 0.3 | 0.2795 |
| 5/24/11 | 5:35:15 | 0.2 | 0.5 | 0.2800 |
| 5/24/11 | 5:35:30 | 0.5 | 0.7 | 0.2805 |
| 5/24/11 | 5:36:00 | 1.0 | 1.0 | 0.2813 |
| 5/24/11 | 5:37:00 | 2.0 | 1.4 | 0.2823 |
| 5/24/11 | 5:39:00 | 4.0 | 2.0 | 0.2836 |
| 5/24/11 | 5:43:00 | 8.0 | 2.8 | 0.2849 |
| 5/24/11 | 5:50:00 | 15.0 | 3.9 | 0.2859 |
| 5/24/11 | 6:05:00 | 30.0 | 5.5 | 0.2867 |
| 5/24/11 | 6:35:00 | 60.0 | 7.7 | 0.2875 |
| 5/24/11 | 7:35:00 | 120.0 | 11.0 | 0.2882 |
| 5/24/11 | 9:35:00 | 240.0 | 15.5 | 0.2890 |
| 5/24/11 | 13:35:00 | 480.0 | 21.9 | 0.2897 |
| 5/25/11 | 5:35:00 | 1440.0 | 37.9 | 0.2910 |

Rev. 08-04

Time Readings @ 1.051 ksf




| Boring No. | Sample No.: | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-4** | **R-3** | **7.5** | **23.6** | **20.4** | **103.3** | **112.0** | **0.631** | **0.505** | **100** | **100** |

Sample Description:

LEAN CLAY (CL), brown.

Project No.: 603181-001

Project Name: MURRIETA 18

ONE - DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Leighton

Rev. 08-04

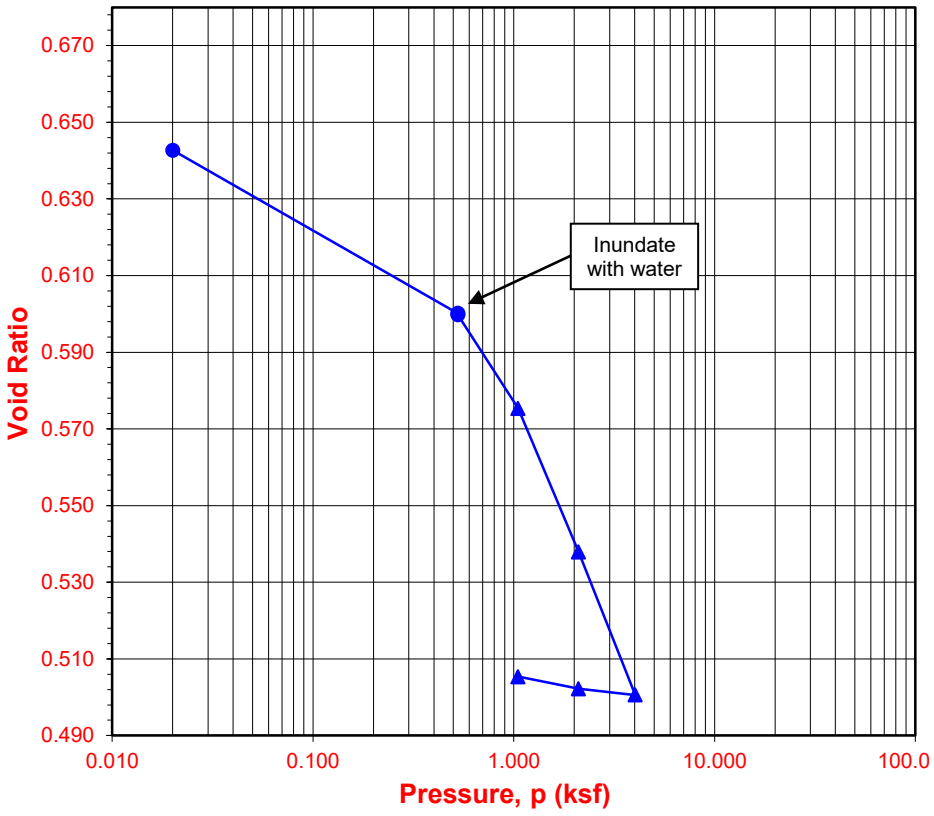
Leighton

# CONSOLIDATION TEST RESULTS

(ASTM D 2435)

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | MURRIETA 18 | | Tested By: | JAP | Date: 5/20/11 |
| Project No.: | 603181-001 | | Checked By: | JMB | Date: 5/31/11 |
| Boring No.: | LB-4 | | Depth (ft.): | 7.5 | |
| Sample No.: | R-3 | | | | |
| Sample Description: | LEAN CLAY (CL), brown. | | | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.422 |
| Sample Thickness (in.): | 0.993 |
| Weight of Sample + ring (g): | 196.8 |
| Weight of Ring (g): | 43.4 |
| Height after consol. (in.): | 0.9159 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 196.8 |
| Wt. of Dry Sample+Cont. (g): | 167.5 |
| Weight of Container (g): | 43.4 |
| Initial Moisture Content (%) | 23.6 |
| Initial Dry Density (pcf) | 103.3 |
| Initial Saturation (%): | 100 |
| Initial Vertical Reading (in.) | 0.2500 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 192.8 |
| Wt. of Dry Sample+Cont. (g): | 167.5 |
| Weight of Container (g): | 43.4 |
| Final Moisture Content (%) | 20.4 |
| Final Dry Density (pcf): | 112.0 |
| Final Saturation (%): | 100 |
| Final Vertical Reading (in.) | 0.3336 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |



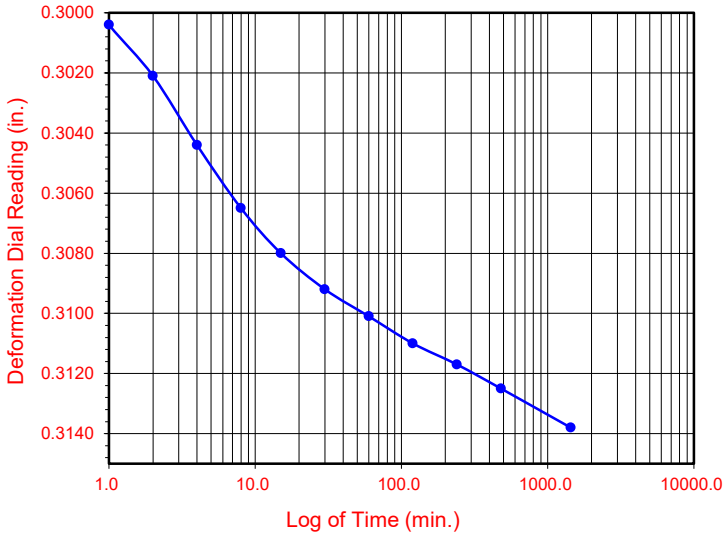

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.020 | 0.2500 | 1.0000 | 0.00 | -0.70 | 0.643 | -0.70 |
| 0.526 | 0.2759 | 0.9741 | 0.00 | 1.90 | 0.600 | 1.90 |
| 0.526 | 0.2761 | 0.9739 | 0.00 | 1.92 | 0.600 | 1.92 |
| 1.051 | 0.2910 | 0.9590 | 0.00 | 3.42 | 0.575 | 3.42 |
| 2.101 | 0.3138 | 0.9362 | 0.00 | 5.72 | 0.538 | 5.72 |
| 4.029 | 0.3365 | 0.9135 | 0.00 | 8.01 | 0.501 | 8.01 |
| 2.101 | 0.3355 | 0.9145 | 0.00 | 7.91 | 0.502 | 7.91 |
| 1.051 | 0.3336 | 0.9164 | 0.00 | 7.71 | 0.505 | 7.71 |

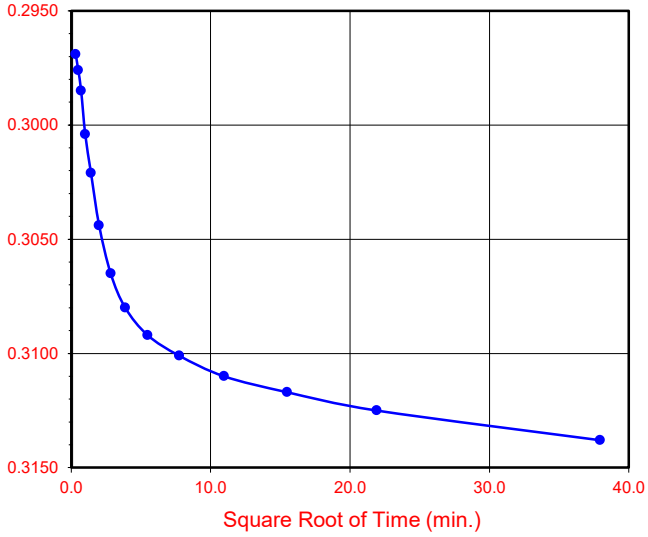
Time Readings @ 2.101 ksf

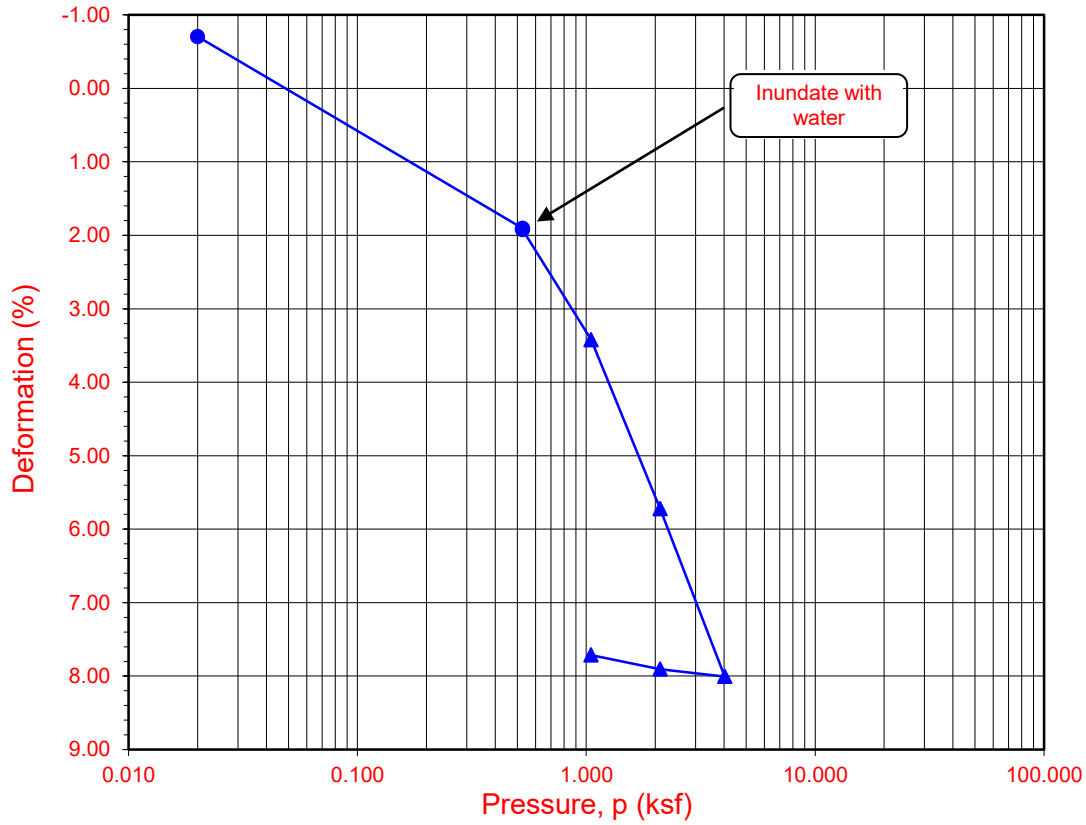
| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 5/25/11 | 5:35:00 | 0.0 | 0.0 | 0.2910 |
| 5/25/11 | 5:35:06 | 0.1 | 0.3 | 0.2969 |
| 5/25/11 | 5:35:15 | 0.2 | 0.5 | 0.2976 |
| 5/25/11 | 5:35:30 | 0.5 | 0.7 | 0.2985 |
| 5/25/11 | 5:36:00 | 1.0 | 1.0 | 0.3004 |
| 5/25/11 | 5:37:00 | 2.0 | 1.4 | 0.3021 |
| 5/25/11 | 5:39:00 | 4.0 | 2.0 | 0.3044 |
| 5/25/11 | 5:43:00 | 8.0 | 2.8 | 0.3065 |
| 5/25/11 | 5:50:00 | 15.0 | 3.9 | 0.3080 |
| 5/25/11 | 6:05:00 | 30.0 | 5.5 | 0.3092 |
| 5/25/11 | 6:35:00 | 60.0 | 7.7 | 0.3101 |
| 5/25/11 | 7:35:00 | 120.0 | 11.0 | 0.3110 |
| 5/25/11 | 9:35:00 | 240.0 | 15.5 | 0.3117 |
| 5/25/11 | 13:35:00 | 480.0 | 21.9 | 0.3125 |
| 5/26/11 | 5:35:00 | 1440.0 | 37.9 | 0.3138 |

Rev. 08-04

Time Readings @ 2.101 ksf




| Boring No. | Sample No.: | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-4** | **R-3** | **7.5** | **23.6** | **20.4** | **103.3** | **112.0** | **0.631** | **0.505** | **100** | **100** |

Sample Description:

LEAN CLAY (CL), brown.

Project No.: 603181-001

Project Name: MURRIETA 18

ONE - DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Leighton

Rev. 08-04

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Boring No. | **LB-1** | | | | | | | |
| Sample No. | **R-3** | | | | | | | |
| Depth (ft.) | 10.0 | | | | | | | |
| Sample Type | RING | | | | | | | |
| Visual Soil Classification | SM | | | | | | | |
| **Moisture Correction** | | | | | | | | |
| Wet Weight of Soil + Container (gm.) | 328.9 | | | | | | | |
| Dry Weight of Soil + Container (gm.) | 327.0 | | | | | | | |
| Weight of Container (gm) | 199.9 | | | | | | | |
| Moisture Content (%) | 1.5 | | | | | | | |
| Container No.: | RH | | | | | | | |
| **Sample Dry Weight Determination** | | | | | | | | |
| Weight of Sample + Container (gm.) | 328.9 | | | | | | | |
| Weight of Container (gm.) | 199.9 | | | | | | | |
| Weight of Dry Sample (gm.) | 127.1 | | | | | | | |
| Container No.: | RH | | | | | | | |
| **After Wash** | | | | | | | | |
| Dry Weight of Sample + Container (gm) | 283.4 | | | | | | | |
| Weight of Container (gm) | 199.9 | | | | | | | |
| Dry Weight of Sample (gm) | 83.5 | | | | | | | |
| **% Passing No. 200 Sieve** | **34** | | | | | | | |
| **% Retained No. 200 Sieve** | 66 | | | | | | | |

# PERCENT PASSING No. 200 SIEVE
# ASTM D 1140

Leighton

Project Name: MURRIETA 18

Project No.: 603181-001

Client Name: **

Tested By: JMB Date: 6/3/11

Rev. 08-04

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Boring No. | **LB-2** | | | | | | | |
| Sample No. | **R-5** | | | | | | | |
| Depth (ft.) | 15.0 | | | | | | | |
| Sample Type | RING | | | | | | | |
| Visual Soil Classification | (SW-SM) | | | | | | | |
| **Moisture Correction** | | | | | | | | |
| Wet Weight of Soil + Container (gm.) | 717.5 | | | | | | | |
| Dry Weight of Soil + Container (gm.) | 644.2 | | | | | | | |
| Weight of Container (gm) | 158.9 | | | | | | | |
| Moisture Content (%) | 15.1 | | | | | | | |
| Container No.: | KR | | | | | | | |
| **Sample Dry Weight Determination** | | | | | | | | |
| Weight of Sample + Container (gm.) | 717.5 | | | | | | | |
| Weight of Container (gm.) | 158.9 | | | | | | | |
| Weight of Dry Sample (gm.) | 485.3 | | | | | | | |
| Container No.: | KR | | | | | | | |
| **After Wash** | | | | | | | | |
| Dry Weight of Sample + Container (gm) | 612.5 | | | | | | | |
| Weight of Container (gm) | 158.9 | | | | | | | |
| Dry Weight of Sample (gm) | 453.6 | | | | | | | |
| **% Passing No. 200 Sieve** | **7** | | | | | | | |
| **% Retained No. 200 Sieve** | 93 | | | | | | | |

# PERCENT PASSING No. 200 SIEVE
# ASTM D 1140

Leighton

Project Name: MURRIETA 18

Project No.: 603181-001

Client Name: **

Tested By: JAP Date: 5/23/11

Rev. 08-04

## *APPENDIX C*

### *Laboratory Testing Procedures and Test Results*

The laboratory testing program was directed towards providing quantitative data relating to the relevant engineering properties of the soils. Samples considered representative of site conditions were tested in general accordance with American Society for Testing and Materials (ASTM) procedure and/or California Test Methods (CTM), where applicable. The following summary is a brief outline of the test type and a table summarizing the test results.

***Expansion Index:*** The expansion potential of selected samples were evaluated by the Expansion Index Test ASTM D4829. Specimens are molded under a given compactive energy to approximately the optimum moisture content and approximately 50 percent saturation or approximately 90 percent relative compaction. The prepared 1-inch thick by 4-inch diameter specimens are loaded to an equivalent 144 psf surcharge and are inundated with tap water until volumetric equilibrium is reached. The results of these tests are presented in the table below:

| *SAMPLE LOCATION* | *EXPANSION INDEX* | *EXPANSION POTENTIAL** |
|---|---|---|
| B-1 @ 0-4 feet | 60 | Medium |

* Per Table 18-1-B of 1997 UBC.

***Maximum Density Tests:*** The maximum dry density and optimum moisture content of typical materials were determined in accordance with ASTM D1557. The results of these tests are presented in the table below:

| *SAMPLE LOCATION* | *SAMPLE DESCRIPTION* | *MAXIMUM DRY DENSITY (pcf)* | *OPTIMUM MOISTURE CONTENT (%)* |
|---|---|---|---|
| B-1 @ 0-4 feet | Silty Sand | 130.5 | 9.0 |

***Soluble Sulfates:*** The soluble sulfate contents of selected sample(s) were determined by standard geochemical methods (CTM 417). The soluble sulfate content is used to determine the appropriate cement type and maximum water-cement ratios. The test results are presented in the table below:

| *SAMPLE LOCATION* | *SAMPLE DESCRIPTION* | *SULFATE CONTENT (ppm)** | *SULFATE EXPOSURE** |
|---|---|---|---|
| B-2 @ 0-5 feet | Silty Sand | ND | Negligible |

* Based on the 1997 edition of the Uniform Building Code (UBC), Table No. 19-A-4, prepared by the International Conference of Building Officials (ICBO, 1997).

***Minimum Resistivity and pH Tests:*** Minimum resistivity and pH tests were performed in general accordance with CTM 643 and standard geochemical methods. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. As a results of soil's resistivity decreases corrosivity increases. The results are presented in the table below:

| *SAMPLE LOCATION* | *SAMPLE DESCRIPTION* | *pH* | *MINIMUM RESISTIVITY (OHMS-CM)* |
|---|---|---|---|
| B-2 @ 0-5 feet | Silty Sand | 6.8 | 1,900 |

***Chloride Content:*** Chloride content was tested in accordance with Caltrans Test Method (CTM) 422. The results are presented below:

| *SAMPLE LOCATION* | *CHLORIDE CONTENT, PPM* |
|---|---|
| B-2 @ 0-5 feet | 38 |

***R-Value:*** The resistance R-value was determined by the ASTM D2844 soils. The sample was prepared and exudation pressure and R-value were determined. This result was used for asphaltic concrete pavement design purposes.

| *SAMPLE LOCATION* | *SAMPLE DESCRIPTION* | *R-VALUE* |
|---|---|---|
| B-2 @ 0-5 feet | Sandy Silt | 17 |

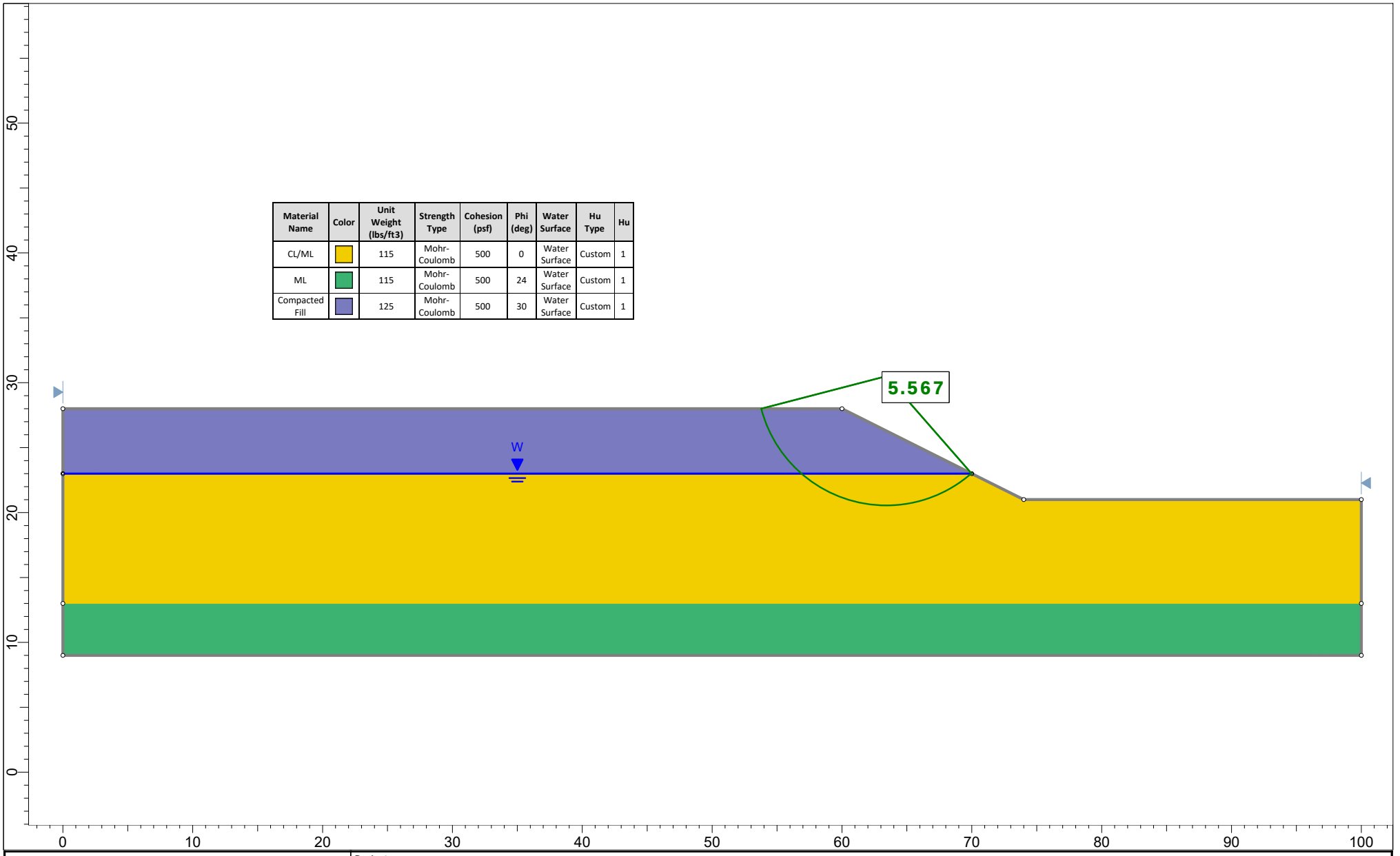
***Grain Size Distribution:*** Representative samples were dried, weighed, and soaked in water until individual soil particles were separated (per ASTM D421) and then washed on a No. 200 sieve. The portion retained on the No. 200 sieve was dried and then sieved on a U.S. Standard brass sieve set in accordance with ASTM D422 (CTM 202). Where an appreciable amount of fines were encountered (greater than 20 percent passing the No. 200 sieve) a hydrometer analysis was done to determine the distribution of soil particles passing the No. 200 sieve.

| *SAMPLE LOCATION* | *DESCRIPTION* | *% PASSING # 200 SIEVE* |
|---|---|---|
| B-1 @ 5 feet | Sandy Clay | 62 |
| B-1 @ 10 feet | Silty Sand | 39 |
| B-1 @ 15 feet | Sandy Silt | 65 |
| B-1 @ 20 feet | Sandy Silt | 54 |
| B-1 @ 35 feet | Sandy Silt | 52 |

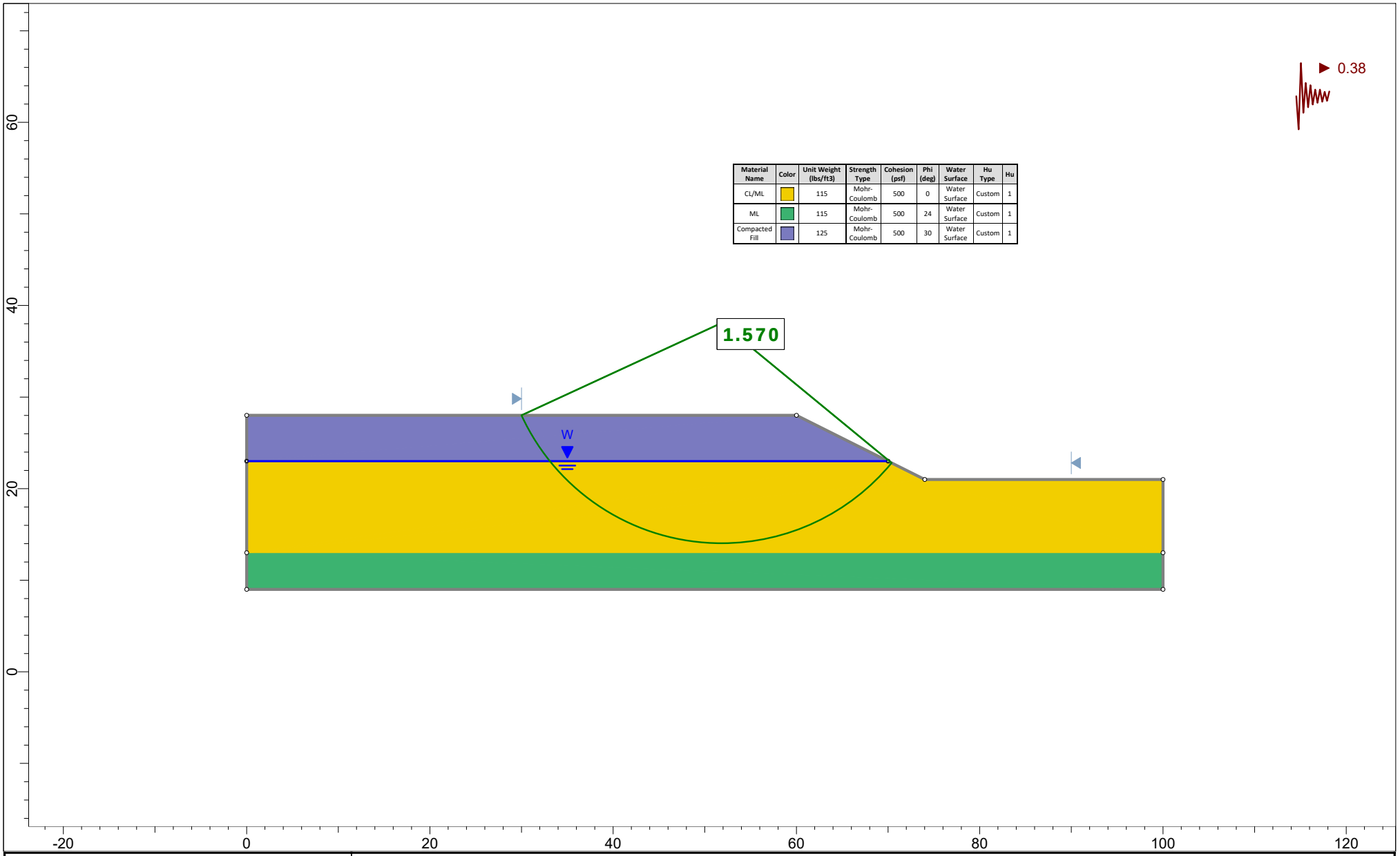
# APPENDIX C

## Slope Stability and Settlement Analyses

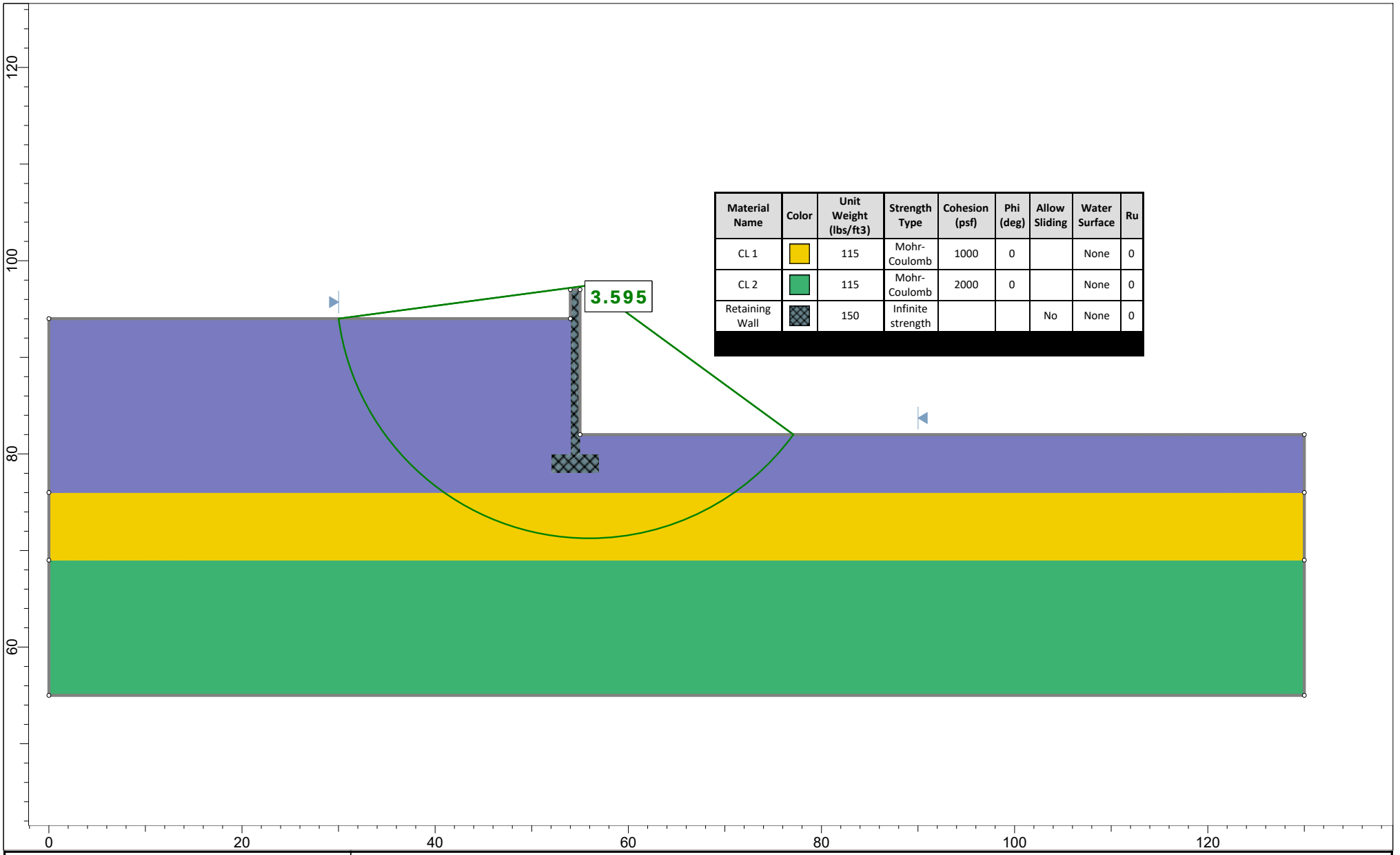
| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) | Water Surface | Hu Type | Hu |
|---|---|---|---|---|---|---|---|---|
| CL/ML | | 115 | Mohr-Coulomb | 500 | 0 | Water Surface | Custom | 1 |
| ML | | 115 | Mohr-Coulomb | 500 | 24 | Water Surface | Custom | 1 |
| Compacted Fill | | 125 | Mohr-Coulomb | 500 | 30 | Water Surface | Custom | 1 |




| | | | |
|---|---|---|---|
| | *Project* | LMC Murrieta | |
| | *Project Number* | 13343.001 | *Scenario* Static |
| | *Drawn By* | BSS | *Company* Leighton and Associates |
| SLIDEINTERPRET 9.020 | *Date* | 4/6/2022, 1:54:05 PM | *File Name* Drainage Slope.slmd |

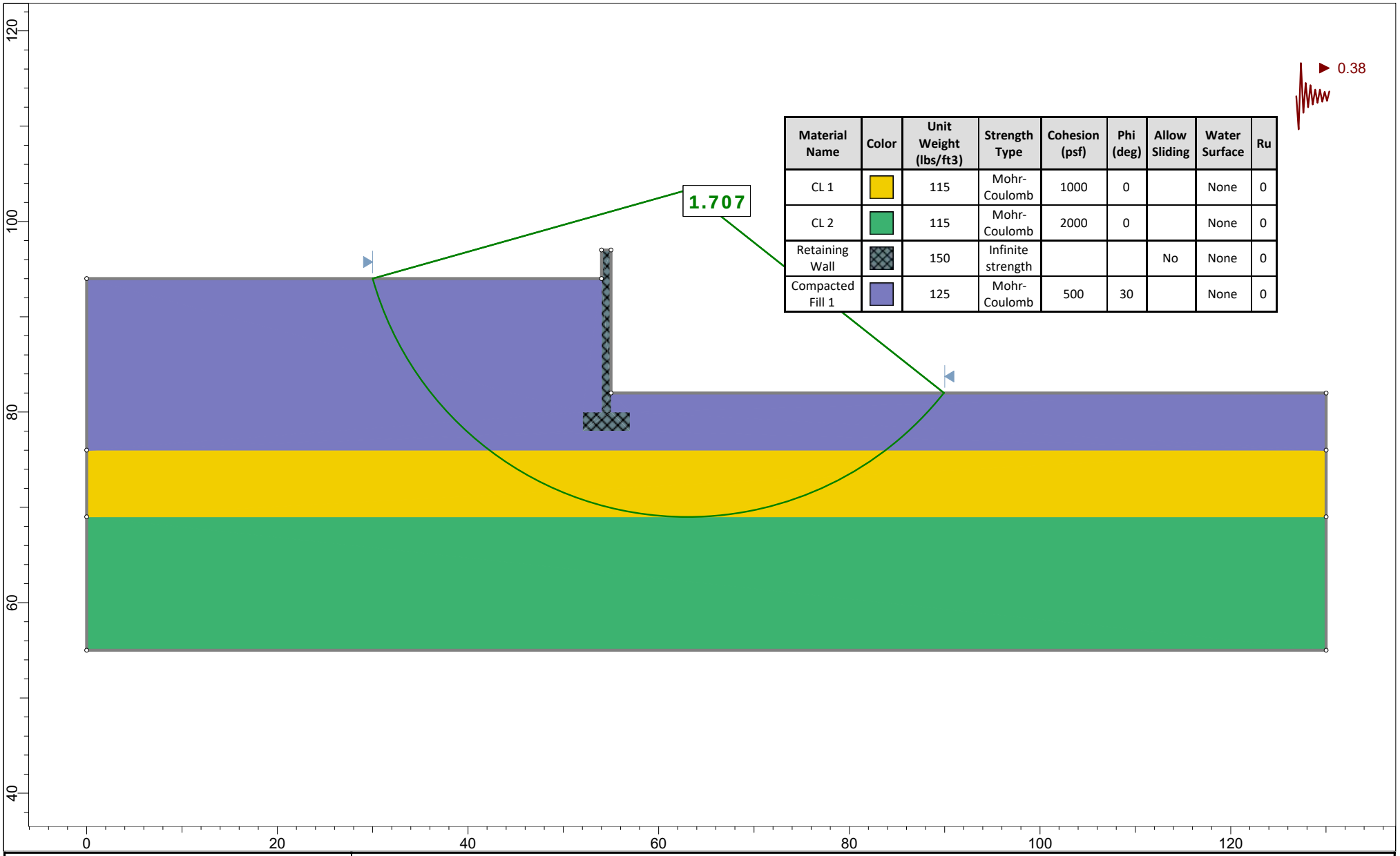



| | | | |
|---|---|---|---|
| | *Project* | LMC Murrieta | |
| | *Project Number* | 13343.001 | *Scenario* Seismic |
| | *Drawn By* | BSS | *Company* Leighton and Associates |
| SLIDEINTERPRET 9.020 | *Date* | 4/6/2022, 1:54:05 PM | *File Name* Drainage Slope.slmd |




| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) | Allow Sliding | Water Surface | Ru |
|---|---|---|---|---|---|---|---|---|
| CL 1 | | 115 | Mohr-Coulomb | 1000 | 0 | | None | 0 |
| CL 2 | | 115 | Mohr-Coulomb | 2000 | 0 | | None | 0 |
| Retaining Wall | | 150 | Infinite strength | | | No | None | 0 |

| | | | |
|---|---|---|---|
| | *Project* | 13343.004 | |
| | *Project Number* | 13343.001 | *Scenario* Static |
| | *Drawn By* | BSS | *Company* Leighton and Associates |
| SLIDEINTERPRET 9.020 | *Date* | 4/8/2022, 12:49:42 PM | *File Name* Street Slope.slmd |




| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) | Allow Sliding | Water Surface | Ru |
|---|---|---|---|---|---|---|---|---|
| CL 1 | | 115 | Mohr-Coulomb | 1000 | 0 | | None | 0 |
| CL 2 | | 115 | Mohr-Coulomb | 2000 | 0 | | None | 0 |
| Retaining Wall | | 150 | Infinite strength | | | No | None | 0 |
| Compacted Fill 1 | | 125 | Mohr-Coulomb | 500 | 30 | | None | 0 |

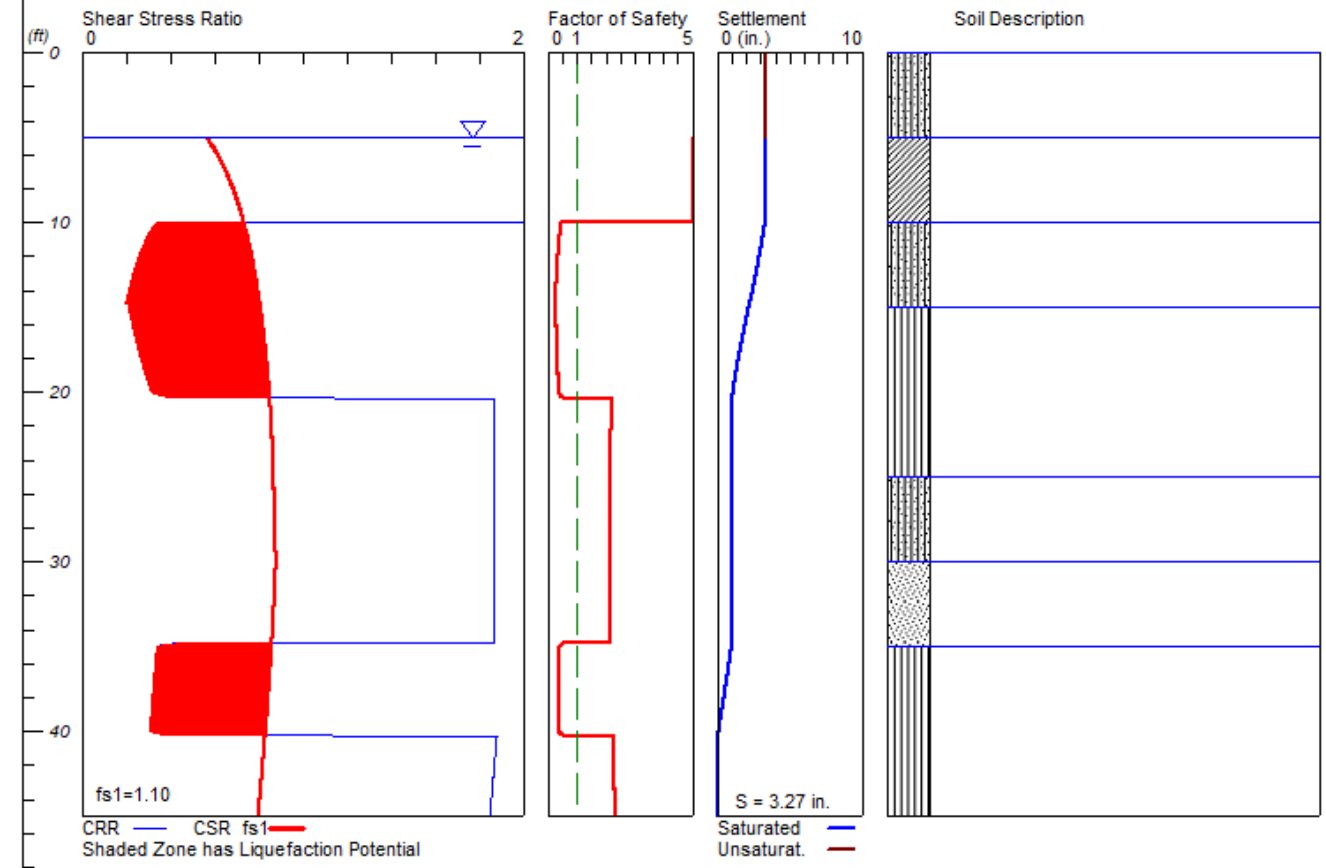
| | | | |
|---|---|---|---|
| | *Project* | 13343.004 | |
| | *Project Number* | 13343.001 | *Scenario* Seismic |
| | *Drawn By* | BSS | *Company* Leighton and Associates |
| SLIDEINTERPRET 9.020 | *Date* | 4/8/2022, 12:49:42 PM | *File Name* Street Slope.slmd |

# LIQUEFACTION ANALYSIS

## LMC Murrieta

***Hole No.=B-1 (LGC)  Water Depth=5 ft  Surface Elev.=1078***

***Magnitude=7.7***
***Acceleration=0.8g***




LiquefyPro CivilTech Software USA www.civiltech.com

**********
LIQUEFACTION ANALYSIS SUMMARY

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**********
Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 4/6/2022 3:59:52 PM

Input File Name: P:\Leighton - Infocus\13000 - 13999\13343 LMC Murrieta Hot Springs\004 LMC Murrieta - Investigation\Analyses\Liquefaction\B-1 LGC Liq.liq
Title: LMC Murrieta
Subtitle: 13343.004

Surface Elev.=1078
Hole No.=B-1 (LGC)
Depth of Hole= 45.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 8.00 ft
Max. Acceleration= 0.8 g
Earthquake Magnitude= 7.70

Input Data:
Surface Elev.=1078
Hole No.=B-1 (LGC)
Depth of Hole=45.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 8.00 ft
Max. Acceleration=0.8 g
Earthquake Magnitude=7.70
No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

| Depth ft | SPT | gamma pcf | Fines % |
|---|---|---|---|
| 0.00 | 24.00 | 123.50 | NoLiq |
| 5.00 | 14.00 | 134.00 | NoLiq |
| 10.00 | 12.00 | 133.10 | 39.00 |
| 15.00 | 8.00 | 130.00 | 65.00 |
| 20.00 | 13.00 | 130.00 | 54.00 |
| 25.00 | 36.00 | 138.40 | 15.00 |
| 30.00 | 39.00 | 126.90 | 10.00 |
| 35.00 | 16.00 | 128.40 | 52.00 |
| 40.00 | 16.00 | 135.10 | 52.00 |
| 45.00 | 60.00 | 137.40 | 52.00 |

Output Results:

Settlement of Saturated Sands=3.27 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=3.27 in.
Differential Settlement=1.637 to 2.160 in.

| Depth ft | CRRm | CSRfs | F.S. | S_sat. in. | S_dry in. | S_all in. |
|---|---|---|---|---|---|---|
| 0.00 | 2.00 | 0.57 | 5.00 | 3.27 | 0.00 | 3.27 |
| 5.00 | 2.00 | 0.57 | 5.00 | 3.27 | 0.00 | 3.27 |
| 10.00 | 0.33 | 0.73 | 0.46* | 3.27 | 0.00 | 3.27 |
| 15.00 | 0.21 | 0.81 | 0.26* | 2.14 | 0.00 | 2.14 |
| 20.00 | 0.31 | 0.85 | 0.37* | 1.04 | 0.00 | 1.04 |
| 25.00 | 1.87 | 0.87 | 2.15 | 0.98 | 0.00 | 0.98 |
| 30.00 | 1.87 | 0.88 | 2.13 | 0.98 | 0.00 | 0.98 |
| 35.00 | 0.34 | 0.86 | 0.39* | 0.95 | 0.00 | 0.95 |
| 40.00 | 0.30 | 0.83 | 0.37* | 0.04 | 0.00 | 0.04 |
| 45.00 | 1.85 | 0.80 | 2.32 | 0.00 | 0.00 | 0.00 |

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

---

1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands

| | |
|---|---|
| S_dry | Settlement from Unsaturated Sands |
| S_all | Total Settlement from Saturated and Unsaturated Sands |
| NoLiq | No-Liquefy Soils |

Latitude, Longitude: 33.5499, -117.1963




| | |
|---|---|
| **Date** | 4/6/2022, 1:16:52 PM |
| **Design Code Reference Document** | ASCE7-16 |
| **Risk Category** | II |
| **Site Class** | D - Stiff Soil |

| Type | Value | Description |
|---|---|---|
| $S_S$ | 1.628 | $MCE_R$ ground motion. (for 0.2 second period) |
| $S_1$ | 0.611 | $MCE_R$ ground motion. (for 1.0s period) |
| $S_{MS}$ | 1.628 | Site-modified spectral acceleration value |
| $S_{M1}$ | null -See Section 11.4.8 | Site-modified spectral acceleration value |
| $S_{DS}$ | 1.085 | Numeric seismic design value at 0.2 second SA |
| $S_{D1}$ | null -See Section 11.4.8 | Numeric seismic design value at 1.0 second SA |

| Type | Value | Description |
|---|---|---|
| SDC | null -See Section 11.4.8 | Seismic design category |
| $F_a$ | 1 | Site amplification factor at 0.2 second |
| $F_v$ | null -See Section 11.4.8 | Site amplification factor at 1.0 second |
| PGA | 0.726 | $MCE_G$ peak ground acceleration |
| $F_{PGA}$ | 1.1 | Site amplification factor at PGA |
| $PGA_M$ | 0.798 | Site modified peak ground acceleration |
| $T_L$ | 8 | Long-period transition period in seconds |
| SsRT | 1.628 | Probabilistic risk-targeted ground motion. (0.2 second) |
| SsUH | 1.809 | Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration |
| SsD | 2.465 | Factored deterministic acceleration value. (0.2 second) |
| S1RT | 0.611 | Probabilistic risk-targeted ground motion. (1.0 second) |
| S1UH | 0.676 | Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration. |
| S1D | 0.982 | Factored deterministic acceleration value. (1.0 second) |
| PGAd | 1.038 | Factored deterministic acceleration value. (Peak Ground Acceleration) |
| $C_{RS}$ | 0.9 | Mapped value of the risk coefficient at short periods |
| $C_{R1}$ | 0.903 | Mapped value of the risk coefficient at a period of 1 s |

U.S. Geological Survey - Earthquake Hazards Program

# Unified Hazard Tool

Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the U.S. Seismic Design Maps web tools (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

## Input

Edition

Dynamic: Conterminous U.S. 2014 (update…

Spectral Period

Peak Ground Acceleration

Latitude

Decimal degrees

33.5499

Time Horizon

Return period in years

2475

Longitude

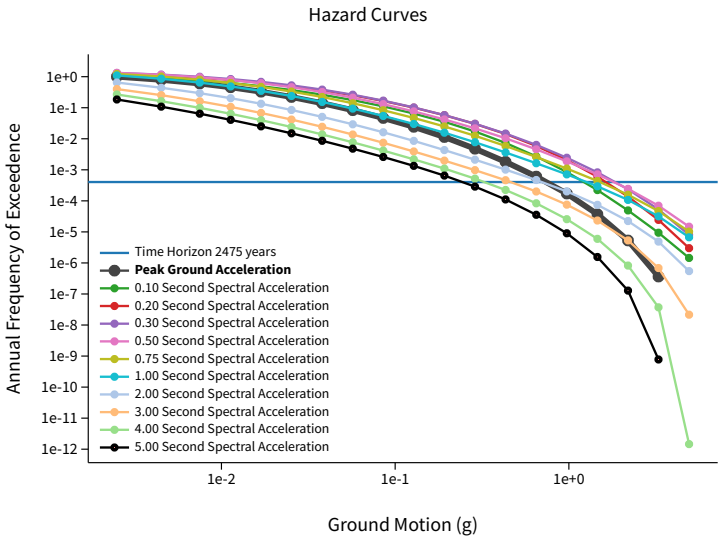
Decimal degrees, negative values for western longitudes

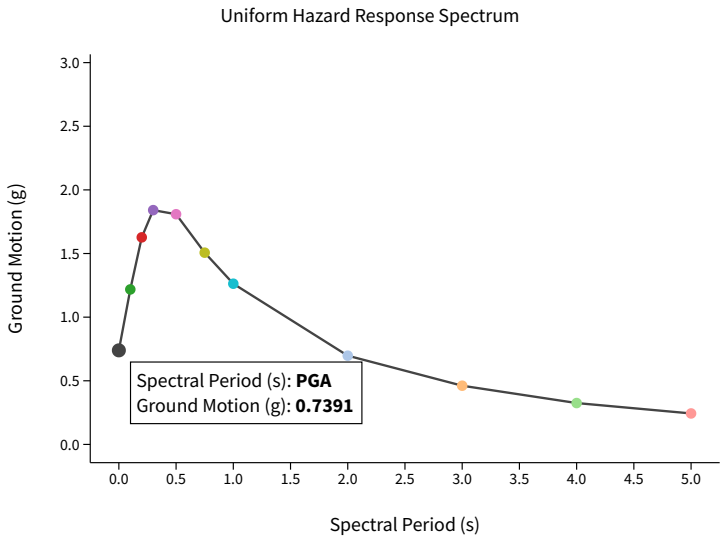
-117.1963

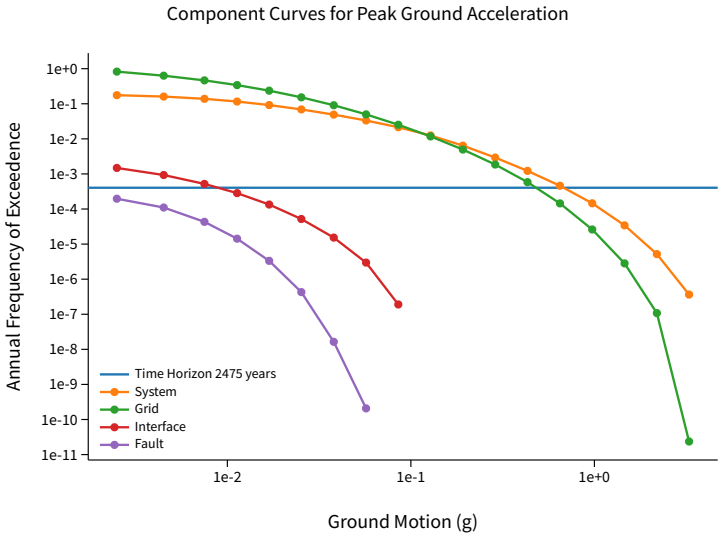
Site Class

259 m/s (Site class D)

## Hazard Curve



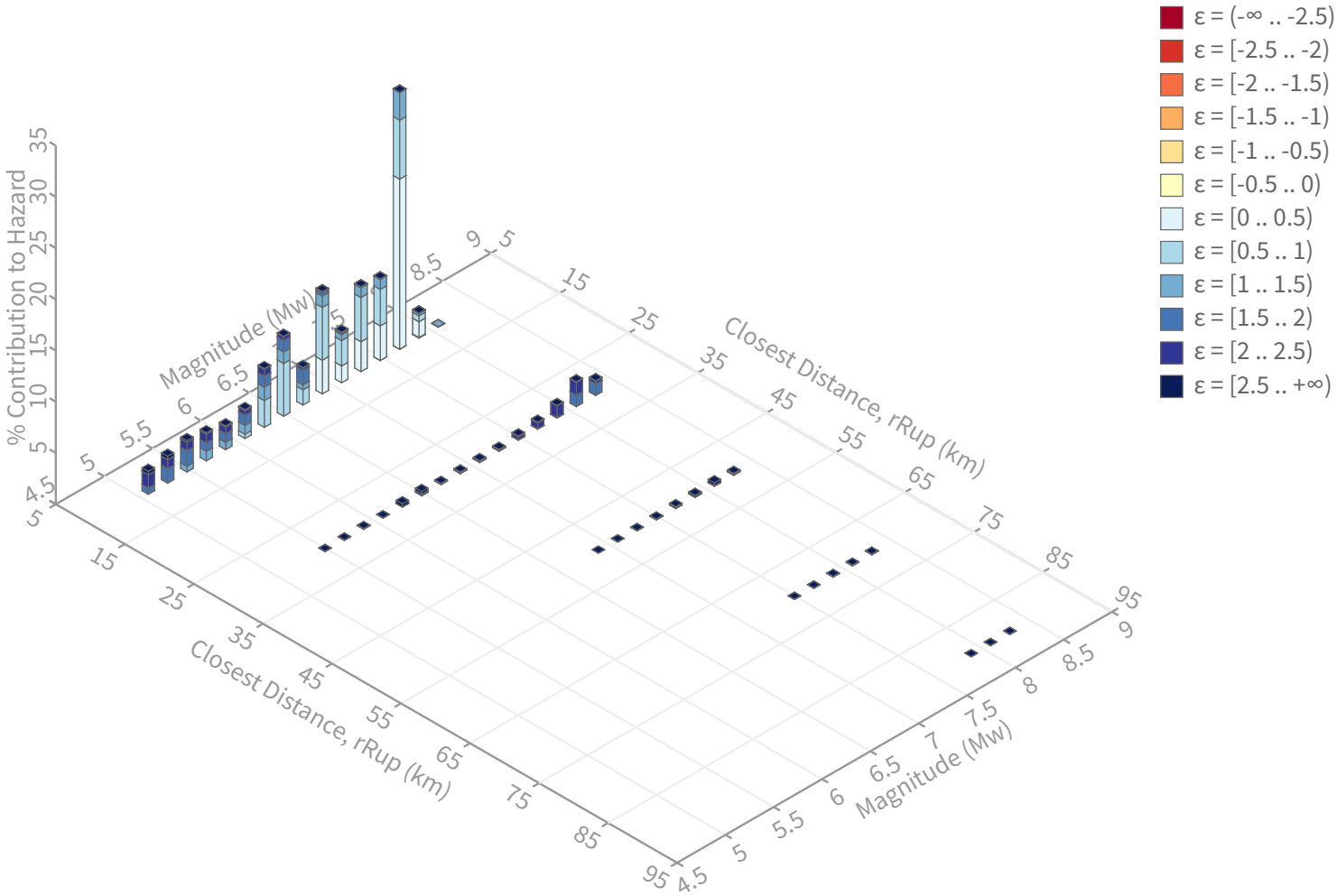




View Raw Data

## Deaggregation

Component

Total



# Summary statistics for, Deaggregation: Total

## Deaggregation targets

**Return period:** 2475 yrs
**Exceedance rate:** 0.0004040404 $yr^{-1}$
**PGA ground motion:** 0.73908283 g

## Recovered targets

**Return period:** 2796.0398 yrs
**Exceedance rate:** 0.0003576487 $yr^{-1}$

## Totals

**Binned:** 100 %
**Residual:** 0 %
**Trace:** 0.07 %

## Mean (over all sources)

**m:** 7.02
**r:** 6.21 km
**$\varepsilon_0$:** 1.04 σ

## Mode (largest m-r bin)

**m:** 7.71
**r:** 1.43 km
**$\varepsilon_0$:** 0.54 σ
**Contribution:** 25.07 %

## Mode (largest m-r-$\varepsilon_0$ bin)

**m:** 7.71
**r:** 1.42 km
**$\varepsilon_0$:** 0.37 σ
**Contribution:** 16.61 %

## Discretization

**r:** min = 0.0, max = 1000.0, Δ = 20.0 km
**m:** min = 4.4, max = 9.4, Δ = 0.2
**ε:** min = -3.0, max = 3.0, Δ = 0.5 σ

## Epsilon keys

**ε0:** [-∞ .. -2.5)
**ε1:** [-2.5 .. -2.0)
**ε2:** [-2.0 .. -1.5)
**ε3:** [-1.5 .. -1.0)
**ε4:** [-1.0 .. -0.5)
**ε5:** [-0.5 .. 0.0)
**ε6:** [0.0 .. 0.5)
**ε7:** [0.5 .. 1.0)
**ε8:** [1.0 .. 1.5)
**ε9:** [1.5 .. 2.0)
**ε10:** [2.0 .. 2.5)
**ε11:** [2.5 .. +∞]

## Deaggregation Contributors

| Source Set ↳ Source | Type | r | m | $\varepsilon_0$ | lon | lat | az | % |
|---|---|---|---|---|---|---|---|---|
| UC33brAvg_FM31 | System | | | | | | | 40.94 |
| Elsinore (Temecula) rev [1] | | 1.42 | 7.30 | 0.61 | 117.195°W | 33.550°N | 63.08 | 33.19 |
| San Jacinto (Stepovers Combined) [3] | | 33.32 | 8.04 | 2.08 | 116.927°W | 33.748°N | 48.42 | 2.94 |
| Elsinore (Temecula) rev [2] | | 3.22 | 6.49 | 1.01 | 117.175°W | 33.531°N | 135.90 | 1.90 |
| UC33brAvg_FM32 | System | | | | | | | 39.70 |
| Elsinore (Temecula) rev [1] | | 1.42 | 7.35 | 0.60 | 117.195°W | 33.550°N | 63.08 | 32.25 |
| San Jacinto (Stepovers Combined) [3] | | 33.32 | 8.03 | 2.09 | 116.927°W | 33.748°N | 48.42 | 2.91 |
| Elsinore (Temecula) rev [2] | | 3.22 | 6.52 | 1.00 | 117.175°W | 33.531°N | 135.90 | 1.67 |
| UC33brAvg_FM31 (opt) | Grid | | | | | | | 9.68 |
| PointSourceFinite: -117.196, 33.599 | | 7.53 | 5.59 | 1.69 | 117.196°W | 33.599°N | 0.00 | 2.68 |
| PointSourceFinite: -117.196, 33.599 | | 7.53 | 5.59 | 1.69 | 117.196°W | 33.599°N | 0.00 | 2.68 |
| UC33brAvg_FM32 (opt) | Grid | | | | | | | 9.68 |
| PointSourceFinite: -117.196, 33.599 | | 7.53 | 5.59 | 1.69 | 117.196°W | 33.599°N | 0.00 | 2.68 |
| PointSourceFinite: -117.196, 33.599 | | 7.53 | 5.59 | 1.69 | 117.196°W | 33.599°N | 0.00 | 2.68 |

# APPENDIX D

## General Earthwork and Grading Specifications

Leighton

LEIGHTON AND ASSOCIATES, INC.

GENERAL EARTHWORK AND GRADING SPECIFICATIONS FOR ROUGH GRADING

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Standard Details

| | |
|---|---|
| A - Keying and Benching | Rear of Text |
| B - Oversize Rock Disposal | Rear of Text |
| C - Canyon Subdrains | Rear of Text |
| D - Buttress or Replacement Fill Subdrains | Rear of Text |
| E - Transition Lot Fills and Side Hill Fills | Rear of Text |
| Retaining Wall | Rear of Text |

# 1.0 General

## 1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

## 1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

### 1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

## 2.0 Preparation of Areas to be Filled

### 2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation

In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant

prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

## 3.0 Fill Material

### 3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

### 3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

### 3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

## 4.0 Fill Placement and Compaction

### 4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

### 4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

## 5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

## 6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

## 7.0 Trench Backfills

### 7.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill

All bedding and backfill of utility trenches shall be performed in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of relative compaction from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

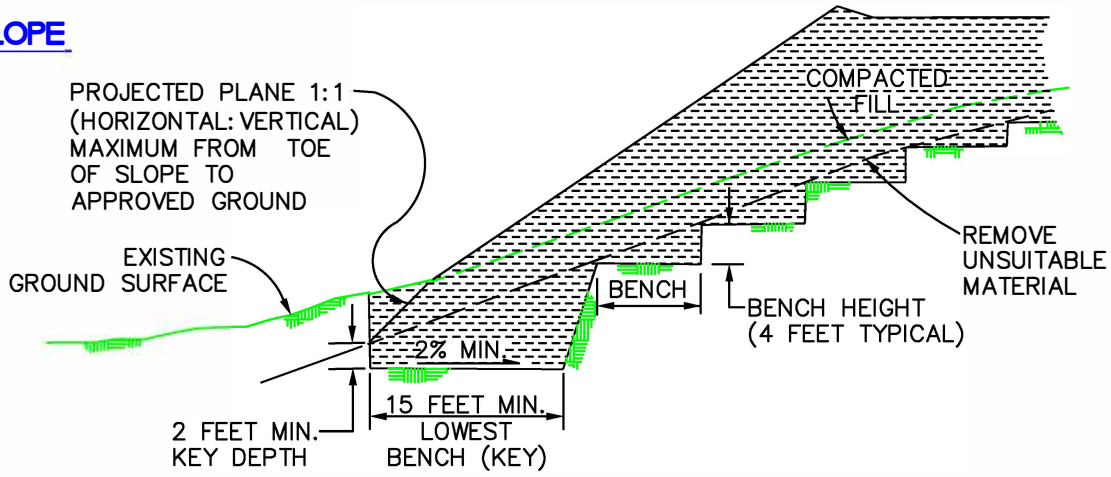
7.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

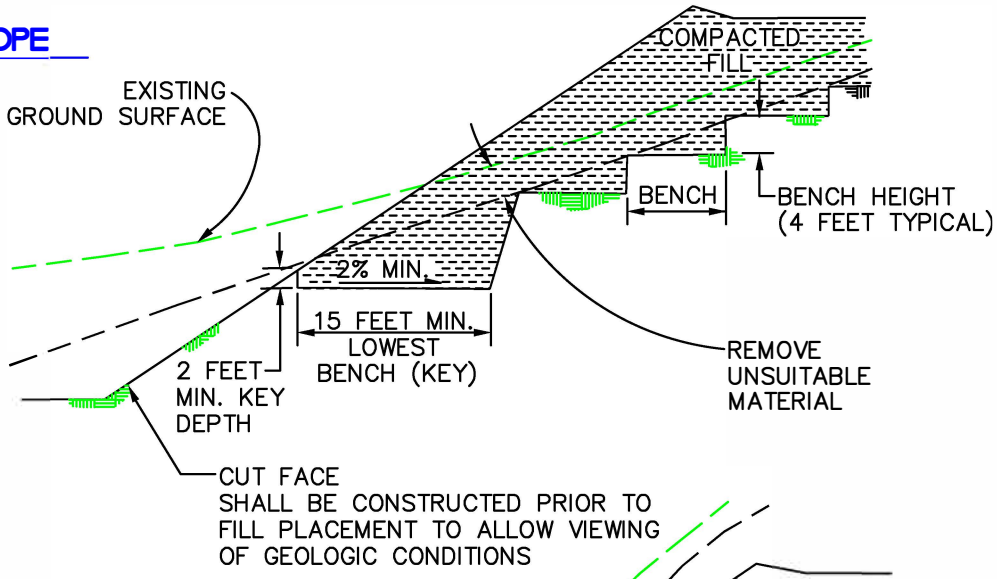
7.4 Observation and Testing

The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

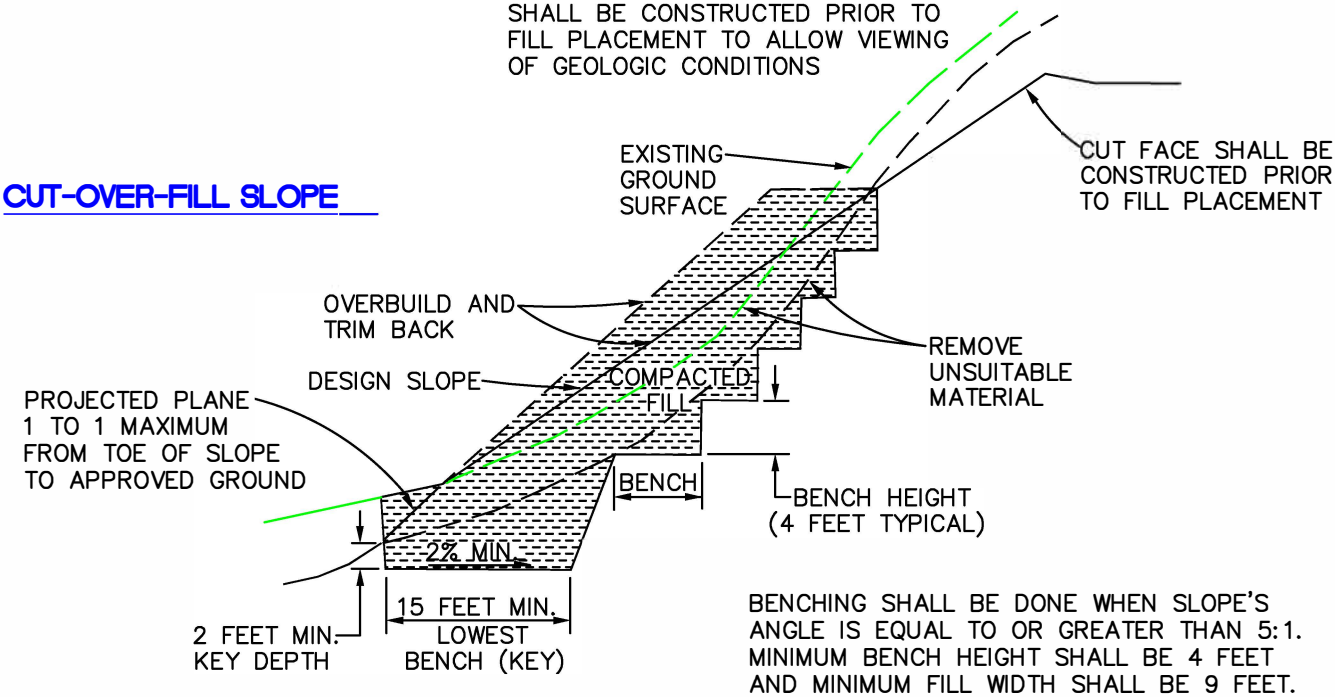
## FILL SLOPE




## FILL-OVER-CUT SLOPE

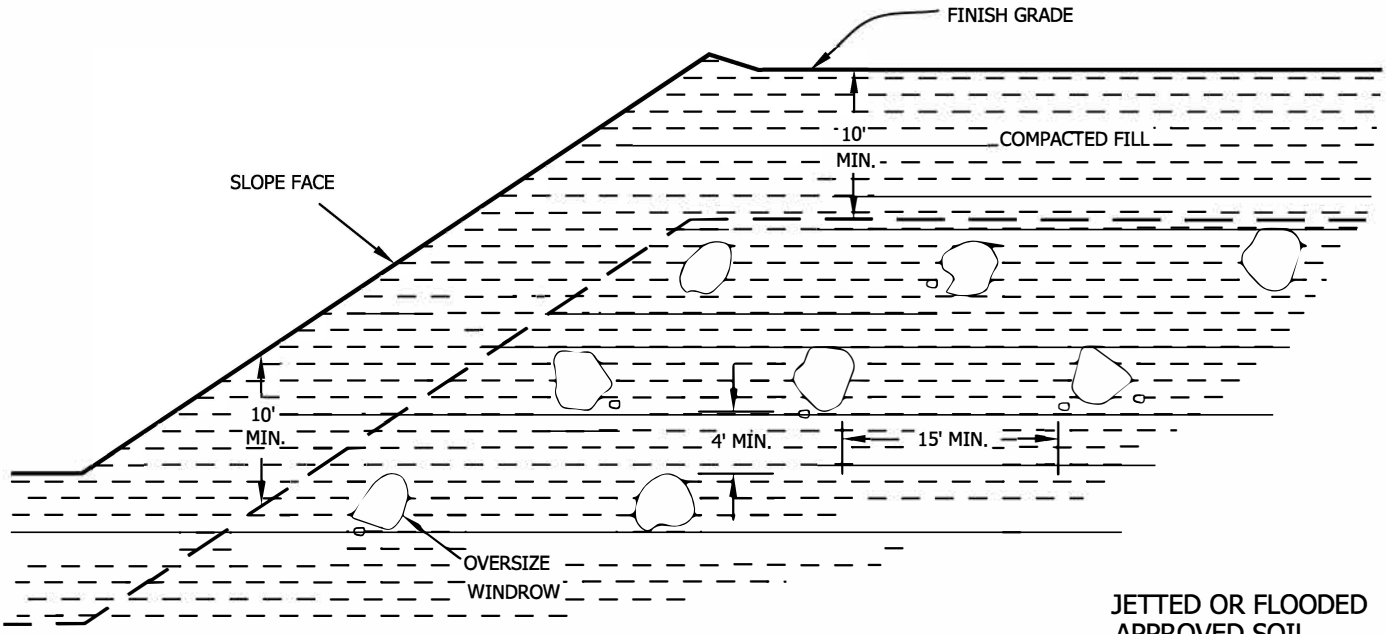


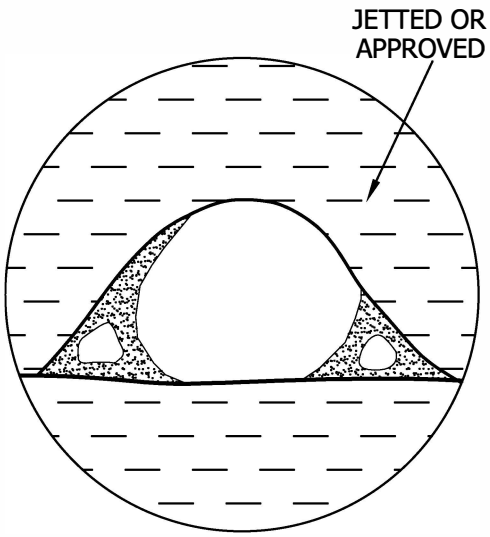

## CUT-OVER-FILL SLOPE




BENCHING SHALL BE DONE WHEN SLOPE'S ANGLE IS EQUAL TO OR GREATER THAN 5:1. MINIMUM BENCH HEIGHT SHALL BE 4 FEET AND MINIMUM FILL WIDTH SHALL BE 9 FEET.

| KEYING AND BENCHING | GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS A | Leighton |
|---|---|---|

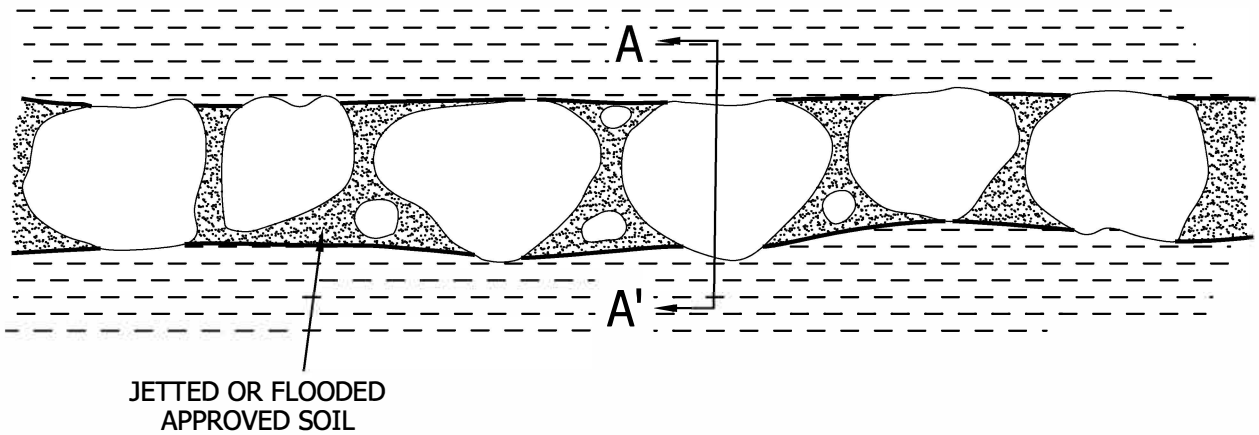



SECTION A-A'

- Oversize rock is larger than 8 inches in largest dimension.
- Backfill with approved soil jetted or flooded in place to fill all the voids.
- Do not bury rock within 10 feet of finish grade.
- Windrow of buried rock shall be parallel to the finished slope face.

PROFILE ALONG WINDROW

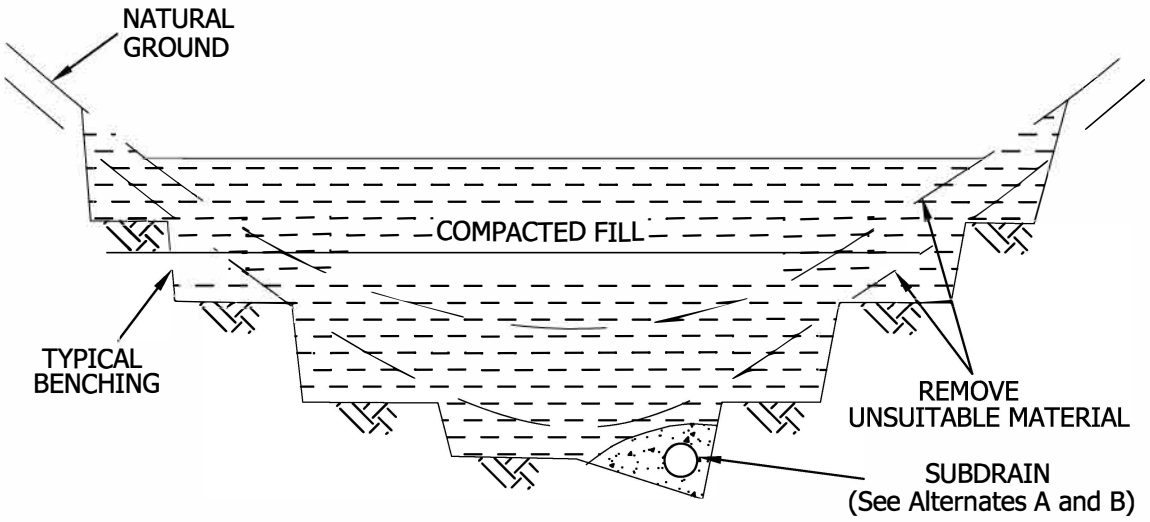



# OVERSIZE ROCK DISPOSAL

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS B

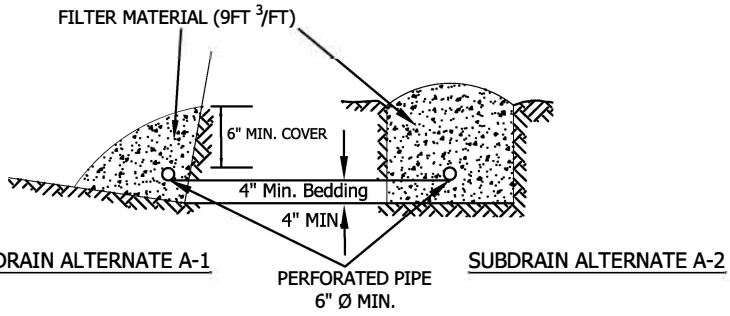
Leighton

P:Drafting\templates\details\over-rock-disp.dwg (7/00)




## SUBDRAIN ALTERNATE A

PERFORATED PIPE SURROUNDED WITH FILTER MATERIAL

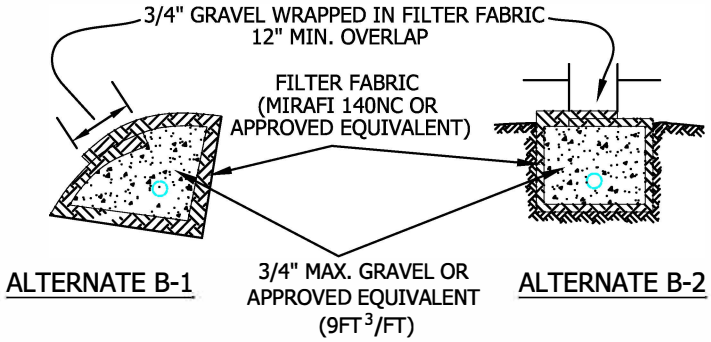



### FILTER MATERIAL

FILTER MATERIAL SHALL BE CLASS 2 PERMEABLE MATERIAL PER STATE OF CALIFORNIA STANDARD SPECIFICATION, OR APPROVED ALTERNATE. CLASS 2 GRADING AS FOLLOWS:

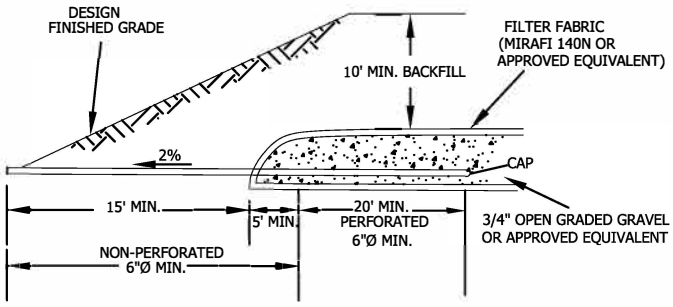
| Sieve Size | Percent Passing |
|---|---|
| 1" | 100 |
| 3/4" | 90-100 |
| 3/8" | 40-100 |
| No. 4 | 25-40 |
| No. 8 | 18-33 |
| No. 30 | 5-15 |
| No. 50 | 0-7 |
| No. 200 | 0-3 |

## SUBDRAIN ALTERNATE B




○ PERFORATED PIPE IS OPTIONAL PER GOVERNING AGENCY'S REQUIREMENTS

## DETAIL OF CANYON SUBDRAIN TERMINAL

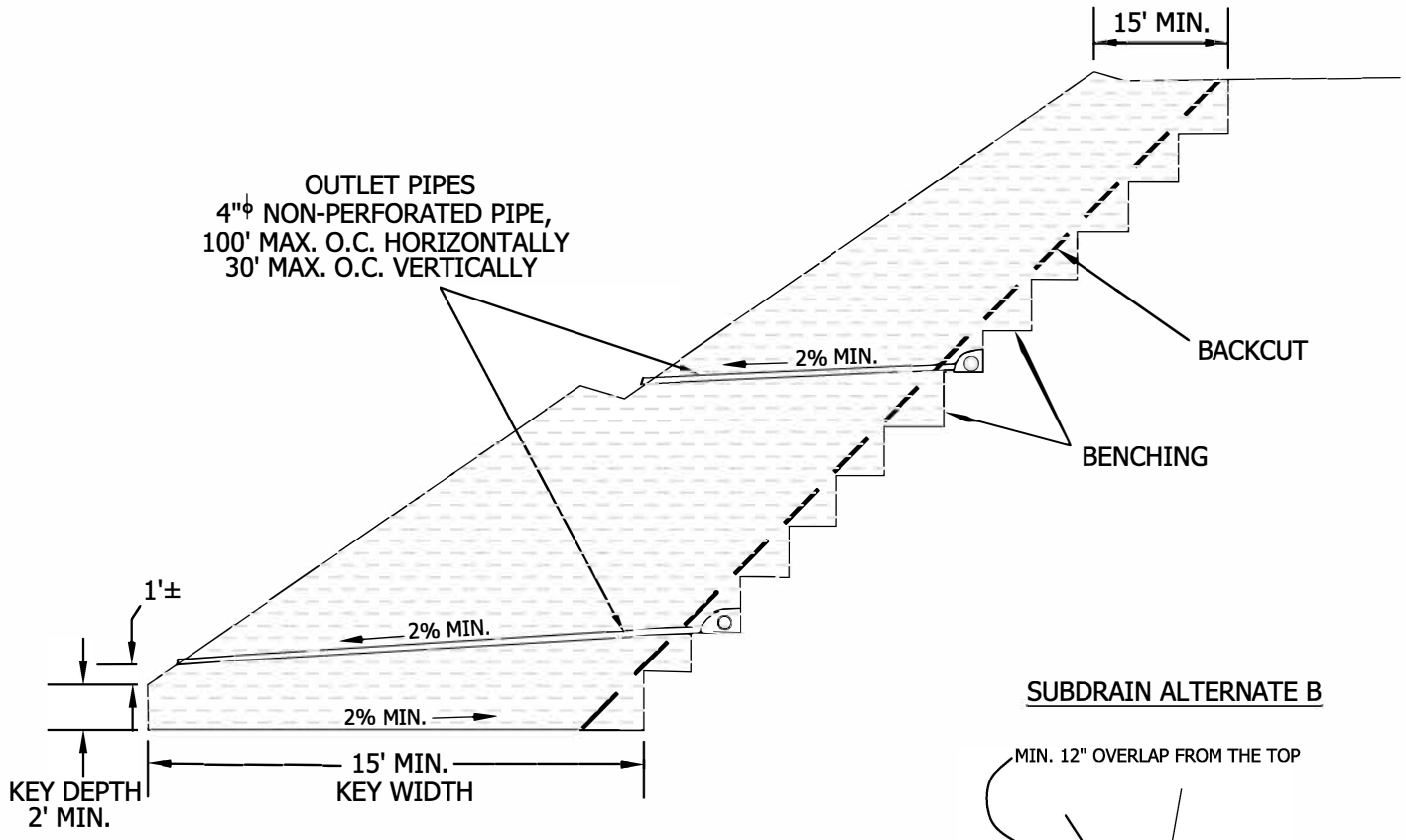



# CANYON SUBDRAIN

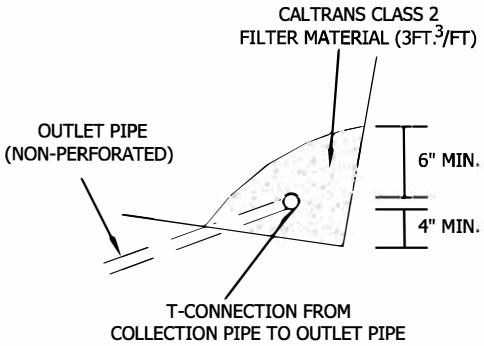
# GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS C

Leighton

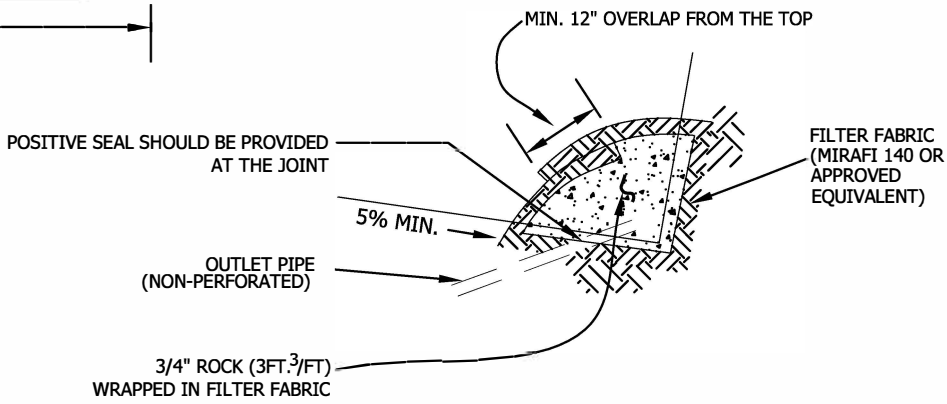
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SUBDRAIN ALTERNATE A




SUBDRAIN ALTERNATE B

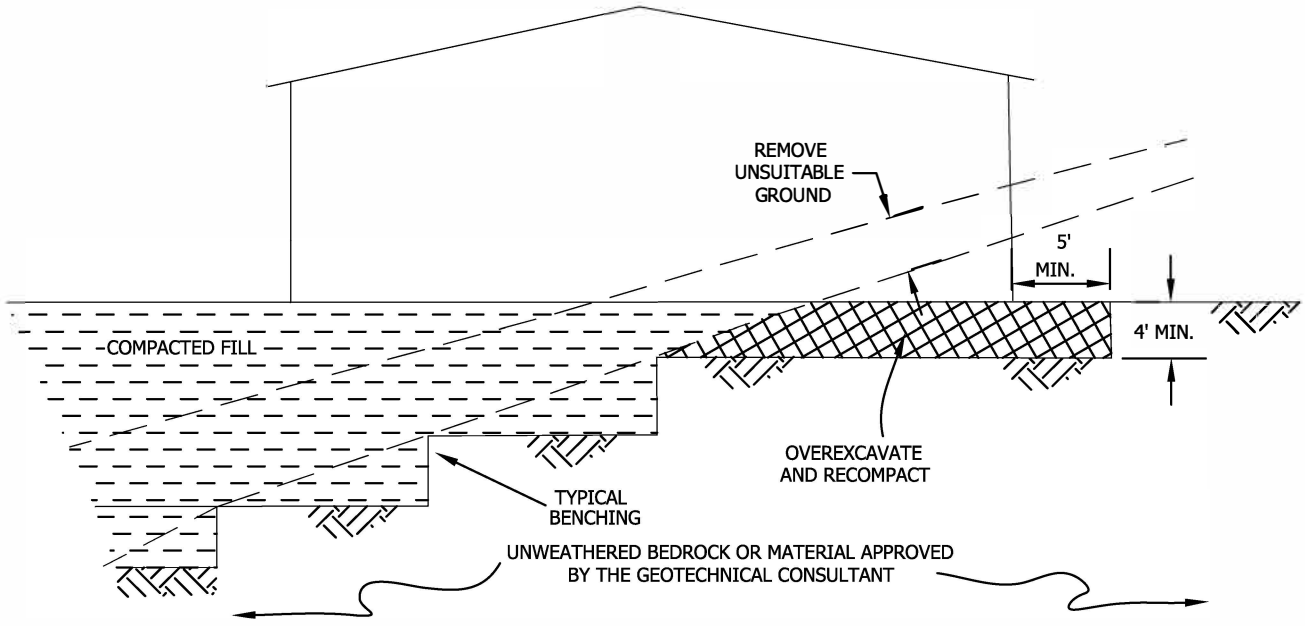



- SUBDRAIN INSTALLATION - Subdrain collector pipe shall be installed with perforations down or, unless otherwise designated by the geotechnical consultant. Outlet pipes shall be non-perforated pipe. The subdrain pipe shall have at least 8 perforations uniformly spaced per foot. Perforation shall be 1/4" to 1/2" if drilled holes are used. All subdrain pipes shall have a gradient at least 2% towards the outlet.
- SUBDRAIN PIPE - Subdrain pipe shall be ASTM D2751, ASTM D1527 (Schedule 40) or SDR 23.5 ABS pipe or ASTM D3034 (Schedule 40) or SDR 23.5 PVC pipe.
- All outlet pipe shall be placed in a trench and, after fill is placed above it, rodded to verify integrity.

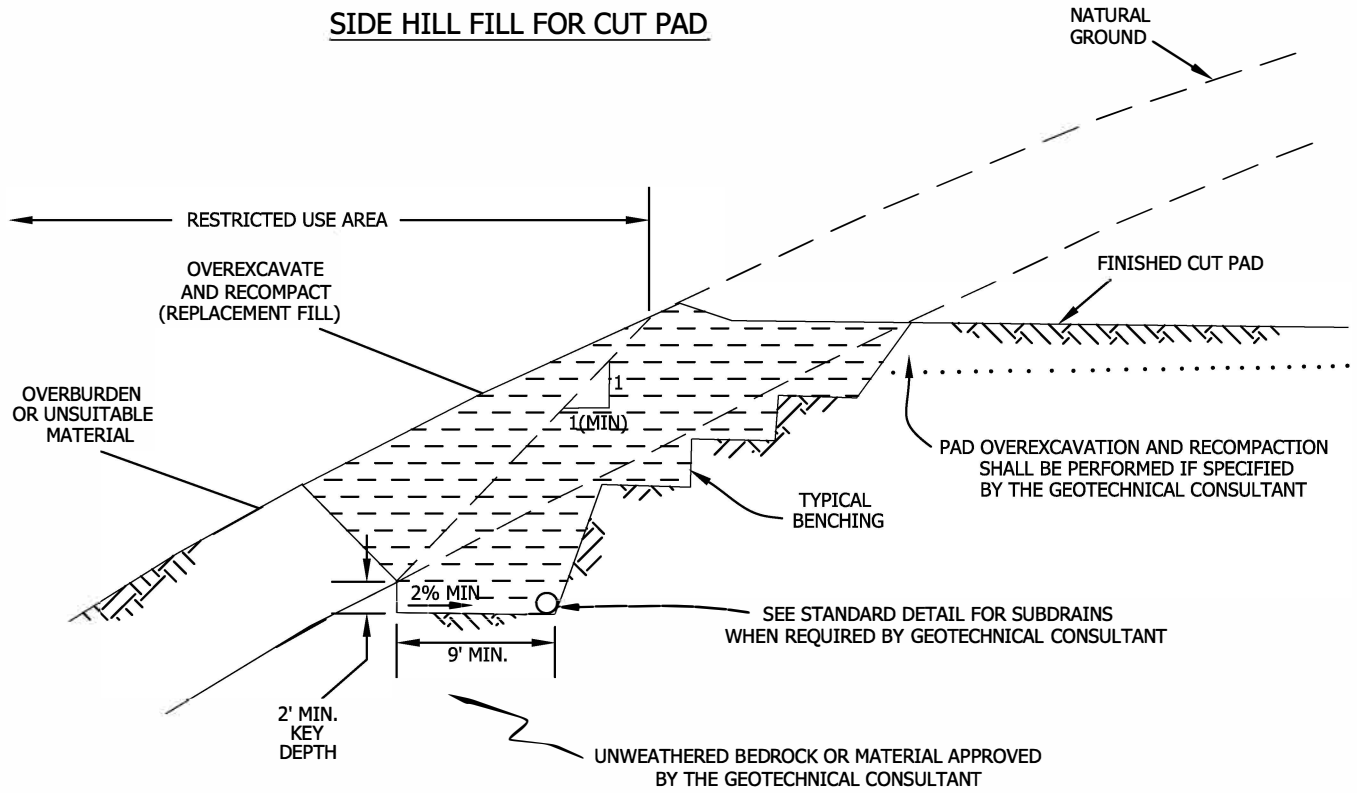
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| BUTTRESS OR REPLACEMENT FILL SUBDRAINS | GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS D | Leighton |

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## CUT-FILL TRANSITION LOT OVEREXCAVATION




## SIDE HILL FILL FOR CUT PAD




# TRANSITION LOT FILLS AND SIDE HILL FILLS

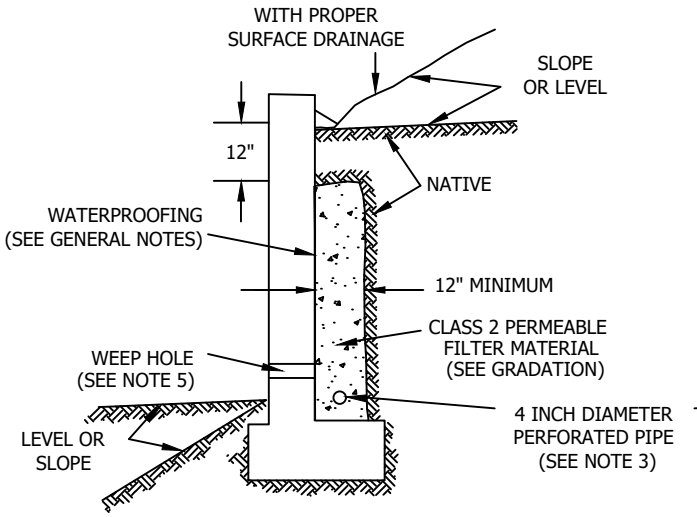
GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS E

Leighton

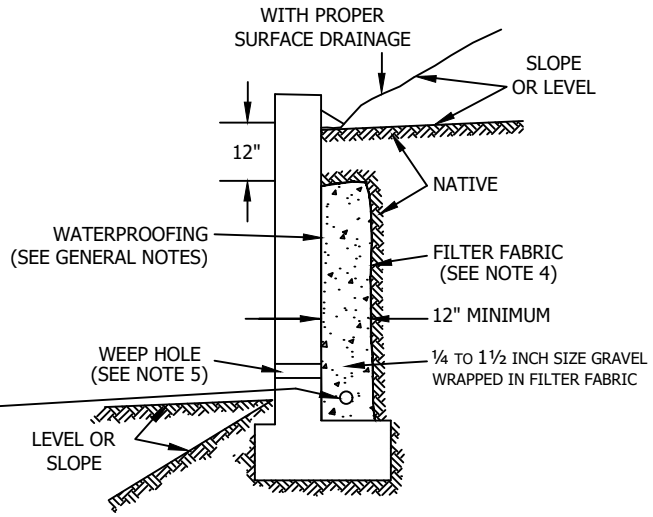
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## SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL




OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC




Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

| Sieve Size | Percent Passing |
|---|---|
| 1" | 100 |
| 3/4" | 90-100 |
| 3/8" | 40-100 |
| No. 4 | 25-40 |
| No. 8 | 18-33 |
| No. 30 | 5-15 |
| No. 50 | 0-7 |
| No. 200 | 0-3 |

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

# RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

## WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

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# APPENDIX E

## GBA Important Information about this Geotechnical Engineering Report

# Important Information about This

# Geotechnical-Engineering Report

**Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.**

**While you cannot eliminate all such risks, you can manage them. The following information is provided to help.**

**The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.**

## Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

## Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

*Do not rely on this report* if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

## Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

## You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

*responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

## Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

## This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

## This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

## Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for information purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

## Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

## Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

## Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, ***proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration*** by including building-envelope or mold specialists on the design team. ***Geotechnical engineers are not building-envelope or mold specialists.***

GEOPROFESSIONAL BUSINESS ASSOCIATION

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e-mail: info@geoprofessional.org www.geoprofessional.org

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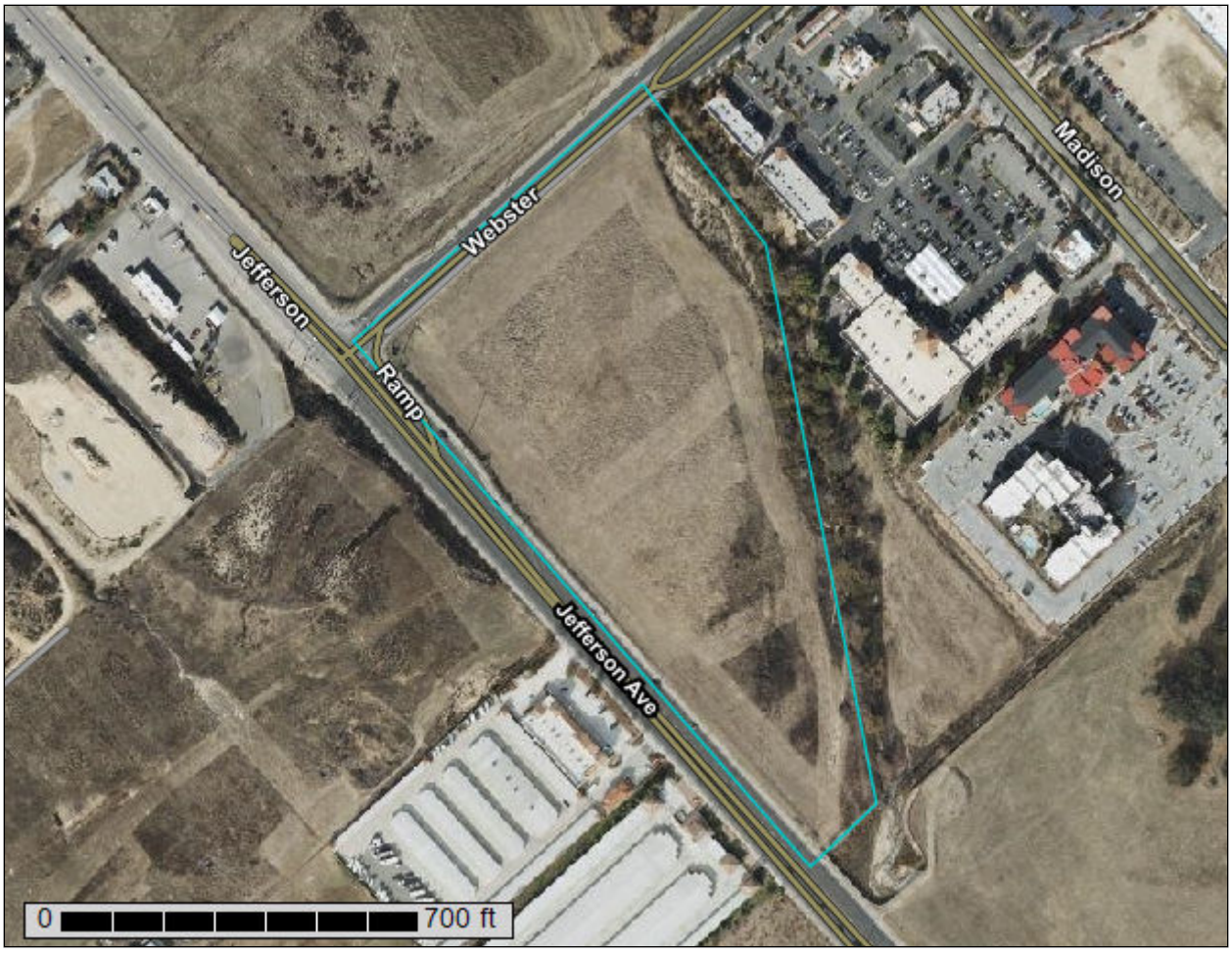
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Western Riverside Area, California




May 23, 2022

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

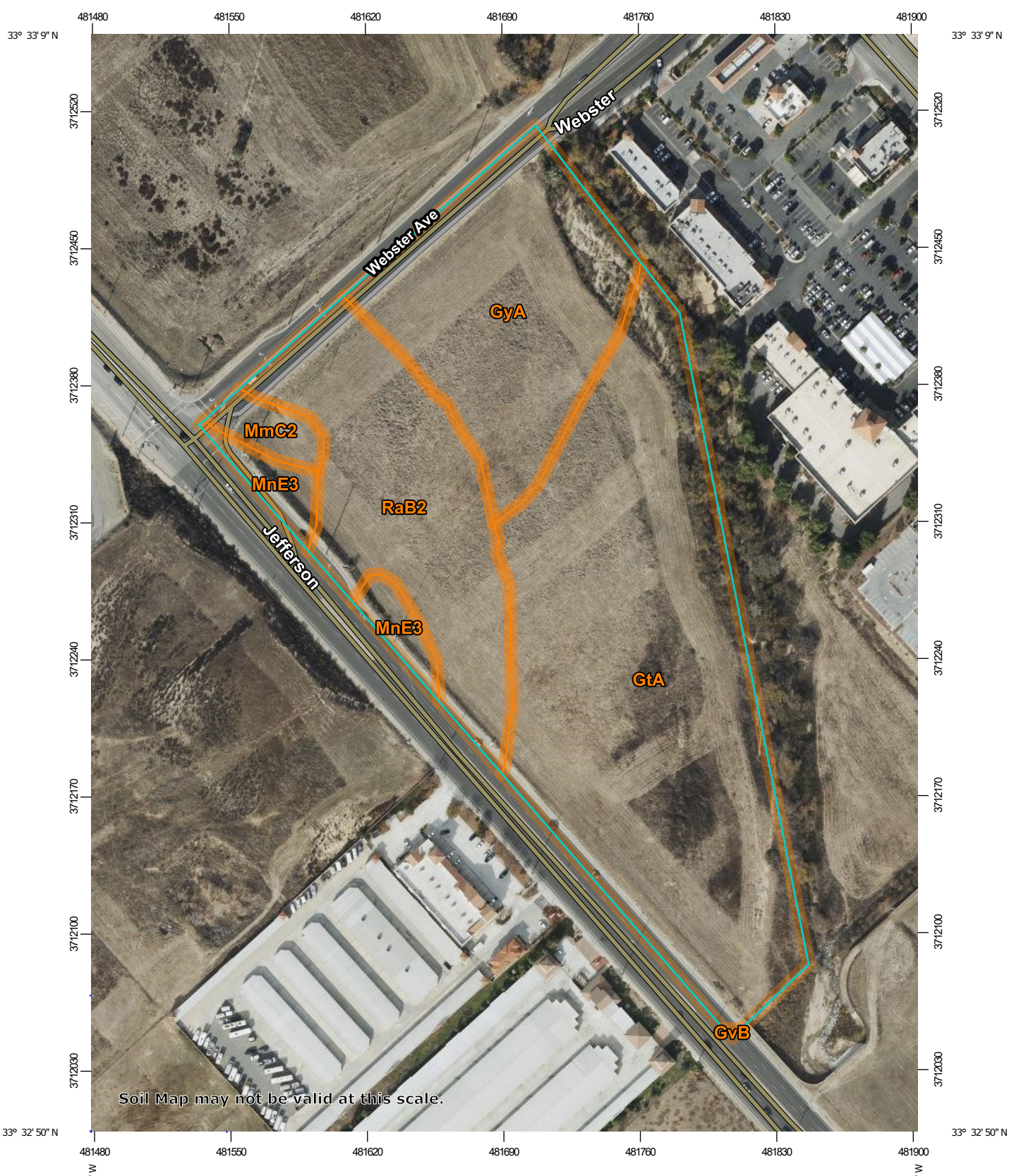
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map




Map Scale: 1:2,730 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 7, 2021—Jan 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| GtA | Grangeville fine sandy loam, drained, 0 to 2 percent sl opes | 8.6 | 50.9% |
| GvB | Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes | 0.0 | 0.0% |
| GyA | Greenfield sandy loam, 0 to 2 percent slopes | 3.8 | 22.4% |
| MmC2 | Monserate sandy loam, 5 to 8 percent slopes, eroded | 0.3 | 2.0% |
| MnE3 | Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded | 0.6 | 3.6% |
| RaB2 | Ramona sandy loam, 2 to 5 percent slopes, eroded | 3.6 | 21.0% |
| **Totals for Area of Interest** | | **16.9** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Western Riverside Area, California

## GtA—Grangeville fine sandy loam, drained, 0 to 2 percent sl opes

### Map Unit Setting

*National map unit symbol:* hcvn
*Elevation:* 10 to 1,800 feet
*Mean annual precipitation:* 12 inches
*Mean annual air temperature:* 63 degrees F
*Frost-free period:* 200 to 270 days
*Farmland classification:* Prime farmland if irrigated and drained

### Map Unit Composition

*Grangeville and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Grangeville

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 36 inches:* fine sandy loam
*H2 - 36 to 64 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 5 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 3c
*Hydrologic Soil Group:* A/D
*Ecological site:* R019XD070CA - SANDY BASIN
*Hydric soil rating:* No

### Minor Components

#### Dello

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

**Traver**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 1 percent
*Hydric soil rating:* No

## GvB—Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes

### Map Unit Setting

*National map unit symbol:* hcvr
*Elevation:* 10 to 1,800 feet
*Mean annual precipitation:* 8 to 16 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 200 to 270 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Grangeville and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Grangeville

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 17 inches:* fine sandy loam
*H2 - 17 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 5 percent
*Maximum salinity:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 6.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* B/D
*Ecological site:* R019XD070CA - SANDY BASIN
*Hydric soil rating:* No

**Minor Components**

**Dello**

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

**Traver**

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

## GyA—Greenfield sandy loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* hcvv
*Elevation:* 100 to 3,500 feet
*Mean annual precipitation:* 9 to 20 inches
*Mean annual air temperature:* 63 degrees F
*Frost-free period:* 200 to 300 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**

*Greenfield and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Greenfield**

**Setting**

*Landform:* Terraces, alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*H1 - 0 to 26 inches:* sandy loam
*H2 - 26 to 43 inches:* fine sandy loam
*H3 - 43 to 60 inches:* loam
*H4 - 60 to 72 inches:* stratified loamy sand to sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained

*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Moderate (about 8.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 3c
*Hydrologic Soil Group:* A
*Ecological site:* R019XD029CA - LOAMY
*Hydric soil rating:* No

**Minor Components**

**Hanford**

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

**Arlington**

*Percent of map unit:* 2 percent
*Hydric soil rating:* No

**Pachappa**

*Percent of map unit:* 2 percent
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 1 percent
*Hydric soil rating:* No

## MmC2—Monserate sandy loam, 5 to 8 percent slopes, eroded

**Map Unit Setting**

*National map unit symbol:* hcx5
*Elevation:* 700 to 2,500 feet
*Mean annual precipitation:* 10 to 18 inches
*Mean annual air temperature:* 63 to 64 degrees F
*Frost-free period:* 220 to 280 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Monserate and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Monserate

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 10 inches:* sandy loam
*H2 - 10 to 28 inches:* sandy clay loam
*H3 - 28 to 45 inches:* indurated
*H4 - 45 to 57 inches:* cemented
*H5 - 57 to 70 inches:* loamy coarse sand

#### Properties and qualities

*Slope:* 5 to 8 percent
*Depth to restrictive feature:* 20 to 39 inches to duripan
*Drainage class:* Well drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 4.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* C
*Ecological site:* R019XD029CA - LOAMY
*Hydric soil rating:* No

### Minor Components

#### Tujunga

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Greenfield

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Ramona

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Unnamed

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

#### Hanford

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

## MnE3—Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded

### Map Unit Setting

*National map unit symbol:* hcx9
*Elevation:* 700 to 2,500 feet
*Mean annual precipitation:* 10 to 18 inches
*Mean annual air temperature:* 63 to 64 degrees F
*Frost-free period:* 220 to 280 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Monserate and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Monserate

#### Setting

*Landform:* Alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Convex
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 10 inches:* sandy loam
*H2 - 10 to 18 inches:* sandy clay loam
*H3 - 18 to 45 inches:* indurated
*H4 - 45 to 57 inches:* cemented
*H5 - 57 to 70 inches:* loamy coarse sand

#### Properties and qualities

*Slope:* 15 to 25 percent
*Depth to restrictive feature:* 10 to 20 inches to duripan
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Very low (about 2.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7e
*Hydrologic Soil Group:* D
*Ecological site:* R019XD060CA - SHALLOW LOAMY (1975)
*Hydric soil rating:* No

**Minor Components**

**Greenfield**
*Percent of map unit:* 5 percent
*Hydric soil rating:* No

**Hanford**
*Percent of map unit:* 5 percent
*Hydric soil rating:* No

**Tujunga**
*Percent of map unit:* 5 percent
*Hydric soil rating:* No

## RaB2—Ramona sandy loam, 2 to 5 percent slopes, eroded

**Map Unit Setting**
*National map unit symbol:* hcy5
*Elevation:* 250 to 3,500 feet
*Mean annual precipitation:* 10 to 20 inches
*Mean annual air temperature:* 63 degrees F
*Frost-free period:* 230 to 320 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**
*Ramona and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Ramona**

**Setting**
*Landform:* Terraces, alluvial fans
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**
*H1 - 0 to 14 inches:* sandy loam
*H2 - 14 to 23 inches:* fine sandy loam
*H3 - 23 to 68 inches:* sandy clay loam
*H4 - 68 to 74 inches:* gravelly sandy loam

**Properties and qualities**
*Slope:* 2 to 5 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)

*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 1 percent
*Available water supply, 0 to 60 inches:* Moderate (about 8.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2e
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* C
*Ecological site:* R019XD029CA - LOAMY
*Hydric soil rating:* No

**Minor Components**

**Hanford**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Arlington**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Greenfield**

*Percent of map unit:* 4 percent
*Hydric soil rating:* No

**Tujunga**

*Percent of map unit:* 3 percent
*Hydric soil rating:* No

# Soil Information for All Uses

## Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

## Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

### Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.




Map Scale: 1:2,730 if printed on A portrait (8.5" x 11") sheet.

N

0 40 80 160 240 Meters

0 100 200 400 600 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Soil Rating Lines**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Soil Rating Points**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Water Features**

Streams and Canals

**Transportation**

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 7, 2021—Jan 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Table—Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| GtA | Grangeville fine sandy loam, drained, 0 to 2 percent sl opes | A/D | 8.6 | 50.9% |
| GvB | Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes | B/D | 0.0 | 0.0% |
| GyA | Greenfield sandy loam, 0 to 2 percent slopes | A | 3.8 | 22.4% |
| MmC2 | Monserate sandy loam, 5 to 8 percent slopes, eroded | C | 0.3 | 2.0% |
| MnE3 | Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded | D | 0.6 | 3.6% |
| RaB2 | Ramona sandy loam, 2 to 5 percent slopes, eroded | C | 3.6 | 21.0% |
| **Totals for Area of Interest** | | | **16.9** | **100.0%** |

## Rating Options—Hydrologic Soil Group

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

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# Appendix 4: Historical Site Conditions

*Phase I Environmental Site Assessment or Other Information on Past Site Use*

Examples of material to provide in Appendix 4 may include but are not limited to the following:

- Environmental Site Assessments conducted for the project,
- Other information on Past Site Use that impacts the feasibility of LID BMP implementation on the site.

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 2.3 of the SMR WQMP and Sections D of this Template.

# PHASE I AND LIMTED PHASE II ENVIRONMENTAL SITE ASSESSMENT

# MURRIETA HOT SPRINGS JEFFERSON AVENUE AND MURRIETA HOT SPRINGS ROAD MURRIETA, CALIFORNIA

Prepared For: **LENNAR MULTIFAMILY COMMUNITIES, LLC**
95 ENTERPRISE, SUITE 200
ALISO VIEJO, CALIFORNIA 92656

Prepared By: **LEIGHTON AND ASSOCIATES, INC.**
41715 ENTERPRISE CIRCLE NORTH, SUITE 103
TEMECULA, CALIFORNIA 92590

Project No. 13343.001

December 27, 2021

DRAFT

December 27, 2021

Project No. 13343.001

Lennar Multifamily Communities, LLC
95 Enterprise, Suite 200
Aliso Viejo, California 92656

Attention: Mr. Alec Chasman

**Subject:** **Phase I and Limited Phase II Environmental Site Assessment**
**Murrieta Hot Springs**
**Jefferson Avenue and Murrieta Hot Springs Road**
**Murrieta, California**

Leighton and Associates Inc. (Leighton) prepared this Phase I and Limited Phase II Environmental Site Assessment Report for the property located at the southeast corner of Jefferson Avenue and Murrieta Hot Springs in the city of Murrieta, Riverside County, California (subject site). Leighton declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 Code of Federal Regulations (CFR) 312, and the ASTM International (ASTM) Standard E1527-13.

Leighton has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. Leighton has developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

If you have questions regarding this report, please contact us. We appreciate the opportunity to be of service to Lennar Multifamily Communities, LLC.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Brynn McCulloch, PG 8798
Principal Geologist

Distribution: (1 PDF) Addressee

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# 1.0 INTRODUCTION

## 1.1 Authorization

Leighton and Associates, Inc. (Leighton) performed a Phase I and Limited Phase II Environmental Site Assessment (ESA) of the property located at the southeast corner of Jefferson Avenue and Murrieta Hot Springs in the city of Murrieta, Riverside County, California (subject site – Figure 1) in accordance with the authorization of Lennar Multifamily Communities, LLC (LMC).

## 1.2 Purpose

The purpose of the Phase I ESA was to identify, to the extent feasible and pursuant to the processes prescribed in ASTM International (ASTM) E1527-13, recognized environmental conditions (RECs), historical RECs (HRECs), or controlled RECs (CRECs) in connection with the subject site.

RECs are defined, according to ASTM E1527-13 as "*the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not RECs.*"

HRECs are defined, according to ASTM E1527-13 as "*a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.*"

CRECs are defined, according to ASTM E1527-13 as "*a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.*" (ASTM E1527-13, 2013).

The purpose of our limited Phase II ESA was to assess the presence of residual pesticides and arsenic from previous agricultural use of the subject site.

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## 1.3 Scope of Work

The scope of work was performed in accordance with Leighton's proposals dated November 5 and December 9, 2021 and included the following tasks:

- A reconnaissance-level visit of the subject site for evidence of the release(s) of hazardous materials and petroleum products and to assess the potential for onsite releases of hazardous materials and petroleum products;
- Records review (including review of previous environmental reports, selected governmental databases, and historical review);
- Interviews;
- Collection of soil samples throughout the subject site to assess the presence of contamination in soil that may be attributed to historical agricultural use; and
- Preparation of this report presenting our findings.

## 1.4 Significant Assumptions

Leighton understands that the purpose of this Phase I and Limited Phase II ESA is to provide appropriate inquiry into the previous ownership and use of the subject site so that the Client may qualify for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) landowner liability protections as defined in CERCLA, 42 USC §9601(35)(B) and analogous state protections. Leighton also assumes that the information provided by the Client and its agents, regulatory database provider, and regulatory agencies is true and reliable.

## 1.5 Limitations and Exceptions

Leighton performed the Phase I and Limited Phase II ESA in conformance with the scope and limitations of ASTM E1527-13. There were no exceptions to, or deletions from, this practice.

Property specific activities performed by Leighton and information collected regarding these activities are summarized within this report. The findings of the Phase I and Limited Phase II ESA are presented in Section 8.0. Opinions, and

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conclusions drawn by Leighton, based on the information collected as part of the Phase I and Limited Phase II ESA, are presented in Sections 9.0 and 10.0, respectively. References are included as Appendix A. Subject site photographs are presented in Appendix B. Completed interview forms are included in Appendix C. The Environmental Lien and Activities and Use Limitations (AUL) Search report is included in Appendix D. The Environmental Radius Report and Vapor Encroachment Screen are included as Appendix E. The Biological Resources, Jurisdictional Waters/Wetlands, and Endangered Species Act Assessment are included in Appendix F. Historical documentation is provided in Appendix G. Laboratory reports are provided in Appendix H.

This Phase I and Limited Phase II ESA was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

The observations and conclusions presented in this report are professional opinions based on the scope of activities, work schedule, and information obtained through the Phase I and Limited Phase II ESA described herein. Opinions presented herein apply to property conditions existing at the time of our study and cannot necessarily be taken to apply to property conditions or changes that we are not aware of or have not had the opportunity to evaluate. It must be recognized that conclusions drawn from these data are limited to the amount, type, distribution, and integrity of the information collected at the time of the investigation, the methods utilized to collect and evaluate the data, and that a full and complete determination of environmental risks cannot be made. Although Leighton has taken steps to obtain true copies of available information, we make no representation or warranty with respect to the accuracy or completeness of this information.

This report does not address whether requirements in addition to all appropriate inquiry have been met in order to qualify for the landowner liability protections including the continuing obligation not to impede the integrity and effectiveness of activity and use limitations, or the duty to take reasonable steps to prevent releases, or the duty to comply with legally required release reporting obligations. Users should also be aware that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on the subject site that are not addressed in this report and that may pose risks of civil and/or criminal sanctions for non-compliance.

## 1.6 Special Terms and Conditions

The scope of work for this Phase I and Limited Phase II ESA did not include testing of electrical equipment for the presence of polychlorinated biphenyls (PCBs) or collection of other environmental samples such as air, groundwater, building materials, paint, or other media; assessment of natural hazards such as naturally occurring asbestos, radon gas or methane gas; assessment of the potential presence of radionuclides; or assessment of nonchemical hazards such as the potential for damage from earthquakes or floods. This Phase I and Phase II ESA also did not include an assessment of the environmental compliance status of the subject site or of businesses operating at the subject site.

## 1.7 User Reliance

This report is for the exclusive use of LMC. Use of this report by any other party shall be at such party's sole risk.

## 1.8 Important Information about Geoenvironmental Reports

LMC is referred to Appendix I regarding important information provided by Geoprofessional Business Association (GBA) on geoenvironmental studies and reports.

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# 2.0 SITE DESCRIPTION

## 2.1 Location and Legal Description

The subject site is located at the southeast corner of Jefferson Avenue and Murrieta Hot Springs in the city of Murrieta, Riverside County, California (Figure 1). The Riverside County Assessor's office designated the subject site as Assessor Parcel Number (APN) 910-410-011. The legal description for the subject site is included in the Environmental Lien and AUL Search Report attached as Appendix D.

## 2.2 Subject Site Vicinity General Characteristics

The subject site vicinity is generally developed for commercial and residential use.

## 2.3 Current Use of the Subject Site

The subject site is an approximately 19.22-acre rectangular lot that is currently vacant (Appendix B, Photos 1 through 11). A tributary to Murrieta Creek transects the eastern portion of the subject site.

## 2.4 Descriptions of Structures, Roads and Other Improvements on the Property

No structures or other improvements were observed on the subject site. The following utilities will provide future service to the subject site:

| | |
|---|---|
| Natural Gas: | Southern California Gas Company |
| Source of Potable Water: | Western Municipal Water District |
| Electric: | Southern California Edison |
| Sewage Disposal: | Western Municipal Water District |
| Solid Waste Disposal: | Waste Management |

## 2.5 Current Uses of Adjoining Properties

The subject site is bordered to the northeast by two hotels and commercial property, followed by Madison Avenue; to the southeast by vacant land; to the southwest by Jefferson Avenue, followed by a barbershop, self-storage facilities, and vacant land; and to the northwest by Murrieta Hot Springs Road, followed by vacant land.

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## 3.0 USER PROVIDED INFORMATION

The user of this Phase I and Limited Phase II ESA is identified as LMC. As a part of the ASTM E1527-13 process, Mr. Alec Chasman of LMC provided information regarding specialized knowledge, commonly known or reasonably information, and known reductions in value for the subject site. A copy of the completed User Questionnaire is provided in Appendix C.

### 3.1 Environmental Liens or Activity and Use Limitations

Environmental liens or AULs for the subject site were not identified in the Environmental Lien and AUL Search report provided by EDR, dated November 22, 2021. A copy of the Environmental Lien and AUL Search report is included in Appendix D.

### 3.2 Specialized Knowledge

Mr. Chasman does not have any specialized knowledge or experience with the subject site or nearby properties.

### 3.3 Commonly Known or Reasonably Ascertainable Information

Mr. Chasman was not aware of any commonly known or reasonably ascertainable information about the property such as past uses, specific chemicals that are present or once were present on the property, chemical spills or releases that have occurred on the property, or environmental cleanups that have taken place at the property.

### 3.4 Valuation Reduction for Environmental Issues

Mr. Chasman indicated that the purchase price being paid for the subject site is based on fair market value.

### 3.5 Owner, Property Manager, and Occupant Information

According to the Environmental Lien and AUL Search report, the subject site is currently owned by Antonious LLC.

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3.6 Reason for Performing Phase I ESA

According to Mr. Chasman the reason for requesting this Phase I ESA is for due diligence purposes related to the purchase of the subject site.

3.7 Other

A previous Phase I ESA was prepared by GRS Group for the subject site in 2011 and was provided by LMC. The previous Phase I ESA is summarized in Section 4.2.5 of this report.

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# 4.0 RECORDS REVIEW

## 4.1 Physical Setting Source(s)

Leighton reviewed pertinent maps and readily available literature for information on the physiography and hydrogeology of the subject site. A summary of this information is presented in the following subsections.

### 4.1.1 Topography

The subject site is located in Section 21 of Township 7 South, Range 3 West of the San Bernardino Baseline and Meridian. Topographic map coverage of the subject site vicinity is provided by the United States Geological Survey (USGS) Murrieta, California Quadrangle (2012). The elevation of the subject site is approximately 1,080 feet above mean sea level. The subject site is relatively flat.

### 4.1.2 Surface Water

A tributary of Murrieta Creek, located approximately 0.4 miles south of the subject site, transects the eastern portion of the subject site. The tributary is currently dry; however, evidence of recent flow during rain events was observed.

### 4.1.3 Geology and Soils

The subject site is located within a prominent natural geomorphic province in southwestern California known as the Peninsular Ranges. This province is characterized by elongated ranges and valleys that trend northwestward. More specifically, the site is situated within a down dropped graben known as the Elsinore Trough (Kennedy, 1977). This trough is situated between the Willard fault and Wildomar fault. The Santa Ana Mountains lie along the western side of the Elsinore Trough and Perris Block is located along the eastern side. The mountain ranges are underlain by pre-Cretaceous metasedimentary and metavolcanic rocks and Cretaceous plutonic rocks of the Southern California batholith. Tertiary sediments, volcanic and Quaternary deposits flank the mountain ranges. These rocks are generally comprised of non-marine sediments consisting of sandstones, mudstones, conglomerates, and localized volcanic units. Young and older alluvial deposits fill the lower valley areas.

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### 4.1.4 Hydrogeology

Groundwater was encountered at a depth of 4.5 to 6.5 feet below the surface in borings drill onsite by Leighton in 2011 and at depths of 7.5 to 10 feet below the surface in borings drilled by others in 2004 (Leighton, 2021). Groundwater in the subject site vicinity is anticipated to flow to the southeast, generally following topography and the flow of the onsite creek.

### 4.1.5 Wetlands and Floodplains

The subject site is not depicted within a flood zone or wetlands area according to the EDR Radius Map™ report (Appendix E).

The United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps (USFWS, 2019) were reviewed to identify potential wetlands on or immediately adjacent to the subject site that could be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) (as defined in 33 Code of Federal Regulation [CFR] § 328.3, 40 CFR § 122.2, and any other applicable guidance). According to the USFWS NWI map, mapped wetlands are located in the eastern portion of the subject site, within the tributary of the Murrieta Creek.

In December 2021, Chambers Group (Chambers), under contract with Leighton, completed a desktop Biological Resources, Jurisdictional Waters/Wetlands, and Endangered Species Act Assessment for the subject site. Chambers reported that wetlands or waters of the United States under the jurisdiction of the United States Army Corps of Engineers (a blue line stream) occur in the eastern portion of the subject site (Chambers, 2021). A copy of the report has been provided in Appendix F.

### 4.1.6 Endangered Species and Habitats

According to Chambers' Biological Resources, Jurisdictional Waters/Wetlands, and Endangered Species Act Assessment (2021) for the subject site, sensitive species were identified as having known occurrences in the vicinity of the subject site. Critical habitats were not identified within or in the immediate vicinity of the subject site (Chambers, 2021). A copy of the report has been provided in Appendix F.

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#### 4.1.7 Oil and Gas Fields

Leighton reviewed the California Geologic Energy Management Division (CalGEM) Well Finder online mapping system on December 3, 2021. Evidence of oil wells or oil field-related facilities was not indicated on the subject site or within 0.25-miles of the subject site.

## 4.2 Standard Environmental Record Sources

A search of selected government databases was conducted by Leighton using the EDR Radius Map™ Report with GeoCheck® environmental database report system. Details and descriptions of the database search are provided in the EDR database report. The database report meets the government records search requirements of ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The database listings were reviewed within the specified radii established by the ASTM E1527-13. A copy of this report is included in Appendix E.

### 4.2.1 Subject Site

The subject site was not identified in the EDR database report.

### 4.2.2 Offsite

Information in the EDR database report was reviewed for facilities of potential environmental concern to the subject site. Additionally, the State Water Resources Control Board (SWRCB) Geotracker website and Department of Toxic Substances Control (DTSC) Envirostor website were used to supplement the information in the EDR database report.

The database search results for offsite properties, including those found within the “orphaned” unmapped listings, with potential to adversely impact the subject site are listed in the table below:

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**Table 1 - Databases Searched**

| Database | Search Distance (radius) | Properties of Potential Concern |
|---|---|---|
| Federal NPL List | 1.0-mile | No |
| Delisted NPL List | 1.0-mile | No |
| Federal CERCLIS List | 0.5-mile | No |
| CERCLIS – No Further Action | 0.5-mile | No |
| CORRACTS | 1.0-mile | No |
| Federal RCRA TSDF List | 0.5-mile | No |
| RCRA Generators List | 0.25-mile | **Yes (3)** |
| US ENG Controls List | 0.5-miles | No |
| US INST Controls List | 0.5-mile | No |
| US Brownfields | 0.5-mile | No |
| Historic CAL-Sites | 1.0-mile | No |
| SWRCY | 0.5-mile | No |
| Response | 1.0-mile | No |
| Envirostor | 1.0-mile | **Yes (4)** |
| SCH | 0.25-mile | No |
| SWF/LF Facilities | 0.5-mile | **Yes (1)** |
| LUST Facilities | 0.5-mile | **Yes (1)** |
| CAL FID UST | 0.25-mile | **Yes (1)** |
| SLIC | 0.5-mile | No |
| UST | 0.25-mile | **Yes (4)** |
| Historical UST | 0.25-mile | **Yes (1)** |
| AST | 0.25-mile | **Yes (3)** |
| SWEEPS UST | 0.25-mile | **Yes (1)** |
| DEED | 0.5-mile | No |
| VCP | 0.5-mile | No |
| Drycleaners | 0.25-mile | No |
| Indian RESERV | 1.0-mile | No |
| Indian LUST | 0.5-mile | No |
| Indian UST | 0.25-mile | No |
| EDR Manufactured Gas Plants | 1.0-mile | No |
| EDR Historical Auto Stations | 0.25-mile | **Yes (1)** |
| EDR Historical Cleaners | 0.25-mile | No |

See EDR Radius Report (Appendix E) for list of acronyms and data source

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A Shell Service Station is located approximately 900 feet north of the subject site at the address 25336 Madison Avenue. The service station is listed in the Leaking Underground Storage Tank (LUST) database. During the most recent groundwater monitoring event at the service station, analytes were not detected above reporting limits. The California Regional Water Quality Control Board (CRWQCB) granted "No Further Action" for the Shell Service Station in March 2010.

The remaining listings identified in the EDR database report and not described above were reviewed and not interpreted to represent an adverse effect to the subject site at the time of this report preparation based on one or more of the following:

- Media impacted (soil only);
- Closure received from regulatory agency;
- Distance of the facility to the subject site; and
- Direction of groundwater flow (south) and location of the facility to the subject site (cross-gradient or down-gradient).

4.2.3 Vapor Encroachment

Leighton reviewed the Vapor Encroachment Screen (VES) produced using EDR's Vapor Encroachment Worksheet application that gathers regulatory database information from the accompanying Radius Report and allows the user to integrate groundwater information, regional geology, and other information to evaluate the risk of potential vapor encroachment from onsite activities and from adjacent properties. The VES application was designed by EDR to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E2600-10), also referred to as the Tier 1 VES, as defined by ASTM E2600-10.

Based on analysis using the VES application and the information included in the database report, vapor encroachment is not considered a REC for the subject site. A copy of the VES report has been included as Appendix E.

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4.2.4 Regulatory Agency Contacts

On December 6, 2021, Leighton reviewed online databases associated with the following agency's for records pertaining to the subject site:

- DTSC – Envirostor database;
- South Coast Air Quality Management District (SCAQMD) – FINDS database; and
- SWRCB – Geotracker database.

Records were not identified for the subject site or adjacent properties.

*National Pipeline Mapping System (NPMS)*

Leighton reviewed records posted on the National Pipeline Mapping System's NPMS Public Map Viewer on December 3, 2021. Searches were conducted by reviewing a map of the subject site and surrounding areas. No oil or gas pipelines were mapped on the subject site and surrounding properties.

4.2.5 Other Reports

The Phase I ESA prepared for the subject site was reviewed by Leighton in preparation of this Phase I ESA and is summarized below.

Global Realty Services Group (GRS Group), Phase I Environmental Site Assessment Report, Murrieta 18, Multiple Sites SEC of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, California, dated March 27, 2011

GRS Group conducted a Phase I ESA for the subject site in March 2011. During their investigation, GRS Group identified the subject site as historically being vacant, undeveloped agricultural land. Based on their investigation, GRC Group determined that there is no evidence of environmental concerns (GRC Group, 2011).

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## 4.3 Historical Use Information on the Property

Leighton reviewed selected historical information on the subject site. These references were reviewed for evidence of activities, which would suggest the presence of hazardous substances at the subject site and to evaluate the potential for the subject site to be impacted by offsite sources of contamination. The following paragraphs are a chronological summary of the review.

### 4.3.1 Aerial Photographs

Historical aerial photographs were reviewed for information regarding past subject site uses. Aerial photographs dated 1938, 1949, 1953, 1961, 1967, 1978, 1985, 1989, 1996, 2002, 2005, 2009, 2012, and 2016 provided by EDR, were reviewed. Copies of the aerial photographs are included in Appendix G.

In the **1938** and **1949** aerial photographs, the subject site is observed to be mostly vacant land. A creek transects the eastern portion of the subject site. The northern portion of the subject site is observed to be agricultural land. Vacant and agricultural land with scattered residences is observed in each direction of the subject site. Murrieta Hot Springs Road is observed to the northwest of the subject site. Jefferson Avenue is observed to the southwest of the subject site.

In the **1953** aerial photograph, the subject site is observed to be dry farming/agricultural land. A creek transects the eastern portion of the subject site. Significant land use changes are not observed on the surrounding properties.

In the **1961, 1967, 1978, 1985, 1989,** and **1996** aerial photographs, significant land use changes are not observed on the subject site and surrounding properties.

In the **2002** aerial photograph, significant land use changes are not observed on the subject site and surrounding properties, with the exception of the self-storage facility is observed to the southwest of the subject site.

In the **2005, 2009,** and **2012** aerial photographs, significant land use changes are not observed on the subject site and surrounding properties.

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In the **2016** aerial photograph, the subject site and surrounding properties are observed in their present day configuration. Murrieta Hot Springs Road is observed to the northwest of the subject site. Jefferson Avenue is observed to the southwest of the subject site.

4.3.2 Historical Topographic Maps

Historical topographic maps provided in the EDR Historical Topographic Map Report were reviewed for information regarding past subject site uses, and include the following quadrangles: Elsinore (1901) and Murrieta (1942, 1943, 1947, 1953, 1973, 1979, and 2012). Copies of these maps are provided in Appendix G.

**1901:** The subject site and surrounding properties are depicted as vacant land. Present day Murrieta Hot Springs Road is depicted to the northwest of the subject site. Present day Jefferson Avenue is depicted to the southwest of the subject site. An unnamed road is depicted to the northeast of the subject site.

**1942:** The subject site is depicted as vacant land. A creek transects the eastern portion of the subject site. The surrounding properties in each direction are depicted as vacant land with scattered residences. Webster Avenue (present day Murrieta Hot Springs Road) is depicted to the northwest of the subject site. Jefferson Avenue is depicted to the southwest of the subject site.

**1943, 1947, 1953, 1973, 1979:** Significant land use changes are not depicted on the subject site and surrounding properties.

**2012:** Only landmark buildings are depicted on the topographic map. No structures are depicted on the subject site. Murrieta Hot Springs Road is depicted to the northwest of the subject site. Jefferson Avenue is depicted to the southwest of the subject site.

4.3.3 Fire Insurance Maps

Fire insurance maps, or Sanborn® maps, are detailed city plans showing building footprints, construction details, use of structure, street address, etc. The maps were designed to assist fire insurance agents in determining the degree of hazard associated with a particular property. Sanborn Maps were produced from approximately 1867 to the present for



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commercial, industrial, and residential sections of approximately 12,000 cities and towns in the United States.

Sanborn® maps for the subject site vicinity are not available. A copy of this report has been provided in Appendix G.

4.3.4 Historical City Directories

City Directories have been published for cities and towns across the US since the 1700s. Originally a list of residents, the City Directory developed into a tool for locating individuals and businesses in particular. For each street address listed, the directory recorded the name of the resident or business that operated from this addresses. While City Directory coverage is usually comprehensive for major cities, it may be sporadic for rural areas and small towns. The purpose of the City Directory research was to attempt to determine the businesses that were historically located at the subject site and adjacent addresses.

Leighton reviewed the EDR City Directory Abstract dated November 22, 2021 (Appendix G). Records were reviewed from 1973 to 2014 at approximate 5-year intervals. The subject site was not listed in the city directory. The surrounding properties were made up of mostly commercial and residential properties. No properties of environmental concern where identified.

4.3.5 Building Department Records

Based on historic aerial photographs, the subject site has been vacant land since at least 1901. No building permits were found in the EDR Building Permit Report (Appendix G).

4.3.6 Other Historical Sources

Other historical sources were not reviewed as a part of this Phase I ESA.

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### 4.3.7 Summary of Historical Land Use

Based on historical records, land usage is summarized as follows:

| Time Period | Land Usage | Reference |
|---|---|---|
| Prior to 1901 | Unknown | None Available |
| Approximately 1901 to 1949 | Vacant land | Aerial Photographs<br>Topographic Maps<br>Previous Report |
| Approximately 1949 to 2005 | Dry farming/agricultural land | Aerial Photographs<br>Topographic Maps<br>Previous Report |
| Approximately 2005 to present | Vacant land | Aerial Photographs<br>Site Reconnaissance<br>Previous Report |

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# 5.0 SITE RECONNAISSANCE

## 5.1 Methodology and Limiting Conditions

On November 30, 2021, a representative of Leighton conducted a reconnaissance–level assessment of the subject site, which consisted of observing and documenting existing conditions of the subject site and nature of the neighboring development. Photographs of the subject site are presented in Appendix B and their view directions are noted on Figure 2. Items noted during the subject site reconnaissance are also depicted on Figure 2.

## 5.2 General Property Setting

The subject site is an approximately 19.22-acre rectangular lot that is currently vacant (Appendix B, Photos 1 through 11). No structures or other improvements were observed on the subject site. A tributary to Murrieta Creek transects the eastern portion of the subject site.

## 5.3 Exterior and Interior Observations

### 5.3.1 Hazardous Substances, Drums, and Other Chemical Containers

No hazardous substances, drums, or other chemical containers were observed onsite.

### 5.3.2 Storage Tanks

Evidence of underground storage tanks (USTs), such as vent lines, fill or overfill ports, and aboveground storage tanks (ASTs) was not observed on the subject site.

### 5.3.3 Polychlorinated Biphenyls (PCBs)

A pad-mounted transformer is located along the southwest boundary of the subject site. No leaks or stains were observed beneath the transformer; therefore, the transformer is not considered a REC associated with the subject site.

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5.3.4 Waste Disposal

Waste is not generated onsite.

5.3.5 Dumping

Evidence of active dumping was not observed on the subject site.

5.3.6 Pits, Ponds, Lagoons, Septic Systems, Wastewater, Drains, Cisterns, and Sumps

Evidence of pits, ponds, lagoons, septic systems, wastewater, drains, and cisterns was not observed on the subject site.

A dry creek transects the eastern portion of the subject site.

5.3.7 Pesticide Use

Evidence of pesticide use was not observed on the subject site.

5.3.8 Staining, Discolored Soils, Corrosion

Stained, discolored soil or evidence of corrosion was not observed on the subject site.

5.3.9 Stressed Vegetation

Evidence of stressed vegetation was not observed on the subject site.

5.3.10 Unusual Odors

Unusual odors were not detected on the subject site.

5.3.11 Onsite Wells

Oil, gas production, or water wells were not observed on the subject site.

5.3.12 Other Observations

No other observations of environmental concern were noted on the subject site.

DRAFT

## 6.0 INTERVIEWS

Leighton conducted interviews with persons having knowledge of current or past subject site usage. Interviews were conducted either orally or in the form of a written questionnaire.

### 6.1 Interview with Owner

An Owner Interview form was forwarded to the current subject site owner. As of the date of this report, a completed Owner Interview form has not been received by Leighton.

### 6.2 Interview with Property Manager

The subject site is vacant; therefore, interviews with the current property manager, other than the property owner, were not conducted as part of this Phase I and Limited Phase II ESA.

### 6.3 Interviews with Occupants

The subject site is vacant; therefore, interviews with occupants were not conducted as part of this Phase I and Limited Phase II ESA.

### 6.4 Interviews with Local Government Officials

Leighton did not interview employees with local government agencies to request information regarding historic and current uses of the subject site.

### 6.5 Interviews with Others

Leighton did not conduct additional interviews for this Phase I and Limited Phase II ESA.

DRAFT

# 7.0 LIMITED PHASE II ESA

On December 13, 2021, Leighton completed a Limited Phase II ESA of the subject site to assess the presence of contaminants in soil associated with historical use as agricultural land.

The scope of work for the Limited Phase II ESA is described below.

## 7.1 Pre-field Activities

*Health and Safety Plan*

Leighton prepared a site-specific Health and Safety Plan (HSP) for the fieldwork to be performed. The HSP documented the safety aspects of the work and complied with Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1910.120. The HSP was onsite with Leighton personnel at all times. The HSP outlined all site procedures, potential hazards, and contained a hospital location map. All onsite Leighton personnel acknowledged acceptance of the plan by signing the HSP.

*Utility Clearance*

Leighton notified Underground Service Alert (USA) a minimum of 48 hours prior to starting subsurface intrusive work.

## 7.2 Field Activities

### 7.2.1 Soil Sampling

On December 13, 2021, Leighton directed the advancement of eight soil borings throughout the subject site (Figure 3). The borings were advanced to depths of 2.5 feet bgs using hand auger equipment operated by Millennium Environmental, Inc. of Anaheim, California. Soil samples were collected at depths of 0.5 and 2.0 feet bgs from each boring. Soil samples were retained in clean acetate sleeves or laboratory-supplied glass jars. The samples were clearly marked with sample identification, placed in an ice-cooled chest for temporary storage, and transported to Jones Environmental, Inc. for chemical analysis. Chain-of-custody protocol was followed throughout all phases of the sample handling process.

DRAFT

### 7.2.2 Laboratory Analysis

The soil samples collected at 0.5 and 2.0 feet bgs from each boring were analyzed for organochlorine pesticides (OCPs) by EPA Method 8081A and arsenic by EPA Method 6010B.

## 7.3 Results

The soil analytical results were compared to one or more of the following regulatory screening criteria:

- The EPA Residential Regional Screening Levels (RSLs, November 2021);
- DTSC Office of Human and Ecological Risk (HERO) Note Number 3 (June 2020);
- The DTSC Southern California Background concentration of 12 milligrams per kilogram (mg/kg) for arsenic; and

The complete laboratory report is included in Appendix G.

OCPs and arsenic were not detected above the laboratory reporting limits in any of the soil samples analyzed during this investigation.

DRAFT

# 8.0 FINDINGS

Leighton performed a Phase I and Limited Phase II ESA of the property located at the northeast corner of Murrieta Hot Springs Road and Jefferson Avenue in Murrieta, Riverside County, California (subject site – Figure 1) in accordance with LMC's authorization.

## 8.1 Onsite

Historically, the subject site was vacant land until approximately 1949, when use as dry farming/agricultural began. The agricultural use ended in approximately 2005. Since then, the subject site has been vacant and undeveloped. Based on the results of the concurrent Limited Phase II ESA, the historic agricultural use of the subject site has not negatively affected the subject site.

Currently, the subject site is an approximately 19.22-acre rectangular lot that is vacant (Appendix B, Photos 1 through 11). A dry creek transects the eastern portion of the subject site.

Chambers Group (Chambers), under contract with Leighton, completed a desktop Biological Resources, Jurisdictional Waters/Wetlands, and Endangered Species Act Assessment for the subject site. Chambers reported that wetlands or waters of the United States under the jurisdiction of the United States Army Corps of Engineers (a blue line stream) occur in the eastern portion of the subject site (Chambers, 2021). According to Chambers' Biological Resources, Jurisdictional Waters/Wetlands, and Endangered Species Act Assessment (2021) for the subject site, sensitive species were identified as having known occurrences in the vicinity of the subject site. Critical habitats were not identified within or in the immediate vicinity of the subject site (Chambers, 2021).

A search of selected government databases was conducted by Leighton using the EDR Radius Report environmental database report system. Details of the database search along with descriptions of each database researched are provided in the EDR report included in Appendix D. The report meets the government records search requirements of ASTM E1527-13 Standard Practice for Environmental site Assessments: Phase I Environmental Site Assessment Process. The database listings were reviewed within the specified radii established by the ASTM E1527-13. The subject site was not listed in the EDR database report.

DRAFT

## 8.2 Offsite

Historically, the adjacent properties were primarily vacant land with scattered residential properties. Commerical properties were developed to the northeast and southwest of the subejct site in approximately 2002. Offsite properties of environmental concern were not identified.

Currently, the subject site is bordered to the northeast by two hotels and commercial property, followed by Madison Avenue; to the southeast by vacant land; to the southwest by Jefferson Avenue, followed by a barbershop, self-storage facilities, and vacant land; and to the northwest by Murrieta Hot Springs Road, followed by vacant land.

## 8.3 Data Gaps

The following data gap was identified by Leighton:

- An Owner/Site Contact Questionnaire was not completed by the current subject site owner.

It is Leighton's opinion, based on other reasonably obtained data, that this data gap is not significant to identifying RECs in connection with the subject site.

DRAFT

## 9.0 OPINION

9.1 Onsite

It is Leighton's opinion that no RECs, CRECs, or HRECs were identified for the subject site.

9.2 Offsite

No offsite RECs, HRECs, or CRECs were identified that would adversely impact the subject site.

DRAFT

## 10.0 CONCLUSIONS AND RECOMMENDATIONS

Leighton has performed a Phase I and Limited Phase II ESA in conformance with the scope and limitations of ASTM E1527-13 of the property located at the southeast corner of Murrieta Hot Springs Road and Jefferson Avenue in Murrieta, Riverside County, California. Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

No RECS, HRECs, or CRECs were identified in connection with the subject site.

In general, observations should be made during future redevelopment activities for areas of possible contamination such as, but not limited to, the presence of underground facilities, railroads, buried debris, waste drums, and tanks, stained soil or odorous soils. Should such materials be encountered, further investigation and analysis may be necessary at that time.

DRAFT

## 11.0 DEVIATIONS

Leighton did not deviate from or alter the scope of work, as defined in Section 1.3 of this report. Significant data gaps were not identified that affect the ability of Leighton to identify RECs at the subject site.

DRAFT

## 12.0 ADDITIONAL SERVICES

Leighton did not perform work outside the scope of work as defined in Section 1.3 of this report.

DRAFT

## 13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

### 13.1 Corporate

Leighton is a California corporation, providing geotechnical and environmental consulting services throughout California. We are solely a consulting firm without interests in real property other than our office locations in Southern California. We provide professional environmental consulting services including application of science and engineering to environmental compliance, hazardous materials/waste assessment and cleanup, and management of hazardous, solid and industrial waste. Phase I and Limited Phase II ESAs are a part of this practice area and have been conducted by us.

### 13.2 Individual

The qualifications of the Principal Geologist and the other Leighton environmental professionals involved in this Phase I and Limited Phase II ESA meet the Leighton corporate requirements for performing Phase I ESAs as specified by ASTM E1527-13. In addition, Ms. Brynn McCulloch is a Professional Geologist (PG).

### 13.3 Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional, as defined by §312.10 of 40 CFR Part 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

_____

Brynn McCulloch, PG
Principal Geologist

DRAFT




| Project: 13343.001 | Eng/Geol: SIS/MSB |
| --- | --- |
| Scale: 1 " = 2,000 ' | Date: December 2021 |
| Base Map: ESRI ArcGIS Online 2021 | |
| Author: (mmurphy) | |

# SITE LOCATION MAP

Northeast of Murrieta Hot Springs Road
and Jefferson Avenue
Murrieta, California

**FIGURE 1**

Leighton

Map Saved as P:\Drafting\13343\002\Maps\13343-002_F01_SLM_2021-11-18.mxd on 11/18/2021 11:09:40 AM




LEGEND

Approximate Subject Site Boundary

#11 Photo ID and Direction

N

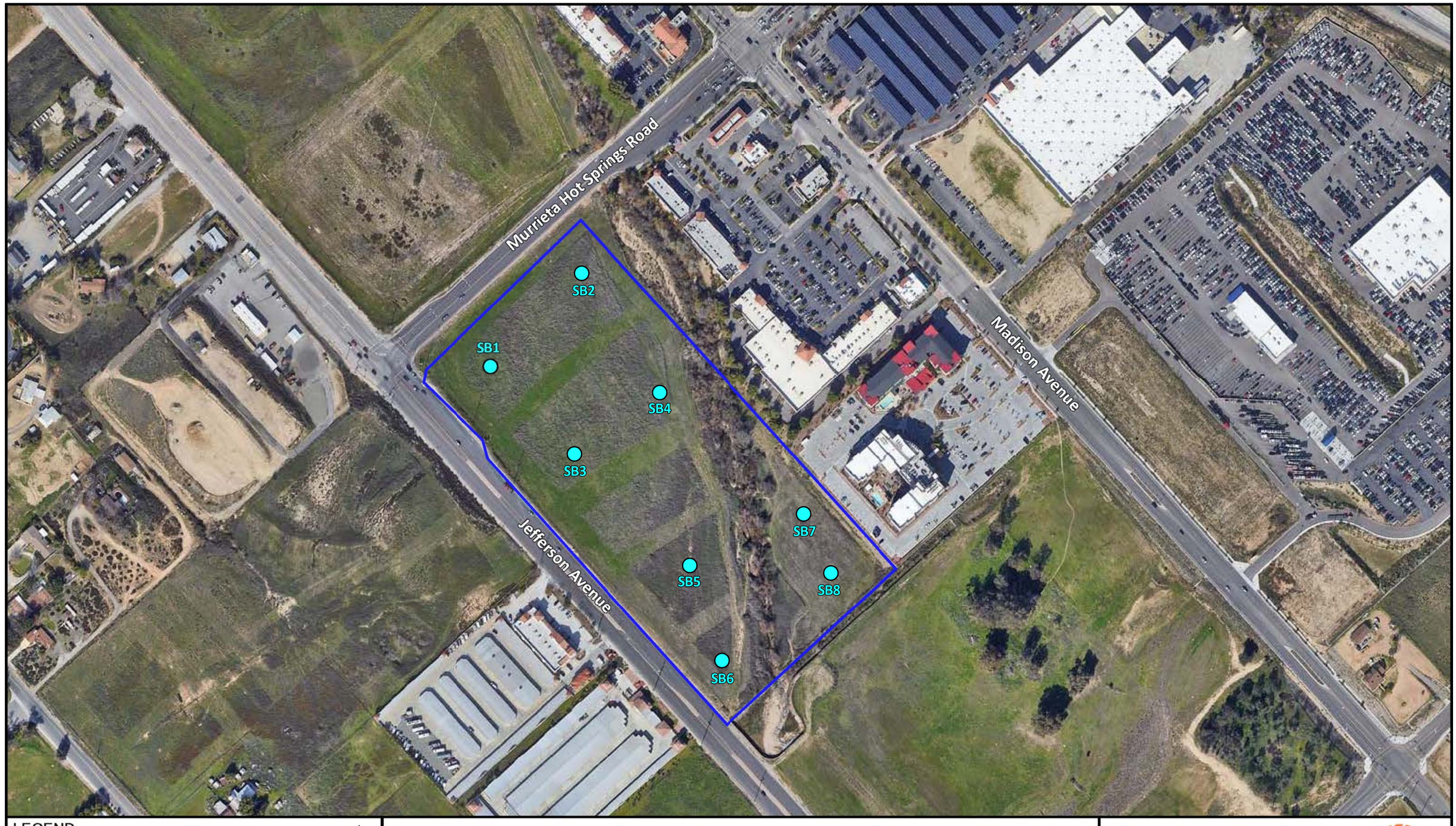
**SITE PLAN**

Murrieta Hot Springs
Southeast of Jefferson Avenue and Murrieta Hot Springs Road
Murrieta, Riverside County, California

| | |
|---|---|
| Project No. | 13343.001 |
| Scale | Not to Scale |
| Engr./Geol. | BFM |
| Drafted By | BFM |
| Date | December 2021 |

Leighton

Figure 2




LEGEND

Approximate Subject Site Boundary

SB8 Approximate Boring Location

N

**BORING LOCATION MAP**

Murrieta Hot Springs
Southeast of Jefferson Avenue and Murrieta Hot Springs Road
Murrieta, Riverside County, California

| | |
|---|---|
| Project No. | 13343.001 |
| Scale | Not to Scale |
| Engr./Geol. | BFM |
| Drafted By | BFM |
| Date | December 2021 |

Leighton

Figure 3

# APPENDIX A

# APPENDIX A

## References

ASTM International, 2013, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, dated November 6, 2013

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Online Mapping System, Accessed December 3, 2021

Chambers Group, 2021, Results of the Biological Resources, Jurisdictional Waters/Wetlands and Endangered Species Act Assessment, dated December 6, 2021

Department of Toxic Substances Control, Envirostor Online Database, Accessed December 3, 2021

EDR Aerial Photo Decade Package, November 18, 2021

EDR Building Permit Report, November 18, 2021

EDR Certified Sanborn Map Report, November 18, 2021

EDR City Directory Abstract, November 22, 2021

EDR Environmental Lien and AUL Search Report, November 22, 2021

EDR Historical Topographic Map Report, November 18, 2021

EDR Radius Map Report with GeoCheck®, November 18, 2021

Global Realty Services Group (GRS Group), Phase I Environmental Site Assessment Report, Murrieta 18, Multiple Sites SEC of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, California, dated March 27, 2011

Leighton and Associates, Inc., 2021, Due-Diligence Geotechnical Review, Multi-Family Residential Development, Southeast Corners Jefferson Avenue and Murrieta Hot Springs Road, APN: 910-410-011, Murrieta, California

State Water Resources Control Board, Geotracker Online Database, Accessed December 3

DRAFT

# APPENDIX B

| Leighton | PHOTOGRAPHIC RECORD<br>November 30, 2021 | |
|---|---|---|
| **Client Name: Lennar Multifamily Communities, LLC** | **Site Location: NE of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, CA** | **Project No. 13343.001** |

| **Photo No. 1** | |
|---|---|
| **View Direction of Photo:** Southeast |  |
| **Description:** View of the subject site. | |

| **Photo No. 2** | |
|---|---|
| **View Direction of Photo:** Southeast |  |
| **Description:** View of the subject site. | |

| Leighton | PHOTOGRAPHIC RECORD<br>November 30, 2021 | |
|---|---|---|
| **Client Name: Lennar Multifamily Communities, LLC** | **Site Location: NE of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, CA** | **Project No. 13343.001** |

| | |
|---|---|
| **Photo No. 3**<br>**View Direction of Photo:**<br>South<br><br>**Description:**<br>View of the dry creek bed. |  |

| | |
|---|---|
| **Photo No. 4**<br>**View Direction of Photo:**<br>South<br><br>**Description:**<br>View of the vegetation in the dry creek bed. |  |

| Leighton | PHOTOGRAPHIC RECORD<br>November 30, 2021 | |
|---|---|---|
| **Client Name: Lennar Multifamily Communities, LLC** | **Site Location: NE of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, CA** | **Project No. 13343.001** |

| | |
|---|---|
| **Photo No. 5**<br>**View Direction of Photo:**<br>North<br><br>**Description:**<br>View of the dry creek bed. |  |

| | |
|---|---|
| **Photo No. 6**<br>**View Direction of Photo:**<br>North<br><br>**Description:**<br>View of the subject site. |  |

| Leighton | PHOTOGRAPHIC RECORD<br>November 30, 2021 | |
|---|---|---|
| **Client Name: Lennar Multifamily Communities, LLC** | **Site Location: NE of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, CA** | **Project No. 13343.001** |

| | |
|---|---|
| **Photo No. 7**<br>**View Direction of Photo:**<br>Northwest<br><br>**Description:**<br>View of the subject site. |  |

| | |
|---|---|
| **Photo No. 8**<br>**View Direction of Photo:**<br>Southeast<br><br>**Description:**<br>View of the transformer on the subject site. |  |

| Leighton | PHOTOGRAPHIC RECORD<br>November 30, 2021 | |
|---|---|---|
| **Client Name: Lennar Multifamily Communities, LLC** | **Site Location: NE of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, CA** | **Project No. 13343.001** |

| | |
|---|---|
| **Photo No. 9**<br>**View Direction of Photo:**<br>Northeast<br><br>**Description:**<br>View of the subject site. |  |

| | |
|---|---|
| **Photo No. 10**<br>**View Direction of Photo:**<br>Northeast<br><br>**Description:**<br>View of the subject site. |  |

| Leighton | PHOTOGRAPHIC RECORD<br>November 30, 2021 | |
|---|---|---|
| **Client Name: Lennar Multifamily Communities, LLC** | **Site Location: NE of Murrieta Hot Springs Road and Jefferson Avenue, Murrieta, CA** | **Project No. 13343.001** |

| | |
|---|---|
| **Photo No. 11** | |
| **View Direction of Photo:** Northwest |  |
| **Description:** View of the offsite drain. | |

# APPENDIX C

# APPENDIX D

**LMC Murrieta**
Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

Inquiry Number: 6756783.7
November 22, 2021

# EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

# EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

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# EDR Environmental Lien and AUL Search

**TARGET PROPERTY INFORMATION**

**ADDRESS**

Murrieta Hot Springs Road/Jefferson Avenue
LMC Murrieta
Murrieta, CA 92562

**ENVIRONMENTAL LIEN**

Environmental Lien: Found ☐ Not Found ☒

**OTHER ACTIVITY AND USE LIMITATIONS (AULs)**

AULs: Found ☐ Not Found ☒

**RESEARCH SOURCE**

---

**Source 1:**

Riverside Recorder
Riverside, CA

**PROPERTY INFORMATION**

**Deed 1:**

| | |
|---|---|
| Type of Deed: | deed |
| Title is vested in: | Antonious LLC |
| Title received from: | Regent Murrieta 18 LLC |
| Deed Dated | 2/6/2015 |
| Deed Recorded: | 2/13/2015 |
| Book: | NA |
| Page: | na |
| Volume: | na |
| Instrument: | na |
| Docket: | NA |
| Land Record Comments: | |
| Miscellaneous Comments: | |
| **Legal Description:** | See Exhibit |
| **Legal Current Owner:** | Antonious LLC |
| **Parcel # / Property Identifier:** | 910-410-011 |
| **Comments:** | See Exhibit |

# Deed Exhibit 1

Recording Requested By:
First American Title Company
National Homebuilder Services
Subdivision Department

**DOC # 2015-0061576**
02/13/2015 04:38 PM Fees: $31.00
Page 1 of 3 Doc T Tax Paid
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor, County Clerk & Recorder

**This document was electronically submitted to the County of Riverside for recording**
Receipted by: AGONZALEZ

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO
AND MAIL TAX STATEMENTS TO:

Antonious LLC
4030 Birch Street, Suite 100
Newport Beach, California 92660
Attention: Emad Bolous
4791800

APN: 910-410-011-9
TRA: 024-233

(Space Above For Recorder's Use)

# GRANT DEED

THE UNDERSIGNED GRANTOR DECLARES:
Documentary transfer tax is $ 3,372.60
(X) computed on full value of property conveyed, or
( ) computed on full value, less value of liens and encumbrances remaining at time of sale.

City of Murrieta
County of Riverside

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, REGENT MURRIETA 18, LLC, a Delaware limited liability company ("**Grantor**"), hereby GRANTS to ANTONIOUS LLC, a California limited liability company, that certain real property located in the City of Murrieta, County of Riverside, State of California, which is more particularly described on Exhibit "A" attached hereto.

Subject to:

1. Non-delinquent taxes and assessments;

2. All other covenants, conditions, restrictions, reservations, rights, rights-of-way, easements, encumbrances, and title matters of record or visible from an inspection of the property or which an accurate survey of the property would disclose.

[Signature on Next Page]

Mail Tax Statements to
SAME AS ABOVE

IN WITNESS WHEREOF, Grantor has executed this Grant Deed on the day and year hereafter written

Dated: February 6, 2015

**"Grantor":**

**REGENT MURRIETA 18, LLC,**
a Delaware limited liability company

By: _____
Name: ERIC FLEISS
Title: President

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )
County of Los Angeles )

On 2.6.15, before me, Nicole Stanton, (insert name of notary),

Notary Public, personally appeared ERIC FLEISS,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

NICOLE STANTON
Commission # 1974518
Notary Public - California
Los Angeles County
My Comm. Expires Apr 8, 2016

# EXHIBIT "A"

## LEGAL DESCRIPTION OF PROPERTY

Real property located in the City of Murrieta, County of Riverside, State of California, described as follows:

PARCEL 4 OF PARCEL MAP 15420 AS SHOWN BY MAP ON FILE IN BOOK 95 PAGE(S) 81 AND 82 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

APN: 910-410-011-9

# APPENDIX E

**LMC Murrieta**
Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

Inquiry Number: 6756783.2s
November 18, 2021

# The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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| | |
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with any questions or comments.


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# EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

## TARGET PROPERTY INFORMATION

### ADDRESS

MURRIETA HOT SPRINGS ROAD/JEFFERSON AVENUE
MURRIETA, CA 92562

### COORDINATES

| | |
|---|---|
| Latitude (North): | 33.5498250 - 33° 32' 59.37'' |
| Longitude (West): | 117.1965250 - 117° 11' 47.49'' |
| Universal Tranverse Mercator: | Zone 11 |
| UTM X (Meters): | 481755.8 |
| UTM Y (Meters): | 3712067.5 |
| Elevation: | 1079 ft. above sea level |

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

| | |
|---|---|
| Target Property Map: | 12014848 MURRIETA, CA |
| Version Date: | 2018 |

### AERIAL PHOTOGRAPHY IN THIS REPORT

| | |
|---|---|
| Portions of Photo from: | 20140603, 20140530 |
| Source: | USDA |

# MAPPED SITES SUMMARY

Target Property Address:
MURRIETA HOT SPRINGS ROAD/JEFFERSON AVENUE
MURRIETA, CA 92562

Click on Map ID to see full detail.

| MAP ID | SITE NAME | ADDRESS | DATABASE ACRONYMS | RELATIVE ELEVATION | DIST (ft. & mi.) DIRECTION |
|---|---|---|---|---|---|
| 1 | MURRIETA CREEK LEVEE | BROWN STREET AT WASH | CIWQS, CERS | Lower | 1 ft. |
| 2 | LINE D AND LINE D-1 | NORTH OF INTERSECTIO | CIWQS, CERS | Lower | 1 ft. |
| A3 | MURRIETA APTS 492 40 | | AST, WDS | Higher | 69, 0.013, WNW |
| A4 | RIVERSIDE COUNTY TRA | 25315 JEFFERSON | RCRA NonGen / NLR | Higher | 105, 0.020, West |
| A5 | MURRIETA ROAD YARD | 25315 JEFFERSON AVE | HIST UST | Higher | 105, 0.020, West |
| A6 | SOUTHWEST ABOP COLLE | 25315 JEFFERSON AVE | CERS HAZ WASTE, HAZNET, CERS | Higher | 105, 0.020, West |
| A7 | MURRIETA ABOP FACILI | 25315 JEFFERSON AVE | RCRA NonGen / NLR | Higher | 105, 0.020, West |
| A8 | COUNTY ROAD DEPT - M | 25315 JEFFERSON AVE | SWEEPS UST, CA FID UST | Higher | 105, 0.020, West |
| A9 | MURRIETA MAINTENANCE | 25315 JEFFERSON AVE. | SWF/LF, CERS | Higher | 105, 0.020, West |
| B10 | 7-ELEVEN INC #33062 | 41260 MURRIETA HOT S | UST | Higher | 483, 0.091, NNE |
| B11 | 7 ELEVEN OF MURRIETA | 41260 MURRIETA HOT S | EDR Hist Auto | Higher | 483, 0.091, NNE |
| B12 | 7 ELEVEN #33062 | 41260 MURRIETA HOT S | UST | Higher | 483, 0.091, NNE |
| B13 | 7 ELEVEN #33062 | 41260 MURRIETA HOT S | RCRA NonGen / NLR | Higher | 483, 0.091, NNE |
| 14 | SALONCENTRIC | 25285 MADISON AVE ST | RCRA NonGen / NLR | Higher | 545, 0.103, North |
| 15 | MURRIETA DENTAL CORP | 25395 MADISON | RCRA NonGen / NLR | Higher | 661, 0.125, NNE |
| C16 | JACKSONS FOOD STORES | 25336 MADISON AVE | RCRA NonGen / NLR | Higher | 770, 0.146, North |
| C17 | TESORO SHELL 68569 | 25336 MADISON AVE | RCRA NonGen / NLR | Higher | 770, 0.146, North |
| C18 | TEXACO STAR MART | 25336 MADISON AVE | UST | Higher | 770, 0.146, North |
| C19 | SHELL SERVICE STATIO | 25336 MADISON | RCRA NonGen / NLR, HAZNET, HWTS | Higher | 770, 0.146, North |
| C20 | TESORO SOUTH COAST C | 25336 MADISON AVE | RCRA NonGen / NLR | Higher | 770, 0.146, North |
| C21 | SHELL SERVICE STATIO | 25336 MADISON | LUST, FINDS, ECHO, Cortese, CERS | Higher | 770, 0.146, North |
| C22 | POPEYES CHICKEN #420 | 25336 MADISON AVE | CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS | Higher | 770, 0.146, North |
| D23 | CARMAX #6002 | 25560 MADISON AVE | CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS | Higher | 791, 0.150, East |
| D24 | CAR MAX #6002 | 25560 MADISON AVE | RCRA-LQG, FINDS, ECHO | Higher | 791, 0.150, East |
| D25 | DENT WIZARD INTERNAT | 25560 MADISON AVE | RCRA NonGen / NLR | Higher | 791, 0.150, East |
| D26 | CARMAX #6002 | 25560 MADISON AVE | UST | Higher | 791, 0.150, East |
| E27 | BIG 5 SPORTING GOODS | 25274 MADISON AVE | RCRA NonGen / NLR | Higher | 1085, 0.205, North |
| E28 | BIG 5 SPORTING GOODS | 25274 MADISON AVE | CERS HAZ WASTE, HAZNET, CERS, HWTS | Higher | 1085, 0.205, North |
| E29 | 99 CENTS ONLY STORES | 25270 MADISON AVE | RCRA NonGen / NLR | Higher | 1106, 0.209, North |
| E30 | 99 CENTS ONLY STORES | 25270 MADISON AVE | CERS HAZ WASTE, HAZNET, CERS, HWTS | Higher | 1106, 0.209, North |
| F31 | WAL-MART STORE #2952 | 41200 MURRIETA HOT S | AST | Higher | 1119, 0.212, NE |
| F32 | WALMART #2952 | 41200 MURRIETA HOT S | RCRA-SQG, AST, CERS HAZ WASTE, CERS TANKS, CERS | Higher | 1119, 0.212, NE |
| 33 | PARAGON FRAMING INC | 25225 JEFFERSON AVE | RCRA NonGen / NLR | Higher | 1144, 0.217, WNW |
| G34 | CARDENAS MARKETS #32 | 25310 MADISON AVE | RCRA NonGen / NLR | Higher | 1162, 0.220, North |
| G35 | CARDENAS MARKETS #32 | 25310 MADISON AVE | CERS HAZ WASTE, HAZNET, CERS, HWTS | Higher | 1162, 0.220, North |
| G36 | CARDENAS MARKETS #32 | 25310 MADISON AVE | RCRA NonGen / NLR | Higher | 1162, 0.220, North |
| E37 | PNS BIG LOTS #4278 | 25260 MADISON AVE | CERS HAZ WASTE, HAZNET, CERS, HWTS | Higher | 1196, 0.227, North |
| E38 | PNS BIG LOTS #4278 | 25260 MADISON AVE | RCRA NonGen / NLR | Higher | 1196, 0.227, North |
| H39 | MANGO MOTORS MURRIET | 25185 MADISON AVENUE | RCRA-VSQG | Higher | 1296, 0.245, NNW |

## MAPPED SITES SUMMARY

Target Property Address:
MURRIETA HOT SPRINGS ROAD/JEFFERSON AVENUE
MURRIETA, CA 92562

Click on Map ID to see full detail.

| MAP ID | SITE NAME | ADDRESS | DATABASE ACRONYMS | RELATIVE ELEVATION | DIST (ft. & mi.) DIRECTION |
|---|---|---|---|---|---|
| H40 | AMERICAN TIRE DEPOT | 25185 MADISON AVE | CERS HAZ WASTE, HAZNET, CERS, HWTS | Higher | 1296, 0.245, NNW |
| H41 | AMERICAN TIRE DEPOT | 25185 MADISON AVE | RCRA NonGen / NLR | Higher | 1296, 0.245, NNW |
| G42 | PETSMART #0129 | 25290 MADISON AVE | CERS HAZ WASTE, CERS | Higher | 1312, 0.248, North |
| G43 | BANFIELD PET HOSPITA | 25290 MADISON AVE | RCRA NonGen / NLR | Higher | 1312, 0.248, North |
| G44 | PETSMART #0129 | 25290 MADISON AVE | RCRA NonGen / NLR | Higher | 1312, 0.248, North |
| 45 | REGIONAL LEARNING CE | 41350 GUAVA STREET | ENVIROSTOR, SCH, CERS | Higher | 1398, 0.265, ESE |
| I46 | MURRIETTA CREATIVE A | 41885 IVY STREET | ENVIROSTOR | Higher | 3484, 0.660, WNW |
| I47 | MURRIETA CREATIVE AC | 41885 IVY STREET | ENVIROSTOR | Higher | 3514, 0.666, WNW |
| 48 | HIGH SCHOOL NO. 3 LO | MONROE AVENUE | ENVIROSTOR, SCH | Higher | 4646, 0.880, North |

# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

### *Federal NPL site list*

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

### *Federal Delisted NPL site list*

Delisted NPL ---------- National Priority List Deletions

### *Federal CERCLIS list*

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

### *Federal CERCLIS NFRAP site list*

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

### *Federal RCRA CORRACTS facilities list*

CORRACTS ---------- Corrective Action Report

### *Federal RCRA non-CORRACTS TSD facilities list*

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

### *Federal institutional controls / engineering controls registries*

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROLS ---------- Institutional Controls Sites List

### *Federal ERNS list*

ERNS ---------- Emergency Response Notification System

### *State- and tribal - equivalent NPL*

RESPONSE ---------- State Response Sites

***State and tribal leaking storage tank lists***

INDIAN LUST ---- Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ---- Statewide SLIC Cases

***State and tribal registered storage tank lists***

FEMA UST ---- Underground Storage Tank Listing
INDIAN UST ---- Underground Storage Tanks on Indian Land

***State and tribal voluntary cleanup sites***

INDIAN VCP ---- Voluntary Cleanup Priority Listing
VCP ---- Voluntary Cleanup Program Properties

***State and tribal Brownfields sites***

BROWNFIELDS ---- Considered Brownfieds Sites Listing

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Local Brownfield lists***

US BROWNFIELDS ---- A Listing of Brownfields Sites

***Local Lists of Landfill / Solid Waste Disposal Sites***

WMUDS/SWAT ---- Waste Management Unit Database
SWRCY ---- Recycler Database
HAULERS ---- Registered Waste Tire Haulers Listing
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---- Open Dump Inventory
IHS OPEN DUMPS ---- Open Dumps on Indian Land

***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL ---- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---- Historical Calsites Database
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register
AQUEOUS FOAM ---- Former Fire Training Facility Assessments Listing
PFAS ---- PFAS Contamination Site Location Listing

***Local Land Records***

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

***Records of Emergency Release Reports***

HMIRS ---- Hazardous Materials Information Reporting System

| | |
|---|---|
| CHMIRS | California Hazardous Material Incident Report System |
| LDS | Land Disposal Sites Listing |
| MCS | Military Cleanup Sites Listing |
| SPILLS 90 | SPILLS 90 data from FirstSearch |

***Other Ascertainable Records***

| | |
|---|---|
| FUDS | Formerly Used Defense Sites |
| DOD | Department of Defense Sites |
| SCRD DRYCLEANERS | State Coalition for Remediation of Drycleaners Listing |
| US FIN ASSUR | Financial Assurance Information |
| EPA WATCH LIST | EPA WATCH LIST |
| 2020 COR ACTION | 2020 Corrective Action Program List |
| TSCA | Toxic Substances Control Act |
| TRIS | Toxic Chemical Release Inventory System |
| SSTS | Section 7 Tracking Systems |
| ROD | Records Of Decision |
| RMP | Risk Management Plans |
| RAATS | RCRA Administrative Action Tracking System |
| PRP | Potentially Responsible Parties |
| PADS | PCB Activity Database System |
| ICIS | Integrated Compliance Information System |
| FTTS | FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) |
| MLTS | Material Licensing Tracking System |
| COAL ASH DOE | Steam-Electric Plant Operation Data |
| COAL ASH EPA | Coal Combustion Residues Surface Impoundments List |
| PCB TRANSFORMER | PCB Transformer Registration Database |
| RADINFO | Radiation Information Database |
| HIST FTTS | FIFRA/TSCA Tracking System Administrative Case Listing |
| DOT OPS | Incident and Accident Data |
| CONSENT | Superfund (CERCLA) Consent Decrees |
| INDIAN RESERV | Indian Reservations |
| FUSRAP | Formerly Utilized Sites Remedial Action Program |
| UMTRA | Uranium Mill Tailings Sites |
| LEAD SMELTERS | Lead Smelter Sites |
| US AIRS | Aerometric Information Retrieval System Facility Subsystem |
| US MINES | Mines Master Index File |
| ABANDONED MINES | Abandoned Mines |
| FINDS | Facility Index System/Facility Registry System |
| DOCKET HWC | Hazardous Waste Compliance Docket Listing |
| UXO | Unexploded Ordnance Sites |
| ECHO | Enforcement & Compliance History Information |
| FUELS PROGRAM | EPA Fuels Program Registered Listing |
| CA BOND EXP. PLAN | Bond Expenditure Plan |
| CUPA Listings | CUPA Resources List |
| DRYCLEANERS | Cleaner Facilities |
| EMI | Emissions Inventory Data |
| ENF | Enforcement Action Listing |
| Financial Assurance | Financial Assurance Information Listing |
| HAZNET | Facility and Manifest Data |
| ICE | ICE |
| HIST CORTESE | Hazardous Waste & Substance Site List |
| HWP | EnviroStor Permitted Facilities Listing |
| HWT | Registered Hazardous Waste Transporter Database |

MINES Mines Site Location Listing
MWMP Medical Waste Management Program Listing
NPDES NPDES Permits Listing
PEST LIC Pesticide Regulation Licenses Listing
PROC Certified Processors Database
Notify 65 Proposition 65 Records
UIC UIC Listing
UIC GEO UIC GEO (GEOTRACKER)
WASTEWATER PITS Oil Wastewater Pits Listing
WDS Waste Discharge System
WIP Well Investigation Program Case List
MILITARY PRIV SITES MILITARY PRIV SITES (GEOTRACKER)
PROJECT PROJECT (GEOTRACKER)
WDR Waste Discharge Requirements Listing
NON-CASE INFO NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ Well Stimulation Project (GEOTRACKER)
MINES MRDS Mineral Resources Data System
HWTS Hazardous Waste Tracking System

**EDR HIGH RISK HISTORICAL RECORDS**

***EDR Exclusive Records***

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner EDR Exclusive Historical Cleaners

**EDR RECOVERED GOVERNMENT ARCHIVES**

***Exclusive Recovered Govt. Archives***

RGA LF Recovered Government Archive Solid Waste Facilities List
RGA LUST Recovered Government Archive Leaking Underground Storage Tank

**SURROUNDING SITES: SEARCH RESULTS**

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

# EXECUTIVE SUMMARY

**STANDARD ENVIRONMENTAL RECORDS**

***Federal RCRA generators list***

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 09/13/2021 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***CAR MAX #6002***<br>EPA ID:: CAR000267948 | ***25560 MADISON AVE*** | ***E 1/8 - 1/4 (0.150 mi.)*** | ***D24*** | ***171*** |

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/13/2021 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***WALMART #2952***<br>EPA ID:: CAR000205732 | ***41200 MURRIETA HOT S*** | ***NE 1/8 - 1/4 (0.212 mi.)*** | ***F32*** | ***223*** |

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 09/13/2021 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| MANGO MOTORS MURRIET | 25185 MADISON AVENUE | NNW 1/8 - 1/4 (0.245 mi.) | H39 | 276 |

# EXECUTIVE SUMMARY

***State- and tribal - equivalent CERCLIS***

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/22/2021 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***REGIONAL LEARNING CE*** | ***41350 GUAVA STREET*** | ***ESE 1/4 - 1/2 (0.265 mi.)*** | ***45*** | ***304*** |
| Facility Id: 33650017 | | | | |
| Status: No Action Required | | | | |
| MURRIETTA CREATIVE A | 41885 IVY STREET | WNW 1/2 - 1 (0.660 mi.) | I46 | 307 |
| Facility Id: 33350013 | | | | |
| Status: Refer: Other Agency | | | | |
| MURRIETA CREATIVE AC | 41885 IVY STREET | WNW 1/2 - 1 (0.666 mi.) | I47 | 309 |
| Facility Id: 60001704 | | | | |
| Status: Refer: Other Agency | | | | |
| ***HIGH SCHOOL NO. 3 LO*** | ***MONROE AVENUE*** | ***N 1/2 - 1 (0.880 mi.)*** | ***48*** | ***310*** |
| Facility Id: 33880006 | | | | |
| Status: No Further Action | | | | |

***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***MURRIETA MAINTENANCE*** | ***25315 JEFFERSON AVE.*** | ***W 0 - 1/8 (0.020 mi.)*** | ***A9*** | ***75*** |
| Database: SWF/LF (SWIS), Date of Government Version: 08/09/2021 | | | | |
| Facility ID: 33-AA-0341 | | | | |
| Operational Status: Active | | | | |
| Regulation Status: Notification | | | | |

# EXECUTIVE SUMMARY

***State and tribal leaking storage tank lists***

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***SHELL SERVICE STATIO*** | ***25336 MADISON*** | ***N 1/8 - 1/4 (0.146 mi.)*** | ***C21*** | ***110*** |
| Database: LUST, Date of Government Version: 06/03/2021 | | | | |
| Status: Completed - Case Closed | | | | |
| Global Id: T0606553648 | | | | |

***State and tribal registered storage tank lists***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 4 UST sites within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| 7-ELEVEN INC #33062 | 41260 MURRIETA HOT S | NNE 0 - 1/8 (0.091 mi.) | B10 | 80 |
| Database: UST, Date of Government Version: 06/03/2021 | | | | |
| 7 ELEVEN #33062 | 41260 MURRIETA HOT S | NNE 0 - 1/8 (0.091 mi.) | B12 | 81 |
| Database: RIVERSIDE CO. UST, Date of Government Version: 06/29/2021 | | | | |
| TEXACO STAR MART | 25336 MADISON AVE | N 1/8 - 1/4 (0.146 mi.) | C18 | 94 |
| Database: UST, Date of Government Version: 06/03/2021 | | | | |
| Database: RIVERSIDE CO. UST, Date of Government Version: 06/29/2021 | | | | |
| Facility Id: 752 | | | | |
| CARMAX #6002 | 25560 MADISON AVE | E 1/8 - 1/4 (0.150 mi.) | D26 | 179 |
| Database: UST, Date of Government Version: 06/03/2021 | | | | |
| Database: RIVERSIDE CO. UST, Date of Government Version: 06/29/2021 | | | | |
| Facility Id: FA0047212 | | | | |

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there are 3 AST sites within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***MURRIETA APTS 492 40*** | | ***WNW 0 - 1/8 (0.013 mi.)*** | ***A3*** | ***10*** |
| Database: AST, Date of Government Version: 07/06/2016 | | | | |
| WAL-MART STORE #2952 | 41200 MURRIETA HOT S | NE 1/8 - 1/4 (0.212 mi.) | F31 | 222 |
| Database: AST, Date of Government Version: 07/06/2016 | | | | |
| ***WALMART #2952*** | ***41200 MURRIETA HOT S*** | ***NE 1/8 - 1/4 (0.212 mi.)*** | ***F32*** | ***223*** |
| Database: AST, Date of Government Version: 07/06/2016 | | | | |

# EXECUTIVE SUMMARY

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Local Lists of Hazardous waste / Contaminated Sites***

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 07/15/2021 has revealed that there are 10 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***SOUTHWEST ABOP COLLE*** | ***25315 JEFFERSON AVE*** | ***W 0 - 1/8 (0.020 mi.)*** | ***A6*** | ***15*** |
| ***POPEYES CHICKEN #420*** | ***25336 MADISON AVE*** | ***N 1/8 - 1/4 (0.146 mi.)*** | ***C22*** | ***116*** |
| ***CARMAX #6002*** | ***25560 MADISON AVE*** | ***E 1/8 - 1/4 (0.150 mi.)*** | ***D23*** | ***150*** |
| ***BIG 5 SPORTING GOODS*** | ***25274 MADISON AVE*** | ***N 1/8 - 1/4 (0.205 mi.)*** | ***E28*** | ***182*** |
| ***99 CENTS ONLY STORES*** | ***25270 MADISON AVE*** | ***N 1/8 - 1/4 (0.209 mi.)*** | ***E30*** | ***191*** |
| ***WALMART #2952*** | ***41200 MURRIETA HOT S*** | ***NE 1/8 - 1/4 (0.212 mi.)*** | ***F32*** | ***223*** |
| ***CARDENAS MARKETS #32*** | ***25310 MADISON AVE*** | ***N 1/8 - 1/4 (0.220 mi.)*** | ***G35*** | ***240*** |
| ***PNS BIG LOTS #4278*** | ***25260 MADISON AVE*** | ***N 1/8 - 1/4 (0.227 mi.)*** | ***E37*** | ***257*** |
| ***AMERICAN TIRE DEPOT*** | ***25185 MADISON AVE*** | ***NNW 1/8 - 1/4 (0.245 mi.)*** | ***H40*** | ***279*** |
| ***PETSMART #0129*** | ***25290 MADISON AVE*** | ***N 1/8 - 1/4 (0.248 mi.)*** | ***G42*** | ***294*** |

***Local Lists of Registered Storage Tanks***

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***COUNTY ROAD DEPT - M*** | ***25315 JEFFERSON AVE*** | ***W 0 - 1/8 (0.020 mi.)*** | ***A8*** | ***74*** |
| Status: A | | | | |
| Tank Status: A | | | | |
| Comp Number: 65524 | | | | |

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| MURRIETA ROAD YARD | 25315 JEFFERSON AVE | W 0 - 1/8 (0.020 mi.) | A5 | 14 |
| Facility Id: 00000065524 | | | | |

# EXECUTIVE SUMMARY

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 07/15/2021 has revealed that there are 3 CERS TANKS sites within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***POPEYES CHICKEN #420*** | ***25336 MADISON AVE*** | ***N 1/8 - 1/4 (0.146 mi.)*** | ***C22*** | ***116*** |
| ***CARMAX #6002*** | ***25560 MADISON AVE*** | ***E 1/8 - 1/4 (0.150 mi.)*** | ***D23*** | ***150*** |
| ***WALMART #2952*** | ***41200 MURRIETA HOT S*** | ***NE 1/8 - 1/4 (0.212 mi.)*** | ***F32*** | ***223*** |

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***COUNTY ROAD DEPT - M*** | ***25315 JEFFERSON AVE*** | ***W 0 - 1/8 (0.020 mi.)*** | ***A8*** | ***74*** |
| Facility Id: 33003612 | | | | |
| Status: A | | | | |

***Other Ascertainable Records***

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/13/2021 has revealed that there are 19 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| RIVERSIDE COUNTY TRA | 25315 JEFFERSON | W 0 - 1/8 (0.020 mi.) | A4 | 12 |
| EPA ID:: CAL000026346 | | | | |
| MURRIETA ABOP FACILI | 25315 JEFFERSON AVE | W 0 - 1/8 (0.020 mi.) | A7 | 72 |
| EPA ID:: CAH111001183 | | | | |
| 7 ELEVEN #33062 | 41260 MURRIETA HOT S | NNE 0 - 1/8 (0.091 mi.) | B13 | 81 |
| EPA ID:: CAL000259907 | | | | |
| SALONCENTRIC | 25285 MADISON AVE ST | N 0 - 1/8 (0.103 mi.) | 14 | 83 |
| EPA ID:: CAL000446604 | | | | |
| MURRIETA DENTAL CORP | 25395 MADISON | NNE 1/8 - 1/4 (0.125 mi.) | 15 | 86 |
| EPA ID:: CAL000250575 | | | | |
| JACKSONS FOOD STORES | 25336 MADISON AVE | N 1/8 - 1/4 (0.146 mi.) | C16 | 88 |
| TESORO SHELL 68569 | 25336 MADISON AVE | N 1/8 - 1/4 (0.146 mi.) | C17 | 91 |
| EPA ID:: CAL000321833 | | | | |
| ***SHELL SERVICE STATIO*** | ***25336 MADISON*** | ***N 1/8 - 1/4 (0.146 mi.)*** | ***C19*** | ***95*** |

| | | | | |
|---|---|---|---|---|
| EPA ID:: CAR000067025 | | | | |
| TESORO SOUTH COAST C | 25336 MADISON AVE | N 1/8 - 1/4 (0.146 mi.) | C20 | 108 |
| DENT WIZARD INTERNAT<br>EPA ID:: CAL000433033 | 25560 MADISON AVE | E 1/8 - 1/4 (0.150 mi.) | D25 | 176 |
| BIG 5 SPORTING GOODS<br>EPA ID:: CAL000410242 | 25274 MADISON AVE | N 1/8 - 1/4 (0.205 mi.) | E27 | 179 |
| 99 CENTS ONLY STORES<br>EPA ID:: CAL000369815 | 25270 MADISON AVE | N 1/8 - 1/4 (0.209 mi.) | E29 | 188 |
| PARAGON FRAMING INC<br>EPA ID:: CAL000432842 | 25225 JEFFERSON AVE | WNW 1/8 - 1/4 (0.217 mi.) | 33 | 235 |
| CARDENAS MARKETS #32<br>EPA ID:: CAL000451586 | 25310 MADISON AVE | N 1/8 - 1/4 (0.220 mi.) | G34 | 238 |
| CARDENAS MARKETS #32<br>EPA ID:: CAL000403197 | 25310 MADISON AVE | N 1/8 - 1/4 (0.220 mi.) | G36 | 255 |
| PNS BIG LOTS #4278<br>EPA ID:: CAL000391082 | 25260 MADISON AVE | N 1/8 - 1/4 (0.227 mi.) | E38 | 273 |
| AMERICAN TIRE DEPOT<br>EPA ID:: CAL000357947 | 25185 MADISON AVE | NNW 1/8 - 1/4 (0.245 mi.) | H41 | 292 |
| BANFIELD PET HOSPITA<br>EPA ID:: CAL000173428 | 25290 MADISON AVE | N 1/8 - 1/4 (0.248 mi.) | G43 | 299 |
| PETSMART #0129<br>EPA ID:: CAL000401525 | 25290 MADISON AVE | N 1/8 - 1/4 (0.248 mi.) | G44 | 302 |

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 06/17/2021 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***SHELL SERVICE STATIO*** | ***25336 MADISON*** | ***N 1/8 - 1/4 (0.146 mi.)*** | ***C21*** | ***110*** |
| Cleanup Status: COMPLETED - CASE CLOSED | | | | |

CIWQS: The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

A review of the CIWQS list, as provided by EDR, and dated 05/19/2021 has revealed that there are 2 CIWQS sites within approximately 0.001 miles of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***MURRIETA CREEK LEVEE*** | ***BROWN STREET AT WASH*** | ***0 - 1/8 (0.000 mi.)*** | ***1*** | ***9*** |
| ***LINE D AND LINE D-1*** | ***NORTH OF INTERSECTIO*** | ***0 - 1/8 (0.000 mi.)*** | ***2*** | ***9*** |

# EXECUTIVE SUMMARY

CERS: The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

A review of the CERS list, as provided by EDR, and dated 07/15/2021 has revealed that there are 2 CERS sites within approximately 0.001 miles of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***MURRIETA CREEK LEVEE*** | ***BROWN STREET AT WASH*** | ***0 - 1/8 (0.000 mi.)*** | ***1*** | ***9*** |
| ***LINE D AND LINE D-1*** | ***NORTH OF INTERSECTIO*** | ***0 - 1/8 (0.000 mi.)*** | ***2*** | ***9*** |

**EDR HIGH RISK HISTORICAL RECORDS**

***EDR Exclusive Records***

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

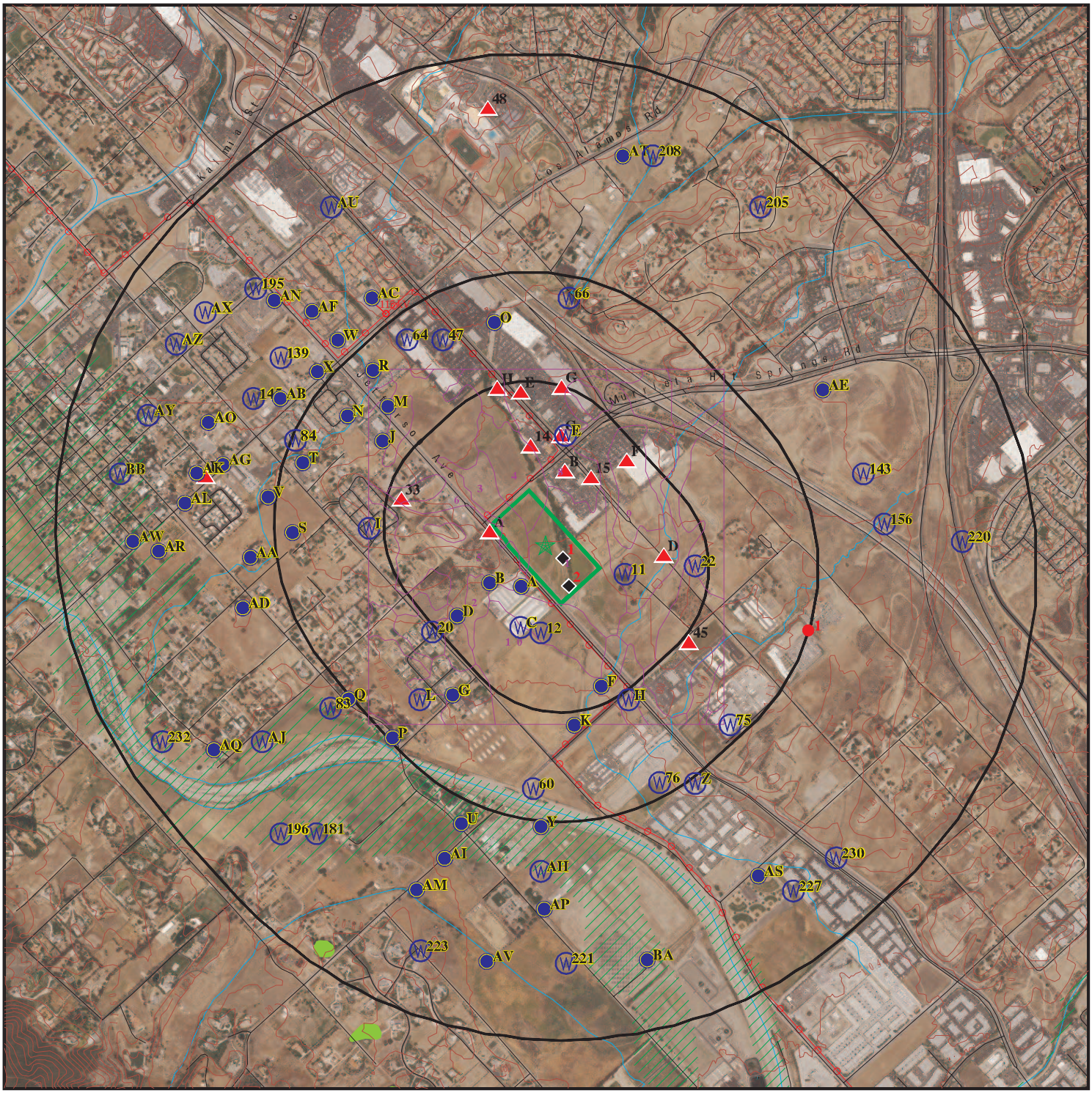
| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| 7 ELEVEN OF MURRIETA | 41260 MURRIETA HOT S | NNE 0 - 1/8 (0.091 mi.) | B11 | 80 |

# EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 31 records.

| Site Name | Database(s) |
|---|---|
| MURRIETA HOT SPRINGS DEVELOPMENT | HAZNET, HWTS |
| MURRIETA POLICE DEPT | HAZNET, HWTS |
| POLO CLEANERS | CERS HAZ WASTE |
| I 15 & MURRIETA HOT SPRINGS RD | CIWQS |
| MURRIETA CREEK CENTER | CIWQS |
| MURRIETA 55 | CIWQS |
| NE CORNER MURRIETA HOT SPRINGS | CIWQS |
| MURRIETA BUSINESS PARK | CIWQS |
| SAMS CLUB OF MURRIETA CA 4822 | CIWQS |
| MURRIETA 25 & DISPOSAL SITE | CIWQS |
| MURRIETA CITY TOWN SQUARE | CIWQS |
| MURRIETA BUSINESS PARK | NPDES, CIWQS |
| MURRIETA APARTMENTS 492 | ENF, CIWQS |
| MURRIETA WALMART | CIWQS |
| MURRIETA PLAZA | CIWQS |
| MURRIETA HOT SPRINGS MADISON | CIWQS |
| MURRIETA HOT SPRINGS RD | CIWQS |
| I 15 I215 MURRIETA HOT SPRINGS | CIWQS |
| PLAZA DE MURRIETA | CIWQS |
| MURRIETA PLAZA SHELL | CIWQS |
| MURRIETA PLAZA | CIWQS |
| MURRIETA 180 | CIWQS |
| HOT SPRINGS CLEANERS | DRYCLEANERS |
| TOWER CLEANERS INC. HOT SPRINGS CL | DRYCLEANERS |
| POLO CLEANERS | DRYCLEANERS |
| POLO CLEANERS, DON DONGSOON MYUNG | DRYCLEANERS |
| HOT SPRINGS CLEANERS | DRYCLEANERS |
| MURRIETA STORM DRAIN IMPROVEMENT P | FINDS |
| MURRIETA CREEK FLOOD CONTROL | FINDS |
| MURRIETA 180 | FINDS |
| MURRIETA MAINTENANCE YARD | RGA LF |

# OVERVIEW MAP - 6756783.2S




0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

| | | | |
|---|---|---|---|
| SITE NAME: | LMC Murrieta | CLIENT: | Leighton and Associates, Inc. |
| ADDRESS: | Murrieta Hot Springs Road/Jefferson Avenue<br>Murrieta CA 92562 | CONTACT: | Brynn Mcculloch |
| LAT/LONG: | 33.549825 / 117.196525 | INQUIRY #: | 6756783.2s |
| | | DATE: | November 18, 2021 3:23 pm |

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# DETAIL MAP - 6756783.2S




0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

| | | | |
|---|---|---|---|
| SITE NAME: | LMC Murrieta | CLIENT: | Leighton and Associates, Inc. |
| ADDRESS: | Murrieta Hot Springs Road/Jefferson Avenue<br>Murrieta CA 92562 | CONTACT: | Brynn Mcculloch |
| | | INQUIRY #: | 6756783.2s |
| LAT/LONG: | 33.549825 / 117.196525 | DATE: | November 18, 2021 3:27 pm |

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# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| **STANDARD ENVIRONMENTAL RECORDS** | | | | | | | | |
| ***Federal NPL site list*** | | | | | | | | |
| NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| Proposed NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| NPL LIENS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal Delisted NPL site list*** | | | | | | | | |
| Delisted NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal CERCLIS list*** | | | | | | | | |
| FEDERAL FACILITY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SEMS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal CERCLIS NFRAP site list*** | | | | | | | | |
| SEMS-ARCHIVE | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal RCRA CORRACTS facilities list*** | | | | | | | | |
| CORRACTS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal RCRA non-CORRACTS TSD facilities list*** | | | | | | | | |
| RCRA-TSDF | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal RCRA generators list*** | | | | | | | | |
| RCRA-LQG | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| RCRA-SQG | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| RCRA-VSQG | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| ***Federal institutional controls / engineering controls registries*** | | | | | | | | |
| LUCIS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US ENG CONTROLS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US INST CONTROLS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal ERNS list*** | | | | | | | | |
| ERNS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ***State- and tribal - equivalent NPL*** | | | | | | | | |
| RESPONSE | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***State- and tribal - equivalent CERCLIS*** | | | | | | | | |
| ENVIROSTOR | 1.000 | | 0 | 0 | 1 | 3 | NR | 4 |
| ***State and tribal landfill and/or solid waste disposal site lists*** | | | | | | | | |
| SWF/LF | 0.500 | | 1 | 0 | 0 | NR | NR | 1 |
| ***State and tribal leaking storage tank lists*** | | | | | | | | |
| LUST | 0.500 | | 0 | 1 | 0 | NR | NR | 1 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| INDIAN LUST | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| CPS-SLIC | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***State and tribal registered storage tank lists*** | | | | | | | | |
| FEMA UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| UST | 0.250 | | 2 | 2 | NR | NR | NR | 4 |
| AST | 0.250 | | 1 | 2 | NR | NR | NR | 3 |
| INDIAN UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ***State and tribal voluntary cleanup sites*** | | | | | | | | |
| INDIAN VCP | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| VCP | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***State and tribal Brownfields sites*** | | | | | | | | |
| BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| **ADDITIONAL ENVIRONMENTAL RECORDS** | | | | | | | | |
| ***Local Brownfield lists*** | | | | | | | | |
| US BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Landfill / Solid Waste Disposal Sites*** | | | | | | | | |
| WMUDS/SWAT | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SWRCY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| HAULERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| INDIAN ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| DEBRIS REGION 9 | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| IHS OPEN DUMPS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Hazardous waste / Contaminated Sites*** | | | | | | | | |
| US HIST CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST Cal-Sites | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| SCH | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| Toxic Pits | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| CERS HAZ WASTE | 0.250 | | 1 | 9 | NR | NR | NR | 10 |
| US CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| AQUEOUS FOAM | TP | | NR | NR | NR | NR | NR | 0 |
| PFAS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Registered Storage Tanks*** | | | | | | | | |
| SWEEPS UST | 0.250 | | 1 | 0 | NR | NR | NR | 1 |
| HIST UST | 0.250 | | 1 | 0 | NR | NR | NR | 1 |
| CERS TANKS | 0.250 | | 0 | 3 | NR | NR | NR | 3 |
| CA FID UST | 0.250 | | 1 | 0 | NR | NR | NR | 1 |
| ***Local Land Records*** | | | | | | | | |
| LIENS | 0.001 | | 0 | NR | NR | NR | NR | 0 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| LIENS 2 | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DEED | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Records of Emergency Release Reports*** | | | | | | | | |
| HMIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CHMIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| LDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MCS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SPILLS 90 | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ***Other Ascertainable Records*** | | | | | | | | |
| RCRA NonGen / NLR | 0.250 | | 4 | 15 | NR | NR | NR | 19 |
| FUDS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| DOD | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| SCRD DRYCLEANERS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US FIN ASSUR | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| EPA WATCH LIST | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| 2020 COR ACTION | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| TSCA | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| TRIS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SSTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ROD | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| RMP | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RAATS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PRP | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PADS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ICIS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| FTTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MLTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| COAL ASH DOE | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| COAL ASH EPA | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| PCB TRANSFORMER | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RADINFO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST FTTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DOT OPS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CONSENT | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| INDIAN RESERV | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| FUSRAP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| UMTRA | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| LEAD SMELTERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| US AIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| US MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ABANDONED MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| FINDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DOCKET HWC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| UXO | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ECHO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| FUELS PROGRAM | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CA BOND EXP. PLAN | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| Cortese | 0.500 | | 0 | 1 | 0 | NR | NR | 1 |
| CUPA Listings | 0.250 | | 0 | 0 | NR | NR | NR | 0 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| DRYCLEANERS | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| EMI | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ENF | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| Financial Assurance | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HAZNET | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ICE | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST CORTESE | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| HWP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| HWT | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MWMP | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| NPDES | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PEST LIC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROC | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| Notify 65 | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| UIC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| UIC GEO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WASTEWATER PITS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| WDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WIP | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MILITARY PRIV SITES | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROJECT | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WDR | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CIWQS | 0.001 | | 2 | NR | NR | NR | NR | 2 |
| CERS | 0.001 | | 2 | NR | NR | NR | NR | 2 |
| NON-CASE INFO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| OTHER OIL GAS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROD WATER PONDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SAMPLING POINT | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WELL STIM PROJ | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MINES MRDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HWTS | TP | | NR | NR | NR | NR | NR | 0 |
| **EDR HIGH RISK HISTORICAL RECORDS** | | | | | | | | |
| ***EDR Exclusive Records*** | | | | | | | | |
| EDR MGP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| EDR Hist Auto | 0.125 | | 1 | NR | NR | NR | NR | 1 |
| EDR Hist Cleaner | 0.125 | | 0 | NR | NR | NR | NR | 0 |
| **EDR RECOVERED GOVERNMENT ARCHIVES** | | | | | | | | |
| ***Exclusive Recovered Govt. Archives*** | | | | | | | | |
| RGA LF | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RGA LUST | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| - Totals -- | | 0 | 17 | 36 | 1 | 3 | 0 | 57 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

**1** **MURRIETA CREEK LEVEE REPAIRS PROJECT** **CIWQS S121657586**
**BROWN STREET AT WASHINGTON AVENUE** **CERS N/A**
**< 1/8** **MURRIETA, CA 92562**
**1 ft.**

**Relative: Lower**
**Actual: 1078 ft.**

CIWQS:

| | |
|---|---|
| Name: | MURRIETA CREEK LEVEE REPAIRS PROJECT |
| Address: | BROWN STREET AT WASHINGTON AVENUE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Agency: | Riverside County Flood Control & Water Conservation District |
| Agency Address: | 1995 Market Street, Riverside, CA 92501 |
| Place/Project Type: | Dredge/Fill Site |
| SIC/NAICS: | Not reported |
| Region: | 9 |
| Program: | CERFILLEXC |
| Regulatory Measure Status: | Historical |
| Regulatory Measure Type: | Enrollee - 401 Certification |
| Order Number: | RGP 63 |
| WDID: | 9 000003145 |
| NPDES Number: | Not reported |
| Adoption Date: | Not reported |
| Effective Date: | 02/15/2017 |
| Termination Date: | 04/03/2017 |
| Expiration/Review Date: | 02/15/2018 |
| Design Flow: | Not reported |
| Major/Minor: | Not reported |
| Complexity: | Not reported |
| TTWQ: | Not reported |
| Enforcement Actions within 5 years: | 0 |
| Violations within 5 years: | 0 |
| Latitude: | 33.549444 |
| Longitude: | -117.195833 |

CERS:

| | |
|---|---|
| Name: | MURRIETA CREEK LEVEE REPAIRS PROJECT |
| Address: | BROWN STREET AT WASHINGTON AVENUE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 420672 |
| CERS ID: | 832858 |
| CERS Description: | Wetlands - Fill and Dredge Material |

---

**2** **LINE D AND LINE D-1 REALIGNMENT (CIP 8157)** **CIWQS S120031130**
**NORTH OF INTERSECTION OF JEFFERSON AVE AND GUAVA ST** **CERS N/A**
**< 1/8** **MURRIETA, CA**
**1 ft.**

**Relative: Lower**
**Actual: 1074 ft.**

CIWQS:

| | |
|---|---|
| Name: | LINE D AND LINE D-1 REALIGNMENT (CIP 8157) |
| Address: | NORTH OF INTERSECTION OF JEFFERSON AVE AND GUAVA ST |
| City,State,Zip: | MURRIETA, CA |
| Agency: | Murrieta City |
| Agency Address: | 24061 Jefferson Avenue, Murrieta, CA 92562 |
| Place/Project Type: | Dredge/Fill Site |
| SIC/NAICS: | Not reported |
| Region: | 9 |
| Program: | CERFILLEXC |
| Regulatory Measure Status: | Active |
| Regulatory Measure Type: | 401 Certification |
| Order Number: | 11C-030 |

**LINE D AND LINE D-1 REALIGNMENT (CIP 8157) (Continued)** **S120031130**

| | |
|---|---|
| WDID: | 9 000002256 |
| NPDES Number: | Not reported |
| Adoption Date: | Not reported |
| Effective Date: | 08/19/2011 |
| Termination Date: | Not reported |
| Expiration/Review Date: | 08/19/2021 |
| Design Flow: | Not reported |
| Major/Minor: | Not reported |
| Complexity: | Not reported |
| TTWQ: | Not reported |
| Enforcement Actions within 5 years: | 0 |
| Violations within 5 years: | 0 |
| Latitude: | 33.548522 |
| Longitude: | -117.195597 |

CERS:

| | |
|---|---|
| Name: | LINE D AND LINE D-1 REALIGNMENT (CIP 8157) |
| Address: | NORTH OF INTERSECTION OF JEFFERSON AVE AND GUAVA ST |
| City,State,Zip: | MURRIETA, CA |
| Site ID: | 44571 |
| CERS ID: | 749088 |
| CERS Description: | Wetlands - Fill and Dredge Material |

Evaluation:

| | |
|---|---|
| Eval General Type: | Compliance Sampling Inspection |
| Eval Date: | 10-24-2013 |
| Violations Found: | No |
| Eval Type: | RWQCB Type A compliance inspection |
| Eval Notes: | Not reported |
| Eval Division: | Water Boards |
| Eval Program: | CERFILLEXC |
| Eval Source: | CIWQS |

---

**A3** **MURRIETA APTS 492 401 CERT** **AST** **S106800966**
**WNW** **WDS** **N/A**
**< 1/8** **, CA 0**
**0.013 mi.**
**69 ft.** **Site 1 of 7 in cluster A**

**Relative:**
**Higher**

**Actual:**
**1098 ft.**

AST:

| | |
|---|---|
| Name: | MURRIETA TLMA |
| Address: | 25-315 JEFFERSON |
| City/Zip: | MURRIETA, |
| Certified Unified Program Agencies: | Riverside |
| Owner: | COUNTY OF RIVERSIDE |
| Total Gallons: | 4,550 |
| CERSID: | Not reported |
| Facility ID: | Not reported |
| Business Name: | Not reported |
| Phone: | Not reported |
| Fax: | Not reported |
| Mailing Address: | Not reported |
| Mailing Address City: | Not reported |
| Mailing Address State: | Not reported |
| Mailing Address Zip Code: | Not reported |
| Operator Name: | Not reported |
| Operator Phone: | Not reported |

**MURRIETA APTS 492 401 CERT (Continued)** **S106800966**

| | |
|---|---|
| Owner Phone: | Not reported |
| Owner Mail Address: | Not reported |
| Owner State: | Not reported |
| Owner Zip Code: | Not reported |
| Owner Country: | Not reported |
| Property Owner Name: | Not reported |
| Property Owner Phone: | Not reported |
| Property Owner Mailing Address: | Not reported |
| Property Owner City: | Not reported |
| Property Owner Stat : | Not reported |
| Property Owner Zip Code: | Not reported |
| Property Owner Country: | Not reported |
| EPAID: | Not reported |

WDS:

| | |
|---|---|
| Name: | MURRIETA APTS 492 401 CERT |
| Address: | Not reported |
| City: | Not reported |
| Facility ID: | San Diego 000001211 |
| Facility Type: | Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III) |
| Facility Status: | Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements. |
| NPDES Number: | Not reported |
| Subregion: | 9 |
| Facility Telephone: | Not reported |
| Facility Contact: | Not reported |
| Agency Name: | MURRIETA 492 LLC |
| Agency Address: | PO Box 2990 |
| Agency City,St,Zip: | Newport Beach 926589018 |
| Agency Contact: | MAHONY VICTOR J |
| Agency Telephone: | 9499553832 |
| Agency Type: | ? |
| SIC Code: | 0 |
| SIC Code 2: | Not reported |
| Primary Waste Type: | Not reported |
| Primary Waste: | Not reported |
| Waste Type2: | Not reported |
| Waste2: | Not reported |
| Primary Waste Type: | Not reported |
| Secondary Waste: | Not reported |
| Secondary Waste Type: | Not reported |
| Design Flow: | 0 |
| Baseline Flow: | 0 |
| Reclamation: | Not reported |
| POTW: | Not reported |
| Treat To Water: | 0 |
| Complexity: | Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds. |

**A4**
**West**
**< 1/8**
**0.020 mi.**
**105 ft.**

**RIVERSIDE COUNTY TRANS DEPT**
**25315 JEFFERSON**
**MURRIETA, CA 92362**

**Site 2 of 7 in cluster A**

**RCRA NonGen / NLR** | **1024786955** | **CAL000026346**

**Relative:**
**Higher**

**Actual:**
**1099 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 19900510 |
| Handler Name: | RIVERSIDE COUNTY TRANS DEPT |
| Handler Address: | 25315 JEFFERSON |
| Handler City,State,Zip: | MURRIETA, CA 92362-0000 |
| EPA ID: | CAL000026346 |
| Contact Name: | DANIEL LEYVA |
| Contact Address: | 2950 WASHINGTON ST |
| Contact City,State,Zip: | RIVERSIDE, CA 92504 |
| Contact Telephone: | 951-955-6788 |
| Contact Fax: | Not reported |
| Contact Email: | DLEYVA@RIVCO.ORG |
| Contact Title: | Not reported |
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 2950 WASHINGTON ST |
| Mailing City,State,Zip: | RIVERSIDE, CA 92504-0000 |
| Owner Name: | RIVERSIDE COUNTY TRANSPORTATIO DEPT |
| Owner Type: | Other |
| Operator Name: | DANIEL LEYVA |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |

**RIVERSIDE COUNTY TRANS DEPT (Continued)** **1024786955**

| | |
|---|---|
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180905 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | DANIEL LEYVA |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2950 WASHINGTON ST |
| Owner/Operator City,State,Zip: | RIVERSIDE, CA 92504 |
| Owner/Operator Telephone: | 951-955-6788 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | RIVERSIDE COUNTY TRANSPORTATIO DEPT |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2950 WASHINGTON ST. |
| Owner/Operator City,State,Zip: | RIVERSIDE, CA 92504-0000 |
| Owner/Operator Telephone: | 909-955-6805 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

**RIVERSIDE COUNTY TRANS DEPT (Continued)** **1024786955**

Historic Generators:
Receive Date: 19900510
Handler Name: RIVERSIDE COUNTY TRANS DEPT
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 23411
NAICS Description: HIGHWAY AND STREET CONSTRUCTION

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

---

**A5** **MURRIETA ROAD YARD** **HIST UST** **U001575230**
**West** **25315 JEFFERSON AVE** **N/A**
**< 1/8** **MURRIETA, CA 92362**
**0.020 mi.**
**105 ft.** **Site 3 of 7 in cluster A**

**Relative:**
**Higher**

**Actual:**
**1099 ft.**

HIST UST:
Name: MURRIETA ROAD YARD
Address: 25315 JEFFERSON AVE
City,State,Zip: MURRIETA, CA 92362
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000065524
Facility Type: Other
Other Type: VEHICLE REPAIR
Contact Name: JIM POSEY
Telephone: 7146775889
Owner Name: COUNTY OF RIVERSIDE ROAD DEPAR
Owner Address: 4080 LEMON STREET
Owner City,St,Zip: RIVERSIDE, CA 92501
Total Tanks: 0002

Tank Num: 001
Container Num: 1
Year Installed: 1975
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

**MURRIETA ROAD YARD (Continued)** **U001575230**

| | |
|---|---|
| Tank Num: | 002 |
| Container Num: | 2 |
| Year Installed: | 1975 |
| Tank Capacity: | 00010000 |
| Tank Used for: | PRODUCT |
| Type of Fuel: | UNLEADED |
| Container Construction Thickness: | Not reported |
| Leak Detection: | Stock Inventor |

---

**A6** **SOUTHWEST ABOP COLLECTION CENTER** **CERS HAZ WASTE** **S113020532**
**West** **25315 JEFFERSON AVE** **HAZNET** **N/A**
**< 1/8** **MURRIETA, CA 92562** **CERS**
**0.020 mi.**
**105 ft.** **Site 4 of 7 in cluster A**

**Relative:**
**Higher**

**Actual:**
**1099 ft.**

CERS HAZ WASTE:

| | |
|---|---|
| Name: | SOUTHWEST ABOP COLLECTION CENTER |
| Address: | 25315 JEFFERSON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 69772 |
| CERS ID: | 10320937 |
| CERS Description: | Hazardous Waste Generator |

| | |
|---|---|
| Name: | SOUTHWEST ABOP COLLECTION CENTER |
| Address: | 25315 JEFFERSON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 69772 |
| CERS ID: | 10320937 |
| CERS Description: | Household Hazardous Waste Collection |

HAZNET:

| | |
|---|---|
| Name: | RIVERSIDE COUNTY - WASTE MANAGEMENT DEPARTMENT |
| Address: | 25315 JEFFERSON AVE |
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 92562 |
| Contact: | DIANE CHRISTENSEN |
| Telephone: | 9514863282 |
| Mailing Name: | Not reported |
| Mailing Address: | 14310 FREDERICK ST |
| Year: | 2017 |
| Gepaid: | CAH111001183 |
| TSD EPA ID: | CAD982444481 |
| CA Waste Code: | 612 - Household waste |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 18.0978 |
| Year: | 2016 |
| Gepaid: | CAH111001183 |
| TSD EPA ID: | CAD044429835 |
| CA Waste Code: | 612 - Household waste |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.22935 |
| Year: | 2016 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

Gepaid: CAH111001183
TSD EPA ID: CAD981696420
CA Waste Code: 133 - Aqueous solution with total organic residues 10 percent or more
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.6672

Year: 2016
Gepaid: CAH111001183
TSD EPA ID: CAD981696420
CA Waste Code: 221 - Waste oil and mixed oil
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 2.47

Year: 2016
Gepaid: CAH111001183
TSD EPA ID: CAD982444481
CA Waste Code: 612 - Household waste
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 7.06815

Year: 2016
Gepaid: CAH111001183
TSD EPA ID: CAT080025711
CA Waste Code: 133 - Aqueous solution with total organic residues 10 percent or more
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.417

Year: 2016
Gepaid: CAH111001183
TSD EPA ID: CAT080025711
CA Waste Code: 221 - Waste oil and mixed oil
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.748

Year: 2016
Gepaid: CAH111001183
TSD EPA ID: CAT080025711
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.609

Year: 2015
Gepaid: CAH111001183
TSD EPA ID: CAT080025711
CA Waste Code: 221 - Waste oil and mixed oil
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 11.97

Year: 2015

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Gepaid: | CAH111001183 |
| TSD EPA ID: | CAT080013352 |
| CA Waste Code: | 133 - Aqueous solution with total organic residues 10 percent or more |
| Disposal Method: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Tons: | 0.4587 |

Click this hyperlink while viewing on your computer to access
48 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

| | |
|---|---|
| Year: | 2009 |
| Gen EPA ID: | CAH111001183 |
| Shipment Date: | 20091217 |
| Creation Date: | 7/20/2010 18:30:24 |
| Receipt Date: | 20100112 |
| Manifest ID: | 001987139JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENV SVCS |
| TSDF EPA ID: | TXD055141378 |
| Trans Name: | CLEAN HARBORS DEER PARK LP |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.38 |
| Waste Quantity: | 760 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20091105 |
| Creation Date: | 5/20/2010 18:30:40 |
| Receipt Date: | 20091123 |
| Manifest ID: | 001987230JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENV SVCS |
| TSDF EPA ID: | TXD055141378 |
| Trans Name: | CLEAN HARBORS DEER PARK LP |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.122 |
| Waste Quantity: | 244 |
| Quantity Unit: | P |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20090917 |
| Creation Date: | 11/25/2009 18:30:08 |
| Receipt Date: | 20090918 |
| Manifest ID: | 005986943JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.126 |
| Waste Quantity: | 30 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20090917 |
| Creation Date: | 11/25/2009 18:30:08 |
| Receipt Date: | 20090918 |
| Manifest ID: | 005986943JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.254 |
| Waste Quantity: | 330 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20090825 |
| Creation Date: | 10/13/2009 18:30:10 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Receipt Date: | 20090827 |
| Manifest ID: | 001986533JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.2295 |
| Waste Quantity: | 459 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20090825 |
| Creation Date: | 3/5/2010 18:30:08 |
| Receipt Date: | 20090901 |
| Manifest ID: | 001986532JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | UTR000007708 |
| Trans 2 Name: | SLT EXPRESSWAY |
| TSDF EPA ID: | UTD981552177 |
| Trans Name: | CLEAN HARBORS ARAGONITE LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.0085 |
| Waste Quantity: | 17 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20090812 |
| Creation Date: | 9/25/2009 18:30:28 |
| Receipt Date: | 20090812 |
| Manifest ID: | 006060898JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.52 |
| Waste Quantity: | 400 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20090812 |
| Creation Date: | 9/25/2009 18:30:28 |
| Receipt Date: | 20090812 |
| Manifest ID: | 006060898JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.21 |
| Waste Quantity: | 50 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20090630 |
| Creation Date: | 1/8/2010 18:30:28 |
| Receipt Date: | 20090722 |
| Manifest ID: | 002100263FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENV SVCS |
| TSDF EPA ID: | TXD055141378 |
| Trans Name: | CLEAN HARBORS DEER PARK LP |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.089 |
| Waste Quantity: | 178 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20090630 |
| Creation Date: | 1/8/2010 18:30:28 |
| Receipt Date: | 20090722 |
| Manifest ID: | 002100263FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENV SVCS |
| TSDF EPA ID: | TXD055141378 |
| Trans Name: | CLEAN HARBORS DEER PARK LP |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.106 |
| Waste Quantity: | 212 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2017 |
| Gen EPA ID: | CAH111001183 |
| | |
| Shipment Date: | 20171219 |
| Creation Date: | 6/13/2018 18:31:03 |
| Receipt Date: | 20171219 |
| Manifest ID: | 017380205JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.4595 |
| Waste Quantity: | 350 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171219 |
| Creation Date: | 6/13/2018 18:31:03 |
| Receipt Date: | 20171219 |
| Manifest ID: | 017380205JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.417 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171027 |
| Creation Date: | 5/30/2018 18:33:46 |
| Receipt Date: | 20171031 |
| Manifest ID: | 017179481JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.31275 |
| Waste Quantity: | 75 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171027 |
| Creation Date: | 5/30/2018 18:33:46 |
| Receipt Date: | 20171031 |
| Manifest ID: | 017179481JJK |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.93825 |
| Waste Quantity: | 225 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170929 |
| Creation Date: | 5/30/2018 18:34:06 |
| Receipt Date: | 20171002 |
| Manifest ID: | 017179276JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.417 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170929 |
| Creation Date: | 5/30/2018 18:34:06 |
| Receipt Date: | 20171002 |
| Manifest ID: | 017179276JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.668 |
| Waste Quantity: | 400 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170824 |
| Creation Date: | 8/1/2018 18:30:18 |
| Receipt Date: | 20170825 |
| Manifest ID: | 017179110JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.251 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170816 |
| Creation Date: | 5/31/2018 18:30:25 |
| Receipt Date: | 20170816 |
| Manifest ID: | 017179071JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.4595 |
| Waste Quantity: | 350 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170816 |
| Creation Date: | 5/31/2018 18:30:25 |
| Receipt Date: | 20170816 |
| Manifest ID: | 017179071JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.1251 |
| Waste Quantity: | 30 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170727 |
| Creation Date: | 5/31/2018 18:30:42 |
| Receipt Date: | 20170731 |
| Manifest ID: | 017381881JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.417 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

Additional Info:

| | |
|---|---|
| Year: | 2011 |
| Gen EPA ID: | CAH111001183 |
| Shipment Date: | 20111229 |
| Creation Date: | 3/17/2012 20:30:10 |
| Receipt Date: | 20111230 |
| Manifest ID: | 004818880FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.04 |
| Waste Quantity: | 80 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20111208 |
| Creation Date: | 3/13/2012 20:30:32 |
| Receipt Date: | 20111209 |
| Manifest ID: | 009215849JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.0425 |
| Waste Quantity: | 250 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20111208 |
| Creation Date: | 3/13/2012 20:30:32 |
| Receipt Date: | 20111209 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Manifest ID: | 009215849JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.1251 |
| Waste Quantity: | 30 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20111101 |
| Creation Date: | 1/6/2012 18:30:18 |
| Receipt Date: | 20111102 |
| Manifest ID: | 009217740JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.31275 |
| Waste Quantity: | 75 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20111027 |
| Creation Date: | 3/13/2012 15:15:42 |
| Receipt Date: | 20111028 |
| Manifest ID: | 009217703JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.93825 |
| Waste Quantity: | 225 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20111013 |
| Creation Date: | 3/13/2012 20:30:11 |
| Receipt Date: | 20111014 |
| Manifest ID: | 004817928FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.1335 |
| Waste Quantity: | 267 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20111007 |
| Creation Date: | 12/9/2011 18:30:51 |
| Receipt Date: | 20111010 |
| Manifest ID: | 008883502JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.2502 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Waste Quantity: | 60 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20111006 |
| Creation Date: | 12/9/2011 18:30:51 |
| Receipt Date: | 20111010 |
| Manifest ID: | 008883653JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.0425 |
| Waste Quantity: | 250 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20110916 |
| Creation Date: | 12/9/2011 18:30:43 |
| Receipt Date: | 20110927 |
| Manifest ID: | 008884469JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 135 - Unspecified aqueous solution |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.252 |
| Waste Quantity: | 60 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Shipment Date: | 20110915 |
| Creation Date: | 12/9/2011 18:30:13 |
| Receipt Date: | 20110919 |
| Manifest ID: | 008884453JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.0425 |
| Waste Quantity: | 250 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2007 |
| Gen EPA ID: | CAH111001183 |

| | |
|---|---|
| Shipment Date: | 20071024 |
| Creation Date: | 1/25/2008 18:30:59 |
| Receipt Date: | 20071029 |
| Manifest ID: | 002984635JJK |
| Trans EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.668 |
| Waste Quantity: | 400 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20070925 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Manifest ID: | 001986381JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | ARD069748192 |
| Trans Name: | CLEAN HARBORS EL DORADO LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.3 |
| Waste Quantity: | 600 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20070925 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001986381JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | ARD069748192 |
| Trans Name: | CLEAN HARBORS EL DORADO LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.02 |
| Waste Quantity: | 40 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20070925 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001986381JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | ARD069748192 |
| Trans Name: | CLEAN HARBORS EL DORADO LLC |
| TSDF Alt EPA ID: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20070925 |
| Creation Date: | 7/16/2008 18:30:21 |
| Receipt Date: | 20071011 |
| Manifest ID: | 001986381JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | ARD069748192 |
| Trans Name: | CLEAN HARBORS EL DORADO LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20070925 |
| Creation Date: | 7/16/2008 18:30:21 |
| Receipt Date: | 20071011 |
| Manifest ID: | 001986381JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | ARD069748192 |
| Trans Name: | CLEAN HARBORS EL DORADO LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.045 |
| Waste Quantity: | 90 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20070925 |
| Creation Date: | 7/16/2008 18:30:21 |
| Receipt Date: | 20071011 |
| Manifest ID: | 001986381JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | ARD069748192 |
| Trans Name: | CLEAN HARBORS EL DORADO LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.06 |
| Waste Quantity: | 120 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20070925 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001986381JJK |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | ARD069748192 |
| Trans Name: | CLEAN HARBORS EL DORADO LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.0075 |
| Waste Quantity: | 15 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20070917 |
| Creation Date: | 12/28/2007 18:31:14 |
| Receipt Date: | 20070919 |
| Manifest ID: | 003419541JJK |
| Trans EPA ID: | CAD982444481 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Trans Name: | FILTER RECYCLING SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.4595 |
| Waste Quantity: | 350 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20070808 |
| Creation Date: | 11/5/2007 18:30:58 |
| Receipt Date: | 20070809 |
| Manifest ID: | 002984384JJK |
| Trans EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.417 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2014 |
| Gen EPA ID: | CAH111001183 |

| | |
|---|---|
| Shipment Date: | 20141204 |
| Creation Date: | 3/27/2015 22:15:05 |
| Receipt Date: | 20141207 |
| Manifest ID: | 013746673JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.273 |
| Waste Quantity: | 65 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20141204 |
| Creation Date: | 2/13/2015 22:15:23 |
| Receipt Date: | 20141205 |
| Manifest ID: | 013746674JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.387 |
| Waste Quantity: | 365 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20141021 |
| Creation Date: | 1/2/2015 22:15:10 |
| Receipt Date: | 20141023 |
| Manifest ID: | 013090646JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| | Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.315 |
| Waste Quantity: | 75 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20141017 |
| Creation Date: | 12/26/2014 22:15:10 |
| Receipt Date: | 20141018 |
| Manifest ID: | 012418366JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.197 |
| Waste Quantity: | 315 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140913 |
| Creation Date: | 11/1/2014 22:15:05 |
| Receipt Date: | 20140915 |
| Manifest ID: | 013090653JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.988 |
| Waste Quantity: | 260 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140913 |
| Creation Date: | 11/1/2014 22:15:05 |
| Receipt Date: | 20140915 |
| Manifest ID: | 013090649JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.273 |
| Waste Quantity: | 65 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140801 |
| Creation Date: | 10/19/2014 22:15:07 |
| Receipt Date: | 20140801 |
| Manifest ID: | 012418365JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.33 |
| Waste Quantity: | 350 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140801 |
| Creation Date: | 10/19/2014 22:15:07 |
| Receipt Date: | 20140801 |
| Manifest ID: | 012406463JJK |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.168 |
| Waste Quantity: | 40 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140711 |
| Creation Date: | 9/13/2014 22:15:06 |
| Receipt Date: | 20140711 |
| Manifest ID: | 012406462JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.294 |
| Waste Quantity: | 70 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140711 |
| Creation Date: | 9/13/2014 22:15:06 |
| Receipt Date: | 20140711 |
| Manifest ID: | 012406465JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.444 |
| Waste Quantity: | 380 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2008 |
| Gen EPA ID: | CAH111001183 |
| Shipment Date: | 20081218 |
| Creation Date: | 2/17/2009 18:30:19 |
| Receipt Date: | 20081219 |
| Manifest ID: | 004822248JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.14 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20081218 |
| Creation Date: | 2/17/2009 18:30:19 |
| Receipt Date: | 20081219 |
| Manifest ID: | 004822248JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.189 |
| Waste Quantity: | 45 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20081112 |
| Creation Date: | 1/9/2009 18:30:08 |
| Receipt Date: | 20081113 |
| Manifest ID: | 004817237JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.21 |
| Waste Quantity: | 50 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20081112 |
| Creation Date: | 1/9/2009 18:30:08 |
| Receipt Date: | 20081113 |
| Manifest ID: | 004817237JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.425 |
| Waste Quantity: | 375 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20081001 |
| Creation Date: | 11/17/2008 18:30:08 |
| Receipt Date: | 20081002 |
| Manifest ID: | 005055871JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.608 |
| Waste Quantity: | 160 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20081001 |
| Creation Date: | 11/17/2008 18:30:08 |
| Receipt Date: | 20081002 |
| Manifest ID: | 005055871JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.063 |
| Waste Quantity: | 15 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20080918 |
| Creation Date: | 11/14/2008 18:30:18 |
| Receipt Date: | 20080924 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Manifest ID: | 004854052JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.292 |
| Waste Quantity: | 340 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20080918 |
| Creation Date: | 11/14/2008 18:30:18 |
| Receipt Date: | 20080924 |
| Manifest ID: | 004854052JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.168 |
| Waste Quantity: | 40 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20080813 |
| Creation Date: | 10/10/2008 18:30:18 |
| Receipt Date: | 20080814 |
| Manifest ID: | 004852730JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.126 |
| Waste Quantity: | 30 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20080813 |
| Creation Date: | 10/10/2008 18:30:18 |
| Receipt Date: | 20080814 |
| Manifest ID: | 004852730JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.14 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2013 |
| Gen EPA ID: | CAH111001183 |
| | |
| Shipment Date: | 20131221 |
| Creation Date: | 2/16/2014 22:15:06 |
| Receipt Date: | 20131221 |
| Manifest ID: | 011884374JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.294 |
| Waste Quantity: | 70 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131221 |
| Creation Date: | 2/16/2014 22:15:06 |
| Receipt Date: | 20131221 |
| Manifest ID: | 011884369JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.14 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131101 |
| Creation Date: | 12/23/2013 22:15:27 |
| Receipt Date: | 20131101 |
| Manifest ID: | 011884373JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.252 |
| Waste Quantity: | 60 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131101 |
| Creation Date: | 12/29/2013 22:15:24 |
| Receipt Date: | 20131101 |
| Manifest ID: | 011884367JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.254 |
| Waste Quantity: | 330 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131009 |
| Creation Date: | 11/29/2013 22:15:14 |
| Receipt Date: | 20131010 |
| Manifest ID: | 007098017FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.008 |
| Waste Quantity: | 16 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131004 |
| Creation Date: | 11/27/2013 22:15:07 |
| Receipt Date: | 20131004 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Manifest ID: | 011884372JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.252 |
| Waste Quantity: | 60 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131004 |
| Creation Date: | 11/27/2013 22:15:07 |
| Receipt Date: | 20131004 |
| Manifest ID: | 011884371JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.912 |
| Waste Quantity: | 240 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20130911 |
| Creation Date: | 1/13/2014 22:15:22 |
| Receipt Date: | 20130914 |
| Manifest ID: | 007097664FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | MOR000501973 |
| Trans 2 Name: | R&R |
| TSDF EPA ID: | NED981723513 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.024 |
| Waste Quantity: | 48 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20130829 |
| Creation Date: | 10/26/2013 22:15:06 |
| Receipt Date: | 20130830 |
| Manifest ID: | 011887533JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.482 |
| Waste Quantity: | 390 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20130829 |
| Creation Date: | 10/25/2013 22:15:29 |
| Receipt Date: | 20130901 |
| Manifest ID: | 011887526JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.273 |
| Waste Quantity: | 65 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2012 |
| Gen EPA ID: | CAH111001183 |
| Shipment Date: | 20121220 |
| Creation Date: | 5/14/2013 22:15:27 |
| Receipt Date: | 20121231 |
| Manifest ID: | 005639521FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | AZR000508515 |
| Trans 2 Name: | SLT EXPRESS TRANS |
| TSDF EPA ID: | UTD981552177 |
| Trans Name: | CLEAN HARBORS ARAGONITE LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.1245 |
| Waste Quantity: | 249 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20121220 |
| Creation Date: | 5/14/2013 22:15:27 |
| Receipt Date: | 20121231 |
| Manifest ID: | 005639521FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | AZR000508515 |
| Trans 2 Name: | SLT EXPRESS TRANS |
| TSDF EPA ID: | UTD981552177 |
| Trans Name: | CLEAN HARBORS ARAGONITE LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.0085 |
| Waste Quantity: | 17 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121220 |
| Creation Date: | 5/14/2013 22:15:27 |
| Receipt Date: | 20121231 |
| Manifest ID: | 005639521FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | AZR000508515 |
| Trans 2 Name: | SLT EXPRESS TRANS |
| TSDF EPA ID: | UTD981552177 |
| Trans Name: | CLEAN HARBORS ARAGONITE LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.004 |
| Waste Quantity: | 8 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121220 |
| Creation Date: | 2/15/2013 22:15:34 |
| Receipt Date: | 20121220 |
| Manifest ID: | 005639522FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.03 |
| Waste Quantity: | 60 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121220 |
| Creation Date: | 2/15/2013 22:15:34 |
| Receipt Date: | 20121220 |
| Manifest ID: | 005639522FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0745 |
| Waste Quantity: | 149 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121206 |
| Creation Date: | 2/15/2013 22:15:11 |
| Receipt Date: | 20121210 |
| Manifest ID: | 010971413JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.0008 |
| Waste Quantity: | 240 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121206 |
| Creation Date: | 2/15/2013 22:15:11 |
| Receipt Date: | 20121210 |
| Manifest ID: | 010971413JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.10425 |
| Waste Quantity: | 25 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121102 |
| Creation Date: | 1/19/2013 22:15:23 |
| Receipt Date: | 20121112 |
| Manifest ID: | 010615588JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.0425 |
| Waste Quantity: | 250 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121102 |
| Creation Date: | 1/19/2013 22:15:23 |
| Receipt Date: | 20121112 |
| Manifest ID: | 010615588JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.1668 |
| Waste Quantity: | 40 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20120927 |
| Creation Date: | 11/28/2012 22:15:34 |
| Receipt Date: | 20121002 |
| Manifest ID: | 010388494JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.72975 |
| Waste Quantity: | 175 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2016 |
| Gen EPA ID: | CAH111001183 |
| | |
| Shipment Date: | 20151217 |
| Creation Date: | 3/3/2016 22:15:11 |
| Receipt Date: | 20151219 |
| Manifest ID: | 014624167JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.231 |
| Waste Quantity: | 55 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151217 |
| Creation Date: | 3/3/2016 22:15:11 |
| Receipt Date: | 20151218 |
| Manifest ID: | 014624168JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.254 |
| Waste Quantity: | 330 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151104 |
| Creation Date: | 1/11/2016 22:16:27 |
| Receipt Date: | 20151105 |
| Manifest ID: | 014624169JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.406 |
| Waste Quantity: | 370 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151104 |
| Creation Date: | 1/11/2016 22:16:27 |
| Receipt Date: | 20151105 |
| Manifest ID: | 014624166JJK |
| Trans EPA ID: | CAD028277036 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.336 |
| Waste Quantity: | 80 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150925 |
| Creation Date: | 1/7/2016 22:15:09 |
| Receipt Date: | 20150928 |
| Manifest ID: | 014622811JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO / KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 133 - Aqueous solution with 10% or more total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.4587 |
| Waste Quantity: | 110 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150925 |
| Creation Date: | 1/11/2016 22:15:53 |
| Receipt Date: | 20150928 |
| Manifest ID: | 014622813JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.33 |
| Waste Quantity: | 350 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150821 |
| Creation Date: | 11/3/2015 22:15:24 |
| Receipt Date: | 20150822 |
| Manifest ID: | 014624170JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.14 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150821 |
| Creation Date: | 11/3/2015 22:15:24 |
| Receipt Date: | 20150822 |
| Manifest ID: | 014624165JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.168 |
| Waste Quantity: | 40 |
| Quantity Unit: | G |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150731 |
| Creation Date: | 10/5/2015 22:15:16 |
| Receipt Date: | 20150803 |
| Manifest ID: | 014661807JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.462 |
| Waste Quantity: | 110 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150731 |
| Creation Date: | 9/23/2015 22:15:29 |
| Receipt Date: | 20150731 |
| Manifest ID: | 014661804JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.064 |
| Waste Quantity: | 280 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

Additional Info:

| | |
|---|---|
| Year: | 2006 |
| Gen EPA ID: | CAH111001183 |
| Shipment Date: | 20061108 |
| Creation Date: | 3/30/2007 13:33:11 |
| Receipt Date: | 20061109 |
| Manifest ID: | 000663601FLE |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.52 |
| Waste Quantity: | 400 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20061108 |
| Creation Date: | 3/30/2007 13:33:11 |
| Receipt Date: | 20061109 |
| Manifest ID: | 000663602FLE |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.21 |
| Waste Quantity: | 50 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20061101 |
| Creation Date: | 3/30/2007 13:33:47 |
| Receipt Date: | 20061107 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Manifest ID: | 000462504FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.1425 |
| Waste Quantity: | 285 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20061101 |
| Creation Date: | 3/30/2007 13:33:47 |
| Receipt Date: | 20061107 |
| Manifest ID: | 000462504FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENV SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 2.919 |
| Waste Quantity: | 700 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20060916 |
| Creation Date: | 3/30/2007 13:31:11 |
| Receipt Date: | 20060916 |
| Manifest ID: | 000519594JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.38 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20060916 |
| Creation Date: | 3/30/2007 13:31:11 |
| Receipt Date: | 20060916 |
| Manifest ID: | 000519591JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.21 |
| Waste Quantity: | 50 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2015 |
| Gen EPA ID: | CAH111001183 |
| | |
| Shipment Date: | 20151217 |
| Creation Date: | 3/3/2016 22:15:11 |
| Receipt Date: | 20151219 |
| Manifest ID: | 014624167JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.231 |
| Waste Quantity: | 55 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151217 |
| Creation Date: | 3/3/2016 22:15:11 |
| Receipt Date: | 20151218 |
| Manifest ID: | 014624168JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.254 |
| Waste Quantity: | 330 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151104 |
| Creation Date: | 1/11/2016 22:16:27 |
| Receipt Date: | 20151105 |
| Manifest ID: | 014624169JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.406 |
| Waste Quantity: | 370 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151104 |
| Creation Date: | 1/11/2016 22:16:27 |
| Receipt Date: | 20151105 |
| Manifest ID: | 014624166JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.336 |
| Waste Quantity: | 80 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150925 |
| Creation Date: | 1/11/2016 22:15:53 |
| Receipt Date: | 20150928 |
| Manifest ID: | 014622813JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.33 |
| Waste Quantity: | 350 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150925 |
| Creation Date: | 1/7/2016 22:15:09 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Receipt Date: | 20150928 |
| Manifest ID: | 014622811JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO / KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 133 - Aqueous solution with 10% or more total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.4587 |
| Waste Quantity: | 110 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20150821 |
| Creation Date: | 11/3/2015 22:15:24 |
| Receipt Date: | 20150822 |
| Manifest ID: | 014624170JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.14 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20150821 |
| Creation Date: | 11/3/2015 22:15:24 |
| Receipt Date: | 20150822 |
| Manifest ID: | 014624165JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.168 |
| Waste Quantity: | 40 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150731 |
| Creation Date: | 10/5/2015 22:15:16 |
| Receipt Date: | 20150803 |
| Manifest ID: | 014661807JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.462 |
| Waste Quantity: | 110 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150731 |
| Creation Date: | 9/23/2015 22:15:29 |
| Receipt Date: | 20150731 |
| Manifest ID: | 014661804JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080025711 |
| Trans Name: | ADVANCED ENVIRONMENTAL INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Quantity Tons: | 1.064 |
| Waste Quantity: | 280 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2010 |
| Gen EPA ID: | CAH111001183 |
| Shipment Date: | 20101228 |
| Creation Date: | 2/19/2011 18:30:25 |
| Receipt Date: | 20110103 |
| Manifest ID: | 007385900JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.95 |
| Waste Quantity: | 250 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20101228 |
| Creation Date: | 2/19/2011 18:30:25 |
| Receipt Date: | 20110103 |
| Manifest ID: | 007385900JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.252 |
| Waste Quantity: | 60 |
| Quantity Unit: | G |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20101119 |
| Creation Date: | 1/12/2011 18:30:17 |
| Receipt Date: | 20101124 |
| Manifest ID: | 007629159JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.168 |
| Waste Quantity: | 40 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20101119 |
| Creation Date: | 1/12/2011 18:30:17 |
| Receipt Date: | 20101124 |
| Manifest ID: | 007629159JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.33 |
| Waste Quantity: | 350 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20101110 |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Creation Date: | 5/5/2011 18:30:32 |
| Receipt Date: | 20101111 |
| Manifest ID: | 003888856FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.2335 |
| Waste Quantity: | 467 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20101012 |
| Creation Date: | 12/30/2010 18:30:30 |
| Receipt Date: | 20101012 |
| Manifest ID: | 007927606JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 135 - Unspecified aqueous solution |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.084 |
| Waste Quantity: | 20 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20101012 |
| Creation Date: | 12/30/2010 18:30:30 |
| Receipt Date: | 20101012 |
| Manifest ID: | 007927606JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.855 |
| Waste Quantity: | 225 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20100916 |
| Creation Date: | 12/3/2010 18:30:42 |
| Receipt Date: | 20100917 |
| Manifest ID: | 007628894JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 221 - Waste oil and mixed oil |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 1.14 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20100916 |
| Creation Date: | 12/3/2010 18:30:42 |
| Receipt Date: | 20100917 |
| Manifest ID: | 007628894JJK |
| Trans EPA ID: | CAR000172460 |
| Trans Name: | ENVIRONMENTAL LOGISTICS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 135 - Unspecified aqueous solution |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| | Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.21 |
| Waste Quantity: | 50 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20100902 |
| Creation Date: | 2/8/2011 18:30:24 |
| Receipt Date: | 20100902 |
| Manifest ID: | 003409643FLE |
| Trans EPA ID: | MAD039322250 |
| Trans Name: | CLEAN HARBORS ENVIRONMENTAL SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD044429835 |
| Trans Name: | CLEAN HARBORS WILMINGTON LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 612 - Household waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.202 |
| Waste Quantity: | 404 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

CERS:

| | |
|---|---|
| Name: | SOUTHWEST ABOP COLLECTION CENTER |
| Address: | 25315 JEFFERSON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 69772 |
| CERS ID: | 10320937 |
| CERS Description: | Chemical Storage Facilities |

Violations:

| | |
|---|---|
| Site ID: | 69772 |
| Site Name: | Southwest ABOP Collection Center |
| Violation Date: | 12-19-2015 |
| Citation: | HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple |
| Violation Description: | Business Plan Program - Administration/Documentation - General |
| Violation Notes: | Returned to compliance on 01/20/2017. Local ordinance violation |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |

Evaluation:

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

Eval Date: 10-24-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-24-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HHW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-24-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-19-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HHW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-19-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-19-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 69772
Site Name: Southwest ABOP Collection Center
Site Address: 25315 JEFFERSON AVE

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Site City: | MURRIETA |
| Site Zip: | 92562 |
| Enf Action Date: | 12-19-2015 |
| Enf Action Type: | Notice of Violation (Unified Program) |
| Enf Action Description: | Notice of Violation Issued by the Inspector at the Time of Inspection |
| Enf Action Notes: | Not reported |
| Enf Action Division: | Riverside County Department of Env Health |
| Enf Action Program: | HMRRP |
| Enf Action Source: | CERS |

Coordinates:

| | |
|---|---|
| Site ID: | 69772 |
| Facility Name: | Southwest ABOP Collection Center |
| Env Int Type Code: | HWG |
| Program ID: | 10320937 |
| Coord Name: | Not reported |
| Ref Point Type Desc: | Center of a facility or station. |
| Latitude: | 33.551680 |
| Longitude: | -117.200260 |

Affiliation:

| | |
|---|---|
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | Emily Chau |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Identification Signer |
| Entity Name: | Lisa Thompson |
| Entity Title: | Environmental Compliance Manager |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Riverside County Department of Waste Resources |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |

**SOUTHWEST ABOP COLLECTION CENTER (Continued)** **S113020532**

| | |
|---|---|
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | Riverside County Department of Waste Resources |
| Entity Title: | Not reported |
| Affiliation Address: | 14310 Frederick St |
| Affiliation City: | Moreno Valley |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 92553 |
| Affiliation Phone: | (951) 486-3200 |
| | |
| Affiliation Type Desc: | Operator |
| Entity Name: | Riverside County Department of Waste Resources |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (951) 486-3200 |
| | |
| Affiliation Type Desc: | Property Owner |
| Entity Name: | Riverside County Department of Waste Resources |
| Entity Title: | Not reported |
| Affiliation Address: | 14310 Frederick Street |
| Affiliation City: | Moreno Valley |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 92553 |
| Affiliation Phone: | (951) 486-3200 |
| | |
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | LISA THOMPSON |
| Entity Title: | Not reported |
| Affiliation Address: | 14310 Frederick Street |
| Affiliation City: | Moreno Valley |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92553 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | 14310 Frederick St |
| Affiliation City: | Moreno Valley |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92553 |
| Affiliation Phone: | Not reported |

**A7** **MURRIETA ABOP FACILITY RIVERSIDE COUNTY -DEPARTMEN** **RCRA NonGen / NLR** **1024785052**
**West** **25315 JEFFERSON AVE** **CAH111001183**
**< 1/8** **MURRIETA, CA 92562**
**0.020 mi.**
**105 ft.** **Site 5 of 7 in cluster A**

**Relative:** **Higher**

**Actual:** **1099 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 20191202 |
| Handler Name: | MURRIETA ABOP FACILITY RIVERSIDE COUNTY -DEPARTMENT OF WASTE RESOURCE |
| Handler Address: | 25315 JEFFERSON AVE |
| Handler City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAH111001183 |
| Contact Name: | LISA THOMPSON |
| Contact Address: | 14310 FREDERICK ST |
| Contact City,State,Zip: | MORENO VALLEY, CA 92553 |
| Contact Telephone: | 951-486-3265 |
| Contact Fax: | 951-486-3205 |
| Contact Email: | ETHOMPSON@RIVCO.ORG |
| Contact Title: | PROGRAM ADMINISTRATOR |
| EPA Region: | 09 |
| Land Type: | County |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 14310 FREDERICK ST |
| Mailing City,State,Zip: | MORENO VALLEY, CA 92553 |
| Owner Name: | RIVERSIDE COUNTY |
| Owner Type: | County |
| Operator Name: | LISA THOMPSON |
| Operator Type: | County |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |

**MURRIETA ABOP FACILITY RIVERSIDE COUNTY -DEPARTMENT OF WASTE (Continued)** **1024785052**

| | |
|---|---|
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20191203 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | RIVERSIDE COUNTY |
| Legal Status: | County |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 14310 FREDERICK ST |
| Owner/Operator City,State,Zip: | MORENO VALLEY, CA 92553 |
| Owner/Operator Telephone: | 951-486-3200 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | LISA THOMPSON |
| Legal Status: | County |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 14310 FREDERICK ST |
| Owner/Operator City,State,Zip: | MORENO VALLEY, CA 92553 |
| Owner/Operator Telephone: | 951-486-3265 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | ETHOMPSON@RIVCO.ORG |

**MURRIETA ABOP FACILITY RIVERSIDE COUNTY -DEPARTMENT OF WASTE (Continued)** **1024785052**

Historic Generators:
Receive Date: 20191202
Handler Name: MURRIETA ABOP FACILITY RIVERSIDE COUNTY -DEPARTMENT OF WASTE RESOURCE
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

List of NAICS Codes and Descriptions:
NAICS Code: 92119
NAICS Description: OTHER GENERAL GOVERNMENT SUPPORT

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

---

**A8** **COUNTY ROAD DEPT - MURRIETA YD** **SWEEPS UST** **S101590073**
**West** **25315 JEFFERSON AVE** **CA FID UST** **N/A**
**< 1/8** **MURRIETA, CA 92362**
**0.020 mi.**
**105 ft.** **Site 6 of 7 in cluster A**

**Relative:**
**Higher**

**Actual:**
**1099 ft.**

SWEEPS UST:
Name: COUNTY ROAD DEPT-MURRIETA YD
Address: 25315 JEFFERSON AVE
City: MURRIETA
Status: Active
Comp Number: 65524
Number: 5
Board Of Equalization: 44-018475
Referral Date: 05-13-93
Action Date: 05-13-93
Created Date: 02-29-88
Owner Tank Id: 001478
SWRCB Tank Id: 33-000-065524-000001
Tank Status: A
Capacity: 10000
Active Date: 05-13-93
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 2

Name: COUNTY ROAD DEPT-MURRIETA YD
Address: 25315 JEFFERSON AVE
City: MURRIETA
Status: Active

**COUNTY ROAD DEPT - MURRIETA YD (Continued)** **S101590073**

| | |
|---|---|
| Comp Number: | 65524 |
| Number: | 5 |
| Board Of Equalization: | 44-018475 |
| Referral Date: | 05-13-93 |
| Action Date: | 05-13-93 |
| Created Date: | 02-29-88 |
| Owner Tank Id: | 001478 |
| SWRCB Tank Id: | 33-000-065524-000002 |
| Tank Status: | A |
| Capacity: | 10000 |
| Active Date: | 05-13-93 |
| Tank Use: | M.V. FUEL |
| STG: | P |
| Content: | DIESEL |
| Number Of Tanks: | Not reported |

CA FID UST:

| | |
|---|---|
| Facility ID: | 33003612 |
| Regulated By: | UTNKA |
| Regulated ID: | 00065524 |
| Cortese Code: | Not reported |
| SIC Code: | Not reported |
| Facility Phone: | 7146775889 |
| Mail To: | Not reported |
| Mailing Address: | 4080 LEMON ST |
| Mailing Address 2: | Not reported |
| Mailing City,St,Zip: | MURRIETA 92362 |
| Contact: | Not reported |
| Contact Phone: | Not reported |
| DUNs Number: | Not reported |
| NPDES Number: | Not reported |
| EPA ID: | Not reported |
| Comments: | Not reported |
| Status: | Active |

---

**A9** **MURRIETA MAINTENANCE YARD** **SWF/LF** **S111459345**
**West** **25315 JEFFERSON AVE.** **CERS** **N/A**
**< 1/8** **MURRIETA, CA 92562**
**0.020 mi.**
**105 ft.** **Site 7 of 7 in cluster A**

**Relative:** **Higher**

**Actual:** **1099 ft.**

SWF/LF (SWIS):

| | |
|---|---|
| Name: | MURRIETA MAINTENANCE YARD |
| Address: | 25315 JEFFERSON AVE. |
| City,State,Zip: | MURRIETA, CA 92562 |
| Region: | STATE |
| Facility ID: | 33-AA-0341 |
| SWIS Number: | 33-AA-0341 |
| Point of Contact: | Theodore Tasiopoulos |
| Is Archived: | No |
| Is Closed Illegal Abandoned: | No |
| Is Site Inert Debris Engineered Fill: | No |
| Is Financial Assurances Responsible: | No |
| Absorbed On: | Not reported |
| Operational Status: | Active |
| Absorbed By: | Not reported |
| Closed Illegal Abandoned Category: | Not reported |

**MURRIETA MAINTENANCE YARD (Continued)** **S111459345**

| | |
|---|---|
| EPA Federal Registry ID: | Not reported |
| ARB District: | South Coast |
| SWRCB Region: | San Diego |
| Local Government: | Murrieta |
| Reporting Agency Legal Name: | County of Riverside |
| Reporting Agency Department: | Department of Environmental Health |
| Enforcing Agency Legal Name: | County of Riverside |
| Enforcing Agency Department: | Department of Environmental Health |
| Regulation Status: | Notification |

Activity:

| | |
|---|---|
| SWIS Number: | 33-AA-0341 |
| Site Name: | Murrieta Maintenance Yard |
| Activity: | Limited Volume Transfer Operation |
| Activity Is Archived: | No |
| Category: | Transfer/Processing |
| Activity Classification: | Solid Waste Operation |
| WDR Number: | Not reported |
| WDR Landfill Class: | Not reported |
| Cease Operation: | Not reported |
| Cease Operation Type: | Not reported |
| Inspection Frequency: | Quarterly |
| Throughput: | 60 |
| Throughput Units: | Cubic Yards per Day |
| Remaining Capacity: | Not reported |
| Remaining Capacity Date: | Not reported |
| Capacity: | 12480 |
| Capacity Units: | Cubic Yards per year |
| Total Acreage: | 7.5 |
| Disposal Acreage: | Not reported |
| Permitted Elevation: | Not reported |
| Permitted Elevation Type: | Not reported |
| Permitted Depth: | Not reported |
| Permitted Depth Type: | Not reported |
| Point of Contact: | Theodore Tasiopoulos |
| Site Operational Status: | Active |
| Site Regulatory Status: | Notification |
| Site Is Archived: | No |
| Is Closed Illegal Abandoned: | No |
| Is Site Inert Debris Engineered Fill: | No |
| Is Financial Assurances Responsible: | No |
| Absorbed On: | Not reported |
| Absorbed By: | Not reported |
| Closed Illegal Abandoned Category: | Not reported |
| EPA Federal Registry ID: | Not reported |
| County: | Riverside |
| ARB District: | South Coast |
| SWRCB Region: | San Diego |
| Local Government: | Murrieta |
| Street Address: | 25315 Jefferson Ave. |
| City: | Murrieta |
| State: | CA |
| ZIP Code: | 92562 |
| Reporting Agency Legal Name: | County of Riverside |
| Reporting Agency Department: | Department of Environmental Health |
| Enforcing Agency Legal Name: | County of Riverside |
| Enforcing Agency Department: | Department of Environmental Health |

**MURRIETA MAINTENANCE YARD (Continued)** **S111459345**

Operator:

| | |
|---|---|
| SWIS Number: | 33-AA-0341 |
| Site Name: | Murrieta Maintenance Yard |
| Site Operational Status: | Active |
| Site Type: | Non-Disposal Only |
| Site Regulatory Status: | Notification |
| Latitude: | 33.55096 |
| Longitude: | -117.2002 |
| Is Archived: | No |
| Operator: | Riverside County Transportation Dep. |
| Started On: | 12/28/2011 |
| Contact Name: | Not reported |
| Contact Title: | Not reported |
| Contact Email: | Not reported |
| Contact Phone: | (951) 677-5889 |
| Street Address: | Koran Manka 25-315 Jefferson Ave. |
| Operator City: | Murrieta |
| Operator State: | CA |
| Operator Zip: | 92562 |

Owner:

| | |
|---|---|
| SWIS Number: | 33-AA-0341 |
| Owner: | Riverside County Transportation Dept. |
| Owner Address: | Paul Russel 2950 Washington St. |
| Owner City: | Riverside |
| Owner State: | CA |
| Owner Zip: | 92504 |
| Site Name: | Murrieta Maintenance Yard |
| Site Operational Status: | Active |
| Site Type: | Non-Disposal Only |
| Site Regulatory Status: | Notification |
| Latitude: | 33.55096 |
| Longitude: | -117.2002 |
| Is Archived: | No |
| Started On: | 12/22/2011 |
| Contact Name: | Not reported |
| Contact Title: | Not reported |
| Contact Email: | Not reported |
| Contact Phone: | (951) 955-6899 |

Waste:

| | |
|---|---|
| SWIS Number: | 33-AA-0341 |
| Site Name: | Murrieta Maintenance Yard |
| Activity: | Limited Volume Transfer Operation |
| Waste Type: | Dead Animals |
| Site Is Archived: | No |
| Site Operational Status: | Active |
| Site Regulatory Status: | Notification |
| Site Type: | Non-Disposal Only |
| Point of Contact: | Theodore Tasiopoulos |
| Activity Is Archived: | No |
| Activity Operational Status: | Active |
| Activity Regulatory Status: | Notification |
| Activity Category: | Transfer/Processing |
| Activity Classification: | Solid Waste Operation |

**MURRIETA MAINTENANCE YARD (Continued)** **S111459345**

SWIS Number: 33-AA-0341
Site Name: Murrieta Maintenance Yard
Activity: Limited Volume Transfer Operation
Waste Type: Green Materials
Site Is Archived: No
Site Operational Status: Active
Site Regulatory Status: Notification
Site Type: Non-Disposal Only
Point of Contact: Theodore Tasiopoulos
Activity Is Archived: No
Activity Operational Status: Active
Activity Regulatory Status: Notification
Activity Category: Transfer/Processing
Activity Classification: Solid Waste Operation

SWIS Number: 33-AA-0341
Site Name: Murrieta Maintenance Yard
Activity: Limited Volume Transfer Operation
Waste Type: Inert
Site Is Archived: No
Site Operational Status: Active
Site Regulatory Status: Notification
Site Type: Non-Disposal Only
Point of Contact: Theodore Tasiopoulos
Activity Is Archived: No
Activity Operational Status: Active
Activity Regulatory Status: Notification
Activity Category: Transfer/Processing
Activity Classification: Solid Waste Operation

SWIS Number: 33-AA-0341
Site Name: Murrieta Maintenance Yard
Activity: Limited Volume Transfer Operation
Waste Type: Metals
Site Is Archived: No
Site Operational Status: Active
Site Regulatory Status: Notification
Site Type: Non-Disposal Only
Point of Contact: Theodore Tasiopoulos
Activity Is Archived: No
Activity Operational Status: Active
Activity Regulatory Status: Notification
Activity Category: Transfer/Processing
Activity Classification: Solid Waste Operation

SWIS Number: 33-AA-0341
Site Name: Murrieta Maintenance Yard
Activity: Limited Volume Transfer Operation
Waste Type: Mixed municipal
Site Is Archived: No
Site Operational Status: Active
Site Regulatory Status: Notification
Site Type: Non-Disposal Only
Point of Contact: Theodore Tasiopoulos
Activity Is Archived: No
Activity Operational Status: Active
Activity Regulatory Status: Notification

**MURRIETA MAINTENANCE YARD (Continued)** **S111459345**

Activity Category: Transfer/Processing
Activity Classification: Solid Waste Operation

SWIS Number: 33-AA-0341
Site Name: Murrieta Maintenance Yard
Activity: Limited Volume Transfer Operation
Waste Type: Tires
Site Is Archived: No
Site Operational Status: Active
Site Regulatory Status: Notification
Site Type: Non-Disposal Only
Point of Contact: Theodore Tasiopoulos
Activity Is Archived: No
Activity Operational Status: Active
Activity Regulatory Status: Notification
Activity Category: Transfer/Processing
Activity Classification: Solid Waste Operation

SWIS Number: 33-AA-0341
Site Name: Murrieta Maintenance Yard
Activity: Limited Volume Transfer Operation
Waste Type: Tires, Shreds
Site Is Archived: No
Site Operational Status: Active
Site Regulatory Status: Notification
Site Type: Non-Disposal Only
Point of Contact: Theodore Tasiopoulos
Activity Is Archived: No
Activity Operational Status: Active
Activity Regulatory Status: Notification
Activity Category: Transfer/Processing
Activity Classification: Solid Waste Operation

CERS:
Name: MURRIETA MAINTENANCE YARD
Address: 25315 JEFFERSON AVE.
City,State,Zip: MURRIETA, CA
Site ID: 510367
CERS ID: 33-AA-0341
CERS Description: Solid Waste and Recycle Sites

Affiliation:
Affiliation Type Desc: Legal Owner
Entity Name: Riverside County Transportation Dept.
Entity Title: Not reported
Affiliation Address: Paul Russel2950 Washington St.
Affiliation City: Riverside
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92504
Affiliation Phone: 9519556899

Affiliation Type Desc: Legal Operator
Entity Name: Riverside County Transportation Dep.
Entity Title: Not reported
Affiliation Address: Koran Manka25-315 Jefferson Ave.

**MURRIETA MAINTENANCE YARD (Continued)** **S111459345**

| | |
|---|---|
| Affiliation City: | Murrieta |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92562 |
| Affiliation Phone: | 9516775889 |

---

**B10** **7-ELEVEN INC #33062** **UST** **U004262802**
**NNE** **41260 MURRIETA HOT SPRGS** **N/A**
**< 1/8** **MURRIETA, CA 92562**
**0.091 mi.**
**483 ft.** **Site 1 of 4 in cluster B**

**Relative:** UST:
**Higher**

**Actual:**
**1091 ft.**

| | |
|---|---|
| Name: | 7-ELEVEN INC #33062 |
| Address: | 41260 MURRIETA HOT SPRGS |
| City,State,Zip: | MURRIETA, CA 92562 |
| Facility ID: | Not reported |
| Permitting Agency: | Riverside County Department of Environme |
| Latitude: | Not reported |
| Longitude: | Not reported |

| | |
|---|---|
| Name: | 7-ELEVEN INC #33062 |
| Address: | 41260 MURRIETA HOT SPRGS |
| City,State,Zip: | MURRIETA, CA 92562 |
| Facility ID: | Not reported |
| Permitting Agency: | Riverside County Department of Environmental Health |
| Latitude: | Not reported |
| Longitude: | Not reported |

| | |
|---|---|
| Name: | 7-ELEVEN INC #33062 |
| Address: | 41260 MURRIETA HOT SPRGS |
| City,State,Zip: | MURRIETA, CA 92562 |
| Facility ID: | Not reported |
| Permitting Agency: | Riverside County Department of Environmental Health |
| Latitude: | Not reported |
| Longitude: | Not reported |

---

**B11** **7 ELEVEN OF MURRIETA** **EDR Hist Auto** **1020878667**
**NNE** **41260 MURRIETA HOT SPG** **N/A**
**< 1/8** **MURRIETA, CA 92562**
**0.091 mi.**
**483 ft.** **Site 2 of 4 in cluster B**

**Relative:** EDR Hist Auto
**Higher**

**Actual:**
**1091 ft.**

| Year: | Name: | Type: |
|---|---|---|
| 2005 | 7 ELEVEN OF MURRIETA | Gasoline Service Stations |

**B12** **7 ELEVEN #33062** **UST** **U003932478**
**NNE** **41260 MURRIETA HOT SPRINGS RD** **N/A**
**< 1/8** **MURRIETA, CA 92562**
**0.091 mi.**
**483 ft.** **Site 3 of 4 in cluster B**

**Relative:** **Higher**
**Actual:** **1091 ft.**

RIVERSIDE CO. UST:

| | |
|---|---|
| Name: | 7 ELEVEN #33062 |
| Address: | 41260 MURRIETA HOT SPRINGS RD |
| City,State,Zip: | MURRIETA, CA 92562 |
| Region: | RIVERSIDE |
| Total Tanks: | 2 |

---

**B13** **7 ELEVEN #33062** **RCRA NonGen / NLR** **1024804743**
**NNE** **41260 MURRIETA HOT SPRINGS RD** **CAL000259907**
**< 1/8** **MURRIETA, CA 92653**
**0.091 mi.**
**483 ft.** **Site 4 of 4 in cluster B**

**Relative:** **Higher**
**Actual:** **1091 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20020927 |
| Handler Name: | 7 ELEVEN #33062 | |
| Handler Address: | | 41260 MURRIETA HOT SPRINGS RD |
| Handler City,State,Zip: | | MURRIETA, CA 92653 |
| EPA ID: | | CAL000259907 |
| Contact Name: | | JOSE RIOS |
| Contact Address: | | 1722 ROUTH STREET |
| Contact City,State,Zip: | | DALLAS, TX 75201 |
| Contact Telephone: | | 972-828-6592 |
| Contact Fax: | | 972-828-1095 |
| Contact Email: | | JOSE.RIOS@7-11.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | PO BOX 711 |
| Mailing City,State,Zip: | | DALLAS, TX 75221 |
| Owner Name: | | 7-ELEVEN INC. |
| Owner Type: | | Other |
| Operator Name: | | JOSE RIOS |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |

**7 ELEVEN #33062 (Continued)** **1024804743**

| | |
|---|---|
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180905 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | 7-ELEVEN INC. |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 711 |
| Owner/Operator City,State,Zip: | DALLAS, TX 75221 |
| Owner/Operator Telephone: | 714-771-5484 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

**7 ELEVEN #33062 (Continued)** **1024804743**

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | JOSE RIOS |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 1722 ROUTH STREET |
| Owner/Operator City,State,Zip: | DALLAS, TX 75201 |
| Owner/Operator Telephone: | 972-828-6592 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20020927 |
| Handler Name: 7 ELEVEN #33062 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 44711 |
| NAICS Description: | GASOLINE STATIONS WITH CONVENIENCE STORES |

Facility Has Received Notices of Violations:

| | |
|---|---|
| Violations: | No Violations Found |

Evaluation Action Summary:

| | |
|---|---|
| Evaluations: | No Evaluations Found |

---

**14**
**North**
**< 1/8**
**0.103 mi.**
**545 ft.**

**SALONCENTRIC** **RCRA NonGen / NLR** **1025873478**
**25285 MADISON AVE STE 104** **CAL000446604**
**RIVERSIDE, CA 92562**

**Relative: Higher**

**Actual: 1095 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 20190611 |
| Handler Name: SALONCENTRIC | |
| Handler Address: | 25285 MADISON AVE STE 104 |
| Handler City,State,Zip: | RIVERSIDE, CA 92562 |
| EPA ID: | CAL000446604 |
| Contact Name: | VICKI SVENDSEN |
| Contact Address: | 28145 W HARRISON PKWY |
| Contact City,State,Zip: | VALENCIA, CA 91355 |
| Contact Telephone: | 661-295-4838 |
| Contact Fax: | Not reported |
| Contact Email: | VSVENDSEN@SALONCENTRIC.COM |
| Contact Title: | Not reported |

**SALONCENTRIC (Continued)** **1025873478**

| | |
|---|---|
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 25285 MADISON AVE STE 104 |
| Mailing City,State,Zip: | RIVERSIDE, CA 92562 |
| Owner Name: | SALONCENTRIC INC |
| Owner Type: | Other |
| Operator Name: | VICKI SVENDSEN |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | Yes |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |

**SALONCENTRIC (Continued)** **1025873478**

| | |
|---|---|
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20190628 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | SALONCENTRIC INC |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 10101 DR MARTIN LUTHER KING ST N #100 |
| Owner/Operator City,State,Zip: | ST PETERSBURG, FL 33716 |
| Owner/Operator Telephone: | 760-843-9344 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | VICKI SVENDSEN |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 28145 W HARRISON PKWY |
| Owner/Operator City,State,Zip: | VALENCIA, CA 91355 |
| Owner/Operator Telephone: | 661-295-4838 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20190611 |
| Handler Name: SALONCENTRIC | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 453998 |

**SALONCENTRIC (Continued)** **1025873478**

NAICS Description: ALL OTHER MISCELLANEOUS STORE RETAILERS (EXCEPT TOBACCO STORES)

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

---

**15**
**NNE**
**1/8-1/4**
**0.125 mi.**
**661 ft.**

**MURRIETA DENTAL CORP** **RCRA NonGen / NLR** **1024803030**
**25395 MADISON** **CAL000250575**
**MURRIETA, CA 92562**

**Relative:**
**Higher**

**Actual:**
**1092 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20020422 |
| Handler Name: | MURRIETA DENTAL CORP | |
| Handler Address: | | 25395 MADISON |
| Handler City,State,Zip: | | MURRIETA, CA 92562 |
| EPA ID: | | CAL000250575 |
| Contact Name: | | CHIP RAWLINGS |
| Contact Address: | | 25395 MADISON AVE. |
| Contact City,State,Zip: | | MURRIETA, CA 92562-0000 |
| Contact Telephone: | | 951-696-5560 |
| Contact Fax: | | Not reported |
| Contact Email: | | RISK@PACDEN.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 17000 RED HILL AVENUE |
| Mailing City,State,Zip: | | IRVINE, CA 92614-0000 |
| Owner Name: | | WATANABE DENTAL CORP |
| Owner Type: | | Other |
| Operator Name: | | CHIP RAWLINGS |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |

**MURRIETA DENTAL CORP (Continued)** **1024803030**

| | |
|---|---|
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180905 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | CHIP RAWLINGS |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 25395 MADISON AVE. |
| Owner/Operator City,State,Zip: | MURRIETA, CA 92562-0000 |
| Owner/Operator Telephone: | 951-696-5560 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |

**MURRIETA DENTAL CORP (Continued)** **1024803030**

| | |
|---|---|
| Owner/Operator Name: | WATANABE DENTAL CORP |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 25395 MADISON AVE. |
| Owner/Operator City,State,Zip: | MURRIETA, CA 92562-0000 |
| Owner/Operator Telephone: | 909-696-9660 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20020422 |
| Handler Name: MURRIETA DENTAL CORP | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 62121 |
| NAICS Description: | OFFICES OF DENTISTS |

Facility Has Received Notices of Violations:

| | |
|---|---|
| Violations: | No Violations Found |

Evaluation Action Summary:

| | |
|---|---|
| Evaluations: | No Evaluations Found |

---

**C16** **JACKSONS FOOD STORES #220** **RCRA NonGen / NLR** **1026829409**
**North** **25336 MADISON AVE** **CAL000464468**
**1/8-1/4** **MURRIETA, CA 92562**
**0.146 mi.**
**770 ft.** **Site 1 of 7 in cluster C**

**Relative:**
**Higher**

**Actual:**
**1104 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 20210803 |
| Handler Name: | JACKSONS FOOD STORES #220 |
| Handler Address: | 25336 MADISON AVE |
| Handler City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAL000464468 |
| Contact Name: | RICHARD WRIGHT |
| Contact Address: | 3450 E COMMERCIAL CT |
| Contact City,State,Zip: | MERIDIAN, ID 83642 |
| Contact Telephone: | 208-888-6061 |
| Contact Fax: | Not reported |
| Contact Email: | RICHARD.WRIGHT@JACKSONS.COM |
| Contact Title: | Not reported |
| EPA Region: | 09 |

**JACKSONS FOOD STORES #220 (Continued)** **1026829409**

| | |
|---|---|
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Not reported |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 3450 E COMMERCIAL CT |
| Mailing City,State,Zip: | MERIDIAN, ID 83642 |
| Owner Name: | JOHN JACKSON |
| Owner Type: | Other |
| Operator Name: | RICHARD WRIGHT |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | No |
| Universal Waste Destination Facility: | No |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |

**JACKSONS FOOD STORES #220 (Continued)** **1026829409**

| | |
|---|---|
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20210812 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | JOHN JACKSON |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 3450 E COMMERCIAL CT |
| Owner/Operator City,State,Zip: | MERIDIAN, ID 83642 |
| Owner/Operator Telephone: | 208-888-6061 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | RICHARD WRIGHT |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 3450 E COMMERCIAL CT |
| Owner/Operator City,State,Zip: | MERIDIAN, ID 83642 |
| Owner/Operator Telephone: | 208-888-6061 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20210803 |
| Handler Name: JACKSONS FOOD STORES #220 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | No |
| Electronic Manifest Broker: | No |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 447190 |
| NAICS Description: | OTHER GASOLINE STATIONS |

**JACKSONS FOOD STORES #220 (Continued)** **1026829409**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

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**C17** **TESORO SHELL 68569** **RCRA NonGen / NLR** **1024817528**
**North** **25336 MADISON AVE** **CAL000321833**
**1/8-1/4** **MURRIETA, CA 92562**
**0.146 mi.**
**770 ft.** **Site 2 of 7 in cluster C**

**Relative:** **Higher**
**Actual:** **1104 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 20210203 |
| Handler Name: | TESORO SHELL 68569 |
| Handler Address: | 25336 MADISON AVE |
| Handler City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAL000321833 |
| Contact Name: | BRENDA RAMIREZ |
| Contact Address: | 19100 RIDGEWOOD PKWY |
| Contact City,State,Zip: | SAN ANTONIO, TX 78259 |
| Contact Telephone: | 210-626-5153 |
| Contact Fax: | 210-881-6616 |
| Contact Email: | BRENDA.RAMIREZ@TSOCORP.COM |
| Contact Title: | Not reported |
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Not reported |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 19100 RIDGEWOOD PKWY |
| Mailing City,State,Zip: | SAN ANTONIO, TX 78259-0000 |
| Owner Name: | TESORO REFINING & MARKETING COMPANY |
| Owner Type: | Other |
| Operator Name: | TESORO REFINING & MARKETING COMPANY |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | No |
| Universal Waste Destination Facility: | No |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |

**TESORO SHELL 68569 (Continued)** **1024817528**

| | |
|---|---|
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20210204 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | TESORO REFINING & MARKETING COMPANY |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 19100 RIDGEWOOD PKWY |
| Owner/Operator City,State,Zip: | SAN ANTONIO, TX 78259-0000 |
| Owner/Operator Telephone: | 210-626-6153 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | TESORO REFINING & MARKETING COMPANY |
| Legal Status: | Other |

**TESORO SHELL 68569 (Continued)** **1024817528**

| | |
|---|---|
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 19100 RIDGEWOOD PKWY |
| Owner/Operator City,State,Zip: | SAN ANTONIO, TX 78259-0000 |
| Owner/Operator Telephone: | 210-626-6153 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | BRENDA RAMIREZ |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 19100 RIDGEWOOD PKWY |
| Owner/Operator City,State,Zip: | SAN ANTONIO, TX 78259 |
| Owner/Operator Telephone: | 210-626-5153 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | TESORO REFINING & MARKETING COMPANY |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 19100 RIDGEWOOD PKWY |
| Owner/Operator City,State,Zip: | SAN ANTONIO, TX 78259-0000 |
| Owner/Operator Telephone: | 210-626-6153 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20210203 |
| Handler Name: TESORO SHELL 68569 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | No |
| Electronic Manifest Broker: | No |

| | |
|---|---|
| Receive Date: | 20070705 |
| Handler Name: TESORO SHELL 68569 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | No |

**TESORO SHELL 68569 (Continued)** **1024817528**

Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 44719
NAICS Description: OTHER GASOLINE STATIONS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

---

**C18** **TEXACO STAR MART** **UST** **U003982369**
**North** **25336 MADISON AVE** **N/A**
**1/8-1/4** **MURRIETA, CA 92562**
**0.146 mi.**
**770 ft.** **Site 3 of 7 in cluster C**

**Relative:** **Higher**
**Actual:** **1104 ft.**

RIVERSIDE CO. UST:
Name: TESORO (SHELL) #68569
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Region: RIVERSIDE
Total Tanks: 3

UST:
Name: TESORO (SHELL) 68569 (WRR 6393)
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Facility ID: Not reported
Permitting Agency: Riverside County Department of Environmental Health
Latitude: 33.55368
Longitude: -117.19563

Name: TESORO (SHELL) 68569 (WRR 6393)
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Facility ID: Not reported
Permitting Agency: Riverside County Department of Environmental Health
Latitude: 33.55368
Longitude: -117.19563

Name: TESORO (SHELL) 68569 (WRR 6393)
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Facility ID: Not reported
Permitting Agency: Riverside County Department of Environme
Latitude: 33.55368
Longitude: -117.19563

Name: TEXACO STAR MART
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Facility ID: 752

**TEXACO STAR MART (Continued)** **U003982369**

Permitting Agency: RIVERSIDE COUNTY
Latitude: 33.5550083
Longitude: -117.1940755

---

**C19** **SHELL SERVICE STATION** **RCRA NonGen / NLR** **1001967310**
**North** **25336 MADISON** **HAZNET** **CAR000067025**
**1/8-1/4** **MURRIETA, CA 92563** **HWTS**
**0.146 mi.**
**770 ft.** **Site 4 of 7 in cluster C**

**Relative:** **Higher**
**Actual:** **1104 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20170403 |
| Handler Name: | SHELL SERVICE STATION | |
| Handler Address: | | 25336 MADISON |
| Handler City,State,Zip: | | MURRIETA, CA 92563 |
| EPA ID: | | CAR000067025 |
| Contact Name: | | FRANCISCO O BERNAL |
| Contact Address: | | Not reported |
| Contact City,State,Zip: | | Not reported |
| Contact Telephone: | | 818-759-7910 |
| Contact Fax: | | Not reported |
| Contact Email: | | FOBERNAL@SHELLOPUS.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Private |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Not reported |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | SHELL OIL PRODUCTS US |
| Mailing City,State,Zip: | | HOUSTON, TX 77252 |
| Owner Name: | | EQUILON ENTERPRISES LLC DBA SHELL OIL PR |
| Owner Type: | | Private |
| Operator Name: | | SHELL OIL PRODUCTS US |
| Operator Type: | | Private |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | No |
| Universal Waste Destination Facility: | | No |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | NN |
| Sub-Part K Indicator: | | Not reported |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20170413 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | Not reported |
| Manifest Broker: | Not reported |
| Sub-Part P Indicator: | No |

Biennial: List of Years
Year: 2003

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:
Waste Code: D001
Waste Description: IGNITABLE WASTE

Waste Code: D018
Waste Description: BENZENE

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | SHELL OIL PRODUCTS US |
| Legal Status: | Private |
| Date Became Current: | 19980801 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | Not reported |
| Owner/Operator City,State,Zip: | Not reported |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| | |
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | EQUILON ENTERPRISES LLC DBA SHELL OIL PR |
| Legal Status: | Private |
| Date Became Current: | 19980801 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 2648 |
| Owner/Operator City,State,Zip: | HOUSTON, TX 77252 |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| | |
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | SHELL OIL PRODUCTS US |
| Legal Status: | Private |
| Date Became Current: | 19980801 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | Not reported |
| Owner/Operator City,State,Zip: | Not reported |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| | |
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | SHELL OIL PRODUCTS US |
| Legal Status: | Private |
| Date Became Current: | 19980801 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | Not reported |
| Owner/Operator City,State,Zip: | Not reported |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| | |
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | EQUILON ENTERPRISES L L C |
| Legal Status: | Private |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | P O BOX 2648 |
| Owner/Operator City,State,Zip: | HOUSTON, TX 77252-2648 |
| Owner/Operator Telephone: | 713-241-5036 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| | |
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | EQUILON ENTERPRISES LLC DBA SHELL OIL PR |
| Legal Status: | Private |
| Date Became Current: | 19980801 |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 2648 |
| Owner/Operator City,State,Zip: | HOUSTON, TX 77252 |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| | |
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | EQUILON ENTERPRISES LLC DBA SHELL OIL PR |
| Legal Status: | Private |
| Date Became Current: | 19980801 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 2648 |
| Owner/Operator City,State,Zip: | HOUSTON, TX 77252 |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20040226 |
| Handler Name: SHELL SERVICE STATION | |
| Federal Waste Generator Description: | Small Quantity Generator |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | No |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |
| | |
| Receive Date: | 20010626 |
| Handler Name: TEXACO SERVICE STATION | |
| Federal Waste Generator Description: | Small Quantity Generator |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | No |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |
| | |
| Receive Date: | 20170403 |
| Handler Name: SHELL SERVICE STATION | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |

**SHELL SERVICE STATION (Continued)** **1001967310**

Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20040226
Handler Name: SHELL SERVICE STATION
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 44711
NAICS Description: GASOLINE STATIONS WITH CONVENIENCE STORES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

HAZNET:
Name: SHELL SERVICE STATION
Address: 25336 MADISON
Address 2: Not reported
City,State,Zip: MURRIETA, CA 92562
Contact: Adam Estes
Telephone: 3172917007
Mailing Name: Not reported
Mailing Address: PO BOX 3127

Year: 2006
Gepaid: CAR000067025
TSD EPA ID: CAD028409019
CA Waste Code: 352 - Other organic solids
Disposal Method: H01 - Transfer Station
Tons: 0.025

Year: 2005
Gepaid: CAR000067025
TSD EPA ID: CAT080033681
CA Waste Code: 352 - Other organic solids
Disposal Method: D80 - Disposal, Land Fill
Tons: 0.15

Year: 2005
Gepaid: CAR000067025
TSD EPA ID: CAD028409019
CA Waste Code: 352 - Other organic solids

**SHELL SERVICE STATION (Continued)** **1001967310**

Disposal Method: H01 - Transfer Station
Tons: 0.02

Year: 2004
Gepaid: CAR000067025
TSD EPA ID: CAD008364432
CA Waste Code: 352 - Other organic solids
Disposal Method: R01 - Recycler
Tons: 0.0125

Year: 2003
Gepaid: CAR000067025
TSD EPA ID: CAD982484933
CA Waste Code: 512 - Other empty containers 30 gallons or more
Disposal Method: D99 - Disposal, Other
Tons: 2

Year: 2003
Gepaid: CAR000067025
TSD EPA ID: CAD028409019
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: T01 - Treatment, Tank
Tons: 3.948

Year: 2003
Gepaid: CAR000067025
TSD EPA ID: CAD982444481
CA Waste Code: 352 - Other organic solids
Disposal Method: R01 - Recycler
Tons: 0.005

Year: 2003
Gepaid: CAR000067025
TSD EPA ID: CAD028409019
CA Waste Code: 352 - Other organic solids
Disposal Method: H01 - Transfer Station
Tons: 0.3

Year: 2002
Gepaid: CAR000067025
TSD EPA ID: CAD028409019
CA Waste Code: 352 - Other organic solids
Disposal Method: H01 - Transfer Station
Tons: 0.65

Year: 2002
Gepaid: CAR000067025
TSD EPA ID: CAD028409019
CA Waste Code: 241 - Tank bottom waste
Disposal Method: T01 - Treatment, Tank
Tons: 1.05501

Click this hyperlink while viewing on your computer to access
2 additional CA HAZNET: record(s) in the EDR Site Report.

**SHELL SERVICE STATION (Continued)** **1001967310**

Additional Info:

| | |
|---|---|
| Year: | 2004 |
| Gen EPA ID: | CAR000067025 |
| Shipment Date: | 20040217 |
| Creation Date: | 8/20/2004 9:31:41 |
| Receipt Date: | 20040217 |
| Manifest ID: | 22794947 |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO-CHEM |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO-CHEM CORPORATION |
| TSDF Alt EPA ID: | CAD008364432 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.0125 |
| Waste Quantity: | 25 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2002 |
| Gen EPA ID: | CAR000067025 |
| Shipment Date: | 20020910 |
| Creation Date: | 1/28/2003 18:31:46 |
| Receipt Date: | 20020912 |
| Manifest ID: | 21851552 |
| Trans EPA ID: | CAR000118992 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 241 - Tank bottom waste 251 Still bottoms with halogenated organics |
| RCRA Code: | D001 |
| Meth Code: | T01 - Treatment, Tank |
| Quantity Tons: | 0.49206 |
| Waste Quantity: | 118 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Shipment Date: | 20020830 |
| Creation Date: | 1/27/2003 18:32:25 |
| Receipt Date: | 20020903 |
| Manifest ID: | 21851482 |
| Trans EPA ID: | CAR000118992 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 241 - Tank bottom waste 251 Still bottoms with halogenated organics |
| RCRA Code: | D001 |
| Meth Code: | T01 - Treatment, Tank |
| Quantity Tons: | 0.56295 |
| Waste Quantity: | 135 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20020729 |
| Creation Date: | 3/12/2003 18:31:29 |
| Receipt Date: | 20020806 |
| Manifest ID: | 21815459 |
| Trans EPA ID: | CAR000031211 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D001 |
| Meth Code: | H01 - Transfer Station |
| Quantity Tons: | 0.65 |
| Waste Quantity: | 1300 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2000 |
| Gen EPA ID: | CAR000067025 |

| | |
|---|---|
| Shipment Date: | 20000307 |
| Creation Date: | 6/7/2000 0:00:00 |
| Receipt Date: | 20000316 |
| Manifest ID: | 99748006 |
| Trans EPA ID: | CAR000031211 |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD028409019 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | T01 - Treatment, Tank |
| Quantity Tons: | 0.034 |
| Waste Quantity: | 10 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2005 |
| Gen EPA ID: | CAR000067025 |
| | |
| Shipment Date: | 20051114 |
| Creation Date: | 1/2/2007 18:30:20 |
| Receipt Date: | 20051116 |
| Manifest ID: | 24329885 |
| Trans EPA ID: | CAR000152785 |
| Trans Name: | CALIFORNIA HAZARDOUS SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON INC |
| TSDF Alt EPA ID: | CAD028409019 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D001 |
| Meth Code: | H01 - Transfer Station |
| Quantity Tons: | 0.02 |
| Waste Quantity: | 40 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20050426 |
| Creation Date: | 8/24/2005 7:27:35 |
| Receipt Date: | 20050427 |
| Manifest ID: | 22496758 |
| Trans EPA ID: | CAD009661844 |
| Trans Name: | HAZARDOUS TECHNOLOGIES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080033681 |
| Trans Name: | D/K ENVIRONMENTAL |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| TSDF Alt EPA ID: | CAT080033681 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | NONE |
| Meth Code: | D80 - Disposal, Land Fill |
| Quantity Tons: | 0.15 |
| Waste Quantity: | 300 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2006 |
| Gen EPA ID: | CAR000067025 |
| Shipment Date: | 20060526 |
| Creation Date: | 12/20/2006 18:31:14 |
| Receipt Date: | 20060531 |
| Manifest ID: | 24908407 |
| Trans EPA ID: | CAR000152785 |
| Trans Name: | CALIFORNIA HAZARDOUS SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY OVERTON INC |
| TSDF Alt EPA ID: | CAD028409019 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D001 |
| Meth Code: | H01 - Transfer Station |
| Quantity Tons: | 0.025 |
| Waste Quantity: | 50 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2003 |
| Gen EPA ID: | CAR000067025 |
| Shipment Date: | 20031119 |
| Creation Date: | 8/9/2004 8:48:13 |
| Receipt Date: | 20031120 |
| Manifest ID: | 22785148 |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO-CHEM |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| TSDF Alt EPA ID: | CAD982444481 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20030820 |
| Creation Date: | 7/29/2004 7:45:24 |
| Receipt Date: | 20030829 |
| Manifest ID: | 22730420 |
| Trans EPA ID: | CAR000031211 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD028409019 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D001 |
| Meth Code: | H01 - Transfer Station |
| Quantity Tons: | 0.3 |
| Waste Quantity: | 600 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20030724 |
| Creation Date: | 7/23/2004 9:16:48 |
| Receipt Date: | 20030724 |
| Manifest ID: | 22252381 |
| Trans EPA ID: | CAR000031211 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD028409019 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | D001 |
| Meth Code: | T01 - Treatment, Tank |
| Quantity Tons: | 2.1 |
| Waste Quantity: | 500 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20030620 |
| Creation Date: | 7/22/2004 7:52:06 |
| Receipt Date: | 20030620 |
| Manifest ID: | 22050531 |
| Trans EPA ID: | CAD982030173 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD982484933 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 512 - Other empty containers 30 gallons or more |
| RCRA Code: | Not reported |
| Meth Code: | D99 - Disposal, Other |
| Quantity Tons: | 2 |
| Waste Quantity: | 4000 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20030310 |
| Creation Date: | 3/16/2007 18:30:41 |
| Receipt Date: | 20030311 |
| Manifest ID: | 22252668 |
| Trans EPA ID: | CAR000031211 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD028409019 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | D001 |
| Meth Code: | T01 - Treatment, Tank |
| Quantity Tons: | 1.848 |
| Waste Quantity: | 440 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2001 |
| Gen EPA ID: | CAR000067025 |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Shipment Date: | 20010713 |
| Creation Date: | 10/1/2001 0:00:00 |
| Receipt Date: | 20010718 |
| Manifest ID: | 20752904 |
| Trans EPA ID: | CAR000031211 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD028409019 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D001 |
| Meth Code: | H01 - Transfer Station |
| Quantity Tons: | 0.175 |
| Waste Quantity: | 350 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

HWTS:

| | |
|---|---|
| Name: | SHELL SERVICE STATION |
| Address: | 25336 MADISON |
| Address 2: | S A P 121641 |
| City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAR000067025 |
| Inactive Date: | 03/17/2017 |
| Create Date: | 03/04/2003 |
| Last Act Date: | 09/14/2017 |
| Mailing Name: | Not reported |
| Mailing Address: | 7750 NORTH MACARTHUR, SUITE 120 |
| Mailing Address 2: | PMB 319 |
| Mailing City,State,Zip: | IRVING, TX 750630000 |
| Owner Name: | EQUILON ENTERPRISE LLC DBA SHELL |
| Owner Address: | 1 SHELL PLAZA |
| Owner Address 2: | 910 LOUISIANA ST |
| Owner City,State,Zip: | HOUSTON, TX 77002 |
| Contact Name: | ADAM ESTES |
| Contact Address: | 6520 CORPORATE DRIVE |
| Contact Address 2: | Not reported |
| City,State,Zip: | INDIANAPOLIS, IN 462780000 |

NAICS:

| | |
|---|---|
| EPA ID: | CAR000067025 |
| Create Date: | 2003-10-23 13:13:52.000 |
| NAICS Code: | 44711 |
| NAICS Description: | Gasoline Stations with Convenience Stores |
| Issued EPA ID Date: | 2003-03-04 14:25:35.18700 |
| Inactive Date: | 2017-03-17 00:00:00 |
| Facility Name: | SHELL SERVICE STATION |
| Facility Address: | 25336 MADISON |
| Facility Address 2: | S A P 121641 |
| Facility City: | MURRIETA |

**SHELL SERVICE STATION (Continued)** **1001967310**

| | |
|---|---|
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 92562 |

---

**C20** **TESORO SOUTH COAST COMPANY LLC** **RCRA NonGen / NLR** **1026723099**
**North** **25336 MADISON AVE** **CAL000460205**
**1/8-1/4** **MURRIETA, CA 92562**
**0.146 mi.**
**770 ft.** **Site 5 of 7 in cluster C**

**Relative:** **Higher**
**Actual:** **1104 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 20210218 |
| Handler Name: | TESORO SOUTH COAST COMPANY LLC |
| Handler Address: | 25336 MADISON AVE |
| Handler City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAL000460205 |
| Contact Name: | TERESA MILES |
| Contact Address: | 500 SPEEDWAY DR |
| Contact City,State,Zip: | ENON, OH 45323 |
| Contact Telephone: | 562-305-8226 |
| Contact Fax: | Not reported |
| Contact Email: | TAMILES@SPEEDWAY.COM |
| Contact Title: | Not reported |
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Not reported |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 500 SPEEDWAY DR |
| Mailing City,State,Zip: | ENON, OH 45323 |
| Owner Name: | TESORO SOUTH COAST COMPANY LLC |
| Owner Type: | Other |
| Operator Name: | TERESA MILES |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | No |
| Universal Waste Destination Facility: | No |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |

**TESORO SOUTH COAST COMPANY LLC (Continued)** **1026723099**

| | |
|---|---|
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20210226 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | TERESA MILES |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 500 SPEEDWAY DR |
| Owner/Operator City,State,Zip: | ENON, OH 45323 |
| Owner/Operator Telephone: | 562-305-8226 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | TESORO SOUTH COAST COMPANY LLC |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 500 SPEEDWAY DR |

**TESORO SOUTH COAST COMPANY LLC (Continued)** **1026723099**

Owner/Operator City,State,Zip: ENON, OH 45323
Owner/Operator Telephone: 562-305-8226
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20210218
Handler Name: TESORO SOUTH COAST COMPANY LLC
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

List of NAICS Codes and Descriptions:
NAICS Code: 447190
NAICS Description: OTHER GASOLINE STATIONS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

---

**C21** **SHELL SERVICE STATION** **LUST** **1007738652**
**North** **25336 MADISON** **FINDS** **N/A**
**1/8-1/4** **MURRIETA, CA 92562** **ECHO**
**0.146 mi.** **Cortese**
**770 ft.** **Site 6 of 7 in cluster C** **CERS**

**Relative:**
**Higher**

**Actual:**
**1104 ft.**

LUST:
Name: SHELL SERVICE STATION 121641
Address: 25336 MADISON AVENUE
City,State,Zip: MURRIETA, CA 92562
Lead Agency: SAN DIEGO RWQCB (REGION 9)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606553648
Global Id: T0606553648
Latitude: 33.554071363
Longitude: -117.195848826
Status: Completed - Case Closed
Status Date: 03/11/2010
Case Worker: Not reported
RB Case Number: 9UT4190
Local Agency: Not reported
File Location: Regional Board
Local Case Number: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline

**SHELL SERVICE STATION (Continued)** **1007738652**

Site History: Not reported

LUST:

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 02/25/2008
Action: Notice of Responsibility

Global Id: T0606553648
Action Type: RESPONSE
Date: 03/25/2008
Action: Other Report / Document

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 05/15/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 06/09/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 05/18/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 05/19/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 03/11/2010
Action: Closure/No Further Action Letter

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 02/03/2010
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 02/04/2010
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: Other
Date: 04/23/2007
Action: Leak Discovery

Global Id: T0606553648
Action Type: RESPONSE
Date: 01/30/2009
Action: Monitoring Report - Quarterly

**SHELL SERVICE STATION (Continued)** **1007738652**

Global Id: T0606553648
Action Type: RESPONSE
Date: 12/29/2008
Action: Conceptual Site Model

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 05/05/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 05/12/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: RESPONSE
Date: 03/15/2009
Action: Soil and Water Investigation Workplan

Global Id: T0606553648
Action Type: RESPONSE
Date: 07/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 12/31/2008
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 12/02/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: RESPONSE
Date: 05/15/2009
Action: Other Report / Document

Global Id: T0606553648
Action Type: RESPONSE
Date: 10/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0606553648
Action Type: RESPONSE
Date: 04/15/2009
Action: Soil and Water Investigation Workplan - Addendum

Global Id: T0606553648
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0606553648
Action Type: RESPONSE

**SHELL SERVICE STATION (Continued)** **1007738652**

Date: 10/30/2008
Action: Preliminary Site Assessment Report

Global Id: T0606553648
Action Type: RESPONSE
Date: 01/30/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0606553648
Action Type: RESPONSE
Date: 05/30/2010
Action: Well Destruction Report

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 06/03/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 01/21/2009
Action: Staff Letter

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 04/23/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 11/24/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 01/21/2009
Action: Staff Letter

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 04/27/2007
Action: Other Report - #e-mail on URR

Global Id: T0606553648
Action Type: Other
Date: 04/23/2007
Action: Leak Began

Global Id: T0606553648
Action Type: Other
Date: 04/23/2007
Action: Leak Reported

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 03/23/2009
Action: Verbal Enforcement

**SHELL SERVICE STATION (Continued)** **1007738652**

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 05/20/2008
Action: 13267 Requirement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 10/27/2008
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 07/23/2009
Action: 13267 Requirement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 04/14/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 04/03/2009
Action: Verbal Enforcement

Global Id: T0606553648
Action Type: ENFORCEMENT
Date: 02/22/2010
Action: Notification - Fee Title Owners Notice

LUST:
Global Id: T0606553648
Status: Open - Case Begin Date
Status Date: 04/23/2007

Global Id: T0606553648
Status: Open - Site Assessment
Status Date: 02/14/2008

Global Id: T0606553648
Status: Completed - Case Closed
Status Date: 03/11/2010

FINDS:
Registry ID: 110018987168

Click Here:

Environmental Interest/Information System:
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport,

**SHELL SERVICE STATION (Continued)** **1007738652**

and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
HAZARDOUS WASTE BIENNIAL REPORTER
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

| | |
|---|---|
| Envid: | 1007738652 |
| Registry ID: | 110018987168 |
| DFR URL: | http://echo.epa.gov/detailed-facility-report?fid=110018987168 |
| Name: | SHELL SERVICE STATION |
| Address: | 25336 MADISON |
| City,State,Zip: | MURRIETA, CA 92562 |

CORTESE:

| | |
|---|---|
| Name: | SHELL SERVICE STATION 121641 |
| Address: | 25336 MADISON AVENUE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Region: | CORTESE |
| Envirostor Id: | Not reported |
| Global ID: | T0606553648 |
| Site/Facility Type: | LUST CLEANUP SITE |
| Cleanup Status: | COMPLETED - CASE CLOSED |
| Status Date: | Not reported |
| Site Code: | Not reported |
| Latitude: | Not reported |
| Longitude: | Not reported |
| Owner: | Not reported |
| Enf Type: | Not reported |
| Swat R: | Not reported |
| Flag: | active |
| Order No: | Not reported |
| Waste Discharge System No: | Not reported |
| Effective Date: | Not reported |
| Region 2: | Not reported |
| WID Id: | Not reported |
| Solid Waste Id No: | Not reported |
| Waste Management Uit Name: | Not reported |
| File Name: | Active Open |

CERS:

| | |
|---|---|
| Name: | SHELL SERVICE STATION 121641 |
| Address: | 25336 MADISON AVENUE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 241267 |
| CERS ID: | T0606553648 |
| CERS Description: | Leaking Underground Storage Tank Cleanup Site |

**C22** **POPEYES CHICKEN #4207** **CERS HAZ WASTE** **S113148424**
**North** **25336 MADISON AVE** **CERS TANKS** **N/A**
**1/8-1/4** **MURRIETA, CA 92562** **HAZNET**
**0.146 mi.** **CERS**
**770 ft.** **Site 7 of 7 in cluster C** **HWTS**

**Relative:**
**Higher**

**Actual:**
**1104 ft.**

CERS HAZ WASTE:
Name: TESORO (SHELL) 68569 (WRR 6393)
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 160277
CERS ID: 10320523
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: TESORO (SHELL) 68569 (WRR 6393)
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 160277
CERS ID: 10320523
CERS Description: Underground Storage Tank

HAZNET:
Name: TESORO SHELL 68569
Address: 25336 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 78259
Contact: BRENDA RAMIREZ
Telephone: 2106265153
Mailing Name: Not reported
Mailing Address: 19100 RIDGEWOOD PKWY

Year: 2019
Gepaid: CAL000321833
TSD EPA ID: CAT080013352
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.14700

Year: 2018
Gepaid: CAL000321833
TSD EPA ID: CAT080013352
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.06300

Year: 2018
Gepaid: CAL000321833
TSD EPA ID: NVT330010000
CA Waste Code: 352 - Other organic solids
Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization)
Tons: 0.04500

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Year: | 2017 |
| Gepaid: | CAL000321833 |
| TSD EPA ID: | CAT080013352 |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Tons: | 0.315 |
| | |
| Year: | 2017 |
| Gepaid: | CAL000321833 |
| TSD EPA ID: | NVT330010000 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Tons: | 0.1 |
| | |
| Year: | 2016 |
| Gepaid: | CAL000321833 |
| TSD EPA ID: | NVT330010000 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Tons: | 0.07 |
| | |
| Year: | 2016 |
| Gepaid: | CAL000321833 |
| TSD EPA ID: | CAT080013352 |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Tons: | 0.0462 |
| | |
| Year: | 2015 |
| Gepaid: | CAL000321833 |
| TSD EPA ID: | CAT080013352 |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Tons: | 0.147 |
| | |
| Year: | 2015 |
| Gepaid: | CAL000321833 |
| TSD EPA ID: | NVT330010000 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Tons: | 0.025 |
| | |
| Year: | 2014 |
| Gepaid: | CAL000321833 |
| TSD EPA ID: | NVT330010000 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

Tons: 0.1075

Click this hyperlink while viewing on your computer to access
12 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

| | |
|---|---|
| Year: | 2014 |
| Gen EPA ID: | CAL000321833 |
| Shipment Date: | 20140923 |
| Creation Date: | 2/13/2015 22:15:17 |
| Receipt Date: | 20141001 |
| Manifest ID: | 007626065FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D018 |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.09 |
| Waste Quantity: | 180 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20140520 |
| Creation Date: | 8/14/2014 22:15:06 |
| Receipt Date: | 20140522 |
| Manifest ID: | 007614601FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAT080016116 |
| Trans 2 Name: | NIETO & SONS TRUCKING |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.21 |
| Waste Quantity: | 50 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140311 |
| Creation Date: | 5/24/2014 22:15:13 |
| Receipt Date: | 20140320 |
| Manifest ID: | 005759549FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAT080016116 |
| Trans 2 Name: | NIETO AND SONS TRUCKING INC |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.063 |
| Waste Quantity: | 15 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140311 |
| Creation Date: | 7/24/2014 22:15:15 |
| Receipt Date: | 20140312 |
| Manifest ID: | 005759561FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.0175 |
| Waste Quantity: | 35 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2011 |
| Gen EPA ID: | CAL000321833 |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Shipment Date: | 20111004 |
| Creation Date: | 3/22/2012 20:30:23 |
| Receipt Date: | 20111013 |
| Manifest ID: | 004628917FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAD981412356 |
| Trans 2 Name: | PACIFIC TRANS ENVIRONMENTAL SERVICES INC |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20110617 |
| Creation Date: | 8/26/2011 18:30:51 |
| Receipt Date: | 20110624 |
| Manifest ID: | 004628445FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAT080016116 |
| Trans 2 Name: | NIETO & SONS TRUCKING INC |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.2352 |
| Waste Quantity: | 56 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20110414 |
| Creation Date: | 9/16/2011 18:30:21 |
| Receipt Date: | 20110422 |
| Manifest ID: | 004233186FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAD981412356 |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Trans 2 Name: | PACIFIC TRANS ENVIRONMENTAL SERVICES INC |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2010 |
| Gen EPA ID: | CAL000321833 |
| Shipment Date: | 20100624 |
| Creation Date: | 9/10/2010 18:30:33 |
| Receipt Date: | 20100625 |
| Manifest ID: | 002135059FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.042 |
| Waste Quantity: | 10 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20100611 |
| Creation Date: | 1/19/2011 18:30:07 |
| Receipt Date: | 20100624 |
| Manifest ID: | 002133587FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAD981412356 |
| Trans 2 Name: | PACIFIC TRANS ENVIRONMENTAL SERVICES INC |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2009 |
| Gen EPA ID: | CAL000321833 |
| Shipment Date: | 20091014 |
| Creation Date: | 4/12/2010 18:30:55 |
| Receipt Date: | 20091016 |
| Manifest ID: | 002120304FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.025 |
| Waste Quantity: | 50 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20090702 |
| Creation Date: | 11/25/2009 18:30:24 |
| Receipt Date: | 20090710 |
| Manifest ID: | 002122892FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.0625 |
| Waste Quantity: | 125 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20090107 |
| Creation Date: | 3/9/2009 18:30:54 |
| Receipt Date: | 20090109 |
| Manifest ID: | 002152700FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAT080016116 |
| Trans 2 Name: | NIETO & SONS TRUCKING |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.084 |
| Waste Quantity: | 20 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2015 |
| Gen EPA ID: | CAL000321833 |
| | |
| Shipment Date: | 20150303 |
| Creation Date: | 5/20/2015 22:15:07 |
| Receipt Date: | 20150312 |
| Manifest ID: | 007643439FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Quantity Tons: | 0.147 |
| Waste Quantity: | 35 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150303 |
| Creation Date: | 7/23/2015 22:15:32 |
| Receipt Date: | 20150304 |
| Manifest ID: | 007643438FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D018 |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.025 |
| Waste Quantity: | 50 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2012 |
| Gen EPA ID: | CAL000321833 |
| | |
| Shipment Date: | 20120921 |
| Creation Date: | 8/18/2013 22:15:21 |
| Receipt Date: | 20120926 |
| Manifest ID: | 005771731FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.15 |
| Waste Quantity: | 300 |
| Quantity Unit: | P |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20120405 |
| Creation Date: | 10/19/2012 22:15:10 |
| Receipt Date: | 20120418 |
| Manifest ID: | 004660670FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAD981412356 |
| Trans 2 Name: | PACIFIC TRANS ENVIRONMENTAL SERVICES INC |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20120302 |
| Creation Date: | 4/30/2012 20:30:14 |
| Receipt Date: | 20120309 |
| Manifest ID: | 004663441FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.0042 |
| Waste Quantity: | 1 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

Additional Info:

| | |
|---|---|
| Year: | 2017 |
| Gen EPA ID: | CAL000321833 |
| Shipment Date: | 20170810 |
| Creation Date: | 8/2/2018 18:30:37 |
| Receipt Date: | 20170816 |
| Manifest ID: | 010627253FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D018 |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.065 |
| Waste Quantity: | 130 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170810 |
| Creation Date: | 5/29/2018 18:30:43 |
| Receipt Date: | 20170817 |
| Manifest ID: | 010627254FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.042 |
| Waste Quantity: | 10 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170509 |
| Creation Date: | 5/17/2018 18:31:11 |
| Receipt Date: | 20170511 |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Manifest ID: | 009696278FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAT080016116 |
| Trans 2 Name: | NIETO AND SONS TRUCKING INC |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.231 |
| Waste Quantity: | 55 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170203 |
| Creation Date: | 5/9/2018 18:31:51 |
| Receipt Date: | 20170208 |
| Manifest ID: | 009685432FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D018 |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.035 |
| Waste Quantity: | 70 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170203 |
| Creation Date: | 5/17/2017 18:31:39 |
| Receipt Date: | 20170208 |
| Manifest ID: | 009685433FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO/KERDOON |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.042 |
| Waste Quantity: | 10 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2008 |
| Gen EPA ID: | CAL000321833 |
| Shipment Date: | 20080807 |
| Creation Date: | 10/1/2008 18:30:31 |
| Receipt Date: | 20080812 |
| Manifest ID: | 000823319FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | CAT080016116 |
| Trans 2 Name: | NIETO AND SONS TRUCKING |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.273 |
| Waste Quantity: | 65 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2016 |
| Gen EPA ID: | CAL000321833 |
| Shipment Date: | 20150303 |
| Creation Date: | 5/20/2015 22:15:07 |
| Receipt Date: | 20150312 |
| Manifest ID: | 007643439FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

TSDF EPA ID: CAT080013352
Trans Name: DEMENNO KERDOON
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons: 0.147
Waste Quantity: 35
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20150303
Creation Date: 7/23/2015 22:15:32
Receipt Date: 20150304
Manifest ID: 007643438FLE
Trans EPA ID: CAR000183913
Trans Name: BELSHIRE
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: NVT330010000
Trans Name: US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: D018
Meth Code: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization)
Quantity Tons: 0.025
Waste Quantity: 50
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2013
Gen EPA ID: CAL000321833

Shipment Date: 20130910
Creation Date: 2/24/2014 22:15:16
Receipt Date: 20130918
Manifest ID: 005761763FLE
Trans EPA ID: CAR000183913
Trans Name: BELSHIRE
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: NVT330010000
Trans Name: US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID: Not reported

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.075 |
| Waste Quantity: | 150 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20130329 |
| Creation Date: | 8/15/2013 22:15:09 |
| Receipt Date: | 20130403 |
| Manifest ID: | 005783614FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | NVT330010000 |
| Trans Name: | US ECOLOGY NEVADA OPERATIONS |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.0375 |
| Waste Quantity: | 75 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20130329 |
| Creation Date: | 6/9/2013 22:15:06 |
| Receipt Date: | 20130405 |
| Manifest ID: | 005783615FLE |
| Trans EPA ID: | CAR000183913 |
| Trans Name: | BELSHIRE |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT080013352 |
| Trans Name: | DEMENNO KERDOON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Quantity Tons: | 0.0252 |
| Waste Quantity: | 6 |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: TESORO (SHELL) 68569 (WRR 6393)
Address: 25336 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 160277
CERS ID: 10320523
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 160277
Site Name: TESORO (SHELL) 68569 (WRR 6393)
Violation Date: 09-23-2014
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain records of repairs, lining, and upgrades on site, or off site if approved by the CUPA, for the life of the underground storage tank and/or failure to maintain written monitoring and maintenance records on site, or off site if approved by the CUPA, for a period of 3 years, 6 1/2 years for cathodic protection, and 5 years for written performance claims pertaining to release detection systems and calibration and maintenance records for such systems.
Violation Notes: Returned to compliance on 09/23/2014.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS

Site ID: 160277
Site Name: TESORO (SHELL) 68569 (WRR 6393)
Violation Date: 08-13-2019
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain records of repairs and upgrades on site, or off site if approved by the UPA, for the life of the UST.
Violation Notes: Returned to compliance on 08/14/2019. OBSERVATION: Observed that facility has completed a cold start monitoring certification on 10/7/18 and was unable to locate on site the monitoring certification paperwork on state required forms. CORRECTIVE ACTION: Owner/operator shall provide all maintenance, monitoring, repair and/or upgrade records. Maintain copies on site and available for review. Submit missing documentation to the CUPA.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS

Site ID: 160277
Site Name: TESORO (SHELL) 68569 (WRR 6393)
Violation Date: 09-23-2014
Citation: 23 CCR 16 2632, 2634, 2636, 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632, 2634, 2636, 2666
Violation Description: Failure of the leak detection equipment to have an audible and visual

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| | alarm as required. |
| Violation Notes: | Returned to compliance on 09/23/2014. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 160277 |
| Site Name: | TESORO (SHELL) 68569 (WRR 6393) |
| Violation Date: | 09-23-2014 |
| Citation: | 23 CCR 16 2632, 2634, 2636, 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632, 2634, 2636, 2666 |
| Violation Description: | Failure of the leak detection equipment to be properly programmed or properly operated. |
| Violation Notes: | Returned to compliance on 09/23/2014. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 160277 |
| Site Name: | TESORO (SHELL) 68569 (WRR 6393) |
| Violation Date: | 08-12-2020 |
| Citation: | HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2 |
| Violation Description: | "Failure to meet one or more of the following requirements: Install or maintain a liquid-tight spill container. Have a minimum capacity of five gallons. Have a functional drain valve or other method for the removal of liquid from the spill container. Be resistant to galvanic corrosion. Perform a tightness test at installation, every 12 months thereafter, or within 30 days after a repair to the spill container. Tested using applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer. Tested by a certified UST service technician. Maintain records of spill containment testing for 36 months. " |
| Violation Notes: | Returned to compliance on 08/12/2020. OBSERVATION: Observed diesel tank spill bucket drain valve to be leaking and would not hold liquid. CORRECTIVE ACTION: Owner/operator shall repair/replace the leaking diesel fill spill bucket drain valve so that bucket is able to hold liquid and contain release until detected. Technician replaced the drain valve. Violation corrected on site. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 160277 |
| Site Name: | TESORO (SHELL) 68569 (WRR 6393) |
| Violation Date: | 09-23-2014 |
| Citation: | 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1) |
| Violation Description: | Failure of the double wall pressurized piping in the turbine sump to be continuously monitored with a system that activates an audible and visual alarm or restricts or stops flow at dispenser when a leak is detected. |
| Violation Notes: | Returned to compliance on 09/23/2014. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

Evaluation:

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 04-24-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 09-01-2016 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 10-10-2013 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Generator inspection |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 08-12-2020 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 08-13-2018 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 09-09-2015 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 10-10-2013 |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Handler inspection |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |
| | |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 08-12-2020 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Note: Fire Extinguisher signs at the dispenser pad are fading. Advised to replace signs before they are completely faded. |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |
| | |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 08-21-2017 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |
| | |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 08-21-2017 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |
| | |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 09-09-2015 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |
| | |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 10-10-2013 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Annual monitoring certification |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |
| | |
| Eval General Type: | Other/Unknown |
| Eval Date: | 05-04-2020 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-12-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Inspection conducted at time of annual monitoring certification.
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Note: SB989 testing due 4/2020.
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-21-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-09-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-23-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

Enforcement Action:
Site ID: 160277
Site Name: TESORO (SHELL) 68569 (WRR 6393)
Site Address: 25336 MADISON AVE
Site City: MURRIETA
Site Zip: 92562
Enf Action Date: 09-23-2014

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: UST
Enf Action Source: CERS

Coordinates:
Site ID: 160277
Facility Name: TESORO (SHELL) 68569 (WRR 6393)
Env Int Type Code: HWG
Program ID: 10320523
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 33.553680
Longitude: -117.195630

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: ATTN: ENVIRONMENTAL DEPT. G 500 SPEEDWAY DR.
Affiliation City: ENON
Affiliation State: OH
Affiliation Country: Not reported
Affiliation Zip: 45323
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: TERESA A. MILES
Entity Title: PACIFIC DIVISION ENVIRONMENTAL COMPLIANCE MANAGER
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: TERESA A. MILES
Entity Title: ENVIRONMENTAL COMPLIANCE SUPERVISOR
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (562) 495-6850

Affiliation Type Desc: UST Property Owner Name
Entity Name: TESORO REFINING & MARKETING COMPANY LLC
Entity Title: Not reported
Affiliation Address: ATTN: ENVIRONMENTAL DEPT. G 500 SPEEDWAY DR.
Affiliation City: ENON
Affiliation State: OH
Affiliation Country: United States
Affiliation Zip: 45323

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Affiliation Phone: | (937) 863-7377 |
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | BELSHIRE ENVIRONMENTAL |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| Affiliation Type Desc: | UST Tank Operator |
| Entity Name: | WESTERN REFINING RETAIL, LLC |
| Entity Title: | Not reported |
| Affiliation Address: | ATTN: ENVIRONMENTAL DEPT. G 500 SPEEDWAY DR. |
| Affiliation City: | ENON |
| Affiliation State: | OH |
| Affiliation Country: | United States |
| Affiliation Zip: | 45323 |
| Affiliation Phone: | (937) 863-7377 |
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | Tesoro South Coast Company, LLC |
| Entity Title: | Not reported |
| Affiliation Address: | ATTN: ENVIRONMENTAL DEPT. G 500 SPEEDWAY DR. |
| Affiliation City: | ENON |
| Affiliation State: | OH |
| Affiliation Country: | United States |
| Affiliation Zip: | 45323 |
| Affiliation Phone: | (937) 863-7377 |
| Affiliation Type Desc: | Operator |
| Entity Name: | WESTERN REFINING RETAIL, LLC |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (937) 863-7377 |
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Tesoro Refining and Marketing Company LLC |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| Affiliation Type Desc: | Property Owner |
| Entity Name: | TESORO REFINING & MARKETING COMPANY, LLC |
| Entity Title: | Not reported |
| Affiliation Address: | ATTN: ENVIRONMENTAL DEPT. G 500 SPEEDWAY DR. |
| Affiliation City: | ENON |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Affiliation State: | OH |
| Affiliation Country: | United States |
| Affiliation Zip: | 45323 |
| Affiliation Phone: | (937) 863-7377 |
| Affiliation Type Desc: | UST Tank Owner |
| Entity Name: | TESORO SOUTH COAST COMPANY LLC |
| Entity Title: | Not reported |
| Affiliation Address: | ATTN: ENVIRONMENTAL DEPT. G 500 SPEEDWAY DR. |
| Affiliation City: | ENON |
| Affiliation State: | OH |
| Affiliation Country: | United States |
| Affiliation Zip: | 45323 |
| Affiliation Phone: | (937) 863-7377 |
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | SEAN AUGUSTINE |
| Entity Title: | Not reported |
| Affiliation Address: | ATTN: ENVIRONMENTAL DEPT. G 500 SPEEDWAY DR. |
| Affiliation City: | ENON |
| Affiliation State: | OH |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 45323 |
| Affiliation Phone: | Not reported |
| Name: | POPEYES CHICKEN #4207 |
| Address: | 25336 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 444307 |
| CERS ID: | 10770919 |
| CERS Description: | Chemical Storage Facilities |

Violations:

| | |
|---|---|
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-10-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| Site ID: | 444307 |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 11-28-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 12/04/2018. OBSERVATION: The chemical inventory description page submitted for carbon dioxide contained incorrect information. Please update the storage pressure to "Above Ambient" and resubmit to CERS. CORRECTIVE ACTION: Owner/operator shall update the chemical inventory page for [[[chemical name]]] and submit to the statewide information management system at http://cers.calepa.ca.gov. Missing information may be found by looking at the chemical safety data sheet. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page. |
| Violation Notes: | Returned to compliance on 10/23/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 09-25-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: No training plan was submitted with the most recent business plan in the statewide information management system. CORRECTIVE ACTION: Owner/operator shall develop a training plan which is reasonable and appropriate for the size of the business and the nature of the hazardous material(s) handled. Submit the training plan into the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-23-2018 |
| Citation: | HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507 |
| Violation Description: | Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

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| | quantities. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: A business plan has not been established. CORRECTIVE ACTION: Owner/operator shall establish a hazardous materials business plan and submit a new copy in the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-23-2018 |
| Citation: | HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c) |
| Violation Description: | Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: Facility personnel were unable to access/locate a current copy of the business plan during the inspection. CORRECTIVE ACTION: Owner/operator shall ensure a current copy of the hazardous materials business plan is readily available on site at all times when the facility is staffed. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-23-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

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|---|---|
| | 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 12/04/2018. OBSERVATION: The most recent business plan submission in the statewide information management system (CERS) failed to contain a chemical inventory description page for carbon dioxide. CORRECTIVE ACTION: Owner/operator shall complete a chemical inventory page for all reportable hazardous materials on site and submit to the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 09-25-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a site map with all required content. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: No site map submitted into the statewide information management system. CORRECTIVE ACTION: Owner/operator shall complete an annotated site map which includes all elements outlines in CA Health and Safety Code and submit into the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 09-25-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page. |
| Violation Notes: | Returned to compliance on 10/23/2018. OBSERVATION: The Business Activities and Owner/Operator pages in the hazardous materials business plan have not been submitted. CORRECTIVE ACTION: Complete and submit an updated Business Activities and Owner/Operator page in the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 09-25-2018 |
| Citation: | HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507 |
| Violation Description: | Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: A business plan has |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

not been established. CORRECTIVE ACTION: Owner/operator shall establish a hazardous materials business plan and submit a new copy in the statewide information management system at http://cers.calepa.ca.gov.

Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 444307
Site Name: Popeyes Chicken #4207
Violation Date: 09-25-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 11/28/2018. OBSERVATION: A complete business plan has not been submitted into the statewide information management system. CORRECTIVE ACTION: Owner/operator shall submit a complete Business Plan into the statewide information management system at http://cers.calepa.ca.gov.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 444307
Site Name: Popeyes Chicken #4207
Violation Date: 10-23-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 11/28/2018. OBSERVATION: No training plan was submitted with the most recent business plan in the statewide information management system. CORRECTIVE ACTION: Owner/operator shall develop a training plan which is reasonable and appropriate for the size of the business and the nature of the hazardous material(s) handled. Submit the training plan into the statewide information management system at http://cers.calepa.ca.gov.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 444307
Site Name: Popeyes Chicken #4207
Violation Date: 09-25-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 11/28/2018. OBSERVATION: No training records observed/provided during inspection. CORRECTIVE ACTION: Owner/operator shall provide training to all employees. Documentation shall be retained and be made available for inspection for a minimum period of

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

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|---|---|
| | 3 years from the date of the training. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c) |
| Violation Description: | Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 09-25-2018 |
| Citation: | HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c) |
| Violation Description: | Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: Facility personnel were unable to access/locate a current copy of the business plan during the inspection. CORRECTIVE ACTION: Owner/operator shall ensure a current copy of the hazardous materials business plan is readily available on site at all times when the facility is staffed. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507 |
| Violation Description: | Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-23-2018 |
| Citation: | HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4) |
| Violation Description: | Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years. |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

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| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: No training records observed/provided during inspection. CORRECTIVE ACTION: Owner/operator shall provide training to all employees. Documentation shall be retained and be made available for inspection for a minimum period of 3 years from the date of the training. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 12/04/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4) |
| Violation Description: | Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-23-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities. |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

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|---|---|
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: A complete business plan has not been submitted into the statewide information management system. CORRECTIVE ACTION: Owner/operator shall submit a complete Business Plan into the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 09-25-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 12/04/2018. OBSERVATION: The most recent business plan submission in the statewide information management system (CERS) failed to contain a chemical inventory description page for carbon dioxide. CORRECTIVE ACTION: Owner/operator shall complete a chemical inventory page for all reportable hazardous materials on site and submit to the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 08-13-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a site map with all required content. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-23-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: No emergency response plans and procedures submitted with the most recent business plan information in the statewide information management system. CORRECTIVE ACTION: Owner/operator shall create emergency response plans and procedures addressing a release or threatened release of a hazardous material and submit into the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

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|---|---|
| Violation Source: | CERS |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 09-25-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: No emergency response plans and procedures submitted with the most recent business plan information in the statewide information management system. CORRECTIVE ACTION: Owner/operator shall create emergency response plans and procedures addressing a release or threatened release of a hazardous material and submit into the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 11-27-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date. |
| Violation Notes: | Returned to compliance on 11/28/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| Site ID: | 444307 |
| Site Name: | Popeyes Chicken #4207 |
| Violation Date: | 10-23-2018 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a site map with all required content. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: No site map submitted into the statewide information management system. CORRECTIVE ACTION: Owner/operator shall complete an annotated site map which includes all elements outlines in CA Health and Safety Code and submit into the statewide information management system at http://cers.calepa.ca.gov. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |

Evaluation:

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 09-25-2018 |
| Violations Found: | Yes |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-23-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-10-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-27-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-28-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title: Not reported
Affiliation Address: 4065 County Circle Drive, Room 104
Affiliation City: Riverside
Affiliation State: CA
Affiliation Country: Not reported

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |
| | |
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | Gina Allison |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | Clive Reid |
| Entity Title: | Not reported |
| Affiliation Address: | 601 E. Glenoaks Blvd. #108 |
| Affiliation City: | Glendale |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 91207 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | 601 E. Glenoaks Blvd. #108 |
| Affiliation City: | Glendale |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 91207 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Identification Signer |
| Entity Name: | Gina Allison |
| Entity Title: | Office Manager |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | Nareg Amirian |
| Entity Title: | Not reported |
| Affiliation Address: | 601 E. Glenoaks Blvd. #108 |
| Affiliation City: | Glendale |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 91207 |
| Affiliation Phone: | (818) 247-4716 |
| | |
| Affiliation Type Desc: | Operator |
| Entity Name: | Nareg Amirian |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (818) 247-4716 |
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Popeyes Chicken #4207 |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

HWTS:

| | |
|---|---|
| Name: | TESORO REFINING & MARKETING/MADISON SHELL #68569 |
| Address: | 25336 MADISON AVE |
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 925628908 |
| EPA ID: | CAL000321798 |
| Inactive Date: | 07/31/2007 |
| Create Date: | 07/05/2007 |
| Last Act Date: | 07/31/2007 |
| Mailing Name: | Not reported |
| Mailing Address: | 3450 S 344TH WAY STE 201 |
| Mailing Address 2: | Not reported |
| Mailing City,State,Zip: | FEDERAL WAY, WA 980019540 |
| Owner Name: | TESORO REFINING & MARKETING CO |
| Owner Address: | 3450 S 344TH WAY STE 201 |
| Owner Address 2: | Not reported |
| Owner City,State,Zip: | FEDERAL WAY, WA 980019540 |
| Contact Name: | JOCK STREIDL |
| Contact Address: | 3450 S 344TH WAY STE 201 |
| Contact Address 2: | Not reported |
| City,State,Zip: | FEDERAL WAY, WA 980019540 |

NAICS:

| | |
|---|---|
| EPA ID: | CAL000321798 |
| Create Date: | 2007-07-05 10:48:54.317 |
| NAICS Code: | 44719 |
| NAICS Description: | Other Gasoline Stations |
| Issued EPA ID Date: | 2007-07-05 10:48:54.31700 |
| Inactive Date: | 2007-07-31 00:00:00 |
| Facility Name: | TESORO REFINING & MARKETING/MADISON SHELL #68569 |
| Facility Address: | 25336 MADISON AVE |
| Facility Address 2: | Not reported |
| Facility City: | MURRIETA |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 925628908 |

| | |
|---|---|
| Name: | TESORO SHELL 68569 |
| Address: | 25336 MADISON AVE |

**POPEYES CHICKEN #4207 (Continued)** **S113148424**

| | |
|---|---|
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAL000321833 |
| Inactive Date: | 02/03/2021 |
| Create Date: | 07/05/2007 |
| Last Act Date: | 02/04/2021 |
| Mailing Name: | Not reported |
| Mailing Address: | 19100 RIDGEWOOD PKWY |
| Mailing Address 2: | MS:TX1-022 |
| Mailing City,State,Zip: | SAN ANTONIO, TX 78259 |
| Owner Name: | TESORO REFINING & MARKETING COMPANY |
| Owner Address: | 19100 RIDGEWOOD PKWY |
| Owner Address 2: | Not reported |
| Owner City,State,Zip: | SAN ANTONIO, TX 782590000 |
| Contact Name: | BRENDA RAMIREZ |
| Contact Address: | 19100 RIDGEWOOD PKWY |
| Contact Address 2: | MS: TX1-022 |
| City,State,Zip: | SAN ANTONIO, TX 78259 |

NAICS:

| | |
|---|---|
| EPA ID: | CAL000321833 |
| Create Date: | 2007-07-05 13:23:19.450 |
| NAICS Code: | 44719 |
| NAICS Description: | Other Gasoline Stations |
| Issued EPA ID Date: | 2007-07-05 13:23:19.45000 |
| Inactive Date: | 2021-02-03 00:00:00 |
| Facility Name: | TESORO SHELL 68569 |
| Facility Address: | 25336 MADISON AVE |
| Facility Address 2: | Not reported |
| Facility City: | MURRIETA |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 92562 |

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**D23** **CARMAX #6002** **CERS HAZ WASTE** **S123079716**
**East** **25560 MADISON AVE** **CERS TANKS** **N/A**
**1/8-1/4** **MURRIETA, CA 92563** **HAZNET**
**0.150 mi.** **CERS**
**791 ft.** **Site 1 of 4 in cluster D** **HWTS**

**Relative:**
**Higher**

**Actual:**
**1086 ft.**

CERS HAZ WASTE:

| | |
|---|---|
| Name: | CARMAX #6002 MURRIETA |
| Address: | 25560 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 410905 |
| CERS ID: | 10710649 |
| CERS Description: | Hazardous Waste Generator |

CERS TANKS:

| | |
|---|---|
| Name: | CARMAX #6002 MURRIETA |
| Address: | 25560 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 410905 |
| CERS ID: | 10710649 |
| CERS Description: | Aboveground Petroleum Storage |

| | |
|---|---|
| Name: | CARMAX #6002 MURRIETA |

**CARMAX #6002 (Continued)** **S123079716**

Address: 25560 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 410905
CERS ID: 10710649
CERS Description: Underground Storage Tank

HAZNET:
Name: CARMAX #6002
Address: 25560 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 232380000
Contact: JOHANNA GRISCIK
Telephone: 8047470422
Mailing Name: Not reported
Mailing Address: 12800 TUCKAHOE CREEK PKWY

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: CAD044429835
CA Waste Code: 352 - Other organic solids
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 8.85000

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: ARD069748192
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.42700

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: NED981723513
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.35000

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: AZR000003681
CA Waste Code: 223 - Unspecified oil-containing waste
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 1.15000

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: CAD044429835
CA Waste Code: 223 - Unspecified oil-containing waste
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.15000

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: TXD055141378

**CARMAX #6002 (Continued)** **S123079716**

CA Waste Code: 352 - Other organic solids
Disposal Method: H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.20000

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: UTD981552177
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.17750

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: CAD044429835
CA Waste Code: 291 - Latex waste
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.32500

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: CAD044429835
CA Waste Code: 213 - Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.30850

Year: 2019
Gepaid: CAR000267948
TSD EPA ID: CAD044429835
CA Waste Code: 343 - Unspecified organic liquid mixture
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.08750

Click this hyperlink while viewing on your computer to access
47 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:
Year: 2017
Gen EPA ID: CAR000267948

Shipment Date: 20171227
Creation Date: 9/26/2018 18:30:27
Receipt Date: 20180111
Manifest ID: 006436809SKS
Trans EPA ID: TXR000081205
Trans Name: SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS ENVIRONMENTAL SVC INC
TSDF EPA ID: CAD059494310
Trans Name: CLEAN HARBORS SAN JOSE
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 291 - Latex waste
RCRA Code: D001

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.04 |
| Waste Quantity: | 80 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171227 |
| Creation Date: | 11/8/2018 18:30:36 |
| Receipt Date: | 20180108 |
| Manifest ID: | 006436811SKS |
| Trans EPA ID: | TXR000081205 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENVIRONMENTAL SVC INC |
| TSDF EPA ID: | UTD991301748 |
| Trans Name: | CLEAN HARBORS GRASSY MOUNTAIN |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.075 |
| Waste Quantity: | 150 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171227 |
| Creation Date: | 11/8/2018 18:30:36 |
| Receipt Date: | 20180108 |
| Manifest ID: | 006436808SKS |
| Trans EPA ID: | TXR000081205 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENVIRONMENTAL SVC INC |
| TSDF EPA ID: | UTD991301748 |
| Trans Name: | CLEAN HARBORS GRASSY MOUNTAIN |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.2 |
| Waste Quantity: | 400 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171227 |
| Creation Date: | 11/8/2018 18:30:36 |
| Receipt Date: | 20180108 |
| Manifest ID: | 006436808SKS |
| Trans EPA ID: | TXR000081205 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENVIRONMENTAL SVC INC |
| TSDF EPA ID: | UTD991301748 |
| Trans Name: | CLEAN HARBORS GRASSY MOUNTAIN |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.05 |
| Waste Quantity: | 100 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171220 |
| Creation Date: | 10/16/2018 18:30:53 |
| Receipt Date: | 20171226 |
| Manifest ID: | 018165324JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | CAR000175422 |
| Trans 2 Name: | WORLDWIDE RECOVERY SYSTEM INC |
| TSDF EPA ID: | AZR000515924 |
| Trans Name: | YUMA YES LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.05 |
| Waste Quantity: | 100 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171214 |
| Creation Date: | 9/27/2018 18:30:12 |
| Receipt Date: | 20180105 |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Manifest ID: | 006333416SKS |
| Trans EPA ID: | TXR000081205 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENVIRONMENTAL SVC INC |
| TSDF EPA ID: | CAD059494310 |
| Trans Name: | CLEAN HARBORS SAN JOSE |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.3 |
| Waste Quantity: | 600 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171214 |
| Creation Date: | 7/11/2018 18:30:30 |
| Receipt Date: | 20171226 |
| Manifest ID: | 006333415SKS |
| Trans EPA ID: | TXR000081205 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENVIRONMENTAL SVC INC |
| TSDF EPA ID: | CAT000613976 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.084 |
| Waste Quantity: | 20 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171214 |
| Creation Date: | 10/27/2018 18:30:26 |
| Receipt Date: | 20180116 |
| Manifest ID: | 006333418SKS |
| Trans EPA ID: | TXR000081205 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS ENVIRONMENTAL SVC INC |
| TSDF EPA ID: | TXD055141378 |
| Trans Name: | CLEAN HARBORS DEER PARK |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | F005 |
| Meth Code: | H040 - Incineration--Thermal Destruction Other Than Use As A Fuel |
| Quantity Tons: | 0.09 |
| Waste Quantity: | 180 |
| Quantity Unit: | P |
| Additional Code 1: | F003 |
| Additional Code 2: | D035 |
| Additional Code 3: | D001 |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171212 |
| Creation Date: | 10/18/2018 18:30:14 |
| Receipt Date: | 20171221 |
| Manifest ID: | 018165024JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | CAR000175422 |
| Trans 2 Name: | WORLDWIDE RECOVERY SYSTEM INC |
| TSDF EPA ID: | AZR000515924 |
| Trans Name: | YUMA YES LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.085 |
| Waste Quantity: | 170 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171201 |
| Creation Date: | 10/10/2018 18:30:23 |
| Receipt Date: | 20171218 |
| Manifest ID: | 006333111SKS |
| Trans EPA ID: | TXR000081205 |
| Trans Name: | SAFETY-KLEEN SYSTEMS INC |
| Trans 2 EPA ID: | MAD039322250 |
| Trans 2 Name: | CLEAN HARBORS |
| TSDF EPA ID: | UTD991301748 |
| Trans Name: | CLEAN HARBORS GRASSY MOUNTAIN |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization) |
| Quantity Tons: | 0.075 |
| Waste Quantity: | 150 |

**CARMAX #6002 (Continued)** **S123079716**

Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: CARMAX #6002 MURRIETA
Address: 25560 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 410905
CERS ID: 10710649
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 03-08-2017
Citation: HSC 6.67 25270.6(a)(1), 25270.6(a)(2) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.6(a)(1), 25270.6(a)(2)
Violation Description: Failure to submit a tank facility statement on or before January 1 annually unless a current Business Plan has been submitted.
Violation Notes: Returned to compliance on 05/09/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: APSA
Violation Source: CERS

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 04-11-2019
Citation: 23 CCR 16 2715(c)(4) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(c)(4)
Violation Description: Failure to maintain a list of employees trained by the designated operator on-site or off-site at a readily available location, if approved by the UPA. For training that occurs on or after October 1, 2018, failure to maintain a copy of the "Facility Employee Training Certificate" on-site or off-site at a readily available location, if approved by the UPA.
Violation Notes: Returned to compliance on 05/28/2019. OBSERVATION: Owner/operator unable to produce a current list of employees trained by the designated operator. CORRECTIVE ACTION: Owner/operator shall provide list of employees trained by the designated operator and maintain on site readily available for review. Employees are required to be trained within 30 days of hire. Employees hired on/after 10/13/2018 are required to be trained before assuming their duties. Owner/operator shall ensure the state required employee training form is used to document training.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 04-11-2019
Citation: 23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Violation Description: | For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been trained in accordance with 23 CCR 2715(c). For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct the designated UST operator visual inspection at least once every 30 days. |
| Violation Notes: | Returned to compliance on 05/28/2019. OBSERVATION: The designated operator failed to properly complete the DO inspection reports from 10/2018 through 4/2019. An alarm occurred on 3/25/19 (L-12) with no supporting documentation as to how the alarm was responded to and not all checkbox lines were completed in Section VIII of the 4/8/19 report. DO inspection reports dated 3/11/19, 2/11/19, 1/14/19 and 12/17/18 have checkbox line items not marked at all in Sections VIII and X. Items marked "N or N/A" in Sections VII through XI must be explained in Section III of the DO inspection report. During the monthly inspection, the designated operator shall review the alarm history for the previous month, check that each alarm was documented and responded to appropriately, and attach a copy of the alarm history with documentation taken in response to any alarms to the monthly report. In addition the DO reports from 12/2018 through 4/8/19 have not been signed and dated by the owner/operator. CORRECTIVE ACTION: [Truncated] |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 04-12-2018 |
| Citation: | 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1) |
| Violation Description: | Failure of the leak detection equipment to have an audible and visual alarm as required. |
| Violation Notes: | Returned to compliance on 04/12/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 01-19-2017 |
| Citation: | 23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h) |
| Violation Description: | Failure to have an approved UST Monitoring Plan. |
| Violation Notes: | Returned to compliance on 05/09/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |

**CARMAX #6002 (Continued)** **S123079716**

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 04-09-2021
Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.
Violation Notes: Returned to compliance on 04/09/2021. OBSERVATION: Observed VPH sensor S-2 (Vapor pot chase) located in the STP sump fail to function properly when tested. Sensor failed to activate an alarm and shut down turbine when tested for high liquid. CORRECTIVE ACTION: Owner/operator shall repair/replace failed leak detection equipment and certify that equipment functions properly. Technician on site replaced the S-2 sensor while on site. Sensor retested and passed. Violation corrected on site.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 04-12-2018
Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.
Violation Notes: Returned to compliance on 04/12/2018.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 04-12-2018
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Description: Failure of the double-walled pressurized piping to be continuously monitored with a system that activates an audible and visual alarm or stops flow at the dispenser when a leak is detected.
Violation Notes: Returned to compliance on 04/12/2018.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 01-19-2017
Citation: 23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Description: Failure to submit or update a plot plan.
Violation Notes: Returned to compliance on 05/09/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS

Site ID: 410905

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 04-28-2020 |
| Citation: | 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1) |
| Violation Description: | Failure of the leak detection equipment to have an audible and visual alarm as required. |
| Violation Notes: | Returned to compliance on 05/13/2020. OBSERVATION: Observed VeederRoot panel fail to activate an audible and visual alarm when tested and sensors went into alarm. CORRECTIVE ACTION: Owner/operator shall repair/replace inoperable VeederRoot panel and certify that it will activate an audible visual alarm when a leak is detected. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 04-12-2018 |
| Citation: | HSC 6.7 25290.1(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(e) |
| Violation Description: | Failure to maintain the interstitial space such that a breach in the primary or secondary containment is detected before the liquid or vapor phase of the hazardous substance stored in the UST tank is released into the environment, i.e., vapor, pressure, hydrostatic (VPH) monitoring. |
| Violation Notes: | Returned to compliance on 04/12/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a) |
| Violation Description: | Failure to provide the following training to all oil-handling personnel: 1. Operation and maintenance of equipment to prevent discharges. 2. Discharge procedure protocols. 3. Applicable pollution control laws, rules, and regulations. 4. General facility operations. 5. Contents of the SPCC Plan. |
| Violation Notes: | Returned to compliance on 05/09/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | APSA |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | Un-Specified |
| Violation Description: | Business Plan Program - Operations/Maintenance - General Local Ordinance |
| Violation Notes: | Returned to compliance on 04/14/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | 19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page. |
| Violation Notes: | Returned to compliance on 04/14/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 01-19-2017 |
| Citation: | 23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h) |
| Violation Description: | Failure to have an approved UST Response Plan. |
| Violation Notes: | Returned to compliance on 03/08/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 01-19-2017 |
| Citation: | 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712 |
| Violation Description: | Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system. |
| Violation Notes: | Returned to compliance on 05/09/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 04-09-2021 |
| Citation: | HSC 6.7 25290.1(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(e) |
| Violation Description: | Failure to maintain the interstitial space such that a breach in the primary or secondary containment is detected before the liquid or vapor phase of the hazardous substance stored in the UST tank is released into the environment, i.e., vapor, pressure, hydrostatic (VPH) monitoring. |
| Violation Notes: | Returned to compliance on 04/09/2021. OBSERVATION: Observed VPH sensor S-2 (Vapor pot chase) located in the STP sump fail to function properly when tested. Sensor failed to activate an alarm and shut down turbine when tested for high liquid. CORRECTIVE ACTION: Owner/operator shall repair/replace failed leak detection equipment and certify that equipment functions properly. Technician on site replaced the S-2 sensor while on site. Sensor retested and passed. Violation corrected on site. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 01-19-2017 |
| Citation: | 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286 |
| Violation Description: | Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit. |
| Violation Notes: | Returned to compliance on 05/09/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 04-09-2021 |
| Citation: | 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1) |
| Violation Description: | Failure of the leak detection equipment to have an audible and visual alarm as required. |
| Violation Notes: | Returned to compliance on 04/09/2021. OBSERVATION: Observed VPH sensor S-2 (Vapor pot chase) located in the STP sump fail to function properly when tested. Sensor failed to activate an alarm and shut down turbine when tested for high liquid. CORRECTIVE ACTION: Owner/operator shall repair/replace failed leak detection equipment and certify that equipment functions properly. Technician on site replaced the S-2 sensor while on site. Sensor retested and passed. Violation corrected on site. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11 |
| Violation Description: | Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method. |
| Violation Notes: | Returned to compliance on 04/14/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities. |
| Violation Notes: | Returned to compliance on 05/09/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Violation Date: | 04-28-2020 |
| Citation: | 23 CCR 16 2716(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(f) |
| Violation Description: | "Failure to maintain on-site, or off-site at a readily available location if approved by the UPA, copies of Designated Operator inspection records as follows: Designated operator monthly inspection records for inspections performed before October 1, 2018 must be kept for 12 months from the month of inspection. For inspections performed on or after October 1, 2018, copies of the ""Designated Underground Storage Tank Operator Visual Inspection Report"" must be kept for 36 months from the month of inspection. " |
| Violation Notes: | Returned to compliance on 05/13/2020. OBSERVATION: Observed missing designated operator inspection reports for the months of March and thus far in April. Last DO inspection was 2/28/2020. DO inspections not completed due to COVID 19 concerns however proper documentation not available on site as directed by state waterboard. CORRECTIVE ACTION: Owner/operator shall provide proper documentation per state waterboard letter. Letter was emailed to owner. DO inspections shall be conducted every 30 days and reports after 10/1/18 maintained on site for 36 months. Reports for inspections conducted prior to 10/1/2018 shall be maintained on site for at least 12 months. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | UST |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a site map with all required content. |
| Violation Notes: | Returned to compliance on 04/14/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a) |
| Violation Description: | Failure to prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan. |
| Violation Notes: | Returned to compliance on 04/14/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | APSA |
| Violation Source: | CERS |
| | |
| Site ID: | 410905 |
| Site Name: | CarMax #6002 Murrieta |
| Violation Date: | 03-08-2017 |
| Citation: | HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c) |
| Violation Description: | Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training. |

**CARMAX #6002 (Continued)** **S123079716**

Violation Notes: Returned to compliance on 05/09/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 03-08-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 05/09/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 410905
Site Name: CarMax #6002 Murrieta
Violation Date: 03-08-2017
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22
Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.
Violation Notes: Returned to compliance on 04/14/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-08-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-14-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-28-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 03-08-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 04-09-2021 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Inspection conducted at time of annual monitoring certification. 1-87 tank, VPH system w/ vapor pot. |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 04-11-2019 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 04-14-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 05-09-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | APSA |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 09-04-2020 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 09-04-2020 |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |
| | |
| Eval General Type: | Other/Unknown |
| Eval Date: | 09-04-2020 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | All violations corrected. |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |
| | |
| Eval General Type: | Other/Unknown |
| Eval Date: | 11-04-2019 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | OPEI NOV |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |
| | |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 01-19-2017 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | UST |
| Eval Source: | CERS |
| | |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 03-08-2017 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |
| | |
| Eval General Type: | Other/Unknown |
| Eval Date: | 04-14-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |
| | |
| Eval General Type: | Other/Unknown |
| Eval Date: | 04-14-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |

**CARMAX #6002 (Continued)** **S123079716**

Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-28-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-08-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-12-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-04-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS

**CARMAX #6002 (Continued)** **S123079716**

Coordinates:

| | |
|---|---|
| Site ID: | 410905 |
| Facility Name: | CarMax #6002 Murrieta |
| Env Int Type Code: | APSA |
| Program ID: | 10710649 |
| Coord Name: | Not reported |
| Ref Point Type Desc: | Center of a facility or station. |
| Latitude: | 33.548530 |
| Longitude: | -117.190790 |

Affiliation:

| | |
|---|---|
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |

| | |
|---|---|
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | 12800 Tuckahoe Creek Parkway |
| Affiliation City: | Richmond |
| Affiliation State: | VA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 23238 |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Identification Signer |
| Entity Name: | Johanna Griscik |
| Entity Title: | Senior EH&S Manager |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Operator |
| Entity Name: | CarMax Auto Superstores California LLC |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (804) 747-0422 |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | CarMax |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | UST Property Owner Name |
| Entity Name: | CarMax Auto Superstores California LLC |
| Entity Title: | Not reported |
| Affiliation Address: | 12800 Tuckahoe Creek parkway |
| Affiliation City: | Richmond |
| Affiliation State: | VA |
| Affiliation Country: | United States |
| Affiliation Zip: | 23238 |
| Affiliation Phone: | (804) 747-0422 |
| | |
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | Johanna Griscik |
| Entity Title: | Not reported |
| Affiliation Address: | 12800 Tuckahoe Creek Parkway |
| Affiliation City: | Richmnd |
| Affiliation State: | VA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 23238 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | CarMax Auto Superstores California LLC |
| Entity Title: | Not reported |
| Affiliation Address: | 12800 Tuckahoe Creek Parkway |
| Affiliation City: | Richmond |
| Affiliation State: | VA |
| Affiliation Country: | United States |
| Affiliation Zip: | 23238 |
| Affiliation Phone: | (804) 747-0422 |
| | |
| Affiliation Type Desc: | Property Owner |
| Entity Name: | CarMax Auto Superstores, Inc |
| Entity Title: | Not reported |
| Affiliation Address: | 12800 Tuckahoe Creek Parkway |
| Affiliation City: | Richmond |
| Affiliation State: | VA |
| Affiliation Country: | United States |
| Affiliation Zip: | 23238 |
| Affiliation Phone: | (804) 747-0422 |
| | |
| Affiliation Type Desc: | UST Tank Owner |
| Entity Name: | CarMax Auto Superstores California LLC |
| Entity Title: | Not reported |
| Affiliation Address: | 12800 Tuckahoe Creek parkway |
| Affiliation City: | Richmond |
| Affiliation State: | VA |
| Affiliation Country: | United States |
| Affiliation Zip: | 23238 |
| Affiliation Phone: | (804) 747-0422 |
| | |
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | Bentley Parker-Brown |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | UST Permit Applicant |
| Entity Name: | Johanna Griscik |
| Entity Title: | Environmental Manager |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (804) 747-0422 |
| | |
| Affiliation Type Desc: | UST Tank Operator |
| Entity Name: | CarMax Auto Superstores California LLC |
| Entity Title: | Not reported |
| Affiliation Address: | 12800 Tuckahoe Creek Parkway |
| Affiliation City: | Richmond |
| Affiliation State: | VA |
| Affiliation Country: | United States |
| Affiliation Zip: | 23238 |
| Affiliation Phone: | (804) 747-0422 |

HWTS:

| | |
|---|---|
| Name: | CARMAX #6002 |
| Address: | 25560 MADISON AVE |
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 92563 |
| EPA ID: | CAR000267948 |
| Inactive Date: | Not reported |
| Create Date: | 10/25/2016 |
| Last Act Date: | 07/28/2020 |
| Mailing Name: | Not reported |
| Mailing Address: | 12800 TUCKAHOE CREEK PKWY |
| Mailing Address 2: | Not reported |
| Mailing City,State,Zip: | RICHMOND, VA 232380000 |
| Owner Name: | CARMAXAUTOSUPERSTORESWESTCOAST,LLC |
| Owner Address: | 12800 TUCKAHOE CREEK PKWY |
| Owner Address 2: | Not reported |
| Owner City,State,Zip: | RICHMOND, VA 232380000 |
| Contact Name: | JOHANNA GRISCIK |
| Contact Address: | 12800 TUCKAHOE CREEK PKWY |
| Contact Address 2: | Not reported |
| City,State,Zip: | RICHMOND, VA 23238 |

NAICS:

| | |
|---|---|
| EPA ID: | CAR000267948 |
| Create Date: | 2016-10-25 14:42:01.200 |
| NAICS Code: | 99999 |
| NAICS Description: | Not Otherwise Specified |
| Issued EPA ID Date: | 2016-10-25 14:42:01.00300 |

**CARMAX #6002 (Continued)** **S123079716**

| | |
|---|---|
| Inactive Date: | Not reported |
| Facility Name: | CARMAX #6002 |
| Facility Address: | 25560 MADISON AVE |
| Facility Address 2: | Not reported |
| Facility City: | MURRIETA |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 92563 |

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**D24** **CAR MAX #6002** **RCRA-LQG 1019899675**
**East** **25560 MADISON AVE** **FINDS CAR000267948**
**1/8-1/4** **MURRIETA, CA 92563** **ECHO**
**0.150 mi.**
**791 ft.** **Site 2 of 4 in cluster D**

**Relative:** **Higher**
**Actual:** **1086 ft.**

RCRA-LQG:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20200228 |
| Handler Name: | CARMAX #6002 | |
| Handler Address: | | 25560 MADISON AVE |
| Handler City,State,Zip: | | MURRIETA, CA 92563 |
| EPA ID: | | CAR000267948 |
| Contact Name: | | JOHANNA GRISCIK |
| Contact Address: | | TUCKAHOE CREEK PKWY |
| Contact City,State,Zip: | | RICHMOND, VA 23238 |
| Contact Telephone: | | 804-747-0422 x6115 |
| Contact Fax: | | 804-935-6158 |
| Contact Email: | | ENVIRONMENTAL@CARMAX.COM |
| Contact Title: | | ENVIRONMENTAL MANAGER |
| EPA Region: | | 09 |
| Land Type: | | Private |
| Federal Waste Generator Description: | | Large Quantity Generator |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | 2019 |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 12800 TUCKAHOE CREEK PKWY |
| Mailing City,State,Zip: | | RICHMOND, VA 23238 |
| Owner Name: | | CARMAX AUTO SUPERSTORES CA LLC |
| Owner Type: | | Private |
| Operator Name: | | CARMAX AUTO SUPERSTORES CA LLC |
| Operator Type: | | Private |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | No |
| Universal Waste Destination Facility: | | No |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |

**CAR MAX #6002 (Continued)** **1019899675**

| | |
|---|---|
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20201014 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Biennial: List of Years
Year: 2019

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:

| | |
|---|---|
| Waste Code: | D001 |
| Waste Description: | IGNITABLE WASTE |
| Waste Code: | D002 |
| Waste Description: | CORROSIVE WASTE |
| Waste Code: | D003 |
| Waste Description: | REACTIVE WASTE |

**CAR MAX #6002 (Continued)** **1019899675**

Waste Code: D005
Waste Description: BARIUM

Waste Code: D007
Waste Description: CHROMIUM

Waste Code: D008
Waste Description: LEAD

Waste Code: D011
Waste Description: SILVER

Waste Code: D018
Waste Description: BENZENE

Waste Code: D028
Waste Description: 1,2-DICHLOROETHANE

Waste Code: D035
Waste Description: METHYL ETHYL KETONE

Waste Code: D039
Waste Description: TETRACHLOROETHYLENE

Waste Code: D040
Waste Description: TRICHLORETHYLENE

Waste Code: F001
Waste Description: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F002
Waste Description: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F003
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

**CAR MAX #6002 (Continued)** **1019899675**

BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F005
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: P042
Waste Description: 1,2-BENZENEDIOL, 4-[1-HYDROXY-2-(METHYLAMINO)ETHYL]-, (R)- (OR) EPINEPHRINE

Waste Code: U002
Waste Description: 2-PROPANONE (I) (OR) ACETONE (I)

Waste Code: U154
Waste Description: METHANOL (I) (OR) METHYL ALCOHOL (I)

Waste Code: U161
Waste Description: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR) PENTANOL, 4-METHYL-

Waste Code: U220
Waste Description: BENZENE, METHYL- (OR) TOLUENE

Waste Code: U239
Waste Description: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | CARMAX AUTO SUPERSTORES CA LLC |
| Legal Status: | Private |
| Date Became Current: | 20161001 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 12800 TUCKAHOE CREEK PKWY |
| Owner/Operator City,State,Zip: | RICHMOND, VA 23238 |
| Owner/Operator Telephone: | 804-747-0422 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | CARMAX AUTO SUPERSTORES CA LLC |
| Legal Status: | Private |
| Date Became Current: | 20161001 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 12800 TUCKAHOE CREEK PKWY |
| Owner/Operator City,State,Zip: | RICHMOND, VA 23238 |
| Owner/Operator Telephone: | 804-747-0422 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

**CAR MAX #6002 (Continued)** **1019899675**

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | CARMAX AUTO SUPERSTORES CA LLC |
| Legal Status: | Private |
| Date Became Current: | 20161001 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 12800 TUCKAHOE CREEK PKWY |
| Owner/Operator City,State,Zip: | RICHMOND, VA 23238 |
| Owner/Operator Telephone: | 804-747-0422 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | CARMAX AUTO SUPERSTORES CA LLC |
| Legal Status: | Private |
| Date Became Current: | 20161001 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 12800 TUCKAHOE CREEK PKWY |
| Owner/Operator City,State,Zip: | RICHMOND, VA 23238 |
| Owner/Operator Telephone: | 804-747-0422 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20200228 |
| Handler Name: CARMAX #6002 | |
| Federal Waste Generator Description: | Large Quantity Generator |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | No |
| Electronic Manifest Broker: | No |

| | |
|---|---|
| Receive Date: | 20161017 |
| Handler Name: CARMAX #6002 | |
| Federal Waste Generator Description: | Small Quantity Generator |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | No |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 441110 |
| NAICS Description: | NEW CAR DEALERS |

**CAR MAX #6002 (Continued)** **1019899675**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110070119212

Click Here:

Environmental Interest/Information System:
AIR EMISSIONS CLASSIFICATION UNKNOWN
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

| | |
|---|---|
| Envid: | 1019899675 |
| Registry ID: | 110070119212 |
| DFR URL: | http://echo.epa.gov/detailed-facility-report?fid=110070119212 |
| Name: | CAR MAX #6002 |
| Address: | 25560 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92563 |

---

**D25** **DENT WIZARD INTERNATIONAL** **RCRA NonGen / NLR** **1024864472**
**East** **25560 MADISON AVE** **CAL000433033**
**1/8-1/4** **MURRIETA, CA 92562**
**0.150 mi.**
**791 ft.** **Site 3 of 4 in cluster D**

**Relative:**
**Higher**

**Actual:**
**1086 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 20180105 |
| Handler Name: | DENT WIZARD INTERNATIONAL |
| Handler Address: | 25560 MADISON AVE |
| Handler City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAL000433033 |
| Contact Name: | MAX MORENO |
| Contact Address: | 4885 CEDAR ST |
| Contact City,State,Zip: | RIVERSIDE, CA 92509 |
| Contact Telephone: | 310-722-3876 |
| Contact Fax: | Not reported |
| Contact Email: | MAX.MORENO@DENTWIZARD.COM |
| Contact Title: | Not reported |
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |

**DENT WIZARD INTERNATIONAL (Continued)** **1024864472**

| | |
|---|---|
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 4710 EARTH CITY EXPRESSWAY |
| Mailing City,State,Zip: | BRIDGETON, MO 63044 |
| Owner Name: | DENT WIZARD INTERNATIONAL |
| Owner Type: | Other |
| Operator Name: | MAX MORENO |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |

**DENT WIZARD INTERNATIONAL (Continued)** **1024864472**

| | |
|---|---|
| Handler Date of Last Change: | 20180907 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | DENT WIZARD INTERNATIONAL |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 4710 EARTH CITY EXPRESSWAY |
| Owner/Operator City,State,Zip: | BRIDGETON, MO 63044 |
| Owner/Operator Telephone: | 314-592-1804 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | MAX MORENO |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 4885 CEDAR ST |
| Owner/Operator City,State,Zip: | RIVERSIDE, CA 92509 |
| Owner/Operator Telephone: | 310-722-3876 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20180105 |
| Handler Name: | DENT WIZARD INTERNATIONAL |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 811111 |
| NAICS Description: | GENERAL AUTOMOTIVE REPAIR |

Facility Has Received Notices of Violations:

| | |
|---|---|
| Violations: | No Violations Found |

**DENT WIZARD INTERNATIONAL (Continued)** **1024864472**

Evaluation Action Summary:
Evaluations: No Evaluations Found

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**D26** **CARMAX #6002** **UST** **U004263080**
**East** **25560 MADISON AVE** **N/A**
**1/8-1/4** **MURRIETA, CA 92562**
**0.150 mi.**
**791 ft.** **Site 4 of 4 in cluster D**

**Relative:**
**Higher**

**Actual:**
**1086 ft.**

RIVERSIDE CO. UST:
Name: CARMAX #6002
Address: 25560 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Region: RIVERSIDE
Total Tanks: 1

UST:
Name: CARMAX #6002 MURRIETA
Address: 25560 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Facility ID: FA0047212
Permitting Agency: Riverside County Department of Environmental Health
Latitude: 33.54853
Longitude: -117.19079

---

**E27** **BIG 5 SPORTING GOODS #185** **RCRA NonGen / NLR** **1024851632**
**North** **25274 MADISON AVE** **CAL000410242**
**1/8-1/4** **MURRIETA, CA 92562**
**0.205 mi.**
**1085 ft.** **Site 1 of 6 in cluster E**

**Relative:**
**Higher**

**Actual:**
**1107 ft.**

RCRA NonGen / NLR:
Date Form Received by Agency: 20150915
Handler Name: BIG 5 SPORTING GOODS #185
Handler Address: 25274 MADISON AVE
Handler City,State,Zip: MURRIETA, CA 92562
EPA ID: CAL000410242
Contact Name: ROGER TANAKA EXT 5523
Contact Address: 2525 E EL SEGUNDO BLVD
Contact City,State,Zip: EL SEGUNDO, CA 90245
Contact Telephone: 310-536-0611
Contact Fax: Not reported
Contact Email: ASHLEY.CAMPBELL@STERICYCLE.COM
Contact Title: Not reported
EPA Region: 09
Land Type: Not reported
Federal Waste Generator Description: Not a generator, verified
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported
Active Site Indicator: Handler Activities
State District Owner: Not reported
State District: Not reported
Mailing Address: 2525 E EL SEGUNDO BLVD

**BIG 5 SPORTING GOODS #185 (Continued)** **1024851632**

| | |
|---|---|
| Mailing City,State,Zip: | EL SEGUNDO, CA 90245 |
| Owner Name: | BIG 5 CORP |
| Owner Type: | Other |
| Operator Name: | ROGER TANAKA EXT 5523 |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180906 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |

**BIG 5 SPORTING GOODS #185 (Continued)** **1024851632**

| | |
|---|---|
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | ROGER TANAKA EXT 5523 |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2525 E EL SEGUNDO BLVD |
| Owner/Operator City,State,Zip: | EL SEGUNDO, CA 90245 |
| Owner/Operator Telephone: | 310-536-0611 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | BIG 5 CORP |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2525 E EL SEGUNDO BLVD |
| Owner/Operator City,State,Zip: | EL SEGUNDO, CA 90245 |
| Owner/Operator Telephone: | 310-536-0611 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20150915 |
| Handler Name: | BIG 5 SPORTING GOODS #185 |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 45111 |
| NAICS Description: | SPORTING GOODS STORES |

Facility Has Received Notices of Violations:

| | |
|---|---|
| Violations: | No Violations Found |

Evaluation Action Summary:

| | |
|---|---|
| Evaluations: | No Evaluations Found |

**E28** **BIG 5 SPORTING GOODS #185** **CERS HAZ WASTE** **S121019695**
**North** **25274 MADISON AVE** **HAZNET** **N/A**
**1/8-1/4** **MURRIETA, CA 92562** **CERS**
**0.205 mi.** **HWTS**
**1085 ft.** **Site 2 of 6 in cluster E**

**Relative:**
**Higher**

**Actual:**
**1107 ft.**

CERS HAZ WASTE:
Name: BIG 5 SPORTING GOODS #185
Address: 25274 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 360763
CERS ID: 10650067
CERS Description: Hazardous Waste Generator

HAZNET:
Name: BIG 5 SPORTING GOODS #185
Address: 25274 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 90245
Contact: ROGER TANAKA EXT 5523
Telephone: 3105360611
Mailing Name: Not reported
Mailing Address: 2525 E EL SEGUNDO BLVD

Year: 2019
Gepaid: CAL000410242
TSD EPA ID: CAD008364432
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00800

Year: 2019
Gepaid: CAL000410242
TSD EPA ID: NVD980895338
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00050

Year: 2019
Gepaid: CAL000410242
TSD EPA ID: CAD008364432
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00100

Year: 2017
Gepaid: CAL000410242
TSD EPA ID: NVD980895338
CA Waste Code: 141 - Off-specification, aged or surplus inorganics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0005

Year: 2017
Gepaid: CAL000410242
TSD EPA ID: CAD008364432

**BIG 5 SPORTING GOODS #185 (Continued)** **S121019695**

| | |
|---|---|
| CA Waste Code: | 181 - Other inorganic solid waste |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.005 |
| Year: | 2017 |
| Gepaid: | CAL000410242 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0005 |
| Year: | 2017 |
| Gepaid: | CAL000410242 |
| TSD EPA ID: | CAD980884183 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.003 |
| Year: | 2016 |
| Gepaid: | CAL000410242 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 181 - Other inorganic solid waste |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.007 |

Additional Info:

| | |
|---|---|
| Year: | 2017 |
| Gen EPA ID: | CAL000410242 |
| Shipment Date: | 20170421 |
| Creation Date: | 6/27/2018 18:30:27 |
| Receipt Date: | 20170517 |
| Manifest ID: | 009348882FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SST |
| TSDF EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D008 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.003 |
| Waste Quantity: | 6 |
| Quantity Unit: | P |
| Additional Code 1: | D005 |
| Additional Code 2: | D003 |
| Additional Code 3: | D001 |
| Additional Code 4: | Not reported |

**BIG 5 SPORTING GOODS #185 (Continued)** **S121019695**

| | |
|---|---|
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170421 |
| Creation Date: | 5/9/2018 18:32:07 |
| Receipt Date: | 20170426 |
| Manifest ID: | 009348883FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170421 |
| Creation Date: | 5/12/2018 18:32:34 |
| Receipt Date: | 20170509 |
| Manifest ID: | 009348884FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SST |
| TSDF EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170421 |
| Creation Date: | 5/9/2018 18:32:07 |
| Receipt Date: | 20170426 |
| Manifest ID: | 009348883FLE |
| Trans EPA ID: | MNS000110924 |

**BIG 5 SPORTING GOODS #185 (Continued)** **S121019695**

| | |
|---|---|
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0045 |
| Waste Quantity: | 9 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20170421 |
| Creation Date: | 5/9/2018 18:32:07 |
| Receipt Date: | 20170426 |
| Manifest ID: | 009348883FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

CERS:

| | |
|---|---|
| Name: | BIG 5 SPORTING GOODS #185 |
| Address: | 25274 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 360763 |
| CERS ID: | 10650067 |
| CERS Description: | Chemical Storage Facilities |

Evaluation:

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 11-09-2015 |
| Violations Found: | No |

**BIG 5 SPORTING GOODS #185 (Continued)** **S121019695**

| | |
|---|---|
| Eval Type: | Routine done by local agency |
| Eval Notes: | Big 5 |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 08-29-2018 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

Coordinates:

| | |
|---|---|
| Site ID: | 360763 |
| Facility Name: | BIG 5 SPORTING GOODS #185 |
| Env Int Type Code: | HWG |
| Program ID: | 10650067 |
| Coord Name: | Not reported |
| Ref Point Type Desc: | Center of a facility or station. |
| Latitude: | 33.555290 |
| Longitude: | -117.196420 |

Affiliation:

| | |
|---|---|
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |
| Affiliation Type Desc: | Identification Signer |
| Entity Name: | Ashley Campbell |
| Entity Title: | ENVIRONMENTAL COMPLIANCE SPECIALIST |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| Affiliation Type Desc: | Operator |
| Entity Name: | BIG 5 SPORTING GOODS #185 |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (951) 698-8345 |

**BIG 5 SPORTING GOODS #185 (Continued)** **S121019695**

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | BIG 5 SPORTING GOODS |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | BIG 5 SPORTING GOODS CORPORATION |
| Entity Title: | Not reported |
| Affiliation Address: | 2525 E. EL SEGUNDO BLVD |
| Affiliation City: | EL SEGUNDO |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 90245 |
| Affiliation Phone: | (310) 350-2413 |

| | |
|---|---|
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | ASHLEY CAMPBELL |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | 2525 E. EL SEGUNDO BLVD |
| Affiliation City: | EL SEGUNDO |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 90245 |
| Affiliation Phone: | Not reported |

HWTS:

| | |
|---|---|
| Name: | BIG 5 SPORTING GOODS #185 |
| Address: | 25274 MADISON AVE |
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAL000410242 |
| Inactive Date: | Not reported |
| Create Date: | 09/15/2015 |
| Last Act Date: | 11/02/2020 |
| Mailing Name: | Not reported |
| Mailing Address: | 2525 E EL SEGUNDO BLVD |
| Mailing Address 2: | Not reported |
| Mailing City,State,Zip: | EL SEGUNDO, CA 90245 |
| Owner Name: | BIG 5 CORP |
| Owner Address: | 2525 E EL SEGUNDO BLVD |
| Owner Address 2: | Not reported |

**BIG 5 SPORTING GOODS #185 (Continued)** **S121019695**

| | |
|---|---|
| Owner City,State,Zip: | EL SEGUNDO, CA 90245 |
| Contact Name: | ROGER TANAKA EXT 5523 |
| Contact Address: | 2525 E EL SEGUNDO BLVD |
| Contact Address 2: | Not reported |
| City,State,Zip: | EL SEGUNDO, CA 90245 |

NAICS:

| | |
|---|---|
| EPA ID: | CAL000410242 |
| Create Date: | 2015-09-15 10:00:27.613 |
| NAICS Code: | 45111 |
| NAICS Description: | Sporting Goods Stores |
| Issued EPA ID Date: | 2015-09-15 10:00:27.61000 |
| Inactive Date: | Not reported |
| Facility Name: | BIG 5 SPORTING GOODS #185 |
| Facility Address: | 25274 MADISON AVE |
| Facility Address 2: | Not reported |
| Facility City: | MURRIETA |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 92562 |

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**E29** **99 CENTS ONLY STORES** **RCRA NonGen / NLR** **1024832131**
**North** **25270 MADISON AVE** **CAL000369815**
**1/8-1/4** **MURRIETA, CA 92562**
**0.209 mi.**
**1106 ft.** **Site 3 of 6 in cluster E**

**Relative:** **Higher**

**Actual:** **1107 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20111206 |
| Handler Name: | 99 CENTS ONLY STORES | |
| Handler Address: | | 25270 MADISON AVE |
| Handler City,State,Zip: | | MURRIETA, CA 92562-8912 |
| EPA ID: | | CAL000369815 |
| Contact Name: | | EDGAR FLORES |
| Contact Address: | | 4000 UNION PACIFIC AVE |
| Contact City,State,Zip: | | COMMERCE, CA 90023 |
| Contact Telephone: | | 323-919-3290 |
| Contact Fax: | | 323-729-3455 |
| Contact Email: | | EDGAR.FLORES@99ONLY.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 4000 UNION PACIFIC AVENUE |
| Mailing City,State,Zip: | | COMMERCE, CA 90023 |
| Owner Name: | | 99 CENTS ONLY STORES |
| Owner Type: | | Other |
| Operator Name: | | EDGAR FLORES |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |

**99 CENTS ONLY STORES (Continued)** **1024832131**

| | |
|---|---|
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180906 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:
Owner/Operator Indicator: Owner

**99 CENTS ONLY STORES (Continued)** **1024832131**

Owner/Operator Name: 99 CENTS ONLY STORES
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 4000 UNION PACIFIC AVENUE
Owner/Operator City,State,Zip: COMMERCE, CA 90023
Owner/Operator Telephone: 323-980-8145
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: EDGAR FLORES
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 4000 UNION PACIFIC AVE
Owner/Operator City,State,Zip: COMMERCE, CA 90023
Owner/Operator Telephone: 323-919-3290
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20111206
Handler Name: 99 CENTS ONLY STORES
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 45299
NAICS Description: ALL OTHER GENERAL MERCHANDISE STORES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

**E30** **99 CENTS ONLY STORES** **CERS HAZ WASTE** **S113800629**
**North** **25270 MADISON AVE** **HAZNET** **N/A**
**1/8-1/4** **MURRIETA, CA 92562** **CERS**
**0.209 mi.** **HWTS**
**1106 ft.** **Site 4 of 6 in cluster E**

**Relative:**
**Higher**

**Actual:**
**1107 ft.**

CERS HAZ WASTE:
Name: 99 CENTS ONLY STORES #127
Address: 25270 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 1750
CERS ID: 10330087
CERS Description: Hazardous Waste Generator

HAZNET:
Name: 99 CENTS ONLY STORES
Address: 25270 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 90023
Contact: EDGAR FLORES
Telephone: 3239193290
Mailing Name: Not reported
Mailing Address: 4000 UNION PACIFIC AVENUE

Year: 2019
Gepaid: CAL000369815
TSD EPA ID: NVD980895338
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00800

Year: 2019
Gepaid: CAL000369815
TSD EPA ID: NVD980895338
CA Waste Code: 214 - Unspecified solvent mixture
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.01750

Year: 2019
Gepaid: CAL000369815
TSD EPA ID: AZR000515924
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.08650

Year: 2019
Gepaid: CAL000369815
TSD EPA ID: CAD008364432
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00250

Year: 2019
Gepaid: CAL000369815
TSD EPA ID: CAD008364432

**99 CENTS ONLY STORES (Continued)** **S113800629**

CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.08600

Year: 2018
Gepaid: CAL000369815
TSD EPA ID: CAD008364432
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00200

Year: 2018
Gepaid: CAL000369815
TSD EPA ID: AZR000515924
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.09600

Year: 2018
Gepaid: CAL000369815
TSD EPA ID: CAD008364432
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00150

Year: 2018
Gepaid: CAL000369815
TSD EPA ID: NVD980895338
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.01400

Year: 2018
Gepaid: CAL000369815
TSD EPA ID: NVD980895338
CA Waste Code: 214 - Unspecified solvent mixture
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.04950

Click this hyperlink while viewing on your computer to access
30 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:
Year: 2012
Gen EPA ID: CAL000369815

Shipment Date: 20121213
Creation Date: 3/1/2013 22:15:08
Receipt Date: 20121220
Manifest ID: 010951132JJK

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0125 |
| Waste Quantity: | 25 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121213 |
| Creation Date: | 3/1/2013 22:15:08 |
| Receipt Date: | 20121220 |
| Manifest ID: | 010951132JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | F003 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0025 |
| Waste Quantity: | 5 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121213 |
| Creation Date: | 3/1/2013 22:15:08 |
| Receipt Date: | 20121220 |
| Manifest ID: | 010951132JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20121213 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 010951132JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0075 |
| Waste Quantity: | 15 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20120622 |
| Creation Date: | 10/3/2012 22:15:14 |
| Receipt Date: | 20120628 |
| Manifest ID: | 010228758JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20120622 |
| Creation Date: | 10/3/2012 22:15:14 |
| Receipt Date: | 20120628 |
| Manifest ID: | 010228758JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | F003 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20120622 |
| Creation Date: | 10/3/2012 22:15:14 |
| Receipt Date: | 20120628 |
| Manifest ID: | 010228758JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Shipment Date: | 20120622 |
| Creation Date: | 10/3/2012 22:15:14 |
| Receipt Date: | 20120628 |
| Manifest ID: | 010228758JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2016 |
| Gen EPA ID: | CAL000369815 |
| Shipment Date: | 20151223 |
| Creation Date: | 4/7/2016 22:15:27 |
| Receipt Date: | 20160104 |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 214 - Unspecified solvent mixture |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0155 |
| Waste Quantity: | 31 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151223 |
| Creation Date: | 4/7/2016 22:15:27 |
| Receipt Date: | 20160104 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 214 - Unspecified solvent mixture |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.002 |
| Waste Quantity: | 4 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.22 |
| Waste Quantity: | 440 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.082 |
| Waste Quantity: | 164 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0325 |
| Waste Quantity: | 65 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | D009 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.021 |
| Waste Quantity: | 42 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | 4/7/2016 22:15:27 |
| Receipt Date: | 20160104 |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2017 |
| Gen EPA ID: | CAL000369815 |

| | |
|---|---|
| Shipment Date: | 20171221 |
| Creation Date: | 10/16/2018 18:31:07 |
| Receipt Date: | 20171229 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Manifest ID: | 011346920FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000175422 |
| Trans 2 Name: | WORLD WIDE RECOVERY |
| TSDF EPA ID: | AZR000515924 |
| Trans Name: | YUMA YES LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.09 |
| Waste Quantity: | 180 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20171221 |
| Creation Date: | 10/16/2018 18:31:07 |
| Receipt Date: | 20171229 |
| Manifest ID: | 011346920FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000175422 |
| Trans 2 Name: | WORLD WIDE RECOVERY |
| TSDF EPA ID: | AZR000515924 |
| Trans Name: | YUMA YES LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.065 |
| Waste Quantity: | 130 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20171221 |
| Creation Date: | 8/10/2018 18:30:24 |
| Receipt Date: | 20180105 |
| Manifest ID: | 011346919FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | D009 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171221 |
| Creation Date: | 8/10/2018 18:30:24 |
| Receipt Date: | 20180105 |
| Manifest ID: | 011346919FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0145 |
| Waste Quantity: | 29 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171221 |
| Creation Date: | 8/10/2018 18:30:24 |
| Receipt Date: | 20180105 |
| Manifest ID: | 011346919FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.003 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Waste Quantity: | 6 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171221 |
| Creation Date: | 8/10/2018 18:30:24 |
| Receipt Date: | 20180105 |
| Manifest ID: | 011346919FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 214 - Unspecified solvent mixture |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.021 |
| Waste Quantity: | 42 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170626 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 009164787FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SST |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.179 |
| Waste Quantity: | 358 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Shipment Date: | 20170626 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 009164787FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SST |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | D009 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20170626 |
| Creation Date: | 7/23/2018 18:30:16 |
| Receipt Date: | 20170712 |
| Manifest ID: | 009164787FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SST |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.009 |
| Waste Quantity: | 18 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20170626 |
| Creation Date: | 7/23/2018 18:30:16 |
| Receipt Date: | 20170712 |
| Manifest ID: | 009164787FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Trans 2 Name: | SST |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2015 |
| Gen EPA ID: | CAL000369815 |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.22 |
| Waste Quantity: | 440 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.082 |
| Waste Quantity: | 164 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0325 |
| Waste Quantity: | 65 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | 4/7/2016 22:15:27 |
| Receipt Date: | 20160104 |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 214 - Unspecified solvent mixture |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0155 |
| Waste Quantity: | 31 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | 4/7/2016 22:15:27 |
| Receipt Date: | 20160104 |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.004 |
| Waste Quantity: | 8 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | 4/7/2016 22:15:27 |
| Receipt Date: | 20160104 |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.021 |
| Waste Quantity: | 42 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008634272FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | D009 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

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|---|---|
| Year: | 2014 |
| Gen EPA ID: | CAL000369815 |

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|---|---|
| Shipment Date: | 20140922 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140922 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.062 |
| Waste Quantity: | 124 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140922 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.002 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Waste Quantity: | 4 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140922 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0175 |
| Waste Quantity: | 35 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140922 |
| Creation Date: | 2/26/2015 22:14:59 |
| Receipt Date: | 20140926 |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.006 |
| Waste Quantity: | 12 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Shipment Date: | 20140922 |
| Creation Date: | 2/26/2015 22:14:59 |
| Receipt Date: | 20140926 |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.03 |
| Waste Quantity: | 60 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20140922 |
| Creation Date: | 2/26/2015 22:14:59 |
| Receipt Date: | 20140926 |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | D009 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20140922 |
| Creation Date: | 2/26/2015 22:14:59 |
| Receipt Date: | 20140926 |
| Manifest ID: | 007308132FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 214 - Unspecified solvent mixture |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140505 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 006415027FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | INR000110197 |
| Trans Name: | STERICYCLE INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.0165 |
| Waste Quantity: | 33 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140505 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 006415027FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | INR000110197 |
| Trans Name: | STERICYCLE INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2013 |
| Gen EPA ID: | CAL000369815 |
| Shipment Date: | 20131107 |
| Creation Date: | 3/31/2014 22:15:09 |
| Receipt Date: | 20131122 |
| Manifest ID: | 006217333FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | INR000110197 |
| Trans Name: | STERICYCLE INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 214 - Unspecified solvent mixture |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0095 |
| Waste Quantity: | 19 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131107 |
| Creation Date: | 3/31/2014 22:15:09 |
| Receipt Date: | 20131122 |
| Manifest ID: | 006217333FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | INR000110197 |
| Trans Name: | STERICYCLE INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.008 |
| Waste Quantity: | 16 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131107 |
| Creation Date: | 3/31/2014 22:15:09 |
| Receipt Date: | 20131122 |
| Manifest ID: | 006217333FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | INR000110197 |
| Trans Name: | STERICYCLE INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.028 |
| Waste Quantity: | 56 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131107 |
| Creation Date: | 3/31/2014 22:15:09 |
| Receipt Date: | 20131122 |
| Manifest ID: | 006217333FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | INR000110197 |
| Trans Name: | STERICYCLE INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0155 |
| Waste Quantity: | 31 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20131107 |
| Creation Date: | Not reported |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| Receipt Date: | Not reported |
| Manifest ID: | 006217333FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | OKD981588791 |
| Trans 2 Name: | TRIAD TRANSPORT INC |
| TSDF EPA ID: | INR000110197 |
| Trans Name: | STERICYCLE INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.077 |
| Waste Quantity: | 154 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20130510 |
| Creation Date: | 8/12/2013 22:15:07 |
| Receipt Date: | 20130515 |
| Manifest ID: | 011515598JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0025 |
| Waste Quantity: | 5 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20130510 |
| Creation Date: | 8/12/2013 22:15:07 |
| Receipt Date: | 20130515 |
| Manifest ID: | 011515598JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |

**99 CENTS ONLY STORES (Continued)** **S113800629**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | F003 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0025 |
| Waste Quantity: | 5 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20130510 |
| Creation Date: | 8/12/2013 22:15:07 |
| Receipt Date: | 20130515 |
| Manifest ID: | 011515598JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20130510 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 011515598JJK |
| Trans EPA ID: | CAR000188201 |
| Trans Name: | ENVIRONMENTAL RECOVERY SERVICES INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0025 |

**99 CENTS ONLY STORES (Continued)** **S113800629**

Waste Quantity: 5
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: 99 CENTS ONLY STORES #127
Address: 25270 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 1750
CERS ID: 10330087
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 1750
Site Name: 99 Cents Only Stores #127
Violation Date: 08-20-2015
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes: Returned to compliance on 08/20/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 1750
Site Name: 99 Cents Only Stores #127
Violation Date: 08-20-2015
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/20/2015. [LOCAL ORDINANCE VIOLATION 104A] NFPA 704 sign(s) have been posted appropriately.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-20-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-20-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health

**99 CENTS ONLY STORES (Continued)** **S113800629**

Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-29-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-29-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 1750
Site Name: 99 Cents Only Stores #127
Site Address: 25270 MADISON AVE
Site City: MURRIETA
Site Zip: 92562
Enf Action Date: 08-20-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 1750
Site Name: 99 Cents Only Stores #127
Site Address: 25270 MADISON AVE
Site City: MURRIETA
Site Zip: 92562
Enf Action Date: 08-20-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 1750
Facility Name: 99 Cents Only Stores #127
Env Int Type Code: HWG
Program ID: 10330087
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 33.554450

**99 CENTS ONLY STORES (Continued)** **S113800629**

Longitude: -117.197260

Affiliation:

Affiliation Type Desc: Operator
Entity Name: 99 Cents Only Stores LLC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (951) 698-9971

Affiliation Type Desc: Property Owner
Entity Name: Bennett Investment (MSP) LLCc/o Sperry Van Ness Asset Management
Entity Title: Not reported
Affiliation Address: 18881 Von Karman Blvd., Ste 800
Affiliation City: Irvine
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92612
Affiliation Phone: (949) 705-5026

Affiliation Type Desc: Legal Owner
Entity Name: 99 Cents Only Stores LLC
Entity Title: Not reported
Affiliation Address: 4000 Union Pacific Avenue
Affiliation City: Commerce
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 90023
Affiliation Phone: (323) 980-8145

Affiliation Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title: Not reported
Affiliation Address: 4065 County Circle Drive, Room 104
Affiliation City: Riverside
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92503
Affiliation Phone: (951) 358-5055

Affiliation Type Desc: Identification Signer
Entity Name: Edgar Flores
Entity Title: Compliance Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: 99 Cents Only Stores LLC
Entity Title: Not reported
Affiliation Address: Not reported

**99 CENTS ONLY STORES (Continued)** **S113800629**

Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: Janelle Brown
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: EDGAR FLORES
Entity Title: Not reported
Affiliation Address: 4000 Union Pacific Avenue
Affiliation City: Commerce
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90023
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4000 Union Pacific Avenue
Affiliation City: Commerce
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90023
Affiliation Phone: Not reported

HWTS:
Name: 99 CENTS ONLY STORES
Address: 25270 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 925628912
EPA ID: CAL000369815
Inactive Date: Not reported
Create Date: 12/06/2011
Last Act Date: 11/02/2020
Mailing Name: EDGAR FLORES
Mailing Address: 4000 UNION PACIFIC AVENUE
Mailing Address 2: Not reported
Mailing City,State,Zip: COMMERCE, CA 90023
Owner Name: 99 CENTS ONLY STORES
Owner Address: 4000 UNION PACIFIC AVENUE
Owner Address 2: Not reported
Owner City,State,Zip: COMMERCE, CA 90023
Contact Name: EDGAR FLORES
Contact Address: 4000 UNION PACIFIC AVE
Contact Address 2: Not reported

**99 CENTS ONLY STORES (Continued)** **S113800629**

City,State,Zip: COMMERCE, CA 90023

NAICS:

| | |
|---|---|
| EPA ID: | CAL000369815 |
| Create Date: | 2011-12-06 13:00:29.840 |
| NAICS Code: | 45299 |
| NAICS Description: | All Other General Merchandise Stores |
| Issued EPA ID Date: | 2011-12-06 13:00:29.84000 |
| Inactive Date: | Not reported |
| Facility Name: | 99 CENTS ONLY STORES |
| Facility Address: | 25270 MADISON AVE |
| Facility Address 2: | Not reported |
| Facility City: | MURRIETA |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 925628912 |

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**F31** **WAL-MART STORE #2952** **AST** **A100325478**
**NE** **41200 MURRIETA HOT SPRINGS RD** **N/A**
**1/8-1/4** **MURRIETA, CA**
**0.212 mi.**
**1119 ft.** **Site 1 of 2 in cluster F**

**Relative:**
**Higher**

**Actual:**
**1103 ft.**

AST:

| | |
|---|---|
| Name: | WAL-MART STORE #2952 |
| Address: | 41200 MURRIETA HOT SPRINGS RD |
| City/Zip: | MURRIETA, |
| Certified Unified Program Agencies: | Riverside |
| Owner: | WAL-MART STORES INC. |
| Total Gallons: | 2,000 |
| CERSID: | Not reported |
| Facility ID: | Not reported |
| Business Name: | Not reported |
| Phone: | Not reported |
| Fax: | Not reported |
| Mailing Address: | Not reported |
| Mailing Address City: | Not reported |
| Mailing Address State: | Not reported |
| Mailing Address Zip Code: | Not reported |
| Operator Name: | Not reported |
| Operator Phone: | Not reported |
| Owner Phone: | Not reported |
| Owner Mail Address: | Not reported |
| Owner State: | Not reported |
| Owner Zip Code: | Not reported |
| Owner Country: | Not reported |
| Property Owner Name: | Not reported |
| Property Owner Phone: | Not reported |
| Property Owner Mailing Address: | Not reported |
| Property Owner City: | Not reported |
| Property Owner Stat : | Not reported |
| Property Owner Zip Code: | Not reported |
| Property Owner Country: | Not reported |
| EPAID: | Not reported |

**F32** **WALMART #2952** **RCRA-SQG** **1014387129**
**NE** **41200 MURRIETA HOT SPRINGS RD** **AST** **CAR000205732**
**1/8-1/4** **MURRIETA, CA 92562** **CERS HAZ WASTE**
**0.212 mi.** **CERS TANKS**
**1119 ft.** **Site 2 of 2 in cluster F** **CERS**

**Relative:** **Higher**
**Actual:** **1103 ft.**

RCRA-SQG:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20160620 |
| Handler Name: | WALMART #2952 | |
| Handler Address: | | 41200 MURRIETA HOT SPRINGS RD |
| Handler City,State,Zip: | | MURRIETA, CA 92562 |
| EPA ID: | | CAR000205732 |
| Contact Name: | | ROSE ARNOLD |
| Contact Address: | | PO BOX 8041 |
| Contact City,State,Zip: | | BENTONVILLE, AR 72712-8041 |
| Contact Telephone: | | 479-277-8972 |
| Contact Fax: | | 479-204-9675 |
| Contact Email: | | ROSE.ARNOLD@WALMART.COM |
| Contact Title: | | SENIOR MGR |
| EPA Region: | | 09 |
| Land Type: | | Private |
| Federal Waste Generator Description: | | Small Quantity Generator |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | PO BOX 8041 |
| Mailing City,State,Zip: | | BENTONVILLE, AR 72712-8041 |
| Owner Name: | | WAL-MART STORES INC |
| Owner Type: | | Private |
| Operator Name: | | WAL-MART STORES INC |
| Operator Type: | | Private |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | No |
| Universal Waste Destination Facility: | | No |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | NN |
| Sub-Part K Indicator: | | Not reported |
| Commercial TSD Indicator: | | No |
| Treatment Storage and Disposal Type: | | Not reported |
| 2018 GPRA Permit Baseline: | | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | | Not on the Baseline |
| Permit Renewals Workload Universe: | | Not reported |

**WALMART #2952 (Continued)** **1014387129**

| | |
|---|---|
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20161010 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | Not reported |
| Manifest Broker: | Not reported |
| Sub-Part P Indicator: | No |

Hazardous Waste Summary:

| | |
|---|---|
| Waste Code: | D001 |
| Waste Description: | IGNITABLE WASTE |
| Waste Code: | D002 |
| Waste Description: | CORROSIVE WASTE |
| Waste Code: | D003 |
| Waste Description: | REACTIVE WASTE |
| Waste Code: | D004 |
| Waste Description: | ARSENIC |
| Waste Code: | D005 |
| Waste Description: | BARIUM |
| Waste Code: | D006 |
| Waste Description: | CADMIUM |
| Waste Code: | D007 |
| Waste Description: | CHROMIUM |
| Waste Code: | D008 |
| Waste Description: | LEAD |

**WALMART #2952 (Continued)** **1014387129**

| | |
|---|---|
| Waste Code: | D009 |
| Waste Description: | MERCURY |
| Waste Code: | D010 |
| Waste Description: | SELENIUM |
| Waste Code: | D011 |
| Waste Description: | SILVER |
| Waste Code: | D016 |
| Waste Description: | 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID) |
| Waste Code: | D018 |
| Waste Description: | BENZENE |
| Waste Code: | D022 |
| Waste Description: | CHLOROFORM |
| Waste Code: | D024 |
| Waste Description: | M-CRESOL |
| Waste Code: | D026 |
| Waste Description: | CRESOL |
| Waste Code: | D027 |
| Waste Description: | 1,4-DICHLOROBENZENE |
| Waste Code: | D035 |
| Waste Description: | METHYL ETHYL KETONE |
| Waste Code: | D039 |
| Waste Description: | TETRACHLOROETHYLENE |
| Waste Code: | D043 |
| Waste Description: | VINYL CHLORIDE |
| Waste Code: | P001 |
| Waste Description: | 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% |
| Waste Code: | P046 |
| Waste Description: | ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE (OR) BENZENEETHANAMINE, ALPHA, ALPHA-DIMETHYL- |
| Waste Code: | P075 |
| Waste Description: | NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS |
| Waste Code: | U002 |
| Waste Description: | 2-PROPANONE (I) (OR) ACETONE (I) |
| Waste Code: | U034 |
| Waste Description: | ACETALDEHYDE, TRICHLORO- (OR) CHLORAL |
| Waste Code: | U035 |
| Waste Description: | BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL |

**WALMART #2952 (Continued)** **1014387129**

Waste Code: U058
Waste Description: 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE

Waste Code: U072
Waste Description: BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE

Waste Code: U080
Waste Description: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

Waste Code: U089
Waste Description: DIETHYLSTILBESTEROL (OR) PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS, (E)-

Waste Code: U112
Waste Description: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

Waste Code: U122
Waste Description: FORMALDEHYDE

Waste Code: U129
Waste Description: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

Waste Code: U132
Waste Description: HEXACHLOROPHENE (OR) PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-

Waste Code: U134
Waste Description: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

Waste Code: U150
Waste Description: L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN

Waste Code: U154
Waste Description: METHANOL (I) (OR) METHYL ALCOHOL (I)

Waste Code: U159
Waste Description: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste Code: U165
Waste Description: NAPHTHALENE

Waste Code: U182
Waste Description: 1,3,5-TRIOXANE, 2,4,6-TRIMETHYL- (OR) PARALDEHYDE

Waste Code: U188
Waste Description: PHENOL

Waste Code: U200
Waste Description: RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-

Waste Code: U205
Waste Description: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Waste Code: U210

**WALMART #2952 (Continued)** **1014387129**

Waste Description: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

Waste Code: U248
Waste Description: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYL-BUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS OF 0.3% OR LESS (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS OF 0.3% OR LESS

Waste Code: U249
Waste Description: ZINC PHOSPHIDE ZN3P2, WHEN PRESENT AT CONCENTRATIONS OF 10% OR LESS

Waste Code: U279
Waste Description: U279

Waste Code: U409
Waste Description: CARBAMIC ACID, [1,2-PHENYLENEBIS (IMINOCARBONOTHIOYL)]BIS-, DIMETHYL ESTER (OR) THIOPHANATE-METHYL

Waste Code: U411
Waste Description: U411

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | WAL MART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 8041 |
| Owner/Operator City,State,Zip: | BENTONVILLE, AR 72712-8041 |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | WAL MART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 8041 |
| Owner/Operator City,State,Zip: | BENTONVILLE, AR 72712-8041 |
| Owner/Operator Telephone: | 479-204-0402 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | WAL MART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | Not reported |
| Owner/Operator City,State,Zip: | Not reported |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

**WALMART #2952 (Continued)** **1014387129**

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | WAL MART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | Not reported |
| Owner/Operator City,State,Zip: | Not reported |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | WALMART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 8041 |
| Owner/Operator City,State,Zip: | BENTONVILLE, AR 72712-8041 |
| Owner/Operator Telephone: | 479-204-3517 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | WALMART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | Not reported |
| Owner/Operator City,State,Zip: | Not reported |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | WAL-MART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 8041 |
| Owner/Operator City,State,Zip: | BENTONVILLE, AR 72712-8041 |
| Owner/Operator Telephone: | 479-277-8972 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | WAL-MART STORES INC |
| Legal Status: | Private |
| Date Became Current: | 20010124 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | Not reported |
| Owner/Operator City,State,Zip: | Not reported |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |

**WALMART #2952 (Continued)** **1014387129**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 20100308
Handler Name: WALMART NO 2952
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20110627
Handler Name: WALMART NO 2952
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20141028
Handler Name: WALMART NO 2952
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20160620
Handler Name: WALMART #2952
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

**WALMART #2952 (Continued)** **1014387129**

List of NAICS Codes and Descriptions:
NAICS Code: 45291
NAICS Description: WAREHOUSE CLUBS AND SUPERCENTERS

NAICS Code: 452910
NAICS Description: WAREHOUSE CLUBS AND SUPERCENTERS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

AST:
Name: WALMART #2952
Address: 41200 MURRIETA HOT SPRINGS RD
City/Zip: MURRIETA,92562
Certified Unified Program Agencies: Not reported
Owner: Walmart Stores, Inc.
Total Gallons: Not reported
CERSID: 10149139
Facility ID: Not reported
Business Name: Walmart
Phone: (951) 696-7135
Fax: Not reported
Mailing Address: 702 Southwest 8th Street
Mailing Address City: Bentonville
Mailing Address State: AR
Mailing Address Zip Code: Not reported
Operator Name: Walmart Stores, Inc.
Operator Phone: (479) 204-3911
Owner Phone: (479) 204-3911
Owner Mail Address: 702 Southwest 8th Street
Owner State: AR
Owner Zip Code: Not reported
Owner Country: United States
Property Owner Name: Walmart Real Estate Business Trust
Property Owner Phone: Not reported
Property Owner Mailing Address: P.O. Box 8050
Property Owner City: Bentonville
Property Owner Stat : AR
Property Owner Zip Code: 72712
Property Owner Country: United States
EPAID: CAR000205732

CERS HAZ WASTE:
Name: WALMART #2952
Address: 41200 MURRIETA HOT SPRINGS RD
City,State,Zip: MURRIETA, CA 92562
Site ID: 407256
CERS ID: 10149139
CERS Description: Hazardous Waste Generator

**WALMART #2952 (Continued)** **1014387129**

CERS TANKS:

| | |
|---|---|
| Name: | WALMART #2952 |
| Address: | 41200 MURRIETA HOT SPRINGS RD |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 407256 |
| CERS ID: | 10149139 |
| CERS Description: | Aboveground Petroleum Storage |

CERS:

| | |
|---|---|
| Name: | WALMART #2952 |
| Address: | 41200 MURRIETA HOT SPRINGS RD |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 407256 |
| CERS ID: | 10149139 |
| CERS Description: | Chemical Storage Facilities |

Violations:

| | |
|---|---|
| Site ID: | 407256 |
| Site Name: | Walmart #2952 |
| Violation Date: | 11-07-2018 |
| Citation: | 40 CFR 1 265.32 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.32 |
| Violation Description: | Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance ) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems. |
| Violation Notes: | Returned to compliance on 11/28/2018. OBSERVATION: Observed lack of adequate spill equipment in the oil tank room of automotive department. CORRECTIVE ACTION: Owner/operator shall ensure spill equipment is maintained on site and available for use in the oil tank room. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 407256 |
| Site Name: | Walmart #2952 |
| Violation Date: | 07-30-2015 |
| Citation: | HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4) |
| Violation Description: | Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years. |
| Violation Notes: | Returned to compliance on 07/30/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 407256 |
| Site Name: | Walmart #2952 |

**WALMART #2952 (Continued)** **1014387129**

Violation Date: 11-07-2018
Citation: HSC 6.5 25250.1; 25250.18; 25250.19(b)(2) - California Health and Safety Code, Chapter 6.5, Section(s) 25250.1; 25250.18; 25250.19(b)(2)
Violation Description: "Failure to record in an operating log and retain for three years the following information for each shipment of recycled or exempted oil: 1) The name and address of the used oil recycling facility or generator claiming the oil meets the requirements of HSC 6.5 25250.1. 2) The name and address of the facility receiving the shipment. 3) The quantity of oil delivered. 4) The date of shipment or delivery. 5) A cross-reference to the records and documentation required under HSC 6.5 25250.1."
Violation Notes: Returned to compliance on 11/28/2018. OBSERVATION: Facility is recycling used oil. No proper documentation observed during inspection. Numerous consolidated manifests were missing for 2017 and 2018. Observed approximately ten (10) used oil manifests for the last two years. CORRECTIVE ACTION: Owner/operator shall complete proper certification for all used oil which is being recycled. Retain copies on site for a minimum of 3 years from date of disposal.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 407256
Site Name: Walmart #2952
Violation Date: 11-07-2018
Citation: HSC 6.5 25160.2 - California Health and Safety Code, Chapter 6.5, Section(s) 25160.2
Violation Description: Failure of a generator of hazardous waste that meets the conditions to be transported on a consolidated manifest to comply with one or more of the required consolidated manifesting procedures and retain copies of receipts for three years.
Violation Notes: Returned to compliance on 11/28/2018. OBSERVATION: Observed facility shipping non-RCRA hazardous waste (used oil, oil filters) off site. Numerous consolidated manifests were missing for 2017 and 2018. Observed approximately ten (10) used oil manifests for the last two years and approximately six (6) oil filter manifests for the last two years. CORRECTIVE ACTION: Owner/operator shall obtain previous records of waste disposal. Owner/operator shall maintain records of hazardous waste transport and disposal on site for at least 3 years.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-30-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-07-2018
Violations Found: No
Eval Type: Routine done by local agency

**WALMART #2952 (Continued)** **1014387129**

Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-07-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-30-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-07-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-30-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 407256
Site Name: Walmart #2952
Site Address: 41200 MURRIETA HOT SPRINGS RD
Site City: MURRIETA
Site Zip: 92562
Enf Action Date: 07-30-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:

**WALMART #2952 (Continued)** **1014387129**

| | |
|---|---|
| Site ID: | 407256 |
| Facility Name: | Walmart #2952 |
| Env Int Type Code: | APSA |
| Program ID: | 10149139 |
| Coord Name: | Not reported |
| Ref Point Type Desc: | Center of a facility or station. |
| Latitude: | 33.552710 |
| Longitude: | -117.193300 |

Affiliation:

| | |
|---|---|
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | Aptim Environmental & Infrastructure, Inc. |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Identification Signer |
| Entity Name: | Helen Bermudez |
| Entity Title: | Sr. Mgr. Environmental Health & Safety Compliance |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Operator |
| Entity Name: | Walmart Inc. |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (479) 204-3911 |

| | |
|---|---|
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | Walmart Inc. |
| Entity Title: | Not reported |
| Affiliation Address: | 702 Southwest 8th Street |
| Affiliation City: | Bentonville |
| Affiliation State: | AR |
| Affiliation Country: | United States |
| Affiliation Zip: | 72716-0500 |
| Affiliation Phone: | (479) 204-3911 |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Walmart |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |

**WALMART #2952 (Continued)** **1014387129**

| | |
|---|---|
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| Affiliation Type Desc: | Property Owner |
| Entity Name: | WALMART REAL ESTATE BUSINESS TRUST |
| Entity Title: | Not reported |
| Affiliation Address: | P.O. Box 8050 MS 0555 |
| Affiliation City: | Bentonville |
| Affiliation State: | AR |
| Affiliation Country: | United States |
| Affiliation Zip: | 72712 |
| Affiliation Phone: | (479) 204-3911 |
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | Helen Bermudez, Sr. Mgr. Environmental Health & Safety Compliance |
| Entity Title: | Not reported |
| Affiliation Address: | 702 Southwest 8th Street |
| Affiliation City: | Bentonville |
| Affiliation State: | AR |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 72716-0500 |
| Affiliation Phone: | Not reported |
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | 702 Southwest 8th Street |
| Affiliation City: | Bentonville |
| Affiliation State: | AR |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 72716-0500 |
| Affiliation Phone: | Not reported |

---

**33**
**WNW**
**1/8-1/4**
**0.217 mi.**
**1144 ft.**

**PARAGON FRAMING INC**
**25225 JEFFERSON AVE**
**MURRIETA, CA 92562**

**RCRA NonGen / NLR** **1024864282**
**CAL000432842**

**Relative:**
**Higher**

**Actual:**
**1132 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20180102 |
| Handler Name: | PARAGON FRAMING INC | |
| Handler Address: | | 25225 JEFFERSON AVE |
| Handler City,State,Zip: | | MURRIETA, CA 92562 |
| EPA ID: | | CAL000432842 |
| Contact Name: | | DOUG HOPPE |
| Contact Address: | | 25225 JEFFERSON AVE |

**PARAGON FRAMING INC (Continued)** **1024864282**

| | |
|---|---|
| Contact City,State,Zip: | MURRIETA, CA 92562 |
| Contact Telephone: | 951-677-2434 |
| Contact Fax: | 951-801-6180 |
| Contact Email: | DHOPPE@PARAGONFRAMING.COM |
| Contact Title: | Not reported |
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 25225 JEFFERSON AVE |
| Mailing City,State,Zip: | MURRIETA, CA 92562 |
| Owner Name: | ANGELA HOPPE |
| Owner Type: | Other |
| Operator Name: | DOUG HOPPE |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |

**PARAGON FRAMING INC (Continued)** **1024864282**

| | |
|---|---|
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180907 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | DOUG HOPPE |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 25225 JEFFERSON AVE |
| Owner/Operator City,State,Zip: | MURRIETA, CA 92562 |
| Owner/Operator Telephone: | 951-677-2434 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | ANGELA HOPPE |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 25225 JEFFERSON AVE |
| Owner/Operator City,State,Zip: | MURRIETA, CA 92562 |
| Owner/Operator Telephone: | 951-677-2434 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20180102 |
| Handler Name: PARAGON FRAMING INC | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |

**PARAGON FRAMING INC (Continued)** **1024864282**

Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 238350
NAICS Description: FINISH CARPENTRY CONTRACTORS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

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**G34** **CARDENAS MARKETS #32** **RCRA NonGen / NLR** **1026055404**
**North** **25310 MADISON AVE** **CAL000451586**
**1/8-1/4** **MURRIETA, CA 92562**
**0.220 mi.**
**1162 ft.** **Site 1 of 6 in cluster G**

**Relative:** **Higher**
**Actual:** **1122 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20191224 |
| Handler Name: | CARDENAS MARKETS #32 | |
| Handler Address: | | 25310 MADISON AVE |
| Handler City,State,Zip: | | MURRIETA, CA 92562 |
| EPA ID: | | CAL000451586 |
| Contact Name: | | MIRNA RUACHO |
| Contact Address: | | 2501 E. GUASTI RD. |
| Contact City,State,Zip: | | ONTARIO, CA 91761 |
| Contact Telephone: | | 909-470-7135 |
| Contact Fax: | | Not reported |
| Contact Email: | | MRUACHO@CMKTS.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Not reported |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 2501 E GUASTI RD |
| Mailing City,State,Zip: | | ONTARIO, CA 91761-3631 |
| Owner Name: | | CARDENAS MARKETS LLC |
| Owner Type: | | Other |
| Operator Name: | | MIRNA RUACHO |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |

**CARDENAS MARKETS #32 (Continued)** **1026055404**

| | |
|---|---|
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | No |
| Universal Waste Destination Facility: | No |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20200210 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | MIRNA RUACHO |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2501 E. GUASTI RD. |
| Owner/Operator City,State,Zip: | ONTARIO, CA 91761 |

**CARDENAS MARKETS #32 (Continued)** **1026055404**

| | |
|---|---|
| Owner/Operator Telephone: | 909-470-7135 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | CARDENAS MARKETS LLC |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2501 E GUASTI RD |
| Owner/Operator City,State,Zip: | ONTARIO, CA 91761-3631 |
| Owner/Operator Telephone: | 909-923-7426 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20191224 |
| Handler Name: CARDENAS MARKETS #32 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 454390 |
| NAICS Description: | OTHER DIRECT SELLING ESTABLISHMENTS |

Facility Has Received Notices of Violations:

| | |
|---|---|
| Violations: | No Violations Found |

Evaluation Action Summary:

| | |
|---|---|
| Evaluations: | No Evaluations Found |

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**G35** **CARDENAS MARKETS #32** **CERS HAZ WASTE** **S118938111**
**North** **25310 MADISON AVE** **HAZNET** **N/A**
**1/8-1/4** **MURRIETA, CA 92562** **CERS**
**0.220 mi.** **HWTS**
**1162 ft.** **Site 2 of 6 in cluster G**

**Relative:**
**Higher**

**Actual:**
**1122 ft.**

CERS HAZ WASTE:

| | |
|---|---|
| Name: | CARDENAS MARKETS #32 |
| Address: | 25310 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 16431 |
| CERS ID: | 10611160 |
| CERS Description: | Hazardous Waste Generator |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

HAZNET:

| | |
|---|---|
| Name: | CARDENAS MARKETS #32 |
| Address: | 25310 MADISON AVE |
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 917613631 |
| Contact: | MIRNA RUACHO |
| Telephone: | 9094707135 |
| Mailing Name: | Not reported |
| Mailing Address: | 2501 E GUASTI RD |
| Year: | 2019 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 214 - Unspecified solvent mixture |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.00200 |
| Year: | 2019 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.05750 |
| Year: | 2018 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.05000 |
| Year: | 2018 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 122 - Alkaline solution without metals pH >= 12.5 |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.00100 |
| Year: | 2018 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 214 - Unspecified solvent mixture |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.00400 |
| Year: | 2017 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | ARD981057870 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Tons: | 0.02 |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

| | |
|---|---|
| Year: | 2016 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD028409019 |
| CA Waste Code: | 311 - Pharmaceutical waste |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0125 |

| | |
|---|---|
| Year: | 2016 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD028409019 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.005 |

| | |
|---|---|
| Year: | 2016 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | ARD981057870 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Tons: | 0.005 |

| | |
|---|---|
| Year: | 2015 |
| Gepaid: | CAL000403197 |
| TSD EPA ID: | CAD028409019 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.005 |

Click this hyperlink while viewing on your computer to access additional CA HAZNET: detail in the EDR Site Report.

Additional Info:

| | |
|---|---|
| Year: | 2017 |
| Gen EPA ID: | CAL000403197 |
| Shipment Date: | 20171023 |
| Creation Date: | 10/5/2018 18:30:14 |
| Receipt Date: | 20171105 |
| Manifest ID: | 016089397JJK |
| Trans EPA ID: | CAR000267260 |
| Trans Name: | ALPHA PETROLAUM TRANSPORT INC II DBA AEEC |
| Trans 2 EPA ID: | NJD986607380 |
| Trans 2 Name: | MAUMEE EXPRESS INC |
| TSDF EPA ID: | ARD981057870 |
| Trans Name: | RINECO CHEMICAL INDUSTRIES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.0025 |
| Waste Quantity: | 5 |
| Quantity Unit: | P |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

| | |
|---|---|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20170131 |
| Creation Date: | 5/9/2018 18:31:32 |
| Receipt Date: | 20170214 |
| Manifest ID: | 016089220JJK |
| Trans EPA ID: | CAR000267260 |
| Trans Name: | ALPHA ENVIRONMENTAL ENGINEERING & CONSTRUCTION |
| Trans 2 EPA ID: | NJD986607380 |
| Trans 2 Name: | MAUMEE EXPRESS INC |
| TSDF EPA ID: | ARD981057870 |
| Trans Name: | RINECO CHEMICAL INDUSTRIES INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.02 |
| Waste Quantity: | 40 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2016 |
| Gen EPA ID: | CAL000403197 |
| | |
| Shipment Date: | 20150407 |
| Creation Date: | 8/21/2015 22:15:28 |
| Receipt Date: | 20150410 |
| Manifest ID: | 013086627JJK |
| Trans EPA ID: | CAT080012800 |
| Trans Name: | HAZ MAT TRANS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD028409019 |
| Trans Name: | CROSBY & OVERTON |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

Additional Code 5: Not reported

Additional Info:
Year: 2015
Gen EPA ID: CAL000403197

Shipment Date: 20150407
Creation Date: 8/21/2015 22:15:28
Receipt Date: 20150410
Manifest ID: 013086627JJK
Trans EPA ID: CAT080012800
Trans Name: HAZ MAT TRANS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD028409019
Trans Name: CROSBY & OVERTON
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.005
Waste Quantity: 10
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: CARDENAS MARKETS #32
Address: 25310 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 16431
CERS ID: 10611160
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 11-27-2017
Citation: Un-Specified
Violation Description: Business Plan Program - Operations/Maintenance - General Local Ordinance
Violation Notes: Returned to compliance on 01/10/2018.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency

**CARDENAS MARKETS #32 (Continued)** **S118938111**

response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 03/04/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 03/04/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 03/04/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 03/04/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 03/04/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

**CARDENAS MARKETS #32 (Continued)** **S118938111**

| | |
|---|---|
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 11-27-2017 |
| Citation: | 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f) |
| Violation Description: | Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date. |
| Violation Notes: | Returned to compliance on 01/10/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |

| | |
|---|---|
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 11-27-2017 |
| Citation: | 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11 |
| Violation Description: | Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method. |
| Violation Notes: | Returned to compliance on 01/10/2018. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |

| | |
|---|---|
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple |
| Violation Description: | Business Plan Program - Administration/Documentation - General |
| Violation Notes: | Returned to compliance on 03/04/2015. [LOCAL ORDINANCE VIOLATION 101C] Approved HMBP accessible on site and available for review. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |

| | |
|---|---|
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit a site map with all required content. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |

| | |
|---|---|
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple |
| Violation Description: | Business Plan Program - Operations/Maintenance - General |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

| | |
|---|---|
| Violation Notes: | Returned to compliance on 03/26/2015. [LOCAL ORDINANCE VIOLATION 104D] Emergency equipment has been posted appropriately. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4) |
| Violation Description: | Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31 |
| Violation Description: | Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment.. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | 40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171 |
| Violation Description: | Failure to accumulate hazardous waste in a container that is in good condition. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | HSC 6.11 25404.1 - California Health and Safety Code, Chapter 6.11, Section(s) 25404.1 |
| Violation Description: | Failure to obtain and/or maintain an active hazardous waste generator permit. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

| | |
|---|---|
| Violation Source: | CERS |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii) |
| Violation Description: | Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | 40 CFR 1 265.32 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.32 |
| Violation Description: | Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance ) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 12-03-2014 |
| Citation: | 19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page. |
| Violation Notes: | Returned to compliance on 03/04/2015. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| Site ID: | 16431 |
| Site Name: | Cardenas Markets #32 |
| Violation Date: | 11-27-2017 |
| Citation: | 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a) |
| Violation Description: | Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: Returned to compliance on 01/10/2018.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain and/or maintain an Active EPA ID.
Violation Notes: Returned to compliance on 03/04/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 03/26/2015. [LOCAL ORDINANCE VIOLATION 104A] NFPA 704 sign(s) have been posted appropriately.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Violation Date: 12-03-2014
Citation: HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description: Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 03/04/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 03-04-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-26-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency

**CARDENAS MARKETS #32 (Continued)** **S118938111**

Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-03-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-04-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-03-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-13-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP

**CARDENAS MARKETS #32 (Continued)** **S118938111**

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-13-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-27-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-27-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 16431
Site Name: Cardenas Markets #32
Site Address: 25310 MADISON AVE
Site City: MURRIETA
Site Zip: 92562
Enf Action Date: 12-03-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 16431
Site Name: Cardenas Markets #32
Site Address: 25310 MADISON AVE
Site City: MURRIETA
Site Zip: 92562
Enf Action Date: 12-03-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: HW
Enf Action Source: CERS

**CARDENAS MARKETS #32 (Continued)** **S118938111**

Coordinates:

| | |
|---|---|
| Site ID: | 16431 |
| Facility Name: | Cardenas Markets #32 |
| Env Int Type Code: | HWG |
| Program ID: | 10611160 |
| Coord Name: | Not reported |
| Ref Point Type Desc: | Center of a facility or station. |
| Latitude: | 33.554570 |
| Longitude: | -117.195520 |

Affiliation:

| | |
|---|---|
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |

| | |
|---|---|
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | 2501 E. Guasti Rd. |
| Affiliation City: | Ontario |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 91761 |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Operator |
| Entity Name: | Cardenas Markets #32 |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (951) 387-3125 |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Cardenas Markets, LLC. |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Property Owner |
| Entity Name: | Sperry Commercial Inc. |
| Entity Title: | Not reported |
| Affiliation Address: | 18881 Von Karman Ave. |
| Affiliation City: | Irvine |

**CARDENAS MARKETS #32 (Continued)** **S118938111**

Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92612
Affiliation Phone: (909) 989-2844

Affiliation Type Desc: Identification Signer
Entity Name: Mirna Ruacho
Entity Title: Quality Assurance Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Cardenas Markets, LLC.
Entity Title: Not reported
Affiliation Address: 2501 E. Guasti Rd.
Affiliation City: Ontario
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 91761
Affiliation Phone: (909) 923-7426

Affiliation Type Desc: Document Preparer
Entity Name: Mirna Ruacho
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Mirna Ruacho
Entity Title: Not reported
Affiliation Address: 2501 E. Guasti Rd.
Affiliation City: Ontario
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 91761
Affiliation Phone: Not reported

HWTS:
Name: CARDENAS MARKETS #32
Address: 25310 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 92562
EPA ID: CAL000403197
Inactive Date: 06/30/2019
Create Date: 12/23/2014
Last Act Date: 05/04/2021
Mailing Name: Not reported
Mailing Address: 2501 E GUASTI RD

**CARDENAS MARKETS #32 (Continued)** **S118938111**

Mailing Address 2: Not reported
Mailing City,State,Zip: ONTARIO, CA 917613631
Owner Name: CARDENAS MARKETS INC
Owner Address: 2501 E GUASTI RD
Owner Address 2: Not reported
Owner City,State,Zip: ONTARIO, CA 917613631
Contact Name: MIRNA RUACHO
Contact Address: 2501 E. GUASTI RD.
Contact Address 2: Not reported
City,State,Zip: ONTARIO, CA 91761

NAICS:
EPA ID: CAL000403197
Create Date: 2014-12-23 15:07:41.093
NAICS Code: 45291
NAICS Description: Warehouse Clubs and Superstores
Issued EPA ID Date: 2014-12-23 15:07:41.07700
Inactive Date: 2019-06-30 00:00:00
Facility Name: CARDENAS MARKETS #32
Facility Address: 25310 MADISON AVE
Facility Address 2: Not reported
Facility City: MURRIETA
Facility County: Not reported
Facility State: CA
Facility Zip: 92562

Name: CARDENAS MARKETS #32
Address: 25310 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 92562
EPA ID: CAL000451586
Inactive Date: Not reported
Create Date: 12/24/2019
Last Act Date: 05/10/2021
Mailing Name: Not reported
Mailing Address: 2501 E GUASTI RD
Mailing Address 2: Not reported
Mailing City,State,Zip: ONTARIO, CA 91761
Owner Name: CARDENAS MARKET LLC
Owner Address: 2501 E GUASTI RD
Owner Address 2: Not reported
Owner City,State,Zip: ONTARIO, CA 917610000
Contact Name: MIRNA RUACHO
Contact Address: 2501 E. GUASTI RD.
Contact Address 2: Not reported
City,State,Zip: ONTARIO, CA 917610000

NAICS:
EPA ID: CAL000451586
Create Date: 2019-12-24 09:59:29.017
NAICS Code: 454390
NAICS Description: Other Direct Selling Establishments
Issued EPA ID Date: 2019-12-24 09:59:29.01700
Inactive Date: Not reported
Facility Name: CARDENAS MARKETS #32
Facility Address: 25310 MADISON AVE
Facility Address 2: Not reported

**CARDENAS MARKETS #32 (Continued)** **S118938111**

| | |
|---|---|
| Facility City: | MURRIETA |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 92562 |

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**G36** **CARDENAS MARKETS #32** **RCRA NonGen / NLR** **1024847929**
**North** **25310 MADISON AVE** **CAL000403197**
**1/8-1/4** **MURRIETA, CA 92562**
**0.220 mi.**
**1162 ft.** **Site 3 of 6 in cluster G**

**Relative:** RCRA NonGen / NLR:
**Higher**

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20141223 |
| Handler Name: | CARDENAS MARKETS #32 | |
| Handler Address: | | 25310 MADISON AVE |
| Handler City,State,Zip: | | MURRIETA, CA 92562 |
| EPA ID: | | CAL000403197 |
| Contact Name: | | ROBERT LOPEZ |
| Contact Address: | | 2501 E. GUASTI RD. |
| Contact City,State,Zip: | | ONTARIO, CA 91761 |
| Contact Telephone: | | 951-775-4783 |
| Contact Fax: | | Not reported |
| Contact Email: | | RLOPEZ@CMKTS.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 2501 E GUASTI RD |
| Mailing City,State,Zip: | | ONTARIO, CA 91761-3631 |
| Owner Name: | | CARDENAS MARKETS INC |
| Owner Type: | | Other |
| Operator Name: | | ROBERT LOPEZ |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |

**Actual:**
**1122 ft.**

**CARDENAS MARKETS #32 (Continued)** **1024847929**

| | |
|---|---|
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180906 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | ROBERT LOPEZ |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2501 E. GUASTI RD. |
| Owner/Operator City,State,Zip: | ONTARIO, CA 91761 |
| Owner/Operator Telephone: | 951-775-4783 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | CARDENAS MARKETS INC |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |

**CARDENAS MARKETS #32 (Continued)** **1024847929**

Owner/Operator Address: 2501 E GUASTI RD
Owner/Operator City,State,Zip: ONTARIO, CA 91761-3631
Owner/Operator Telephone: 909-923-7426
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20141223
Handler Name: CARDENAS MARKETS #32
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 45291
NAICS Description: WAREHOUSE CLUBS AND SUPERCENTERS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

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**E37** **PNS BIG LOTS #4278** **CERS HAZ WASTE** **S118234406**
**North** **25260 MADISON AVE** **HAZNET** **N/A**
**1/8-1/4** **MURRIETA, CA 92562** **CERS**
**0.227 mi.** **HWTS**
**1196 ft.** **Site 5 of 6 in cluster E**

**Relative:**
**Higher**

**Actual:**
**1106 ft.**

CERS HAZ WASTE:
Name: BIG LOTS MURRIETA 4278
Address: 25260 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 98693
CERS ID: 10594939
CERS Description: Hazardous Waste Generator

HAZNET:
Name: PNS BIG LOTS #4278
Address: 25260 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 430817651
Contact: WILLIS ARRINGTON
Telephone: 6142782708
Mailing Name: Not reported
Mailing Address: 4900 EAST DUBLIN GRANVILLE ROAD

**PNS BIG LOTS #4278 (Continued)** **S118234406**

Year: 2019
Gepaid: CAL000391082
TSD EPA ID: CAD008364432
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00150

Year: 2019
Gepaid: CAL000391082
TSD EPA ID: NVD980895338
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.01000

Year: 2019
Gepaid: CAL000391082
TSD EPA ID: ARD069748192
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.06000

Year: 2019
Gepaid: CAL000391082
TSD EPA ID: CAD008364432
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.10850

Year: 2019
Gepaid: CAL000391082
TSD EPA ID: CAD008364432
CA Waste Code: 791 - Liquids with pH <= 2
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00150

Year: 2019
Gepaid: CAL000391082
TSD EPA ID: CAD008364432
CA Waste Code: 141 - Off-specification, aged or surplus inorganics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.01150

Year: 2018
Gepaid: CAL000391082
TSD EPA ID: CAD008364432
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.08850

Year: 2018
Gepaid: CAL000391082

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| TSD EPA ID: | NVD980895338 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.01300 |
| | |
| Year: | 2018 |
| Gepaid: | CAL000391082 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 141 - Off-specification, aged or surplus inorganics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.00150 |
| | |
| Year: | 2018 |
| Gepaid: | CAL000391082 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 791 - Liquids with pH <= 2 |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.00550 |

Click this hyperlink while viewing on your computer to access
17 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

| | |
|---|---|
| Year: | 2017 |
| Gen EPA ID: | CAL000391082 |
| | |
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0565 |
| Waste Quantity: | 113 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | Not reported |
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | Not reported |
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 135 - Unspecified aqueous solution |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.002 |
| Waste Quantity: | 4 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | Not reported |
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | Not reported |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171009 |
| Creation Date: | 7/16/2018 18:30:36 |
| Receipt Date: | 20171016 |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | Not reported |
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | Not reported |
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Shipment Date: | 20171009 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | Not reported |
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20171009 |
| Creation Date: | 7/16/2018 18:30:36 |
| Receipt Date: | 20171016 |
| Manifest ID: | 001667059PSC |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000217000 |
| Trans 2 Name: | LA CHIQUITA TRUCKING |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0025 |
| Waste Quantity: | 5 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2014 |
| Gen EPA ID: | CAL000391082 |

| | |
|---|---|
| Shipment Date: | 20141229 |
| Creation Date: | 3/6/2015 22:14:58 |
| Receipt Date: | 20150106 |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Manifest ID: | 000919616PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 561 - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.037 |
| Waste Quantity: | 74 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20141229 |
| Creation Date: | 3/6/2015 22:14:58 |
| Receipt Date: | 20150106 |
| Manifest ID: | 000919616PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0235 |
| Waste Quantity: | 47 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140818 |
| Creation Date: | 11/6/2014 22:15:08 |
| Receipt Date: | 20140826 |
| Manifest ID: | 000192107MWI |
| Trans EPA ID: | Not reported |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | Not reported |
| Trans Name: | RHO -CHEM LLC |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.007 |
| Waste Quantity: | 14 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140818 |
| Creation Date: | 11/6/2014 22:15:08 |
| Receipt Date: | 20140826 |
| Manifest ID: | 000192107MWI |
| Trans EPA ID: | Not reported |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | Not reported |
| Trans Name: | RHO -CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0085 |
| Waste Quantity: | 17 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20140818 |
| Creation Date: | 11/6/2014 22:15:08 |
| Receipt Date: | 20140826 |
| Manifest ID: | 000192107MWI |
| Trans EPA ID: | Not reported |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | Not reported |
| Trans Name: | RHO -CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D016 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0095 |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Waste Quantity: | 19 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2015 |
| Gen EPA ID: | CAL000391082 |
| Shipment Date: | 20151019 |
| Creation Date: | 12/22/2015 22:15:21 |
| Receipt Date: | 20151027 |
| Manifest ID: | 001140485PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0065 |
| Waste Quantity: | 13 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151019 |
| Creation Date: | 12/22/2015 22:15:21 |
| Receipt Date: | 20151027 |
| Manifest ID: | 001140485PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.0085 |
| Waste Quantity: | 17 |
| Quantity Unit: | P |
| Additional Code 1: | D018 |
| Additional Code 2: | D007 |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Additional Code 3: | D005 |
| Additional Code 4: | D001 |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20151019 |
| Creation Date: | 12/22/2015 22:15:21 |
| Receipt Date: | 20151027 |
| Manifest ID: | 001140485PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0325 |
| Waste Quantity: | 65 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150413 |
| Creation Date: | 8/21/2015 22:15:38 |
| Receipt Date: | 20150417 |
| Manifest ID: | 000999018PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.018 |
| Waste Quantity: | 36 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Additional Info:

| | |
|---|---|
| Year: | 2016 |
| Gen EPA ID: | CAL000391082 |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Shipment Date: | 20151019 |
| Creation Date: | 12/22/2015 22:15:21 |
| Receipt Date: | 20151027 |
| Manifest ID: | 001140485PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0065 |
| Waste Quantity: | 13 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151019 |
| Creation Date: | 12/22/2015 22:15:21 |
| Receipt Date: | 20151027 |
| Manifest ID: | 001140485PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0325 |
| Waste Quantity: | 65 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

| | |
|---|---|
| Shipment Date: | 20151019 |
| Creation Date: | 12/22/2015 22:15:21 |
| Receipt Date: | 20151027 |
| Manifest ID: | 001140485PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.0085 |
| Waste Quantity: | 17 |
| Quantity Unit: | P |
| Additional Code 1: | D018 |
| Additional Code 2: | D007 |
| Additional Code 3: | D005 |
| Additional Code 4: | D001 |
| Additional Code 5: | Not reported |
| | |
| Shipment Date: | 20150413 |
| Creation Date: | 8/21/2015 22:15:38 |
| Receipt Date: | 20150417 |
| Manifest ID: | 000999018PSC |
| Trans EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| Trans 2 EPA ID: | CAD983649880 |
| Trans 2 Name: | PSC ENVIRONMENTAL SERVICES OF POMONA LP |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.018 |
| Waste Quantity: | 36 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

CERS:

| | |
|---|---|
| Name: | BIG LOTS MURRIETA 4278 |
| Address: | 25260 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 98693 |
| CERS ID: | 10594939 |
| CERS Description: | Chemical Storage Facilities |

Violations:

| | |
|---|---|
| Site ID: | 98693 |
| Site Name: | Big Lots Murrieta 4278 |
| Violation Date: | 03-14-2018 |
| Citation: | 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11 |
| Violation Description: | Failure to determine if wastes generated are hazardous waste by using |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

generator knowledge or applying testing method.

Violation Notes: Returned to compliance on 03/14/2018. OBSERVATION: Observed that a bag of shampoo bottles is being disposed of without a proper determination. Bag was placed in the universal waste tote and not in the toxic waste tote. CORRECTIVE ACTION: Owner/operator shall conduct a proper waste determination for each waste stream and ensure it is disposed of in the proper tote on site. The manager removed the bag of shampoo bottles and placed in the toxic waste tote. Violation corrected on site.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 98693
Site Name: Big Lots Murrieta 4278
Violation Date: 04-07-2021
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: Returned to compliance on 06/25/2021. OBSERVATION: Observed manifests on site with no matching TSDF-signed copy. Manifests indicate the mailing address is to corporate office out of state. A wet signature from store employee was written on the manifest dated 7/6/2020 that did not match the manifest located on DTSC's hazardous waste tracking system. CORRECTIVE ACTION: Owner/operator shall locate TSDF-signed copy of aforementioned manifest. Owner/operator shall ensure employees do not sign manifests in section designated for the Designated facility at bottom of UWM.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 98693
Site Name: Big Lots Murrieta 4278
Violation Date: 03-14-2018
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: Returned to compliance on 03/15/2018. OBSERVATION: Observed manifests dated February and October 2017 with no matching TSDF-signed copy. CORRECTIVE ACTION: Owner/operator shall locate TSDF-signed copy of aforementioned manifest and provide documentation to this department.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-14-2018

**PNS BIG LOTS #4278 (Continued)** **S118234406**

Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-07-2021
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Facility is a retail store that generates retail hazardous waste.
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-08-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Big Lots Murrieta
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 98693
Facility Name: Big Lots Murrieta 4278
Env Int Type Code: HWG
Program ID: 10594939
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 33.555590
Longitude: -117.196720

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Willis Arrington
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rocio Ramos
Entity Title: Not reported
Affiliation Address: 19331 SOLEDAD CANYON RD
Affiliation City: CANYON COUNTRY
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 91351
Affiliation Phone: Not reported

**PNS BIG LOTS #4278 (Continued)** **S118234406**

| | |
|---|---|
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | PNS Stores Inc |
| Entity Title: | Not reported |
| Affiliation Address: | 4900 East Dublin Granville Road |
| Affiliation City: | Columbus |
| Affiliation State: | OH |
| Affiliation Country: | United States |
| Affiliation Zip: | 43081 |
| Affiliation Phone: | (614) 278-6800 |

| | |
|---|---|
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |

| | |
|---|---|
| Affiliation Type Desc: | Identification Signer |
| Entity Name: | Willis Arrington |
| Entity Title: | STORE OPERATIONS SPECIALIST |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Operator |
| Entity Name: | PNS Stores Inc |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (614) 278-6800 |

| | |
|---|---|
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | 4900 East Dublin Granville Road |
| Affiliation City: | Columbus |
| Affiliation State: | OH |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 43081 |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Big Lots |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |

**PNS BIG LOTS #4278 (Continued)** **S118234406**

Affiliation Zip: Not reported
Affiliation Phone: Not reported

HWTS:
Name: PNS BIG LOTS #4278
Address: 25260 MADISON AVE
Address 2: Not reported
City,State,Zip: MURRIETA, CA 92562
EPA ID: CAL000391082
Inactive Date: Not reported
Create Date: 11/06/2013
Last Act Date: 03/13/2021
Mailing Name: Not reported
Mailing Address: 4900 EAST DUBLIN GRANVILLE ROAD
Mailing Address 2: Not reported
Mailing City,State,Zip: COLUMBUS, OH 430817651
Owner Name: PNS STORES INC
Owner Address: 4900 EAST DUBLIN GRANVILLE ROAD
Owner Address 2: Not reported
Owner City,State,Zip: COLUMBUS, OH 430817651
Contact Name: WILLIS ARRINGTON
Contact Address: 4900 EAST DUBLIN GRANVILLE ROAD
Contact Address 2: Not reported
City,State,Zip: COLUMBUS, OH 430817651

NAICS:
EPA ID: CAL000391082
Create Date: 2013-11-06 15:53:22.253
NAICS Code: 45299
NAICS Description: All Other General Merchandise Stores
Issued EPA ID Date: 2013-11-06 15:53:22.25300
Inactive Date: Not reported
Facility Name: PNS BIG LOTS #4278
Facility Address: 25260 MADISON AVE
Facility Address 2: Not reported
Facility City: MURRIETA
Facility County: Not reported
Facility State: CA
Facility Zip: 92562

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**E38** **PNS BIG LOTS #4278** **RCRA NonGen / NLR** **1024841433**
**North** **25260 MADISON AVE** **CAL000391082**
**1/8-1/4** **MURRIETA, CA 92562**
**0.227 mi.**
**1196 ft.** **Site 6 of 6 in cluster E**

**Relative:**
**Higher**

**Actual:**
**1106 ft.**

RCRA NonGen / NLR:
Date Form Received by Agency: 20131106
Handler Name: PNS BIG LOTS #4278
Handler Address: 25260 MADISON AVE
Handler City,State,Zip: MURRIETA, CA 92562
EPA ID: CAL000391082
Contact Name: DENA FERARU
Contact Address: 300 PHILLIPI RD.
Contact City,State,Zip: COLUMBUS, OH 43228-5311
Contact Telephone: 614-278-2708

**PNS BIG LOTS #4278 (Continued)** **1024841433**

| | |
|---|---|
| Contact Fax: | 614-278-4783 |
| Contact Email: | DFERARU@BIGLOTS.COM |
| Contact Title: | Not reported |
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 300 PHILLIPI RD |
| Mailing City,State,Zip: | COLUMBUS, OH 43228-1310 |
| Owner Name: | PNS STORES INC |
| Owner Type: | Other |
| Operator Name: | DENA FERARU |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |

**PNS BIG LOTS #4278 (Continued)** **1024841433**

| | |
|---|---|
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180906 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | PNS STORES INC |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 300 PHILLIPI RD |
| Owner/Operator City,State,Zip: | COLUMBUS, OH 43228-1310 |
| Owner/Operator Telephone: | 614-278-6800 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | DENA FERARU |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 300 PHILLIPI RD. |
| Owner/Operator City,State,Zip: | COLUMBUS, OH 43228-5311 |
| Owner/Operator Telephone: | 614-278-2708 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20131106 |
| Handler Name: PNS BIG LOTS #4278 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

**PNS BIG LOTS #4278 (Continued)** **1024841433**

List of NAICS Codes and Descriptions:
NAICS Code: 45299
NAICS Description: ALL OTHER GENERAL MERCHANDISE STORES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

---

**H39** **MANGO MOTORS MURRIETA** **RCRA-VSQG** **1026494327**
**NNW** **25185 MADISON AVENUE OFFICE A23** **CAR000314336**
**1/8-1/4** **MURRIETA, CA 92562**
**0.245 mi.**
**1296 ft.** **Site 1 of 3 in cluster H**

**Relative:** **Higher**
**Actual:** **1102 ft.**

RCRA-VSQG:

| | |
|---|---|
| Date Form Received by Agency: | 20201103 |
| Handler Name: | MANGO MOTORS MURRIETA |
| Handler Address: | 25185 MADISON AVENUE OFFICE A23 |
| Handler City,State,Zip: | MURRIETA, CA 92562 |
| EPA ID: | CAR000314336 |
| Contact Name: | CARLOS A BAZAN |
| Contact Address: | MADISON AVENUE OFFICE A23 |
| Contact City,State,Zip: | MURRIETA, CA 92562 |
| Contact Telephone: | 212-361-9062 |
| Contact Fax: | Not reported |
| Contact Email: | CARLOS@MANGO-CORP.COM |
| Contact Title: | MANAGING PARTNER |
| EPA Region: | 09 |
| Land Type: | Private |
| Federal Waste Generator Description: | Conditionally Exempt Small Quantity Generator |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | MADISON AVENUE OFFICE A23 |
| Mailing City,State,Zip: | MURRIETA, CA 92562 |
| Owner Name: | AVA PROPERTY INVESTMENTS LLC |
| Owner Type: | Private |
| Operator Name: | AVA PROPERTY INVESTMENTS LLC |
| Operator Type: | Private |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | No |

**MANGO MOTORS MURRIETA (Continued)** **1026494327**

| | |
|---|---|
| Universal Waste Destination Facility: | No |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20201109 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | Yes |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Hazardous Waste Summary:

| | |
|---|---|
| Waste Code: | F003 |
| Waste Description: | THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT |

**MANGO MOTORS MURRIETA (Continued)** **1026494327**

MIXTURES.

Waste Code: U002
Waste Description: 2-PROPANONE (I) (OR) ACETONE (I)

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | AVA PROPERTY INVESTMENTS LLC |
| Legal Status: | Private |
| Date Became Current: | 20190430 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 25185 MADISON AVENUE OFFICE A23 |
| Owner/Operator City,State,Zip: | MURRIETA, CA 92562 |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | AVA PROPERTY INVESTMENTS LLC |
| Legal Status: | Private |
| Date Became Current: | 20190430 |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 25185 MADISON AVENUE OFFICE A23 |
| Owner/Operator City,State,Zip: | MURRIETA, CA 92562 |
| Owner/Operator Telephone: | Not reported |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20201103 |
| Handler Name: MANGO MOTORS MURRIETA | |
| Federal Waste Generator Description: | Conditionally Exempt Small Quantity Generator |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Yes |
| Electronic Manifest Broker: | No |

List of NAICS Codes and Descriptions:
NAICS Code: 811111
NAICS Description: GENERAL AUTOMOTIVE REPAIR

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

**H40** **AMERICAN TIRE DEPOT** **CERS HAZ WASTE** **S123077508**
**NNW** **25185 MADISON AVE** **HAZNET** **N/A**
**1/8-1/4** **MURRIETA, CA 92562** **CERS**
**0.245 mi.** **HWTS**
**1296 ft.** **Site 2 of 3 in cluster H**

**Relative:**
**Higher**

**Actual:**
**1102 ft.**

CERS HAZ WASTE:

| | |
|---|---|
| Name: | AMERICAN TIRE DEPOT |
| Address: | 25185 MADISON AVE STE B |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 425368 |
| CERS ID: | 10742407 |
| CERS Description: | Hazardous Waste Generator |

HAZNET:

| | |
|---|---|
| Name: | AMERICAN TIRE DEPOT |
| Address: | 25185 MADISON AVE |
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 900580000 |
| Contact: | MICHAEL HUMBACH |
| Telephone: | 5622285102 |
| Mailing Name: | Not reported |
| Mailing Address: | 4490 AYERS AVE |
| Year: | 2018 |
| Gepaid: | CAL000357947 |
| TSD EPA ID: | CAD097030993 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.36500 |
| Year: | 2017 |
| Gepaid: | CAL000357947 |
| TSD EPA ID: | CAD097030993 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.09 |

Additional Info:

| | |
|---|---|
| Year: | 2017 |
| Gen EPA ID: | CAL000357947 |
| Shipment Date: | 20171010 |
| Creation Date: | 5/30/2018 18:31:28 |
| Receipt Date: | 20171016 |
| Manifest ID: | 017794447JJK |
| Trans EPA ID: | CAD028277036 |
| Trans Name: | ASBURY ENVIRONMENTAL SERVICES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD097030993 |
| Trans Name: | US ECOLOGY VERNON INC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.09
Waste Quantity: 180
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: AMERICAN TIRE DEPOT
Address: 25185 MADISON AVE STE B
City,State,Zip: MURRIETA, CA 92562
Site ID: 425368
CERS ID: 10742407
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 425368
Site Name: American Tire Depot
Violation Date: 08-15-2017
Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Description: Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.
Violation Notes: Returned to compliance on 10/25/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 08-15-2017
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 10/25/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 08-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 10/25/2017.
Violation Division: Riverside County Department of Env Health

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

Violation Program: HMRRP
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 10-15-2020
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)
Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
Violation Notes: Returned to compliance on 11/18/2020. OBSERVATION: Observed no/incomplete emergency response and procedures information postings. CORRECTIVE ACTION: Owner/operator shall post required information in a conspicuous location. Provide emergency contacts posting template completed/posted and evacuation site map posted.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 08-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 10/25/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 10-15-2020
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22
Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.
Violation Notes: Returned to compliance on 11/18/2020. OBSERVATION: Observed used oil/fuel filters being stored improperly. Specifically, not properly labeled and not properly covered. CORRECTIVE ACTION: Owner/operator shall provide proper labels and lid and lock rings for all used oil filter storage drums.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 08-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

| | |
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| | required content. |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 08-15-2017 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material. |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii) |
| Violation Description: | Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies. |
| Violation Notes: | Returned to compliance on 11/18/2020. OBSERVATION: Observed the presence of multiple violations that prove inadequate employee training. CORRECTIVE ACTION: Owner/operator shall provide employees with initial or refresher hazardous waste training as required. Submit a copy of the roster and the syllabus to the CUPA. Template shall be emailed to facility. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 08-15-2017 |
| Citation: | 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173 |
| Violation Description: | Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter |

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

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| | 6.95, Section(s) 25505(a)(4) |
| Violation Description: | Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years. |
| Violation Notes: | Returned to compliance on 11/18/2020. OBSERVATION: No training records observed/provided during inspection. CORRECTIVE ACTION: Owner/operator shall provide training to all employees. Documentation shall be retained and be made available for inspection for a minimum period of 3 years from the date of the training. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 08-15-2017 |
| Citation: | HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22 |
| Violation Description: | Failure to properly manage used oil and/or fuel filters in accordance with the requirements. |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | HSC 6.5 25144.6 (b) - California Health and Safety Code, Chapter 6.5, Section(s) 25144.6 (b) |
| Violation Description: | Failure to properly manage reusable soiled textile materials prior to being sent for laundering. |
| Violation Notes: | Returned to compliance on 11/18/2020. OBSERVATION: Observed improper textile/contaminated rag management. Observed hazardous waste storage area to have contaminated rags throughout on drums and flooring. CORRECTIVE ACTION: Owner/operator shall properly manage used/soiled textiles. When not in active use/in hand oily rags should be stored in a closed fire proof container and laundered by professional service. Train employees as to proper rag usage and storage. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31 |
| Violation Description: | Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. |
| Violation Notes: | Returned to compliance on 11/18/2020. OBSERVATION: Observed secondary containment pallets and the tops of used oil storage drums to have used oil present. CORRECTIVE ACTION: Owner/operator shall [[[fix leak, |

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

clean stains, etc.]]], and manage according to Title 22 hazardous waste regulations. Submit a statement and supporting documentation (photos) explaining how this waste was managed to this department.

Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 10-15-2020
Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Description: Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.
Violation Notes: Returned to compliance on 10/15/2020. OBSERVATION: Facility personnel were unable to access/locate a current copy of the business plan during the inspection. Observed last accessible to be from 2018. CORRECTIVE ACTION: Owner/operator shall ensure a current copy of the hazardous materials business plan is readily available on site at all times when the facility is staffed. Store manager was able to contact environmental contact who sent the most current copy of HMBP. Violation corrected on site.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 10-15-2020
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 11/18/2020. OBSERVATION: Observed used oil drums and used oil filter drums stored without cover/lid and/or bungs maintained in place. CORRECTIVE ACTION: Owner/operator shall maintain all hazardous waste containers closed when not adding/removing hazardous waste. Ensure hazardous waste drums are stored properly closed.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 10-15-2020
Citation: Un-Specified
Violation Description: Business Plan Program - Operations/Maintenance - General Local Ordinance
Violation Notes: Returned to compliance on 11/18/2020. OBSERVATION: Required NFPA-704 signs were not posted at entrances to facility and/or visible on building. Observed one incorrect NFPA 704 posted with 4 flam, 2

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

health, 0 reactivity. Provide NFPA-704 placards properly posted. CORRECTIVE ACTION: Owner/operator shall research chemical safety data sheets and post proper NFPA-704 signs. Signs shall be posted at entrances of facility or visible on building and shall represent the chemicals stored. Oil NFPA 704 is 0-blue, 1-red, 0-yellow. Antifreeze NFPA 704 is 1-blue, 0-red, 0-yellow. So combined NFPA 704 would be 1-blue, 1-red, 0-yellow. Submit photos to this department.

Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 08-15-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 10/25/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 10-15-2020
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.
Violation Notes: Returned to compliance on 11/18/2020. OBSERVATION: Observed waste antifreeze and used oil filters on site with no accumulation start dates. Last manifests say used oil filters were removed 4/10/2019 and waste antifreeze 2/27/2018. CORRECTIVE ACTION: Owner/operator shall ensure all hazardous wastes are transported off site within 180 days of the accumulation start date. Owner/operator shall have waste antifreeze and used oil filters hazardous waste properly hauled off site by a registered hazardous waste transporter.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 425368
Site Name: American Tire Depot
Violation Date: 08-15-2017
Citation: 19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

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| Violation Description: | Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page. |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | Un-Specified |
| Violation Description: | Business Plan Program - Administration/Documentation - General Local Ordinance |
| Violation Notes: | Returned to compliance on 11/18/2020. OBSERVATION: No and/or incomplete emergency contact posting was observed. CORRECTIVE ACTION: Owner/operator shall post emergency contact information in a conspicuous location and shall include but not be limited to all of the following: 911; local appropriate hospital name and phone number; primary facility emergency contact personG s name and phone number; Riverside County Environmental Health Hazardous Materials Program name and phone number; California Office of Emergency Services name and phone number; National Response Center name and phone number; Poison Control Center name and phone number; and if applicable the name and phone number of a licensed hazardous materials cleanup contractor and location of fire extinguishers, spill control materials, and fire alarm. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | 40 CFR 1 265.35 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.35 |
| Violation Description: | Failure to maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes. |
| Violation Notes: | Returned to compliance on 11/18/2020. OBSERVATION: Observed hazardous waste drums along the side of the wall in the shop area without adequate aisle space and/or access maintained. CORRECTIVE ACTION: Owner/operator shall maintain adequate aisle space in hazardous waste storage areas for personnel and fire protection equipment to be able to easily access the area. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f) |
| Violation Description: | Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical |

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

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| | characteristics of the Hazardous Waste, and starting accumulation date. |
| Violation Notes: | Returned to compliance on 11/18/2020. OBSERVATION: Observed incomplete labels on waste antifreeze and on used metal and paper filter storage drums. Information missing included accumulation start date, EPA ID, etc. CORRECTIVE ACTION: Owner/operator shall label hazardous waste containers with all the required information. Label shall include at least: the words ""hazardous waste"", generator name and address, accumulation start date, composition and physical state of waste, EPA ID, and hazardous property statement. Submit photos to this department, if applicable. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 10-15-2020 |
| Citation: | 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174 |
| Violation Description: | Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers. |
| Violation Notes: | Returned to compliance on 11/18/2020. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 08-15-2017 |
| Citation: | Un-Specified |
| Violation Description: | Business Plan Program - Operations/Maintenance - General Local Ordinance |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 08-15-2017 |
| Citation: | 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31 |
| Violation Description: | Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |
| | |
| Site ID: | 425368 |
| Site Name: | American Tire Depot |
| Violation Date: | 08-15-2017 |
| Citation: | HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter |

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

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| | 6.95, Section(s) 25508(a)(1) |
| Violation Description: | Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material. |
| Violation Notes: | Returned to compliance on 10/25/2017. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HMRRP |
| Violation Source: | CERS |

Evaluation:

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 09-21-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

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|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 10-15-2020 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Routine inspection of an automotive maintenance facility that specializes in tires. Observed oil, used oil, and waste anitfreeze onsite in threshold amounts. |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 10-25-2017 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 11-18-2020 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Reinspection following 10/15/2020 routine inspection to verify correction of violations. Observed facility to have conducted employee training on 11/7/2020, to have posted appropriate NFPA-704 placards, and emergency contacts in a conspicuous location. Observed all violations corrected. |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HMRRP |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 08-15-2017 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-15-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-21-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-25-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-18-2020
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Reinspection conducted to verify correction of violations observed at 10/15/2020 routine inspection. Observed the following corrections: hazardous waste storage area cleaned and maintained of all releases, oil filters picked up on 10/22/2020 and antifreeze picked up on 10/29/2020, soiled rags properly maintained in rag containment, containers properly labeled, proof of weekly inspections being conducted by facility, containers stored closed and bung caps on order for two of the "in use" oil drums, aisle space provided to be able to observe hazardous waste storage area, emergency response procedures and contacts posted, used oil filter storage requirements met, and employee training conducted 11/7/2020. Observed all violations corrected.
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-15-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Routine inspection of a auto maintenance facility that specializes in tires. Hazardous waste streams generated on site include used oil,

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

waste antifreeze, used oil filters, oily water, etc. Facility exchanges battery cores for credit with
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Michael Humbach
Entity Title: Not reported
Affiliation Address: 4490 AYERS AVE
Affiliation City: VERNON
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90058
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4490 AYERS AVE
Affiliation City: VERNON
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90058
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Ara Tchaghlassian
Entity Title: President
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: ATV INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (562) 977-8565

Affiliation Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title: Not reported
Affiliation Address: 4065 County Circle Drive, Room 104
Affiliation City: Riverside
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92503
Affiliation Phone: (951) 358-5055

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

| | |
|---|---|
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | John Beerwert |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | ATV INC |
| Entity Title: | Not reported |
| Affiliation Address: | 4490 AYERS AVE |
| Affiliation City: | VERNON |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 90058 |
| Affiliation Phone: | (562) 977-8565 |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | ATV INC |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

HWTS:

| | |
|---|---|
| Name: | AMERICAN TIRE DEPOT |
| Address: | 25185 MADISON AVE |
| Address 2: | Not reported |
| City,State,Zip: | MURRIETA, CA 925628977 |
| EPA ID: | CAL000357947 |
| Inactive Date: | Not reported |
| Create Date: | 10/12/2010 |
| Last Act Date: | 08/21/2020 |
| Mailing Name: | Not reported |
| Mailing Address: | 4490 AYERS AVE |
| Mailing Address 2: | Not reported |
| Mailing City,State,Zip: | VERNON, CA 900580000 |
| Owner Name: | ATV INC |
| Owner Address: | 4490 AYERS AVE |
| Owner Address 2: | Not reported |
| Owner City,State,Zip: | VERNON, CA 900580000 |
| Contact Name: | MICHAEL HUMBACH |
| Contact Address: | 4490 AYERS AVE |
| Contact Address 2: | Not reported |
| City,State,Zip: | VERNON, CA 90058 |

NAICS:

| | |
|---|---|
| EPA ID: | CAL000357947 |
| Create Date: | 2010-10-12 11:07:24.780 |
| NAICS Code: | 811111 |

**AMERICAN TIRE DEPOT (Continued)** **S123077508**

| | |
|---|---|
| NAICS Description: | General Automotive Repair |
| Issued EPA ID Date: | 2010-10-12 11:07:24.76700 |
| Inactive Date: | Not reported |
| Facility Name: | AMERICAN TIRE DEPOT |
| Facility Address: | 25185 MADISON AVE |
| Facility Address 2: | Not reported |
| Facility City: | MURRIETA |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 925628977 |

---

**H41** **AMERICAN TIRE DEPOT** **RCRA NonGen / NLR** **1024827683**
**NNW** **25185 MADISON AVE** **CAL000357947**
**1/8-1/4** **MURRIETA, CA 92562**
**0.245 mi.**
**1296 ft.** **Site 3 of 3 in cluster H**

**Relative:** **Higher**

**Actual:** **1102 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20101012 |
| Handler Name: | AMERICAN TIRE DEPOT | |
| Handler Address: | | 25185 MADISON AVE |
| Handler City,State,Zip: | | MURRIETA, CA 92562-8977 |
| EPA ID: | | CAL000357947 |
| Contact Name: | | JOHN BEERWERT |
| Contact Address: | | 14407 ALONDRA BLVD |
| Contact City,State,Zip: | | LA MIRADA, CA 90638 |
| Contact Telephone: | | 562-977-8565 |
| Contact Fax: | | 562-217-4160 |
| Contact Email: | | JOHNB@ATVTIREINC.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 14407 ALONDRA BLVD |
| Mailing City,State,Zip: | | LA MIRADA, CA 90638-0000 |
| Owner Name: | | ATV INC |
| Owner Type: | | Other |
| Operator Name: | | JOHN BEERWERT |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |

**AMERICAN TIRE DEPOT (Continued)** **1024827683**

| | |
|---|---|
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180905 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | JOHN BEERWERT |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 14407 ALONDRA BLVD |
| Owner/Operator City,State,Zip: | LA MIRADA, CA 90638 |
| Owner/Operator Telephone: | 562-977-8565 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

**AMERICAN TIRE DEPOT (Continued)** **1024827683**

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | ATV INC |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 14407 ALONDRA BLVD |
| Owner/Operator City,State,Zip: | LA MIRADA, CA 90638-0000 |
| Owner/Operator Telephone: | 562-977-8565 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20101012 |
| Handler Name: AMERICAN TIRE DEPOT | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 811111 |
| NAICS Description: | GENERAL AUTOMOTIVE REPAIR |

Facility Has Received Notices of Violations:

| | |
|---|---|
| Violations: | No Violations Found |

Evaluation Action Summary:

| | |
|---|---|
| Evaluations: | No Evaluations Found |

---

**G42** **PETSMART #0129** **CERS HAZ WASTE** **S113091189**
**North** **25290 MADISON AVE** **CERS** **N/A**
**1/8-1/4** **MURRIETA, CA 92562**
**0.248 mi.**
**1312 ft.** **Site 4 of 6 in cluster G**

**Relative:**
**Higher**

**Actual:**
**1122 ft.**

CERS HAZ WASTE:

| | |
|---|---|
| Name: | PETSMART #0129 |
| Address: | 25290 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 56628 |
| CERS ID: | 10600540 |
| CERS Description: | Hazardous Waste Generator |

| | |
|---|---|
| Name: | BANFIELD PET HOSPITAL #0129 |
| Address: | 25290 MADISON AVE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Site ID: | 514657 |
| CERS ID: | 10643083 |

**PETSMART #0129 (Continued)** **S113091189**

CERS Description: Hazardous Waste Generator

CERS:
Name: PETSMART #0129
Address: 25290 MADISON AVE
City,State,Zip: MURRIETA, CA 92562
Site ID: 56628
CERS ID: 10600540
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 56628
Site Name: PetSmart #0129
Violation Date: 04-07-2015
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 06/25/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 56628
Site Name: PetSmart #0129
Violation Date: 04-07-2015
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 05/14/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 56628
Site Name: PetSmart #0129
Violation Date: 02-08-2021
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 04/28/2021. OBSERVATION: Hazardous waste program for facility includes weekly inspection logs to be completed. The last documented weekly inspection was 2/2020. CORRECTIVE ACTION: Owner/operator shall provide all employees with refresher training in order to ensure appropriate safety and knowledge of hazardous wastes on site. Owner/operator shall ensure employees responsible for weekly inspection are properly trained and conduct the weekly hazardous waste inspections.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 56628

**PETSMART #0129 (Continued)** **S113091189**

| | |
|---|---|
| Site Name: | PetSmart #0129 |
| Violation Date: | 02-08-2021 |
| Citation: | 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f) |
| Violation Description: | Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date. |
| Violation Notes: | Returned to compliance on 04/28/2021. OBSERVATION: Observed labels on totes have not been updated with current accumulation start dates. CORRECTIVE ACTION: Owner/operator shall label hazardous waste containers with all the required information. Label shall include at least: the words ""hazardous waste"", generator name and address, accumulation start date, composition and physical state of waste, and hazardous property statement. Submit photos to this department, if applicable. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |

| | |
|---|---|
| Site ID: | 56628 |
| Site Name: | PetSmart #0129 |
| Violation Date: | 03-14-2018 |
| Citation: | 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a) |
| Violation Description: | Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste. |
| Violation Notes: | Returned to compliance on 03/15/2018. OBSERVATION: Observed manifests from 2017 with no matching TSDF-signed copy. CORRECTIVE ACTION: Owner/operator shall locate TSDF-signed copy of aforementioned manifests and provide documentation to this department. |
| Violation Division: | Riverside County Department of Env Health |
| Violation Program: | HW |
| Violation Source: | CERS |

Evaluation:

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 03-14-2018 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 05-14-2015 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

**PETSMART #0129 (Continued)** **S113091189**

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 02-08-2021 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 04-07-2015 |
| Violations Found: | Yes |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Petsmart |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 04-28-2021 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | All violations corrected. |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Other/Unknown |
| Eval Date: | 06-25-2015 |
| Violations Found: | No |
| Eval Type: | Other, not routine, done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | Riverside County Department of Env Health |
| Eval Program: | HW |
| Eval Source: | CERS |

Enforcement Action:

| | |
|---|---|
| Site ID: | 56628 |
| Site Name: | PetSmart #0129 |
| Site Address: | 25290 MADISON AVE |
| Site City: | MURRIETA |
| Site Zip: | 92562 |
| Enf Action Date: | 04-07-2015 |
| Enf Action Type: | Notice of Violation (Unified Program) |
| Enf Action Description: | Notice of Violation Issued by the Inspector at the Time of Inspection |
| Enf Action Notes: | Not reported |
| Enf Action Division: | Riverside County Department of Env Health |
| Enf Action Program: | HW |
| Enf Action Source: | CERS |

Coordinates:

| | |
|---|---|
| Site ID: | 56628 |
| Facility Name: | PetSmart #0129 |
| Env Int Type Code: | HWG |
| Program ID: | 10600540 |
| Coord Name: | Not reported |

**PETSMART #0129 (Continued)** **S113091189**

| | |
|---|---|
| Ref Point Type Desc: | Center of a facility or station. |
| Latitude: | 33.555140 |
| Longitude: | -117.195900 |

Affiliation:

| | |
|---|---|
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | PetSmart, Inc. |
| Entity Title: | Not reported |
| Affiliation Address: | 19601 North 27th Ave |
| Affiliation City: | Phoenix |
| Affiliation State: | AZ |
| Affiliation Country: | United States |
| Affiliation Zip: | 85027 |
| Affiliation Phone: | (623) 587-2912 |

| | |
|---|---|
| Affiliation Type Desc: | CUPA District |
| Entity Name: | Riverside Cnty Env Health |
| Entity Title: | Not reported |
| Affiliation Address: | 4065 County Circle Drive, Room 104 |
| Affiliation City: | Riverside |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92503 |
| Affiliation Phone: | (951) 358-5055 |

| | |
|---|---|
| Affiliation Type Desc: | Operator |
| Entity Name: | PetSmart, Inc. |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (623) 580-6100 |

| | |
|---|---|
| Affiliation Type Desc: | Property Owner |
| Entity Name: | Murrieta Springs Plaza |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | United States |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (951) 788-4600 |

| | |
|---|---|
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | MAXIM KRAVCHUK |
| Entity Title: | Not reported |
| Affiliation Address: | 19601 North 27th Ave |
| Affiliation City: | Phoenix |
| Affiliation State: | AZ |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 85027 |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Petsmart |

**PETSMART #0129 (Continued)** **S113091189**

| | |
|---|---|
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | ASHLEY CAMPBELL |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | Contracted Services, 19601 N 27th Ave |
| Affiliation City: | Phoenix |
| Affiliation State: | AZ |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 85027 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Identification Signer |
| Entity Name: | Ashley Campbell |
| Entity Title: | COMPLIANCE&REG AFFAIR SPECIALIST |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

---

**G43** **BANFIELD PET HOSPITAL #129** **RCRA NonGen / NLR** **1024796200**
**North** **25290 MADISON AVE** **CAL000173428**
**1/8-1/4** **MURRIETA, CA 92562**
**0.248 mi.**
**1312 ft.** **Site 5 of 6 in cluster G**

**Relative:**
**Higher**

**Actual:**
**1122 ft.**

RCRA NonGen / NLR:

| | |
|---|---|
| Date Form Received by Agency: | 19950329 |
| Handler Name: | BANFIELD PET HOSPITAL #129 |
| Handler Address: | 25290 MADISON AVE |
| Handler City,State,Zip: | MURRIETA, CA 92562-0000 |
| EPA ID: | CAL000173428 |
| Contact Name: | SEAN AKERS |
| Contact Address: | P.O. BOX 87586 |
| Contact City,State,Zip: | VANCOUVER, WA 98687-7856 |
| Contact Telephone: | 360-784-5217 |
| Contact Fax: | 360-784-6217 |
| Contact Email: | HSE@BANFIELD.COM |
| Contact Title: | Not reported |

**BANFIELD PET HOSPITAL #129 (Continued)** **1024796200**

| | |
|---|---|
| EPA Region: | 09 |
| Land Type: | Not reported |
| Federal Waste Generator Description: | Not a generator, verified |
| Non-Notifier: | Not reported |
| Biennial Report Cycle: | Not reported |
| Accessibility: | Not reported |
| Active Site Indicator: | Handler Activities |
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | P.O. BOX 87586 |
| Mailing City,State,Zip: | VANCOUVER, WA 98687-7856 |
| Owner Name: | MEDICAL MANAGEMENT INTERNATIONAL IN |
| Owner Type: | Other |
| Operator Name: | SEAN AKERS |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |

**BANFIELD PET HOSPITAL #129 (Continued)** **1024796200**

| | |
|---|---|
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180905 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | SEAN AKERS |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | P.O. BOX 87586 |
| Owner/Operator City,State,Zip: | VANCOUVER, WA 98687-7856 |
| Owner/Operator Telephone: | 360-784-5217 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | MEDICAL MANAGEMENT INTERNATIONAL IN |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | P.O. BOX 87586 |
| Owner/Operator City,State,Zip: | VANCOUVER, WA 98687-7856 |
| Owner/Operator Telephone: | 360-784-5119 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 19950329 |
| Handler Name: | BANFIELD PET HOSPITAL #129 |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 54194 |

**BANFIELD PET HOSPITAL #129 (Continued)** **1024796200**

NAICS Description: VETERINARY SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

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**G44** **PETSMART #0129** **RCRA NonGen / NLR** **1024846947**
**North** **25290 MADISON AVE** **CAL000401525**
**1/8-1/4** **MURRIETA, CA 92562**
**0.248 mi.**
**1312 ft.** **Site 6 of 6 in cluster G**

**Relative:**
**Higher**

**Actual:**
**1122 ft.**

RCRA NonGen / NLR:

| | | |
|---|---|---|
| Date Form Received by Agency: | | 20141024 |
| Handler Name: | PETSMART #0129 | |
| Handler Address: | | 25290 MADISON AVE |
| Handler City,State,Zip: | | MURRIETA, CA 92562 |
| EPA ID: | | CAL000401525 |
| Contact Name: | | KEN DOBIAS |
| Contact Address: | | 3481 PLANO PARKWAY |
| Contact City,State,Zip: | | THE COLONY, TX 75056 |
| Contact Telephone: | | 972-464-0004 |
| Contact Fax: | | Not reported |
| Contact Email: | | KEN.DOBIAS@QUESTRMG.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 19601 N 27TH AVE |
| Mailing City,State,Zip: | | PHOENIX, AZ 85027-4008 |
| Owner Name: | | PETSMART M CANTRELL MD |
| Owner Type: | | Other |
| Operator Name: | | KEN DOBIAS |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |

**PETSMART #0129 (Continued)** **1024846947**

| | |
|---|---|
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180906 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|---|---|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | KEN DOBIAS |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 3481 PLANO PARKWAY |
| Owner/Operator City,State,Zip: | THE COLONY, TX 75056 |
| Owner/Operator Telephone: | 972-464-0004 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---|---|
| Owner/Operator Indicator: | Owner |

**PETSMART #0129 (Continued)** **1024846947**

| | |
|---|---|
| Owner/Operator Name: | PETSMART M CANTRELL MD |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 19601 N 27TH AVE |
| Owner/Operator City,State,Zip: | PHOENIX, AZ 85027-4008 |
| Owner/Operator Telephone: | 623-587-2912 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|---|---|
| Receive Date: | 20141024 |
| Handler Name: PETSMART #0129 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|---|---|
| NAICS Code: | 42249 |
| NAICS Description: | OTHER GROCERY AND RELATED PRODUCTS WHOLESALERS |

Facility Has Received Notices of Violations:

| | |
|---|---|
| Violations: | No Violations Found |

Evaluation Action Summary:

| | |
|---|---|
| Evaluations: | No Evaluations Found |

---

**45**
**ESE**
**1/4-1/2**
**0.265 mi.**
**1398 ft.**

**REGIONAL LEARNING CENTER - MURRIETA** **ENVIROSTOR** **S118756740**
**41350 GUAVA STREET** **SCH** **N/A**
**MURRIETA, CA 92562** **CERS**

**Relative:**
**Higher**

**Actual:**
**1089 ft.**

ENVIROSTOR:

| | |
|---|---|
| Name: | REGIONAL LEARNING CENTER - MURRIETA |
| Address: | 41350 GUAVA STREET |
| City,State,Zip: | MURRIETA, CA 92562 |
| Facility ID: | 33650017 |
| Status: | No Action Required |
| Status Date: | 12/08/2003 |
| Site Code: | 404498 |
| Site Type: | School Investigation |
| Site Type Detailed: | School |
| Acres: | 10.76 |
| NPL: | NO |
| Regulatory Agencies: | DTSC |
| Lead Agency: | DTSC |

**REGIONAL LEARNING CENTER - MURRIETA (Continued)** **S118756740**

Program Manager: Angela Garcia
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 67
Senate: 28
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.54623
Longitude: -117.1898
APN: 910140040
Past Use: NONE
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: REGIONAL LEARNING CENTER - MURRIETA
Alias Type: Alternate Name
Alias Name: RIVERSIDE CO. OFFICE OF EDUCATION
Alias Type: Alternate Name
Alias Name: RIVERSIDE COE-REGIONAL LEARNING CENTER
Alias Type: Alternate Name
Alias Name: 910140040
Alias Type: APN
Alias Name: 404498
Alias Type: Project Code (Site Code)
Alias Name: 33650017
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/08/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/10/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 12/08/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

**REGIONAL LEARNING CENTER - MURRIETA (Continued)** **S118756740**

SCH:

| | |
|---|---|
| Name: | REGIONAL LEARNING CENTER - MURRIETA |
| Address: | 41350 GUAVA STREET |
| City,State,Zip: | MURRIETA, CA 92562 |
| Facility ID: | 33650017 |
| Site Type: | School Investigation |
| Site Type Detail: | School |
| Site Mgmt. Req.: | NONE SPECIFIED |
| Acres: | 10.76 |
| National Priorities List: | NO |
| Cleanup Oversight Agencies: | DTSC |
| Lead Agency: | DTSC |
| Lead Agency Description: | * DTSC |
| Project Manager: | Angela Garcia |
| Supervisor: | Shahir Haddad |
| Division Branch: | Southern California Schools & Brownfields Outreach |
| Site Code: | 404498 |
| Assembly: | 67 |
| Senate: | 28 |
| Special Program Status: | Not reported |
| Status: | No Action Required |
| Status Date: | 12/08/2003 |
| Restricted Use: | NO |
| Funding: | School District |
| Latitude: | 33.54623 |
| Longitude: | -117.1898 |
| APN: | 910140040 |
| Past Use: | NONE |
| Potential COC: | NONE SPECIFIED, No Contaminants found |
| Confirmed COC: | NONE SPECIFIED |
| Potential Description: | NMA |
| Alias Name: | REGIONAL LEARNING CENTER - MURRIETA |
| Alias Type: | Alternate Name |
| Alias Name: | RIVERSIDE CO. OFFICE OF EDUCATION |
| Alias Type: | Alternate Name |
| Alias Name: | RIVERSIDE COE-REGIONAL LEARNING CENTER |
| Alias Type: | Alternate Name |
| Alias Name: | 910140040 |
| Alias Type: | APN |
| Alias Name: | 404498 |
| Alias Type: | Project Code (Site Code) |
| Alias Name: | 33650017 |
| Alias Type: | Envirostor ID Number |

Completed Info:

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Site Inspections/Visit (Non LUR) |
| Completed Date: | 12/08/2003 |
| Comments: | Not reported |
| | |
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Cost Recovery Closeout Memo |
| Completed Date: | 09/10/2004 |
| Comments: | Not reported |

**REGIONAL LEARNING CENTER - MURRIETA (Continued)** **S118756740**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 12/08/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CERS:
Name: REGIONAL LEARNING CE
Address: 41350 GUAVA STREET
City,State,Zip: MURRIETA, CA 92562
Site ID: 371578
CERS ID: 33650017
CERS Description: School Investigation

Affiliation:
Affiliation Type Desc: Supervisor
Entity Name: SHAHIR HADDAD
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Lead Project Manager
Entity Name: ANGELA GARCIA
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: CYPRESS
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

---

**I46** **MURRIETTA CREATIVE ACADEMY** **ENVIROSTOR** **S101481558**
**WNW** **41885 IVY STREET** **N/A**
**1/2-1** **MURRIETTA, CA 92362**
**0.660 mi.**
**3484 ft.** **Site 1 of 2 in cluster I**

**Relative:**
**Higher**

**Actual:**
**1093 ft.**

ENVIROSTOR:
Name: MURRIETTA CREATIVE ACADEMY
Address: 41885 IVY STREET
City,State,Zip: MURRIETTA, CA 92362
Facility ID: 33350013
Status: Refer: Other Agency

**MURRIETTA CREATIVE ACADEMY (Continued)** **S101481558**

Status Date: 09/09/1998
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Assembly: 67
Senate: 28
Special Program: * CERC2
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.55227
Longitude: -117.2100
APN: 906122024
Past Use: NONE SPECIFIED
Potential COC: * ACID SOLUTION 2>PH WITH METALS Chromium VI Nickel
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 906122024
Alias Type: APN
Alias Name: CAD982463820
Alias Type: CERCLIS ID
Alias Name: 33350013
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/05/1988
Comments: FACILITY IDENTIFIED INFORMATION RECIEVED BY RIVERSIDE COUNTY HEALTH THAT SITE OF DAY CARE CENTER WAS AT ONE TIME PLATING SHOP. POSSIBLE DISPOSAL OF PLATING WASTES ON SITE--CHROMIUM

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Site Inspection (SI) Report
Completed Date: 08/23/1989
Comments: SITE INSP DONE DHS RECOMMENDS HAZARD RANKING OF SITE AND INCLUSION ON THE STATE CLEANUP LIST

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 10/01/1988
Comments: PRELIM ASSESS DONE RIVERSIDE COUNTY HEALTH CONDUCTED SOIL AND GROUNDWATER SAMPLING IN JUNE OF 1987 INDICATING CHROMIUM I AND CHROMIUM VI CONTAMINATION HIGH PRIORITY SI FOR DHS BASED ON SAMPLE RESULTS.

Future Area Name: Not reported
Future Sub Area Name: Not reported

**MURRIETTA CREATIVE ACADEMY (Continued)** **S101481558**

| | |
|---|---|
| Future Document Type: | Not reported |
| Future Due Date: | Not reported |
| Schedule Area Name: | Not reported |
| Schedule Sub Area Name: | Not reported |
| Schedule Document Type: | Not reported |
| Schedule Due Date: | Not reported |
| Schedule Revised Date: | Not reported |

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**I47** **MURRIETA CREATIVE ACADEMY** **ENVIROSTOR** **S112057187**
**WNW** **41885 IVY STREET** **N/A**
**1/2-1** **MURRIETA, CA 92335**
**0.666 mi.**
**3514 ft.** **Site 2 of 2 in cluster I**

**Relative:**
**Higher**

**Actual:**
**1093 ft.**

ENVIROSTOR:

| | |
|---|---|
| Name: | MURRIETA CREATIVE ACADEMY |
| Address: | 41885 IVY STREET |
| City,State,Zip: | MURRIETA, CA 92335 |
| Facility ID: | 60001704 |
| Status: | Refer: Other Agency |
| Status Date: | 12/27/1997 |
| Site Code: | Not reported |
| Site Type: | Evaluation |
| Site Type Detailed: | Evaluation |
| Acres: | 0 |
| NPL: | NO |
| Regulatory Agencies: | RIVERSIDE COUNTY |
| Lead Agency: | RIVERSIDE COUNTY |
| Program Manager: | Not reported |
| Supervisor: | Douglas Bautista |
| Division Branch: | Cleanup Cypress |
| Assembly: | 66 |
| Senate: | 28 |
| Special Program: | Not reported |
| Restricted Use: | NO |
| Site Mgmt Req: | NONE SPECIFIED |
| Funding: | EPA Grant |
| Latitude: | 33.55230 |
| Longitude: | -117.2100 |
| APN: | NONE SPECIFIED |
| Past Use: | NONE SPECIFIED |
| Potential COC: | Total Chromium (1:6 ratio Cr VI:Cr III Copper and compounds Nickel Zinc |
| Confirmed COC: | Total Chromium (1:6 ratio Cr VI:Cr III Copper and compounds Zinc Nickel |
| Potential Description: | NONE SPECIFIED |
| Alias Name: | 60001704 |
| Alias Type: | Envirostor ID Number |

Completed Info:

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Site Screening |
| Completed Date: | 12/27/1997 |
| Comments: | Not reported |
| Future Area Name: | Not reported |
| Future Sub Area Name: | Not reported |

**MURRIETA CREATIVE ACADEMY (Continued)** **S112057187**

Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Site Screening
Schedule Due Date: 07/24/2000
Schedule Revised Date: Not reported

---

**48**
**North**
**1/2-1**
**0.880 mi.**
**4646 ft.**

**HIGH SCHOOL NO. 3 LOS ALAMOS** **ENVIROSTOR** **S109548217**
**MONROE AVENUE** **SCH** **N/A**
**MURRIETA, CA 92562**

**Relative:**
**Higher**

**Actual:**
**1233 ft.**

ENVIROSTOR:
Name: HIGH SCHOOL NO. 3 LOS ALAMOS
Address: MONROE AVENUE
City,State,Zip: MURRIETA, CA 92562
Facility ID: 33880006
Status: No Further Action
Status Date: 05/03/2006
Site Code: 404567
Site Type: School Investigation
Site Type Detailed: School
Acres: 62
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Rana Georges
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 67
Senate: 28
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.5644
Longitude: -117.1988
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: TPH-MOTOR OIL
Confirmed COC: TPH-MOTOR OIL
Potential Description: SOIL
Alias Name: MURRIETA VALLEY USD-PRPSD HS #3 LOS ALAM
Alias Type: Alternate Name
Alias Name: 404567
Alias Type: Project Code (Site Code)
Alias Name: 33880006
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 05/04/2006
Comments: Not reported

**HIGH SCHOOL NO. 3 LOS ALAMOS (Continued)** **S109548217**

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Site Inspections/Visit (Non LUR) |
| Completed Date: | 09/20/2004 |
| Comments: | Not reported |

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Phase 1 |
| Completed Date: | 09/24/2004 |
| Comments: | Not reported |

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Preliminary Endangerment Assessment Workplan |
| Completed Date: | 07/25/2005 |
| Comments: | WP approved |

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Preliminary Endangerment Assessment Report |
| Completed Date: | 04/04/2006 |
| Comments: | DTSC approved the PEA for no further action. |

| | |
|---|---|
| Future Area Name: | Not reported |
| Future Sub Area Name: | Not reported |
| Future Document Type: | Not reported |
| Future Due Date: | Not reported |
| Schedule Area Name: | Not reported |
| Schedule Sub Area Name: | Not reported |
| Schedule Document Type: | Not reported |
| Schedule Due Date: | Not reported |
| Schedule Revised Date: | Not reported |

SCH:

| | |
|---|---|
| Name: | HIGH SCHOOL NO. 3 LOS ALAMOS |
| Address: | MONROE AVENUE |
| City,State,Zip: | MURRIETA, CA 92562 |
| Facility ID: | 33880006 |
| Site Type: | School Investigation |
| Site Type Detail: | School |
| Site Mgmt. Req.: | NONE SPECIFIED |
| Acres: | 62 |
| National Priorities List: | NO |
| Cleanup Oversight Agencies: | SMBRP |
| Lead Agency: | SMBRP |
| Lead Agency Description: | DTSC - Site Cleanup Program |
| Project Manager: | Rana Georges |
| Supervisor: | Shahir Haddad |
| Division Branch: | Southern California Schools & Brownfields Outreach |
| Site Code: | 404567 |
| Assembly: | 67 |
| Senate: | 28 |
| Special Program Status: | Not reported |
| Status: | No Further Action |
| Status Date: | 05/03/2006 |

**HIGH SCHOOL NO. 3 LOS ALAMOS (Continued)** **S109548217**

| | |
|---|---|
| Restricted Use: | NO |
| Funding: | School District |
| Latitude: | 33.5644 |
| Longitude: | -117.1988 |
| APN: | NONE SPECIFIED |
| Past Use: | RESIDENTIAL AREA |
| Potential COC: | TPH-MOTOR OIL |
| Confirmed COC: | TPH-MOTOR OIL |
| Potential Description: | SOIL |
| Alias Name: | MURRIETA VALLEY USD-PRPSD HS #3 LOS ALAM |
| Alias Type: | Alternate Name |
| Alias Name: | 404567 |
| Alias Type: | Project Code (Site Code) |
| Alias Name: | 33880006 |
| Alias Type: | Envirostor ID Number |

Completed Info:

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Cost Recovery Closeout Memo |
| Completed Date: | 05/04/2006 |
| Comments: | Not reported |
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Site Inspections/Visit (Non LUR) |
| Completed Date: | 09/20/2004 |
| Comments: | Not reported |
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Phase 1 |
| Completed Date: | 09/24/2004 |
| Comments: | Not reported |
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Preliminary Endangerment Assessment Workplan |
| Completed Date: | 07/25/2005 |
| Comments: | WP approved |
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Preliminary Endangerment Assessment Report |
| Completed Date: | 04/04/2006 |
| Comments: | DTSC approved the PEA for no further action. |
| Future Area Name: | Not reported |
| Future Sub Area Name: | Not reported |
| Future Document Type: | Not reported |
| Future Due Date: | Not reported |
| Schedule Area Name: | Not reported |
| Schedule Sub Area Name: | Not reported |
| Schedule Document Type: | Not reported |
| Schedule Due Date: | Not reported |
| Schedule Revised Date: | Not reported |

Count: 31 records. ORPHAN SUMMARY

| City | EDR ID | Site Name | Site Address | Zip | Database(s) |
|---|---|---|---|---|---|
| MURRIETA | S121645616 | I 15 & MURRIETA HOT SPRINGS RD | I 15 & MURRIETA HOT SPRINGS RD | 92562 | CIWQS |
| MURRIETA | S121657585 | MURRIETA CREEK CENTER | 25700 BLK JEFFERSON AVE | 92562 | CIWQS |
| MURRIETA | S112891071 | MURRIETA HOT SPRINGS DEVELOPMENT | 40200 BLOCK OF MURRIETA HOT | 92562 | HAZNET, HWTS |
| MURRIETA | S121657570 | MURRIETA 55 | BOUND BY JEFFERSON LEMON VALOR | 92562 | CIWQS |
| MURRIETA | S121658267 | NE CORNER MURRIETA HOT SPRINGS | NE CORNER MURRIETA HOT SPRINGS | | CIWQS |
| MURRIETA | S121657576 | MURRIETA BUSINESS PARK | NW CORNER OF MURRIETA HOT SPRI | | CIWQS |
| MURRIETA | S121670626 | SAMS CLUB OF MURRIETA CA 4822 | CORNER OF MURRIETA HOT SPRINGS | 92563 | CIWQS |
| MURRIETA | S121657569 | MURRIETA 25 & DISPOSAL SITE | SE INTERS OF FIG ST & JEFFERSO | 92562 | CIWQS |
| MURRIETA | S114730592 | MURRIETA MAINTENANCE YARD | 25-315 JEFFERSON AVE. | | RGA LF |
| MURRIETA | S112961164 | MURRIETA POLICE DEPT | 2470 JEFFERSON AVE | 92562 | HAZNET, HWTS |
| MURRIETA | S121657579 | MURRIETA CITY TOWN SQUARE | JEFFERSON AVE AND KALMIA | 92562 | CIWQS |
| MURRIETA | S117705783 | MURRIETA BUSINESS PARK | JEFFERSON AVE BETW LARCHMONT L | 92562 | NPDES, CIWQS |
| MURRIETA | S109451466 | MURRIETA APARTMENTS 492 | LOS ALAMOS RD VISTA MURRIETA | | ENF, CIWQS |
| MURRIETA | S121657629 | MURRIETA WALMART | SE MADISON MURRIETA HOT SPRING | | CIWQS |
| MURRIETA | 1023359094 | MURRIETA STORM DRAIN IMPROVEMENT P | MURRIETA HOT SPRINGS RD/MARGAR | 92563 | FINDS |
| MURRIETA | S121657616 | MURRIETA PLAZA | S MURRIETA HOT SPRINGS RD | 92563 | CIWQS |
| MURRIETA | S121657602 | MURRIETA HOT SPRINGS MADISON | MURRIETA HOT SPRINGS MADISON | 92562 | CIWQS |
| MURRIETA | S121657605 | MURRIETA HOT SPRINGS RD | MURRIETA HOT SPRINGS RD | 92562 | CIWQS |
| MURRIETA | S121645620 | I 15 I215 MURRIETA HOT SPRINGS | MURRIETA HOT SPRINGS RD | 92562 | CIWQS |
| MURRIETA | 1023364458 | MURRIETA CREEK FLOOD CONTROL | MURRIETA CREEK | 92562 | FINDS |
| MURRIETA | S121695197 | HOT SPRINGS CLEANERS | 40-469 MURRIETA HOT SPRINGS RD | 92563 | DRYCLEANERS |
| MURRIETA | S121694136 | TOWER CLEANERS INC. HOT SPRINGS CL | 40-469 MURRIETA HOT SPRINGS RD | 92563 | DRYCLEANERS |
| MURRIETA | S121695402 | POLO CLEANERS | 29910-C MURRIETA HOT SPRINGS R | 92563 | DRYCLEANERS |
| MURRIETA | S121695918 | POLO CLEANERS, DON DONGSOON MYUNG | 29910 MURRIETA HOT SPRINGS RD | 92563 | DRYCLEANERS |
| MURRIETA | S121695253 | HOT SPRINGS CLEANERS | 40-469 MURRIETA HOT SPRINGS RD | 92563 | DRYCLEANERS |
| MURRIETA | S123538257 | POLO CLEANERS | 29910 MURRIETA HOT SPRGS RD #C | 92563 | CERS HAZ WASTE |
| MURRIETA | S121664711 | PLAZA DE MURRIETA | NWC OF JEFFERSON AVE & LEMON S | 92562 | CIWQS |
| MURRIETA | S121657614 | MURRIETA PLAZA SHELL | S OF MURRIETA HOT SPRINGS RD | 92563 | CIWQS |
| MURRIETA | S121657617 | MURRIETA PLAZA | S OF MURRIETA HOT SPRINGS RD & | 92562 | CIWQS |
| MURRIETA | 1023289427 | MURRIETA 180 | SOUTH OF MURRIETA HOT SPRINGS | 92562 | FINDS |
| MURRIETA | S121657566 | MURRIETA 180 | SOUTH OF MURRIETA HOT SPRINGS | 92562 | CIWQS |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

**STANDARD ENVIRONMENTAL RECORDS**

***Federal NPL site list***

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

***Federal Delisted NPL site list***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

***Federal CERCLIS list***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Quarterly

***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Quarterly

***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

***Federal RCRA generators list***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

***Federal institutional controls / engineering controls registries***

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/12/2021
Date Data Arrived at EDR: 08/06/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 77

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/08/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/23/2021
Date Data Arrived at EDR: 08/23/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/23/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/23/2021
Date Data Arrived at EDR: 08/23/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/23/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

***Federal ERNS list***

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 61

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

***State- and tribal - equivalent NPL***

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

***State- and tribal - equivalent CERCLIS***

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/09/2021
Date Data Arrived at EDR: 08/10/2021
Date Made Active in Reports: 11/05/2021
Number of Days to Update: 87

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/09/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Quarterly

***State and tribal leaking storage tank lists***

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

***State and tribal registered storage tank lists***

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 05/20/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/30/2021
Number of Days to Update: 87

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 06/01/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

***State and tribal voluntary cleanup sites***

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

***State and tribal Brownfields sites***

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/17/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/13/2021
Number of Days to Update: 88

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Local Brownfield lists***

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2021
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 68

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

***Local Lists of Landfill / Solid Waste Disposal Sites***

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 10/28/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 77

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 77

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 12/01/2019
Date Data Arrived at EDR: 08/19/2021
Date Made Active in Reports: 10/28/2021
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 08/19/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

***Local Lists of Registered Storage Tanks***

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

***Local Land Records***

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84
Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

***Records of Emergency Release Reports***

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/12/2021
Date Data Arrived at EDR: 09/13/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 15
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/13/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83
Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

***Other Ascertainable Records***

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/10/2021
Date Data Arrived at EDR: 08/17/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 66

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/08/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/19/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/20/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/03/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/27/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 07/16/2021
Number of Days to Update: 2

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/12/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2021
Date Data Arrived at EDR: 05/25/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 78

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 62

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/05/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 91

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/26/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/07/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 70
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/17/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/14/2021
Number of Days to Update: 89
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 08/18/2021
Date Data Arrived at EDR: 08/23/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 08/24/2021
Date Data Arrived at EDR: 08/25/2021
Date Made Active in Reports: 11/17/2021
Number of Days to Update: 84

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/16/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/04/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/05/2021
Number of Days to Update: 84

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 87

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 87

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/01/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/10/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 07/27/2021
Number of Days to Update: 77
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/09/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/25/2021
Number of Days to Update: 83
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 06/07/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 81

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 08/12/2021
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/25/2021
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84
Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55
Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120
Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

**EDR HIGH RISK HISTORICAL RECORDS**

***EDR Exclusive Records***

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

**EDR RECOVERED GOVERNMENT ARCHIVES**

***Exclusive Recovered Govt. Archives***

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

**COUNTY RECORDS**

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/22/2021
Number of Days to Update: 84

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/06/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 42

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 07/02/2021
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/11/2021
Number of Days to Update: 83

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 07/23/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 77

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/09/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 10/07/2021
Number of Days to Update: 56

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 08/18/2021
Number of Days to Update: 6

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/08/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 11

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/14/2021
Number of Days to Update: 89

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/24/2021
Date Data Arrived at EDR: 04/07/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/11/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 06/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/23/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 1

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/28/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/29/2021
Date Made Active in Reports: 10/19/2021
Number of Days to Update: 82

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 09/28/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/11/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/10/2021
Date Data Arrived at EDR: 08/11/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 89

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/10/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 08/04/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/04/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/22/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 05/14/2021
Date Data Arrived at EDR: 05/17/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 78

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 08/23/2021
Date Data Arrived at EDR: 08/25/2021
Date Made Active in Reports: 11/17/2021
Number of Days to Update: 84

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 07/14/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 81

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/07/2021
Number of Days to Update: 80

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/22/2021
Date Data Arrived at EDR: 06/28/2021
Date Made Active in Reports: 09/21/2021
Number of Days to Update: 85

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 80

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

**OTHER DATABASE(S)**

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/23/2021
Date Data Arrived at EDR: 08/10/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 90

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/12/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/07/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/12/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/01/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

**STREET AND ADDRESS INFORMATION**

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# GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

**TARGET PROPERTY ADDRESS**

LMC MURRIETA
MURRIETA HOT SPRINGS ROAD/JEFFERSON AVENUE
MURRIETA, CA 92562

**TARGET PROPERTY COORDINATES**

| | |
|---|---|
| Latitude (North): | 33.549825 - 33° 32' 59.37'' |
| Longitude (West): | 117.196525 - 117° 11' 47.49'' |
| Universal Tranverse Mercator: | Zone 11 |
| UTM X (Meters): | 481755.8 |
| UTM Y (Meters): | 3712067.5 |
| Elevation: | 1079 ft. above sea level |

**USGS TOPOGRAPHIC MAP**

| | |
|---|---|
| Target Property Map: | 12014848 MURRIETA, CA |
| Version Date: | 2018 |

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

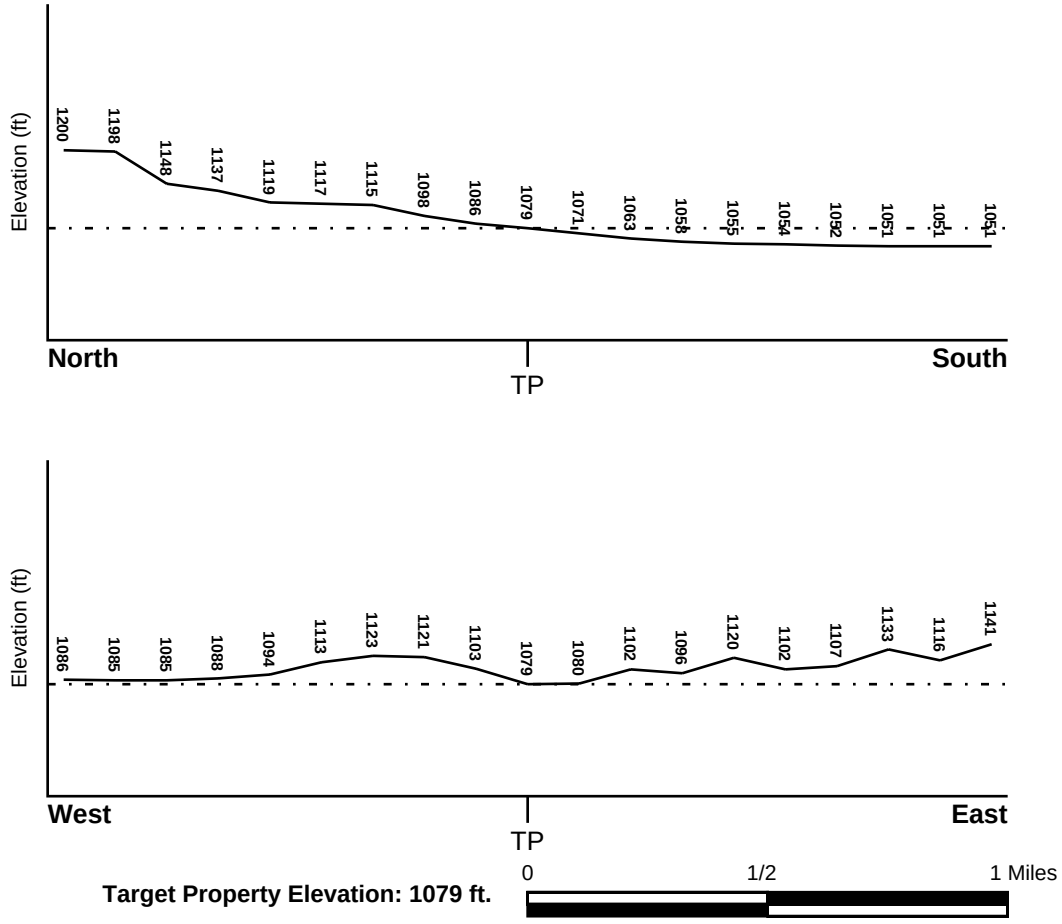
**TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

**TARGET PROPERTY TOPOGRAPHY**

General Topographic Gradient: General SE

**SURROUNDING TOPOGRAPHY: ELEVATION PROFILES**




Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**HYDROLOGIC INFORMATION**

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE**

| Flood Plain Panel at Target Property | FEMA Source Type |
|---|---|
| 06065C2715G | FEMA FIRM Flood data |

| Additional Panels in search area: | FEMA Source Type |
|---|---|
| 06065C2705G | FEMA FIRM Flood data |
| 06065C2720G | FEMA FIRM Flood data |

**NATIONAL WETLAND INVENTORY**

| NWI Quad at Target Property | NWI Electronic Data Coverage |
|---|---|
| MURRIETA | YES - refer to the Overview Map and Detail Map |

**HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

***Site-Specific Hydrogeological Data*:***

| | |
|---|---|
| Search Radius: | 1.25 miles |
| Status: | Not found |

**AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

| MAP ID | LOCATION FROM TP | GENERAL DIRECTION GROUNDWATER FLOW |
|---|---|---|
| Not Reported | | |

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

**GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT**

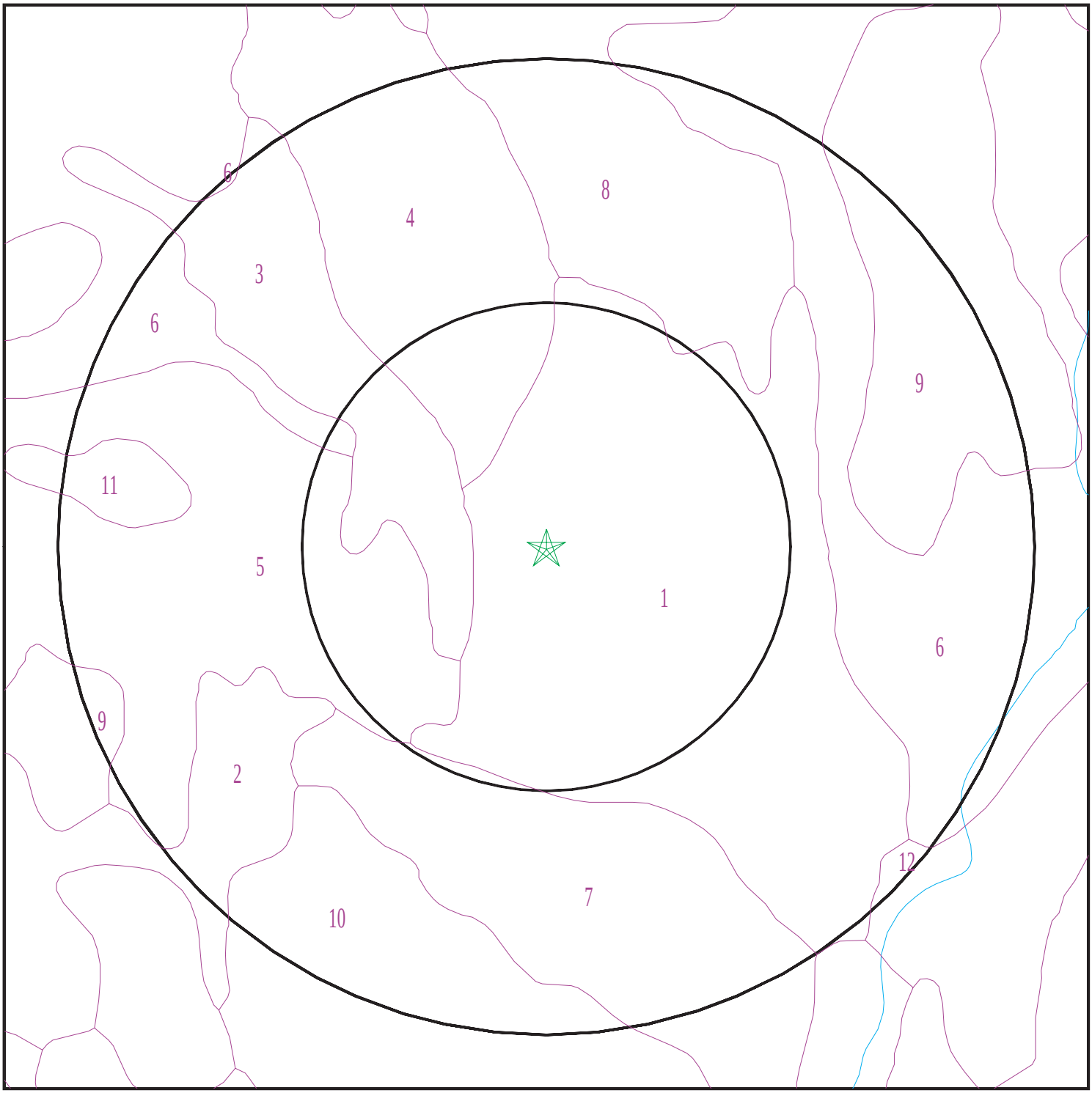
| | |
|---|---|
| Era: | Cenozoic |
| System: | Quaternary |
| Series: | Quaternary |
| Code: | Q *(decoded above as Era, System & Series)* |

**GEOLOGIC AGE IDENTIFICATION**

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 6756783.2s




| | | | |
|---|---|---|---|
| SITE NAME: | LMC Murrieta | CLIENT: | Leighton and Associates, Inc. |
| ADDRESS: | Murrieta Hot Springs Road/Jefferson Avenue<br>Murrieta CA 92562 | CONTACT: | Brynn Mcculloch |
| LAT/LONG: | 33.549825 / 117.196525 | INQUIRY #: | 6756783.2s |
| | | DATE: | November 18, 2021 3:29 pm |

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# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

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**Soil Map ID: 1**

Soil Component Name: GRANGEVILLE

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 35 inches | fine sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |
| 2 | 35 inches | 64 inches | sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 2**

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 14 inches | sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |
| 2 | 14 inches | 22 inches | fine sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |
| 3 | 22 inches | 68 inches | sandy clay loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |
| 4 | 68 inches | 74 inches | gravelly sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 3**

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 14 inches | sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |
| 2 | 14 inches | 22 inches | fine sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |
| 3 | 22 inches | 68 inches | sandy clay loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |
| 4 | 68 inches | 74 inches | gravelly sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 4**

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 25 inches | sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |
| 2 | 25 inches | 42 inches | fine sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |
| 3 | 42 inches | 59 inches | loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |
| 4 | 59 inches | 72 inches | stratified loamy sand to sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 5**

Soil Component Name: MONSERATE

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 9 inches | sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 2 | 9 inches | 18 inches | sandy clay loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 3 | 18 inches | 44 inches | indurated | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 4 | 44 inches | 57 inches | cemented | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 5 | 57 inches | 70 inches | loamy coarse sand | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 6**

Soil Component Name: MONSERATE

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 9 inches | sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 2 | 9 inches | 27 inches | sandy clay loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 3 | 27 inches | 44 inches | indurated | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 4 | 44 inches | 57 inches | cemented | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 5 | 57 inches | 70 inches | loamy coarse sand | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 7**

Soil Component Name: GRANGEVILLE

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 16 inches | fine sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt. | Max: 14 Min: 4 | Max: 9 Min: 7.4 |
| 2 | 16 inches | 59 inches | sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt. | Max: 14 Min: 4 | Max: 9 Min: 7.4 |

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**Soil Map ID: 8**

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 25 inches | sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |
| 2 | 25 inches | 42 inches | fine sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |
| 3 | 42 inches | 59 inches | loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |
| 4 | 59 inches | 72 inches | stratified loamy sand to sandy loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 9**

Soil Component Name: MONSERATE

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 9 inches | sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 2 | 9 inches | 27 inches | sandy clay loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 3 | 27 inches | 44 inches | indurated | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 4 | 44 inches | 57 inches | cemented | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 5 | 57 inches | 70 inches | loamy coarse sand | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 10**

Soil Component Name: CHINO

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 14 inches | silt loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 7.9 |
| 2 | 14 inches | 27 inches | silty clay loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 7.9 |
| 3 | 27 inches | 59 inches | silty clay loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 4<br>Min: 1.4 | Max: 8.4<br>Min: 7.9 |

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**Soil Map ID: 11**

Soil Component Name: MONSERATE

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 9 inches | sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 2 | 9 inches | 18 inches | sandy clay loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 3 | 18 inches | 44 inches | indurated | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 4 | 44 inches | 57 inches | cemented | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |
| 5 | 57 inches | 70 inches | loamy coarse sand | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 6.6 |

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**Soil Map ID: 12**

Soil Component Name: HANFORD

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 7 inches | coarse sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 141<br>Min: 42 | Max: 7.8<br>Min: 5.6 |
| 2 | 7 inches | 40 inches | fine sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 141<br>Min: 42 | Max: 7.8<br>Min: 5.6 |
| 3 | 40 inches | 59 inches | stratified loamy sand to coarse sandy loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 141<br>Min: 42 | Max: 7.8<br>Min: 5.6 |

**LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

**WELL SEARCH DISTANCE INFORMATION**

| DATABASE | SEARCH DISTANCE (miles) |
|---|---|
| Federal USGS | 1.000 |
| Federal FRDS PWS | Nearest PWS within 1 mile |
| State Database | 1.000 |

**FEDERAL USGS WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| A1 | USGS40000134763 | 0 - 1/8 Mile South |
| B4 | USGS40000134770 | 0 - 1/8 Mile SW |
| A7 | USGS40000134737 | 1/8 - 1/4 Mile South |
| B8 | USGS40000134764 | 1/8 - 1/4 Mile WSW |
| B10 | USGS40000134748 | 1/8 - 1/4 Mile SW |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**FEDERAL USGS WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| 11 | USGS40000134769 | 1/8 - 1/4 Mile ESE |
| 12 | USGS40000134713 | 1/8 - 1/4 Mile South |
| D19 | USGS40000134714 | 1/4 - 1/2 Mile SW |
| 22 | USGS40000134779 | 1/4 - 1/2 Mile East |
| F23 | USGS40000134676 | 1/4 - 1/2 Mile SSE |
| G25 | USGS40000134666 | 1/4 - 1/2 Mile SSW |
| H26 | USGS40000134665 | 1/4 - 1/2 Mile SSE |
| I27 | USGS40000134803 | 1/4 - 1/2 Mile West |
| G29 | USGS40000134668 | 1/4 - 1/2 Mile SW |
| G30 | USGS40000134667 | 1/4 - 1/2 Mile SW |
| J31 | USGS40000134851 | 1/4 - 1/2 Mile WNW |
| H33 | USGS40000134646 | 1/4 - 1/2 Mile SSE |
| K34 | USGS40000134636 | 1/4 - 1/2 Mile SSE |
| I35 | USGS40000134792 | 1/4 - 1/2 Mile West |
| G36 | USGS40000134647 | 1/4 - 1/2 Mile SSW |
| J41 | USGS40000134882 | 1/4 - 1/2 Mile NW |
| M42 | USGS40000134910 | 1/4 - 1/2 Mile NW |
| O45 | USGS40000135033 | 1/2 - 1 Mile North |
| N46 | USGS40000134901 | 1/2 - 1 Mile NW |
| 47 | USGS40000135019 | 1/2 - 1 Mile NNW |
| Q50 | USGS40000134657 | 1/2 - 1 Mile SW |
| Q51 | USGS40000134658 | 1/2 - 1 Mile SW |
| P52 | USGS40000134625 | 1/2 - 1 Mile SW |
| P54 | USGS40000134617 | 1/2 - 1 Mile SW |
| T57 | USGS40000134839 | 1/2 - 1 Mile WNW |
| N61 | USGS40000134911 | 1/2 - 1 Mile NW |
| R62 | USGS40000134968 | 1/2 - 1 Mile NW |
| 66 | USGS40000135053 | 1/2 - 1 Mile North |
| S67 | USGS40000134798 | 1/2 - 1 Mile West |
| S68 | USGS40000134799 | 1/2 - 1 Mile West |
| R70 | USGS40000135003 | 1/2 - 1 Mile NW |
| P72 | USGS40000134619 | 1/2 - 1 Mile SW |
| P73 | USGS40000134618 | 1/2 - 1 Mile SW |
| 75 | USGS40000134635 | 1/2 - 1 Mile SE |
| T82 | USGS40000134858 | 1/2 - 1 Mile WNW |
| 83 | USGS40000134648 | 1/2 - 1 Mile SW |
| 84 | USGS40000134875 | 1/2 - 1 Mile WNW |
| U85 | USGS40000134577 | 1/2 - 1 Mile SSW |
| V86 | USGS40000134817 | 1/2 - 1 Mile West |
| V87 | USGS40000134820 | 1/2 - 1 Mile WNW |
| W88 | USGS40000135010 | 1/2 - 1 Mile NW |
| Y90 | USGS40000134558 | 1/2 - 1 Mile South |
| Z92 | USGS40000134591 | 1/2 - 1 Mile SSE |
| Z93 | USGS40000134592 | 1/2 - 1 Mile SSE |
| V97 | USGS40000134818 | 1/2 - 1 Mile West |
| AA99 | USGS40000134782 | 1/2 - 1 Mile West |
| AA100 | USGS40000134783 | 1/2 - 1 Mile West |
| U106 | USGS40000134559 | 1/2 - 1 Mile SSW |
| X112 | USGS40000134989 | 1/2 - 1 Mile NW |
| U114 | USGS40000134553 | 1/2 - 1 Mile SSW |
| AB116 | USGS40000134932 | 1/2 - 1 Mile WNW |
| AB117 | USGS40000134933 | 1/2 - 1 Mile WNW |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**FEDERAL USGS WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| AC118 | USGS40000135054 | 1/2 - 1 Mile NNW |
| AC119 | USGS40000135055 | 1/2 - 1 Mile NNW |
| W120 | USGS40000135027 | 1/2 - 1 Mile NW |
| X122 | USGS40000135004 | 1/2 - 1 Mile NW |
| X123 | USGS40000135005 | 1/2 - 1 Mile NW |
| W125 | USGS40000135028 | 1/2 - 1 Mile NW |
| AD126 | USGS40000134743 | 1/2 - 1 Mile WSW |
| AD127 | USGS40000134744 | 1/2 - 1 Mile WSW |
| AG132 | USGS40000134859 | 1/2 - 1 Mile WNW |
| AH133 | USGS40000134533 | 1/2 - 1 Mile South |
| AE135 | USGS40000134956 | 1/2 - 1 Mile ENE |
| AI137 | USGS40000134539 | 1/2 - 1 Mile SSW |
| AE140 | USGS40000134931 | 1/2 - 1 Mile ENE |
| 143 | USGS40000134838 | 1/2 - 1 Mile ENE |
| AG144 | USGS40000134828 | 1/2 - 1 Mile WNW |
| 145 | USGS40000134934 | 1/2 - 1 Mile WNW |
| AG147 | USGS40000134840 | 1/2 - 1 Mile WNW |
| AH148 | USGS40000134525 | 1/2 - 1 Mile South |
| AG150 | USGS40000134852 | 1/2 - 1 Mile WNW |
| AJ152 | USGS40000134626 | 1/2 - 1 Mile SW |
| AJ153 | USGS40000134627 | 1/2 - 1 Mile SW |
| AF154 | USGS40000135040 | 1/2 - 1 Mile NW |
| AG155 | USGS40000134860 | 1/2 - 1 Mile WNW |
| 156 | USGS40000134802 | 1/2 - 1 Mile East |
| AF157 | USGS40000135046 | 1/2 - 1 Mile NW |
| AG158 | USGS40000134861 | 1/2 - 1 Mile WNW |
| AG159 | USGS40000134883 | 1/2 - 1 Mile WNW |
| AJ162 | USGS40000134609 | 1/2 - 1 Mile SW |
| AL163 | USGS40000134810 | 1/2 - 1 Mile West |
| AM164 | USGS40000134526 | 1/2 - 1 Mile SSW |
| AK167 | USGS40000134841 | 1/2 - 1 Mile WNW |
| AJ168 | USGS40000134610 | 1/2 - 1 Mile SW |
| AO169 | USGS40000134895 | 1/2 - 1 Mile WNW |
| AK172 | USGS40000134853 | 1/2 - 1 Mile WNW |
| AK174 | USGS40000134829 | 1/2 - 1 Mile West |
| AP175 | USGS40000134508 | 1/2 - 1 Mile South |
| 181 | USGS40000134554 | 1/2 - 1 Mile SW |
| AR189 | USGS40000134786 | 1/2 - 1 Mile West |
| AR190 | USGS40000134784 | 1/2 - 1 Mile West |
| AN191 | USGS40000135058 | 1/2 - 1 Mile NW |
| AN192 | USGS40000135059 | 1/2 - 1 Mile NW |
| AS198 | USGS40000134522 | 1/2 - 1 Mile SSE |
| AT200 | USGS40000135159 | 1/2 - 1 Mile NNE |
| AS201 | USGS40000134532 | 1/2 - 1 Mile SE |
| AQ206 | USGS40000134611 | 1/2 - 1 Mile WSW |
| AR207 | USGS40000134793 | 1/2 - 1 Mile West |
| 208 | USGS40000135158 | 1/2 - 1 Mile NNE |
| AV209 | USGS40000134493 | 1/2 - 1 Mile South |
| AW211 | USGS40000134794 | 1/2 - 1 Mile West |
| AY217 | USGS40000134896 | 1/2 - 1 Mile WNW |
| AZ219 | USGS40000135020 | 1/2 - 1 Mile WNW |
| AY222 | USGS40000134912 | 1/2 - 1 Mile WNW |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**FEDERAL USGS WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| AV225 | USGS40000134487 | 1/2 - 1 Mile South |
| AV226 | USGS40000134488 | 1/2 - 1 Mile South |
| AZ229 | USGS40000135011 | 1/2 - 1 Mile WNW |
| BA231 | USGS40000134492 | 1/2 - 1 Mile SSE |
| 232 | USGS40000134620 | 1/2 - 1 Mile WSW |
| BB233 | USGS40000134830 | 1/2 - 1 Mile West |
| BB234 | USGS40000134842 | 1/2 - 1 Mile West |
| BB235 | USGS40000134854 | 1/2 - 1 Mile West |

**FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| No PWS System Found | | |

Note: PWS System location is not always the same as well location.

**STATE DATABASE WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| A2 | CADWR0000021777 | 0 - 1/8 Mile SW |
| A3 | CAUSGSN00002600 | 0 - 1/8 Mile SW |
| A5 | CADWR9000003764 | 0 - 1/8 Mile SW |
| B6 | CADWR9000003768 | 1/8 - 1/4 Mile WSW |
| C9 | CADWR9000003745 | 1/8 - 1/4 Mile SSW |
| C13 | CADWR0000011063 | 1/8 - 1/4 Mile South |
| D14 | CADWR9000003753 | 1/8 - 1/4 Mile WSW |
| E15 | CAEDF0000035761 | 1/8 - 1/4 Mile North |
| E16 | CAEDF0000044888 | 1/4 - 1/2 Mile NNE |
| E17 | CAEDF0000140315 | 1/4 - 1/2 Mile NNE |
| E18 | CAEDF0000140199 | 1/4 - 1/2 Mile North |
| 20 | CADWR9000003731 | 1/4 - 1/2 Mile SW |
| F21 | CADWR9000003709 | 1/4 - 1/2 Mile SSE |
| F24 | CADWR9000003701 | 1/4 - 1/2 Mile SSE |
| G28 | CADWR9000003702 | 1/4 - 1/2 Mile SSW |
| K32 | CADWR9000003680 | 1/4 - 1/2 Mile South |
| L37 | CADWR9000003688 | 1/4 - 1/2 Mile SW |
| J38 | CADWR0000011071 | 1/4 - 1/2 Mile NW |
| J39 | CAUSGSN00017183 | 1/4 - 1/2 Mile NW |
| L40 | CADWR9000003703 | 1/4 - 1/2 Mile SW |
| M43 | CADWR9000003844 | 1/4 - 1/2 Mile NW |
| N44 | CADWR9000003827 | 1/2 - 1 Mile WNW |
| P48 | CADWR0000009355 | 1/2 - 1 Mile SW |
| O49 | CADWR9000003914 | 1/2 - 1 Mile NNW |
| P53 | CAUSGSN00012973 | 1/2 - 1 Mile SW |
| R55 | CADWR0000004999 | 1/2 - 1 Mile NW |
| S56 | CADWR0000019439 | 1/2 - 1 Mile West |
| R58 | CAUSGSN00008648 | 1/2 - 1 Mile NW |
| N59 | CAUSGSN00000132 | 1/2 - 1 Mile NW |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**STATE DATABASE WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| 60 | CADWR9000003652 | 1/2 - 1 Mile South |
| P63 | CADWR9000003674 | 1/2 - 1 Mile SW |
| 64 | CADWR9000003906 | 1/2 - 1 Mile NNW |
| S65 | CAUSGSN00001993 | 1/2 - 1 Mile West |
| N69 | CADWR9000003836 | 1/2 - 1 Mile WNW |
| P71 | CADWR9000003670 | 1/2 - 1 Mile SW |
| R74 | CADWR9000003874 | 1/2 - 1 Mile NW |
| 76 | CADWR9000003653 | 1/2 - 1 Mile SSE |
| Q77 | CADWR9000003694 | 1/2 - 1 Mile SW |
| Q78 | CADWR9000003695 | 1/2 - 1 Mile SW |
| S79 | CADWR9000003781 | 1/2 - 1 Mile West |
| S80 | CADWR9000003780 | 1/2 - 1 Mile West |
| T81 | CAUSGSN00012354 | 1/2 - 1 Mile WNW |
| X89 | CAEDF0000140565 | 1/2 - 1 Mile NW |
| X91 | CAEDF0000066769 | 1/2 - 1 Mile NW |
| Y94 | CAUSGSN00002594 | 1/2 - 1 Mile South |
| X95 | CAEDF0000102793 | 1/2 - 1 Mile NW |
| X96 | CAEDF0000039621 | 1/2 - 1 Mile NW |
| X98 | CAEDF0000044938 | 1/2 - 1 Mile NW |
| X101 | CAEDF0000141293 | 1/2 - 1 Mile NW |
| X102 | CAEDF0000051447 | 1/2 - 1 Mile NW |
| U103 | CADWR9000003644 | 1/2 - 1 Mile SSW |
| X104 | CAEDF0000033203 | 1/2 - 1 Mile NW |
| X105 | CAEDF0000051751 | 1/2 - 1 Mile NW |
| X107 | CAUSGSN00015242 | 1/2 - 1 Mile NW |
| U108 | CAUSGSN00014045 | 1/2 - 1 Mile SSW |
| U109 | CADWR9000003635 | 1/2 - 1 Mile SSW |
| U110 | CADWR0000020578 | 1/2 - 1 Mile SSW |
| W111 | CADWR9000003900 | 1/2 - 1 Mile NW |
| V113 | CADWR9000003791 | 1/2 - 1 Mile West |
| AB115 | CAUSGSN00004467 | 1/2 - 1 Mile WNW |
| U121 | CADWR9000003631 | 1/2 - 1 Mile SSW |
| AD124 | CAUSGSN00012967 | 1/2 - 1 Mile WSW |
| AE128 | CADWR9000003858 | 1/2 - 1 Mile ENE |
| AC129 | CADWR9000003929 | 1/2 - 1 Mile NW |
| AA130 | CADWR9000003772 | 1/2 - 1 Mile West |
| AF131 | CADWR0000002574 | 1/2 - 1 Mile NW |
| AD134 | CADWR9000003751 | 1/2 - 1 Mile West |
| AE136 | CAUSGSN00003851 | 1/2 - 1 Mile ENE |
| AG138 | CADWR0000011065 | 1/2 - 1 Mile WNW |
| 139 | CADWR9000003896 | 1/2 - 1 Mile NW |
| AG141 | CAUSGSN00006858 | 1/2 - 1 Mile West |
| AB142 | CADWR9000003859 | 1/2 - 1 Mile WNW |
| AG146 | CAUSGSN00016013 | 1/2 - 1 Mile WNW |
| AG149 | CAUSGSN00008654 | 1/2 - 1 Mile WNW |
| AI151 | CADWR9000003620 | 1/2 - 1 Mile SSW |
| AK160 | CADWR9000003810 | 1/2 - 1 Mile WNW |
| AL161 | CAUSGSN00006860 | 1/2 - 1 Mile West |
| AN165 | CADWR9000003919 | 1/2 - 1 Mile NW |
| AG166 | CADWR9000003814 | 1/2 - 1 Mile WNW |
| AK170 | CAUSGSN00002593 | 1/2 - 1 Mile WNW |
| AN171 | CADWR9000003925 | 1/2 - 1 Mile NW |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**STATE DATABASE WELL INFORMATION**

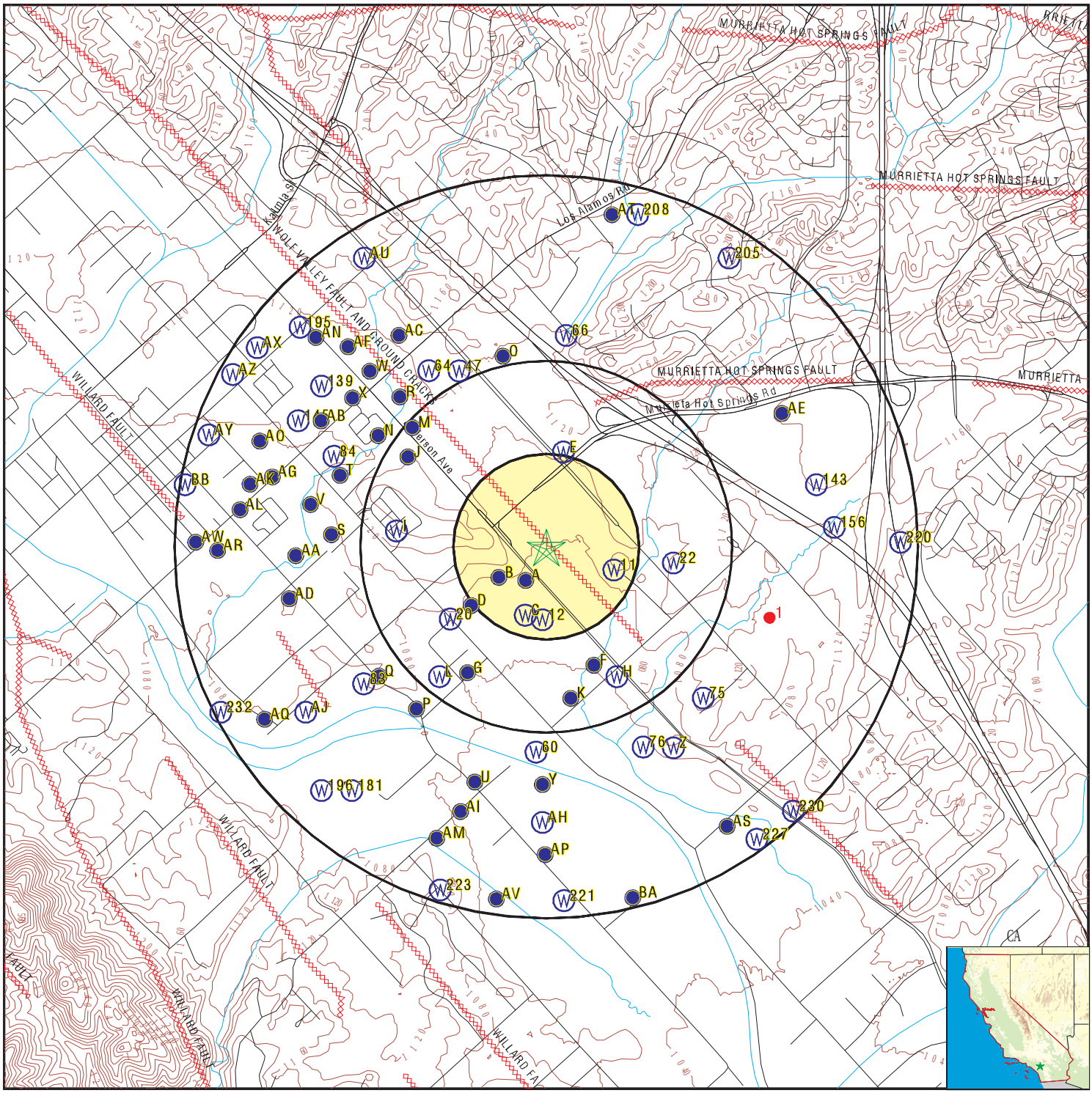
| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| AK173 | CAUSGSN00012972 | 1/2 - 1 Mile West |
| AO176 | CADWR0000017046 | 1/2 - 1 Mile WNW |
| AP177 | CADWR9000003603 | 1/2 - 1 Mile South |
| AL178 | CAEDF0000033268 | 1/2 - 1 Mile West |
| AL179 | CAEDF0000055646 | 1/2 - 1 Mile West |
| AL180 | CAEDF0000104500 | 1/2 - 1 Mile West |
| AM182 | CALLNL000000904 | 1/2 - 1 Mile SSW |
| AM183 | CADDW0000001673 | 1/2 - 1 Mile SSW |
| AL184 | CAEDF0000141598 | 1/2 - 1 Mile West |
| AM185 | CAUSGS000002666 | 1/2 - 1 Mile SSW |
| AM186 | CAUSGSN00001389 | 1/2 - 1 Mile SSW |
| AL187 | CAEDF0000073445 | 1/2 - 1 Mile West |
| AQ188 | CADWR9000003664 | 1/2 - 1 Mile WSW |
| AS193 | CADWR9000003617 | 1/2 - 1 Mile SE |
| AS194 | CADWR9000003611 | 1/2 - 1 Mile SSE |
| 195 | CADWR9000003930 | 1/2 - 1 Mile NW |
| 196 | CADWR9000003632 | 1/2 - 1 Mile SW |
| AR197 | CADWR9000003773 | 1/2 - 1 Mile West |
| AT199 | CADWR9000003988 | 1/2 - 1 Mile North |
| AT202 | CADWR9000003987 | 1/2 - 1 Mile NNE |
| AU203 | CADWR0000033762 | 1/2 - 1 Mile NNW |
| AU204 | CADWR0000000236 | 1/2 - 1 Mile NNW |
| 205 | CADWR0000004988 | 1/2 - 1 Mile NNE |
| AW210 | CAUSGSN00000131 | 1/2 - 1 Mile West |
| AX212 | CADWR0000006210 | 1/2 - 1 Mile NW |
| AX213 | CADWR0000028987 | 1/2 - 1 Mile NW |
| AX214 | CADWR0000022950 | 1/2 - 1 Mile NW |
| AX215 | CADWR0000015810 | 1/2 - 1 Mile NW |
| AV216 | CADWR9000003592 | 1/2 - 1 Mile SSW |
| AW218 | CADWR0000006199 | 1/2 - 1 Mile West |
| 220 | CADDW0000020521 | 1/2 - 1 Mile East |
| 221 | CADDW0000003452 | 1/2 - 1 Mile South |
| 223 | 7888 | 1/2 - 1 Mile SSW |
| BA224 | CADWR9000003591 | 1/2 - 1 Mile SSE |
| 227 | CADDW0000001307 | 1/2 - 1 Mile SE |
| AV228 | CAUSGSN00001841 | 1/2 - 1 Mile South |
| 230 | CADWR9000003619 | 1/2 - 1 Mile SE |

**OTHER STATE DATABASE INFORMATION**

**STATE OIL/GAS WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| 1 | CAOG14000006460 | 1/2 - 1 Mile ESE |

# PHYSICAL SETTING SOURCE MAP - 6756783.2s




- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

| | | | |
|---|---|---|---|
| SITE NAME: | LMC Murrieta | CLIENT: | Leighton and Associates, Inc. |
| ADDRESS: | Murrieta Hot Springs Road/Jefferson Avenue<br>Murrieta CA 92562 | CONTACT: | Brynn Mcculloch |
| | | INQUIRY #: | 6756783.2s |
| LAT/LONG: | 33.549825 / 117.196525 | DATE: | November 18, 2021 3:29 pm |

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# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**A1**
**South**
**0 - 1/8 Mile**
**Lower**

**FED USGS** **USGS40000134763**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21G002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 32 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 22.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**A2**
**SW**
**0 - 1/8 Mile**
**Higher**

**CA WELLS** **CADWR0000021777**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W21F002S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W21F002S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W21F002S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**A3**
**SW**
**0 - 1/8 Mile**
**Higher**

**CA WELLS** **CAUSGSN00002600**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333256117115001 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333256117115001 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333256117115001&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**B4**
**SW**
**0 - 1/8 Mile**
**Higher**

**FED USGS** **USGS40000134770**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21F002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |

| | | | |
|---|---|---|---|
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 65 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 35.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**A5**
**SW**
**0 - 1/8 Mile**
**Higher**

**CA WELLS** **CADWR9000003764**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21G002S | Station ID: | 13103 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**B6**
**WSW**
**1/8 - 1/4 Mile**
**Higher**

**CA WELLS** **CADWR9000003768**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21F002S | Station ID: | 31925 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**A7**
**South**
**1/8 - 1/4 Mile**
**Lower**

**FED USGS** **USGS40000134737**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21G003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19650101 | Well Depth: | 256 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 31.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**B8**
**WSW**
**1/8 - 1/4 Mile**
**Higher**

**FED USGS** **USGS40000134764**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21F001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19510101 | Well Depth: | 84 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**C9**
**SSW**
**1/8 - 1/4 Mile**
**Lower**

**CA WELLS** **CADWR9000003745**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21G003S | Station ID: | 31927 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**B10**
**SW**
**1/8 - 1/4 Mile**
**Lower**

**FED USGS** **USGS40000134748**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21F004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19620101 | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 76.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**11**
**ESE**
**1/8 - 1/4 Mile**
**Higher**

**FED USGS** **USGS40000134769**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21G001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**12**
**South**
**1/8 - 1/4 Mile**
**Lower**

**FED USGS** **USGS40000134713**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21K003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**C13**
**South**
**1/8 - 1/4 Mile**
**Lower**

**CA WELLS** **CADWR0000011063**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W21Q001S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W21Q001S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W21Q001S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**D14**
**WSW**
**1/8 - 1/4 Mile**
**Lower**

**CA WELLS** **CADWR9000003753**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21F004S | Station ID: | 31926 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |

| | | | |
|---|---|---|---|
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**E15**
**North**
**1/8 - 1/4 Mile**
**Higher**

**CA WELLS** **CAEDF0000035761**

| | | | |
|---|---|---|---|
| Well ID: | T0606553648-MW-3 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-3 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606553648&assigned_name=MW-3&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606553648&assigned_name=MW-3 | | |

---

**E16**
**NNE**
**1/4 - 1/2 Mile**
**Higher**

**CA WELLS** **CAEDF0000044888**

| | | | |
|---|---|---|---|
| Well ID: | T0606553648-MW-2 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-2 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606553648&assigned_name=MW-2&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606553648&assigned_name=MW-2 | | |

---

**E17**
**NNE**
**1/4 - 1/2 Mile**
**Higher**

**CA WELLS** **CAEDF0000140315**

| | | | |
|---|---|---|---|
| Well ID: | T0606553648-MW-1 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-1 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606553648&assigned_name=MW-1&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606553648&assigned_name=MW-1 | | |

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**E18**
**North**
**1/4 - 1/2 Mile**
**Higher**

**CA WELLS** **CAEDF0000140199**

| | | | |
|---|---|---|---|
| Well ID: | T0606553648-MW-4 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-4 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606553648&assigned_name=MW-4&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606553648&assigned_name=MW-4 | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**D19**
**SW**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000134714**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21F003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 70.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**20**
**SW**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR9000003731**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21F003S | Station ID: | 13102 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**F21**
**SSE**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR9000003709**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21K001S | Station ID: | 13104 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**22**
**East**
**1/4 - 1/2 Mile**
**Higher**

**FED USGS** **USGS40000134779**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21H001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |

| | | | |
|---|---|---|---|
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**F23**
**SSE** **FED USGS** **USGS40000134676**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21K001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19260101 | Well Depth: | 300 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 21.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**F24**
**SSE** **CA WELLS** **CADWR9000003701**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21K002S | Station ID: | 13105 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**G25**
**SSW** **FED USGS** **USGS40000134666**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21L002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19510101 | Well Depth: | 104 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 37.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**H26**
**SSE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000134665**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21K002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19530101 | Well Depth: | 310 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 24.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**I27**
**West**
**1/4 - 1/2 Mile**
**Higher**

**FED USGS** **USGS40000134803**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21D004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**G28**
**SSW**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR9000003702**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21L002S | Station ID: | 13106 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**G29**
**SW**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000134668**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21L003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 250 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 56.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**G30**
**SW**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000134667**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21L001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19490101 | Well Depth: | 49 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**J31**
**WNW**
**1/4 - 1/2 Mile**
**Higher**

**FED USGS** **USGS40000134851**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21D003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 85 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**K32**
**South**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR9000003680**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21K004S | Station ID: | 31928 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**H33**
**SSE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000134646**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21J001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19160101 | Well Depth: | 50 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**K34**
**SSE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000134636**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21K004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 412 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 65.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**I35**
**West**
**1/4 - 1/2 Mile**
**Higher**

**FED USGS** **USGS40000134792**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21E001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 51 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**G36**
**SSW**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000134647**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21L004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19630101 | Well Depth: | 313 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 60.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**L37**
**SW**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR9000003688**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21L004S | Station ID: | 13107 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**J38**
**NW**
**1/4 - 1/2 Mile**
**Higher**

**CA WELLS** **CADWR0000011071**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W21D002S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W21D002S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W21D002S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**J39**
**NW**
**1/4 - 1/2 Mile**
**Higher**

**CA WELLS** **CAUSGSN00017183**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333313117120801 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333313117120801 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333313117120801&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**L40**
**SW**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR9000003703**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21L003S | Station ID: | 31929 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**J41**
**NW**
**1/4 - 1/2 Mile**
**Higher**

**FED USGS** **USGS40000134882**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21D002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19480101 | Well Depth: | 101 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 61.00 | Feet to sea level: | Not Reported |

Note: Not Reported

---

**M42**
**NW**
**1/4 - 1/2 Mile**
**Higher**

**FED USGS** **USGS40000134910**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 65 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 62.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**M43**
**NW**
**1/4 - 1/2 Mile**
**Higher**

**CA WELLS** **CADWR9000003844**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16N004S | Station ID: | 12364 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**N44**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003827**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21D002S | Station ID: | 13100 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**O45**
**North**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135033**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16P002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |

| | | | |
|---|---|---|---|
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19650101 | Well Depth: | 265 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 32.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**N46**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134901**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21D007S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 78 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 45.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**47**
**NNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135019**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16P001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 267 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 72.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**P48**
**SW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR0000009355**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W21M003S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W21M003S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W21M003S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**O49**
**NNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003914**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16P002S | Station ID: | 30344 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**Q50**
**SW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134657**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21M002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 110 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 89.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**Q51**
**SW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134658**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21M004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |

| | | | |
|---|---|---|---|
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19640101 | Well Depth: | 160 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 65.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**P52**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134625**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21M003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19470101 | Well Depth: | 87 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 74.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**P53**
**SW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CAUSGSN00012973**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333237117120501 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333237117120501 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333237117120501&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**P54**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134617**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21N002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |

| | | | |
|---|---|---|---|
| Construction Date: | 19500101 | Well Depth: | 75 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 65.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**R55**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000004999**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W16N003S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W16N003S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W16N003S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**S56**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000019439**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20H003S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20H003S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20H003S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**T57**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134839**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21D008S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**R58**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00008648**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333320117120901 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333320117120901 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333320117120901&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**N59**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00000132**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333316117121301 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333316117121301 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333316117121301&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**60**
**South**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003652**

| | | | |
|---|---|---|---|
| State Well #: | Not Reported | Station ID: | 48770 |
| Well Name: | RCWD 439 | Basin Name: | Temecula Valley |
| Well Use: | Observation | Well Type: | Single Well |
| Well Depth: | 65 | Well Completion Rpt #: | Not Reported |

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**N61**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134911**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N005S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**R62**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134968**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19420101 | Well Depth: | 100 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 52.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**P63**
**SW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003674**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21M003S | Station ID: | 38171 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**64**
**NNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003906**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16P001S | Station ID: | 12367 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**S65**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00001993**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333301117122001 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333301117122001 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333301117122001&store_num= | | |
| GeoTracker Data: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**66**
**North**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135053**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16K001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19390101 | Well Depth: | 189 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**S67**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134798**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20H003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19520101 | Well Depth: | 144 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 117.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**S68**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134799**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20H005S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 129.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**N69**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003836**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21D007S | Station ID: | 13101 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**R70**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135003**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N007S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**P71**
**SW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003670**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21N002S | Station ID: | 10425 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**P72**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134619**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21N003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |

| | | | |
|---|---|---|---|
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**P73**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134618**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21N001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**R74**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003874**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16N003S | Station ID: | 30341 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**75**
**SE**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134635**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21J002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 432 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**76**
**SSE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003653**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21R002S | Station ID: | 10430 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |

| | | | |
|---|---|---|---|
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**Q77**
**SW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003694**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21M002S | Station ID: | 13108 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**Q78**
**SW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003695**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21M004S | Station ID: | 10424 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**S79**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003781**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20H005S | Station ID: | 31923 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**S80**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003780**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20H003S | Station ID: | 13087 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**T81**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00012354**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333310117122001 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333310117122001 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333310117122001&store_num= | | |

GeoTracker Data: Not Reported

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**T82**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134858**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21D001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 110 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**83**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134648**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21M001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 50 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**84**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134875**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21D006S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19620101 | Well Depth: | 132 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**U85**
**SSW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134577**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21P002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 62 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 38.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**V86**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134817**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A016S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 115 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 94.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**V87**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134820**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |

| | | | |
|---|---|---|---|
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**W88**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135010**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N006S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 60 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 54.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**X89**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000140565**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-8P | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-8P |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-8P&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-8P | | |

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**Y90**
**South**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134558**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21Q001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19280101 | Well Depth: | 120 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**X91**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000066769**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-6P | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-6P |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-6P&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-6P | | |

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**Z92**
**SSE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134591**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21R001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 50 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**Z93**
**SSE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134592**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21R002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 85 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 77.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**Y94**
**South**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CAUSGSN00002594**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333226117114501 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333226117114501 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333226117114501&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**X95**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000102793**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-2 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-2 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-2&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-2 | | |

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**X96**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000039621**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-4 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-4 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-4&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-4 | | |

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**V97**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134818**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A007S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 54 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**X98**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000044938**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-7P | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-7P |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-7P&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-7P | | |

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**AA99**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134782**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20H002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AA100**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134783**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20H006S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 98.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**X101**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000141293**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-5 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-5 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-5&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-5 | | |

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**X102**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000051447**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-3 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-3 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-3&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-3 | | |

---

**U103**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003644**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21P002S | Station ID: | 10428 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**X104**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000033203**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-9 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-9 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-9&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-9 | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**X105**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000051751**

| | | | |
|---|---|---|---|
| Well ID: | T0606593507-MW-1 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-1 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606593507&assigned_name=MW-1&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606593507&assigned_name=MW-1 | | |

---

**U106**
**SSW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134559**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21P001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 252 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 38.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**X107**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00015242**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333321117121701 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333321117121701 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333321117121701&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**U108**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CAUSGSN00014045**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333226117115501 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333226117115501 | GAMA PFAS Testing: | Not Reported |

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333226117115501&store_num=
GeoTracker Data: Not Reported

---

**U109**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003635**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21P001S | Station ID: | 10427 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**U110**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR0000020578**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W21P001S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W21P001S | GAMA PFAS Testing: | Not Reported |

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W21P001S&store_num=
GeoTracker Data: Not Reported

---

**W111**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003900**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16N006S | Station ID: | 30342 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**X112**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134989**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**V113**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003791**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20A016S | Station ID: | 13078 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**U114**
**SSW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134553**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21P004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19530101 | Well Depth: | 92 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 37.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AB115**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00004467**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333317117122101 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333317117122101 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333317117122101&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AB116**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134932**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17R002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |

| | | | |
|---|---|---|---|
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19630101 | Well Depth: | 210 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AB117**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134933**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17R003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19620101 | Well Depth: | 305 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-02-01 |
| Feet below surface: | 133.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AC118**
**NNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135054**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16M001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AC119**
**NNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135055**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16M002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |

| | | | |
|---|---|---|---|
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 132 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-02-01 |
| Feet below surface: | 87.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**W120**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135027**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 90 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**U121**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003631**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21P004S | Station ID: | 10429 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**X122**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135004**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N011S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 48 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**X123**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135005**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N012S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 225 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 57.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AD124**
**WSW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00012967**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333252117122701 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333252117122701 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333252117122701&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**W125**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135028**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N010S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 100 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AD126**
**WSW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134743**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20H001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AD127**
**WSW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134744**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20H004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19570101 | Well Depth: | 140 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 112.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AE128**
**ENE**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003858**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W15N002S | Station ID: | 38168 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AC129**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003929**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16M002S | Station ID: | 12363 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AA130**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003772**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20H006S | Station ID: | 13089 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**AF131**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000002574**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W21D001S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W21D001S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W21D001S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AG132**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134859**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AH133**
**South**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134533**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28B001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AD134**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003751**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20H004S | Station ID: | 13088 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AE135**
**ENE**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134956**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W15N001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 107 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**AE136**
**ENE**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00003851**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333319117110501 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333319117110501 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333319117110501&store_num= | | |

GeoTracker Data: Not Reported

---

**AI137**
**SSW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134539**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28C002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19550101 | Well Depth: | 408 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 42.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**AG138**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000011065**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20A014S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20A014S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20A014S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**139**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003896**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16N012S | Station ID: | 30343 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**AE140**
**ENE**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134931**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W15N002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |

| | | | |
|---|---|---|---|
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19670101 | Well Depth: | 180 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-02-01 |
| Feet below surface: | 101.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**AG141**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00006858**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333307117123001 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333307117123001 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333307117123001&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**AB142**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003859**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W17R003S | Station ID: | 13070 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**143**
**ENE**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134838**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W22C001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AG144**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134828**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A010S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19500101 | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**145**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134934**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17R001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AG146**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00016013**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333308117123001 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333308117123001 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333308117123001&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AG147**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134840**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A003S | Type: | Well |

| | | | |
|---|---|---|---|
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19510101 | Well Depth: | 88 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AH148**
**South**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134525**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28B002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 30 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AG149**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00008654**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333309117123001 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333309117123001 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333309117123001&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AG150**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134852**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A014S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 93.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AI151**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003620**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W28C002S | Station ID: | 30358 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AJ152**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134626**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20R002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AJ153**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134627**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20R004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AF154**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135040**

| | |
|---|---|
| Organization ID: | USGS-CA |
| Organization Name: | USGS California Water Science Center |

| | | | |
|---|---|---|---|
| Monitor Location: | 007S003W16N008S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19570101 | Well Depth: | 124 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 57.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AG155**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134860**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A012S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19570101 | Well Depth: | 103 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 78.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**156**
**East**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134802**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W22F001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AF157**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135046**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16N009S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19490101 | Well Depth: | 95 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 59.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AG158**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134861**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A013S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AG159**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134883**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A015S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19630101 | Well Depth: | 262 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AK160**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003810**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20A014S | Station ID: | 31915 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AL161**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00006860**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333304117123401 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333304117123401 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333304117123401&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AJ162**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134609**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20R003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19490101 | Well Depth: | 105 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AL163**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134810**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 51 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |

Well Hole Depth Units: Not Reported

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**AM164**
**SSW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134526**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28D001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19500101 | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AN165**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003919**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16N008S | Station ID: | 12365 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AG166**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003814**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20A012S | Station ID: | 13077 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AK167**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134841**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A008S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19450101 | Well Depth: | 51 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |

Well Hole Depth Units: Not Reported

---

**AJ168**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134610**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20R005S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 380 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 31.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**AO169**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134895**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A011S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AK170**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00002593**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333309117123401 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333309117123401 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333309117123401&store_num= | | |
| GeoTracker Data: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AN171**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003925**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16N009S | Station ID: | 12366 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**AK172**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134853**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20A009S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19540101 | Well Depth: | 90 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**AK173**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00012972**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333307117123501 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333307117123501 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333307117123501&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AK174**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134829**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20B003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 50 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |

Well Hole Depth Units: Not Reported

---

**AP175**
**South**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134508**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28B003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19630101 | Well Depth: | 300 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 32.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**AO176**
**WNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000017046**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20H001S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20H001S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20H001S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AP177**
**South**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003603**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W28B003S | Station ID: | 9122 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AL178**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000033268**

| | | | |
|---|---|---|---|
| Well ID: | T0606501144-MW-1 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-1 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606501144&assigned_name=MW-1&store_num= | | |

GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606501144&assigned_name=MW-1

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**AL179**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000055646**

| | | | |
|---|---|---|---|
| Well ID: | T0606501144-MW-5 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-5 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606501144&assigned_name=MW-5&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606501144&assigned_name=MW-5 | | |

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**AL180**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000104500**

| | | | |
|---|---|---|---|
| Well ID: | T0606501144-MW-4 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-4 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606501144&assigned_name=MW-4&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606501144&assigned_name=MW-4 | | |

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**181**
**SW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134554**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W21N004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 400 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 83.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AM182**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CALLNL000000904**

| | | | |
|---|---|---|---|
| Well ID: | 101973 | Well Type: | MUNICIPAL |
| Source: | Lawrence Livermore National Laboratory | | |
| Other Name: | 07S/03W-28C03 S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | Not Reported | | |
| GeoTracker Data: | Not Reported | | |

| | | | |
|---|---|---|---|
| Chemical: | Krypton | Results: | .0000000774871 |
| Units: | cm3STP/g | Date: | 09/28/2004 |
| Chemical: | Neon | Results: | .000000245528 |
| Units: | cm3STP/g | Date: | 09/28/2004 |
| Chemical: | Helium-3/Helium-4 | Results: | .00000397197 |
| Units: | atom ratio | Date: | 09/28/2004 |
| Chemical: | Helium-4 | Results: | .00000179961 |
| Units: | cm3STP/g | Date: | 09/28/2004 |
| Chemical: | Tritium (Hydrogen 3) | Results: | 1.98 |
| Units: | pCi/L | Date: | 09/02/2004 |
| Chemical: | Xenon | Results: | .0000000106696 |
| Units: | cm3STP/g | Date: | 09/28/2004 |
| Chemical: | Argon | Results: | .000362036 |
| Units: | cm3STP/g | Date: | 09/28/2004 |

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**AM183**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADDW0000001673**

| | | | |
|---|---|---|---|
| Well ID: | 3310038-047 | Well Type: | MUNICIPAL |
| Source: | Department of Health Services | | |
| Other Name: | WELL 145 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3310038-047&store_num= | | |
| GeoTracker Data: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AL184**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000141598**

| | | | |
|---|---|---|---|
| Well ID: | T0606501144-MW-3 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-3 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606501144&assigned_name=MW-3&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606501144&assigned_name=MW-3 | | |

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**AM185**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CAUSGS000002666**

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**AM186**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CAUSGSN00001389**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333218117120601 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333218117120601 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333218117120601&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AL187**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAEDF0000073445**

| | | | |
|---|---|---|---|
| Well ID: | T0606501144-MW-2 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-2 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606501144&assigned_name=MW-2&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606501144&assigned_name=MW-2 | | |

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**AQ188**
**WSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003664**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20R005S | Station ID: | 13099 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AR189**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134786**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20G002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19450101 | Well Depth: | 41 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AR190**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134784**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20G003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 285 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 115.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AN191**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135058**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17J002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AN192**
**NW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135059**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17J003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19300101 | Well Depth: | 296 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-02-01 |
| Feet below surface: | 66.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AS193**
**SE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003617**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W27D001S | Station ID: | 30350 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**AS194**
**SSE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003611**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W27D002S | Station ID: | 9113 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**195**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003930**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W17J003S | Station ID: | 12376 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**196**
**SW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003632**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W21N004S | Station ID: | 10426 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

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**AR197**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003773**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W20G003S | Station ID: | 13086 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**AS198**
**SSE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134522**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W27D002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19270101 | Well Depth: | 450 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 56.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AT199**
**North**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003988**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16G001S | Station ID: | 30340 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AT200**
**NNE**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135159**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16G001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 168 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-02-01 |
| Feet below surface: | 35.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**AS201**
**SE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134532**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W27D001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 56.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**AT202**
**NNE**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR9000003987**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W16H001S | Station ID: | 12362 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AU203**
**NNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000033762**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W16N002S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W16N002S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W16N002S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**AU204**
**NNW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000000236**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W16N005S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W16N005S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W16N005S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**205**
**NNE**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000004988**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W15N001S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W15N001S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W15N001S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AQ206**
**WSW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134611**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20R001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AR207**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134793**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20G001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 43 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**208**
**NNE**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135158**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W16H001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 48 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-02-01 |
| Feet below surface: | 33.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**AV209**
**South**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134493**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28C001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 90.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AW210**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CAUSGSN00000131**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333300117124301 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333300117124301 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333300117124301&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**AW211**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134794**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20G004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19580101 | Well Depth: | 81 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 57.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**AX212**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000006210**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20A004S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20A004S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20A004S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AX213**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000028987**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20A003S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20A003S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20A003S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AX214**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000022950**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20A009S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20A009S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20A009S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AX215**
**NW**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000015810**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20A010S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20A010S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20A010S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AV216**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003592**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W28C001S | Station ID: | 9123 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AY217**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134896**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20B005S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 56 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**AW218**
**West**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR0000006199**

| | | | |
|---|---|---|---|
| Well ID: | 07S03W20G004S | Well Type: | UNK |
| Source: | Department of Water Resources | | |
| Other Name: | 07S03W20G004S | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=07S03W20G004S&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AZ219**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135020**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17Q008S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 446 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-02-01 |
| Feet below surface: | 138.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**220**
**East**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADDW0000020521**

| | | | |
|---|---|---|---|
| Well ID: | 3302048-001 | Well Type: | MUNICIPAL |
| Source: | Department of Health Services | | |
| Other Name: | WELL #1 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3302048-001&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**221**
**South**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADDW0000003452**

| | | | |
|---|---|---|---|
| Well ID: | 3310038-081 | Well Type: | MUNICIPAL |
| Source: | Department of Health Services | | |
| Other Name: | WELL 155 - INACTIVE | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3310038-081&store_num= | | |
| GeoTracker Data: | Not Reported | | |

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**AY222**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134912**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17Q007S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 66 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 64.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**223**
**SSW**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **7888**

| | | | |
|---|---|---|---|
| Seq: | 7888 | Prim sta c: | 07S/03W-29G02 S |
| Frds no: | 3310038047 | County: | 33 |
| District: | 14 | User id: | WAT |
| System no: | 3310038 | Water type: | G |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

| | | | |
|---|---|---|---|
| Source nam: | WELL 145 | Station ty: | WELL/AMBNT/MUN/INTAKE |
| Latitude: | 333211.0 | Longitude: | 1171202.0 |
| Precision: | 2 | Status: | AR |
| Comment 1: | Not Reported | Comment 2: | Not Reported |
| Comment 3: | Not Reported | Comment 4: | Not Reported |
| Comment 5: | Not Reported | Comment 6: | Not Reported |
| Comment 7: | Not Reported | | |

| | | | |
|---|---|---|---|
| System no: | 3310038 | System nam: | Rancho California Water District |
| Hqname: | Not Reported | Address: | P.O. Box 9017 |
| City: | Temecula | State: | CA |
| Zip: | 92589 | Zip ext: | Not Reported |
| Pop serv: | 68900 | Connection: | 20396 |
| Area serve: | RANCHO CALIFORNIA | | |

| | | | |
|---|---|---|---|
| Sample date: | 03-MAY-17 | Finding: | 420. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 09-FEB-17 | Finding: | 430. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 09-NOV-16 | Finding: | 400. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 03-AUG-16 | Finding: | 410. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 13-MAY-16 | Finding: | 400. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 19-APR-16 | Finding: | 430. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 18-NOV-15 | Finding: | 390. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 06-AUG-15 | Finding: | 390. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 19-MAY-15 | Finding: | 460. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 18-FEB-15 | Finding: | 420. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 09-OCT-14 | Finding: | 110. |
| Chemical: | SODIUM | Report units: | MG/L |
| Dlr: | 0. | | |

| | | | |
|---|---|---|---|
| Sample date: | 09-OCT-14 | Finding: | 0.67 |
| Chemical: | TURBIDITY, LABORATORY | Report units: | NTU |
| Dlr: | 0.1 | | |

| | | | |
|---|---|---|---|
| Sample date: | 09-OCT-14 | Finding: | 400. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 26. |
| Chemical: | MANGANESE | Report units: | UG/L |
| Dlr: | 20. | | |
| Sample date: | 09-OCT-14 | Finding: | 120. |
| Chemical: | BORON | Report units: | UG/L |
| Dlr: | 100. | | |
| Sample date: | 09-OCT-14 | Finding: | 160. |
| Chemical: | BARIUM | Report units: | UG/L |
| Dlr: | 100. | | |
| Sample date: | 09-OCT-14 | Finding: | 2.6 |
| Chemical: | ARSENIC | Report units: | UG/L |
| Dlr: | 2. | | |
| Sample date: | 09-OCT-14 | Finding: | 0.3 |
| Chemical: | FLUORIDE (F) (NATURAL-SOURCE) | Report units: | MG/L |
| Dlr: | 0.1 | | |
| Sample date: | 09-OCT-14 | Finding: | 55. |
| Chemical: | SULFATE | Report units: | MG/L |
| Dlr: | 0.5 | | |
| Sample date: | 09-OCT-14 | Finding: | 100. |
| Chemical: | CHLORIDE | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 1.4 |
| Chemical: | POTASSIUM | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 7.4 |
| Chemical: | MAGNESIUM | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 690. |
| Chemical: | SPECIFIC CONDUCTANCE | Report units: | US |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 8.2 |
| Chemical: | PH, LABORATORY | Report units: | Not Reported |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 150. |
| Chemical: | ALKALINITY (TOTAL) AS CACO3 | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 180. |
| Chemical: | BICARBONATE ALKALINITY | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 140. |
| Chemical: | HARDNESS (TOTAL) AS CACO3 | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-OCT-14 | Finding: | 42. |
| Chemical: | CALCIUM | Report units: | MG/L |

| | | | |
|---|---|---|---|
| Dlr: | 0. | | |
| Sample date: | 19-AUG-14 | Finding: | 370. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 21-MAY-14 | Finding: | 440. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 11-FEB-14 | Finding: | 350. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 07-NOV-13 | Finding: | 390. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 04-SEP-13 | Finding: | 2.03 |
| Chemical: | GROSS ALPHA MDA95 | Report units: | PCI/L |
| Dlr: | 0. | | |
| Sample date: | 04-SEP-13 | Finding: | 1.81 |
| Chemical: | GROSS ALPHA COUNTING ERROR | Report units: | PCI/L |
| Dlr: | 0. | | |
| Sample date: | 14-AUG-13 | Finding: | 370. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 03-MAY-13 | Finding: | 390. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 06-NOV-12 | Finding: | 600. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 09-AUG-12 | Finding: | 410. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 17-MAY-12 | Finding: | 440. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |
| Sample date: | 08-FEB-12 | Finding: | 510. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dlr: | 0. | | |

---

**BA224**
**SSE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003591**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W28H001S | Station ID: | 30360 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**AV225**
**South**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134487**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28F002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**AV226**
**South**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134488**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28F003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**227**
**SE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADDW0000001307**

| | | | |
|---|---|---|---|
| Well ID: | 3310038-046 | Well Type: | MUNICIPAL |
| Source: | Department of Health Services | | |
| Other Name: | WELL 144 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3310038-046&store_num= | | |
| GeoTracker Data: | Not Reported | | |

---

**AV228**
**South**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CAUSGSN00001841**

| | | | |
|---|---|---|---|
| Well ID: | USGS-333209117115101 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-333209117115101 | GAMA PFAS Testing: | Not Reported |

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-333209117115101&store_num=
GeoTracker Data: Not Reported

---

**AZ229**
**WNW**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000135011**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W17Q002S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19420101 | Well Depth: | 58 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**230**
**SE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR9000003619**

| | | | |
|---|---|---|---|
| State Well #: | 07S03W27C001S | Station ID: | 9111 |
| Well Name: | Not Reported | Basin Name: | Temecula Valley |
| Well Use: | Unknown | Well Type: | Unknown |
| Well Depth: | 0 | Well Completion Rpt #: | Not Reported |

---

**BA231**
**SSE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134492**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W28H001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 120 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-04-01 |
| Feet below surface: | 38.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**232**
**WSW**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000134620**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20Q003S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19550101 | Well Depth: | 288 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 36.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**BB233**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134830**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20B004S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**BB234**
**West**
**1/2 - 1 Mile**
**Higher**

**FED USGS** **USGS40000134842**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20B001S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 54 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**BB235**
**West**
**1/2 - 1 Mile**
**Higher** | **FED USGS** | **USGS40000134854**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007S003W20B006S | Type: | Well |
| Description: | Not Reported | HUC: | 18070302 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | California Coastal Basin aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19610101 | Well Depth: | 108 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1968-03-01 |
| Feet below surface: | 63.00 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

**1**
**ESE** **OIL_GAS** **CAOG14000006460**
**1/2 - 1 Mile**

| | | | |
|---|---|---|---|
| API #: | 0406500124 | Well #: | 1 |
| Well Status: | Plugged | Well Type: | Dry Hole |
| Lease Name: | Vernard | Field Name: | Any Field |
| Area Name: | Any Area | GIS Source: | hud |
| Confidential Well: | N | Directionally Drilled: | N |
| Spud Date: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
# RADON

**AREA RADON INFORMATION**

State Database: CA Radon

Radon Test Results

| Zipcode | Num Tests | > 4 pCi/L |
|---|---|---|
| 92562 | 29 | 1 |

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

---

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

| Area | Average Activity | % <4 pCi/L | % 4-20 pCi/L | % >20 pCi/L |
|---|---|---|---|---|
| Living Area - 1st Floor | 0.117 pCi/L | 100% | 0% | 0% |
| Living Area - 2nd Floor | 0.450 pCi/L | 100% | 0% | 0% |
| Basement | 1.700 pCi/L | 100% | 0% | 0% |

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

## HYDROGEOLOGIC INFORMATION

AQUIFLOW$^{R}$ Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

**STREET AND ADDRESS INFORMATION**

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**LMC Murrieta**
Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

Inquiry Number: 6756783.2s
December 6, 2021

# EDR Vapor Encroachment Screen

## Prepared using EDR's Vapor Encroachment Worksheet

EDR® Environmental Data Resources Inc

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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.


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# EXECUTIVE SUMMARY

A search of available environmental records was conducted by EDR. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

| STANDARD ENVIRONMENTAL RECORDS | Default Area of Concern (Miles)* | property | 1/10 | > 1/10 |
|---|---|---|---|---|
| Lists of Federal NPL (Superfund) sites | 1.0 | 0 | 0 | 0 |
| Lists of Federal Delisted NPL sites | 1.0 | 0 | 0 | 0 |
| Lists of Federal sites subject to CERCLA removals and CERCLA orders | 0.5 | 0 | 0 | 0 |
| Lists of Federal CERCLA sites with NFRAP | 0.5 | 0 | 0 | 0 |
| Lists of Federal RCRA facilities undergoing Corrective Action | 1.0 | 0 | 0 | 0 |
| Lists of Federal RCRA TSD facilities | 0.5 | 0 | 0 | 0 |
| Lists of Federal RCRA generators | 0.25 | 0 | 0 | 0 |
| Federal institutional controls / engineering controls registries | 0.5 | 0 | 0 | 0 |
| Federal ERNS list | 0.001 | 0 | 0 | - |
| Lists of state- and tribal (Superfund) equivalent sites | 1.0 | 0 | 0 | 0 |
| Lists of state- and tribal hazardous waste facilities | 1.0 | 0 | 0 | 0 |
| Lists of state and tribal landfills and solid waste disposal facilities | 0.5 | 0 | 0 | 0 |
| Lists of state and tribal leaking storage tanks | 0.5 | 0 | 0 | 0 |
| Lists of state and tribal registered storage tanks | 0.25 | 0 | 0 | 0 |
| State and tribal institutional control / engineering control registries | not searched | - | - | - |
| Lists of state and tribal voluntary cleanup sites | 0.5 | 0 | 0 | 0 |
| Lists of state and tribal brownfield sites | 0.5 | 0 | 0 | 0 |

| ADDITIONAL ENVIRONMENTAL RECORDS | | | | |
|---|---|---|---|---|
| Local Brownfield lists | 0.5 | 0 | 0 | 0 |
| Local Lists of Landfill / Solid Waste Disposal Sites | 0.5 | 0 | 0 | 0 |
| Local Lists of Hazardous waste / Contaminated Sites | 1.0 | 0 | 0 | 0 |
| Local Lists of Registered Storage Tanks | 0.25 | 0 | 0 | 0 |
| Local Land Records | 0.5 | 0 | 0 | 0 |
| Records of Emergency Release Reports | 0.5 | 0 | 0 | 0 |
| Other Ascertainable Records | 1.0 | 0 | 0 | 0 |

| EDR HIGH RISK HISTORICAL RECORDS | | | | |
|---|---|---|---|---|
| EDR Exclusive Records | 1.0 | 0 | 0 | 0 |
| Exclusive Recovered Govt. Archives | 0.001 | 0 | 0 | - |

# EXECUTIVE SUMMARY

**EDR RECOVERED GOVERNMENT ARCHIVES**

| | | | | |
|---|---|---|---|---|
| EDR Exclusive Records | 1.0 | 0 | 0 | 0 |
| Exclusive Recovered Govt. Archives | 0.001 | 0 | 0 | - |

*The Default Area of Concern may be adjusted by the environmental professional using experience and professional judgement. Each category may include several databases, and each database may have a different distance. A list of individual databases is provided at the back of this report.

# EXECUTIVE SUMMARY

## TARGET PROPERTY INFORMATION

### ADDRESS

LMC MURRIETA
MURRIETA HOT SPRINGS ROAD/JEFFERSON AVENUE
MURRIETA, CA 92562

### COORDINATES

| | |
|---|---|
| Latitude (North): | 33.549825 - 33° 32′ 59.36554″ |
| Longitude (West): | 117.196525 - 117° 11′ 47.492065″ |
| Elevation: | 1079 ft. above sea level |

# EXECUTIVE SUMMARY

## SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

## STANDARD ENVIRONMENTAL RECORDS

| Name | Address | Dist/Dir | Map ID | Page |
|---|---|---|---|---|

Not Reported

## ADDITIONAL ENVIRONMENTAL RECORDS

| Name | Address | Dist/Dir | Map ID | Page |
|---|---|---|---|---|

Not Reported

## EDR HIGH RISK HISTORICAL RECORDS

| Name | Address | Dist/Dir | Map ID | Page |
|---|---|---|---|---|

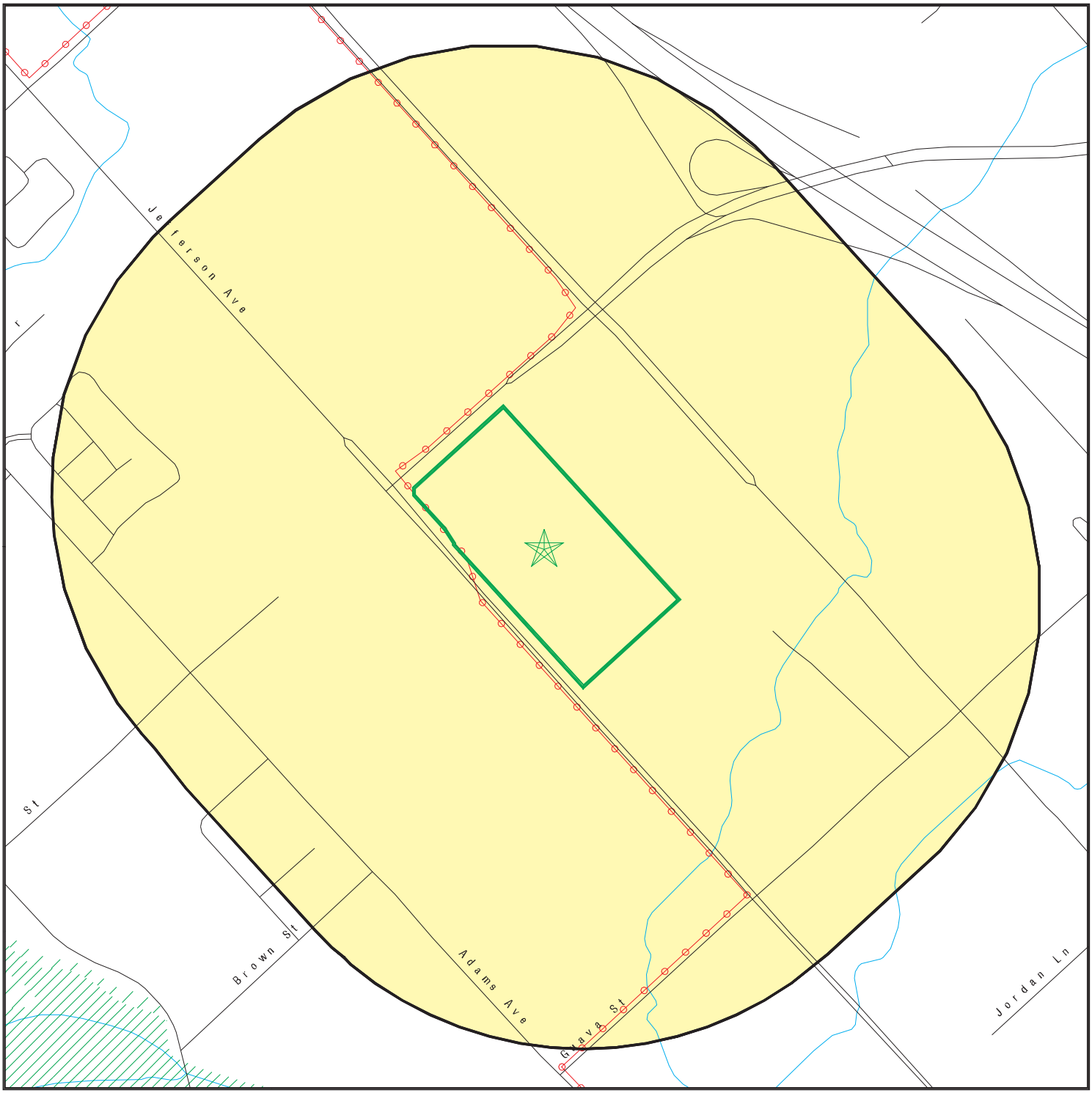
Not Reported

## EDR RECOVERED GOVERNMENT ARCHIVES

| Name | Address | Dist/Dir | Map ID | Page |
|---|---|---|---|---|

Not Reported

# PRIMARY MAP - 6756783.2S



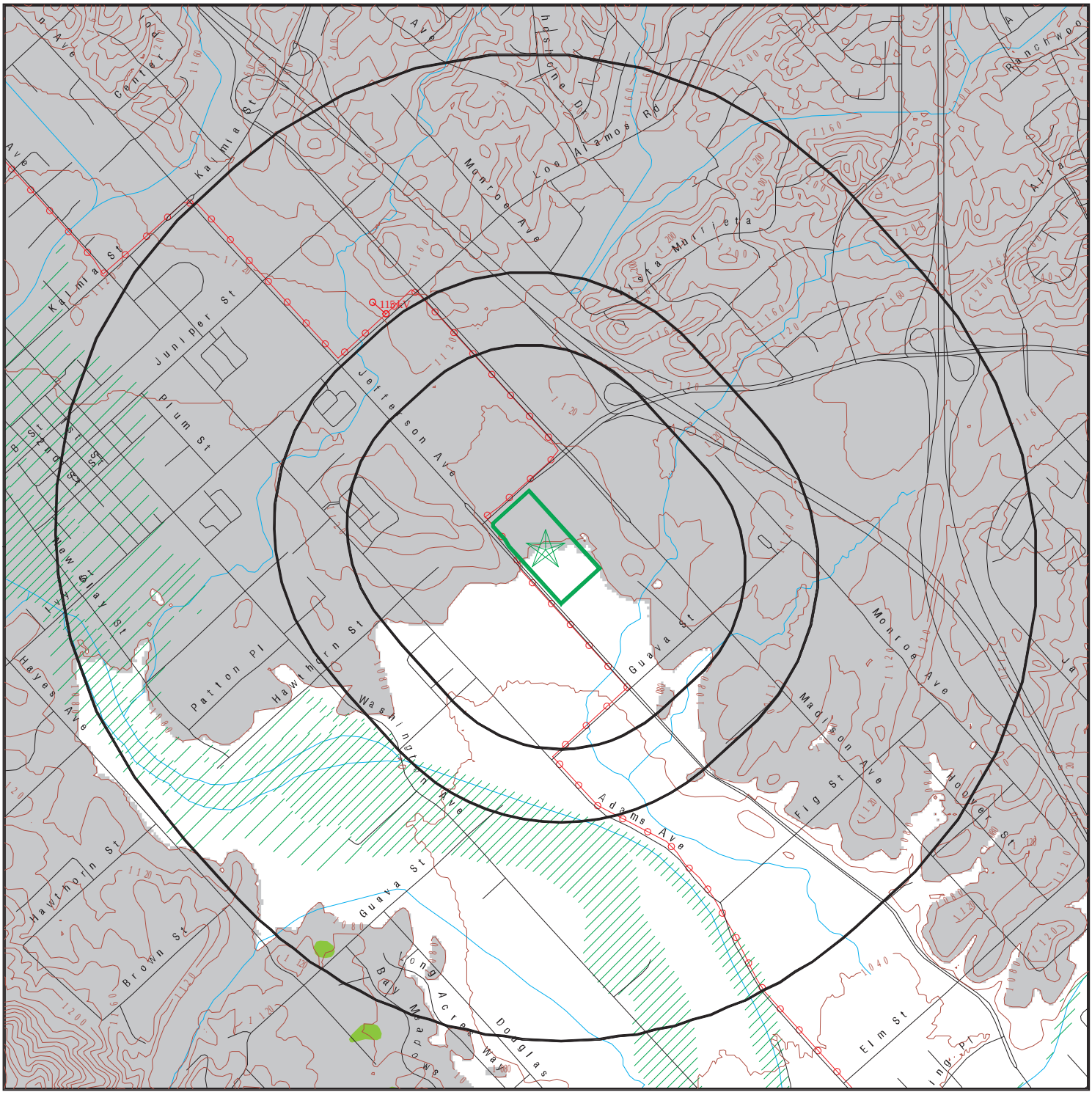

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

| | | | |
|---|---|---|---|
| SITE NAME: | LMC Murrieta | CLIENT: | Leighton and Associates, Inc. |
| ADDRESS: | Murrieta Hot Springs Road/Jefferson Avenue<br>Murrieta CA 92562 | CONTACT: | Brynn Mcculloch |
| LAT/LONG: | 33.549825 / 117.196525 | INQUIRY #: | 6756783.2s |
| | | DATE: | December 03, 2021 6:21 pm |

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# SECONDARY MAP - 6756783.2S




- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

| | | | |
|---|---|---|---|
| SITE NAME: | LMC Murrieta | CLIENT: | Leighton and Associates, Inc. |
| ADDRESS: | Murrieta Hot Springs Road/Jefferson Avenue<br>Murrieta CA 92562 | CONTACT: | Brynn Mcculloch |
| LAT/LONG: | 33.549825 / 117.196525 | INQUIRY #: | 6756783.2s |
| | | DATE: | December 03, 2021 6:21 pm |

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MAP FINDINGS

**LEGEND**

| | | | |
|---|---|---|---|
| **FACILITY NAME**<br>**FACILITY ADDRESS, CITY, ST, ZIP** | | | EDR SITE ID NUMBER |
| ◆ **MAP ID#** | Direction Distance Range<br>Relative Elevation | (Distance feet / miles)<br>Feet Above Sea Level | ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency. |

**Worksheet:**

**Comments:**

Comments may be added on the online Vapor Encroachment Worksheet.

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|
| **ENVIRONMENTAL RECORDS** | | | | | | |
| ***Federal NPL site list*** | | | | | | |
| US | NPL | National Priority List | EPA | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| US | Proposed NPL | Proposed National Priority List Sites | EPA | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| US | NPL LIENS | Federal Superfund Liens | EPA | 10/15/1991 | 02/02/1994 | 03/30/1994 |
| ***Federal CERCLIS list*** | | | | | | |
| US | SEMS | Superfund Enterprise Management System | EPA | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| ***Federal RCRA CORRACTS facilities list*** | | | | | | |
| US | CORRACTS | Corrective Action Report | EPA | 09/13/2021 | 09/15/2021 | 10/12/2021 |
| ***Federal RCRA TSD facilities list*** | | | | | | |
| US | RCRA-TSDF | RCRA - Treatment, Storage and Disposal | Environmental Protection Agency | 09/13/2021 | 09/15/2021 | 10/12/2021 |
| ***Federal RCRA generators list*** | | | | | | |
| US | RCRA-LQG | RCRA - Large Quantity Generators | Environmental Protection Agency | 09/13/2021 | 09/15/2021 | 10/12/2021 |
| US | RCRA-SQG | RCRA - Small Quantity Generators | Environmental Protection Agency | 09/13/2021 | 09/15/2021 | 10/12/2021 |
| US | RCRA-VSQG | RCRA - Very Small Quantity Generators (Formerly Conditionall | Environmental Protection Agency | 09/13/2021 | 09/15/2021 | 10/12/2021 |
| ***Federal institutional controls / engineering controls registries*** | | | | | | |
| US | LUCIS | Land Use Control Information System | Department of the Navy | 07/12/2021 | 08/06/2021 | 10/22/2021 |
| US | US ENG CONTROLS | Engineering Controls Sites List | Environmental Protection Agency | 08/23/2021 | 08/23/2021 | 11/12/2021 |
| US | US INST CONTROLS | Institutional Controls Sites List | Environmental Protection Agency | 08/23/2021 | 08/23/2021 | 11/12/2021 |
| ***Federal ERNS list*** | | | | | | |
| US | ERNS | Emergency Response Notification System | National Response Center, United States Coast | 06/14/2021 | 06/17/2021 | 08/17/2021 |
| ***State and tribal - equivalent NPL*** | | | | | | |
| CA | RESPONSE | State Response Sites | Department of Toxic Substances Control | 07/22/2021 | 07/22/2021 | 10/08/2021 |
| ***State and tribal - equivalent CERCLIS*** | | | | | | |
| CA | ENVIROSTOR | EnviroStor Database | Department of Toxic Substances Control | 07/22/2021 | 07/22/2021 | 10/08/2021 |
| ***State and tribal landfill / solid waste disposal*** | | | | | | |
| CA | SWF/LF (SWIS) | Solid Waste Information System | Department of Resources Recycling and Recover | 08/09/2021 | 08/10/2021 | 11/05/2021 |
| ***State and tribal leaking storage tank lists*** | | | | | | |
| CA | LUST | Leaking Underground Fuel Tank Report (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | LUST REG 5 | Leaking Underground Storage Tank Database | California Regional Water Quality Control Boa | 07/01/2008 | 07/22/2008 | 07/31/2008 |
| CA | LUST REG 6L | Leaking Underground Storage Tank Case Listing | California Regional Water Quality Control Boa | 09/09/2003 | 09/10/2003 | 10/07/2003 |
| CA | LUST REG 6V | Leaking Underground Storage Tank Case Listing | California Regional Water Quality Control Boa | 06/07/2005 | 06/07/2005 | 06/29/2005 |
| CA | LUST REG 1 | Active Toxic Site Investigation | California Regional Water Quality Control Boa | 02/01/2001 | 02/28/2001 | 03/29/2001 |
| CA | LUST REG 2 | Fuel Leak List | California Regional Water Quality Control Boa | 09/30/2004 | 10/20/2004 | 11/19/2004 |
| CA | LUST REG 3 | Leaking Underground Storage Tank Database | California Regional Water Quality Control Boa | 05/19/2003 | 05/19/2003 | 06/02/2003 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|
| CA | LUST REG 4 | Underground Storage Tank Leak List | California Regional Water Quality Control Boa | 09/07/2004 | 09/07/2004 | 10/12/2004 |
| CA | LUST REG 7 | Leaking Underground Storage Tank Case Listing | California Regional Water Quality Control Boa | 02/26/2004 | 02/26/2004 | 03/24/2004 |
| CA | LUST REG 8 | Leaking Underground Storage Tanks | California Regional Water Quality Control Boa | 02/14/2005 | 02/15/2005 | 03/28/2005 |
| CA | LUST REG 9 | Leaking Underground Storage Tank Report | California Regional Water Quality Control Boa | 03/01/2001 | 04/23/2001 | 05/21/2001 |
| US | INDIAN LUST R4 | Leaking Underground Storage Tanks on Indian Land | EPA Region 4 | 05/28/2021 | 06/22/2021 | 09/20/2021 |
| US | INDIAN LUST R10 | Leaking Underground Storage Tanks on Indian Land | EPA Region 10 | 04/27/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN LUST R9 | Leaking Underground Storage Tanks on Indian Land | Environmental Protection Agency | 05/27/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN LUST R8 | Leaking Underground Storage Tanks on Indian Land | EPA Region 8 | 05/27/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN LUST R7 | Leaking Underground Storage Tanks on Indian Land | EPA Region 7 | 06/01/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN LUST R1 | Leaking Underground Storage Tanks on Indian Land | EPA Region 1 | 04/28/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN LUST R6 | Leaking Underground Storage Tanks on Indian Land | EPA Region 6 | 05/17/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN LUST R5 | Leaking Underground Storage Tanks on Indian Land | EPA, Region 5 | 04/06/2021 | 06/11/2021 | 09/07/2021 |
| CA | CPS-SLIC | Statewide SLIC Cases (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | SLIC REG 1 | Active Toxic Site Investigations | California Regional Water Quality Control Boa | 04/03/2003 | 04/07/2003 | 04/25/2003 |
| CA | SLIC REG 2 | Spills, Leaks, Investigation & Cleanup Cost Recovery Listing | Regional Water Quality Control Board San Fran | 09/30/2004 | 10/20/2004 | 11/19/2004 |
| CA | SLIC REG 3 | Spills, Leaks, Investigation & Cleanup Cost Recovery Listing | California Regional Water Quality Control Boa | 05/18/2006 | 05/18/2006 | 06/15/2006 |
| CA | SLIC REG 4 | Spills, Leaks, Investigation & Cleanup Cost Recovery Listing | Region Water Quality Control Board Los Angele | 11/17/2004 | 11/18/2004 | 01/04/2005 |
| CA | SLIC REG 5 | Spills, Leaks, Investigation & Cleanup Cost Recovery Listing | Regional Water Quality Control Board Central | 04/01/2005 | 04/05/2005 | 04/21/2005 |
| CA | SLIC REG 6V | Spills, Leaks, Investigation & Cleanup Cost Recovery Listing | Regional Water Quality Control Board, Victorv | 05/24/2005 | 05/25/2005 | 06/16/2005 |
| CA | SLIC REG 6L | SLIC Sites | California Regional Water Quality Control Boa | 09/07/2004 | 09/07/2004 | 10/12/2004 |
| CA | SLIC REG 7 | SLIC List | California Regional Quality Control Board, Co | 11/24/2004 | 11/29/2004 | 01/04/2005 |
| CA | SLIC REG 8 | Spills, Leaks, Investigation & Cleanup Cost Recovery Listing | California Region Water Quality Control Board | 04/03/2008 | 04/03/2008 | 04/14/2008 |
| CA | SLIC REG 9 | Spills, Leaks, Investigation & Cleanup Cost Recovery Listing | California Regional Water Quality Control Boa | 09/10/2007 | 09/11/2007 | 09/28/2007 |
| ***State and tribal registered storage tank lists*** | | | | | | |
| CA | UST | Active UST Facilities | SWRCB | 09/07/2021 | 09/07/2021 | 11/30/2021 |
| CA | MILITARY UST SITES | Military UST Sites (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | UST CLOSURE | Proposed Closure of Underground Storage Tank (UST) Cases | State Water Resources Control Board | 05/20/2021 | 06/04/2021 | 08/30/2021 |
| CA | AST | Aboveground Petroleum Storage Tank Facilities | California Environmental Protection Agency | 07/06/2016 | 07/12/2016 | 09/19/2016 |
| US | INDIAN UST R9 | Underground Storage Tanks on Indian Land | EPA Region 9 | 05/27/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN UST R6 | Underground Storage Tanks on Indian Land | EPA Region 6 | 05/17/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN UST R8 | Underground Storage Tanks on Indian Land | EPA Region 8 | 05/27/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN UST R5 | Underground Storage Tanks on Indian Land | EPA Region 5 | 04/06/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN UST R10 | Underground Storage Tanks on Indian Land | EPA Region 10 | 04/27/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN UST R1 | Underground Storage Tanks on Indian Land | EPA, Region 1 | 04/28/2021 | 06/11/2021 | 09/07/2021 |
| US | INDIAN UST R4 | Underground Storage Tanks on Indian Land | EPA Region 4 | 05/28/2021 | 06/22/2021 | 09/20/2021 |
| US | INDIAN UST R7 | Underground Storage Tanks on Indian Land | EPA Region 7 | 06/01/2021 | 06/11/2021 | 09/07/2021 |
| US | FEMA UST | Underground Storage Tank Listing | FEMA | 01/29/2021 | 02/17/2021 | 03/22/2021 |
| ***State and tribal voluntary cleanup sites*** | | | | | | |
| US | INDIAN VCP R7 | Voluntary Cleanup Priority Lisitng | EPA, Region 7 | 03/20/2008 | 04/22/2008 | 05/19/2008 |
| US | INDIAN VCP R1 | Voluntary Cleanup Priority Listing | EPA, Region 1 | 07/27/2015 | 09/29/2015 | 02/18/2016 |
| CA | VCP | Voluntary Cleanup Program Properties | Department of Toxic Substances Control | 07/22/2021 | 07/22/2021 | 10/08/2021 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|
| ***State and tribal Brownfields sites*** | | | | | | |
| CA | BROWNFIELDS | Considered Brownfieds Sites Listing | State Water Resources Control Board | 06/17/2021 | 06/17/2021 | 09/13/2021 |
| ***Other Records*** | | | | | | |
| US | CONSENT | Superfund (CERCLA) Consent Decrees | Department of Justice, Consent Decree Library | 06/30/2021 | 07/14/2021 | 07/16/2021 |
| US | ROD | Records Of Decision | EPA | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| US | LIENS 2 | CERCLA Lien Information | Environmental Protection Agency | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| CA | HIST CAL-SITES | Calsites Database | Department of Toxic Substance Control | 08/08/2005 | 08/03/2006 | 08/24/2006 |
| US | DEBRIS REGION 9 | Torres Martinez Reservation Illegal Dump Site Locations | EPA, Region 9 | 01/12/2009 | 05/07/2009 | 09/21/2009 |
| CA | SWRCY | Recycler Database | Department of Conservation | 09/07/2021 | 09/08/2021 | 11/29/2021 |
| CA | CA FID UST | Facility Inventory Database | California Environmental Protection Agency | 10/31/1994 | 09/05/1995 | 09/29/1995 |
| CA | HIST UST | Hazardous Substance Storage Container Database | State Water Resources Control Board | 10/15/1990 | 01/25/1991 | 02/12/1991 |
| CA | SAN FRANCISCO AST | Aboveground Storage Tank Site Listing | San Francisco County Department of Public Hea | 08/05/2021 | 08/05/2021 | 10/29/2021 |
| CA | SWEEPS UST | SWEEPS UST Listing | State Water Resources Control Board | 06/01/1994 | 07/07/2005 | 08/11/2005 |
| US | US HIST CDL | National Clandestine Laboratory Register | Drug Enforcement Administration | 05/18/2021 | 05/18/2021 | 08/03/2021 |
| US | LEAD SMELTER 1 | Lead Smelter Sites | Environmental Protection Agency | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| US | US AIRS MINOR | Air Facility System Data | EPA | 10/12/2016 | 10/26/2016 | 02/03/2017 |
| US | 2020 COR ACTION | 2020 Corrective Action Program List | Environmental Protection Agency | 09/30/2017 | 05/08/2018 | 07/20/2018 |
| US | LEAD SMELTER 2 | Lead Smelter Sites | American Journal of Public Health | 04/05/2001 | 10/27/2010 | 12/02/2010 |
| US | COAL ASH DOE | Steam-Electric Plant Operation Data | Department of Energy | 12/31/2019 | 12/01/2020 | 02/09/2021 |
| US | PCB TRANSFORMER | PCB Transformer Registration Database | Environmental Protection Agency | 09/13/2019 | 11/06/2019 | 02/10/2020 |
| US | COAL ASH EPA | Coal Combustion Residues Surface Impoundments List | Environmental Protection Agency | 01/12/2017 | 03/05/2019 | 11/11/2019 |
| US | SCRD DRYCLEANERS | State Coalition for Remediation of Drycleaners Listing | Environmental Protection Agency | 01/01/2017 | 02/03/2017 | 04/07/2017 |
| US | US AIRS (AFS) | Aerometric Information Retrieval System Facility Subsystem ( | EPA | 10/12/2016 | 10/26/2016 | 02/03/2017 |
| US | EPA WATCH LIST | EPA WATCH LIST | Environmental Protection Agency | 08/30/2013 | 03/21/2014 | 06/17/2014 |
| US | US FIN ASSUR | Financial Assurance Information | Environmental Protection Agency | 09/13/2021 | 09/15/2021 | 09/28/2021 |
| US | FUSRAP | Formerly Utilized Sites Remedial Action Program | Department of Energy | 07/26/2021 | 07/27/2021 | 10/22/2021 |
| US | Delisted NPL | National Priority List Deletions | EPA | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| US | SEMS-ARCHIVE | Superfund Enterprise Management System Archive | EPA | 10/20/2021 | 11/05/2021 | 11/29/2021 |
| US | RCRA NonGen / NLR | RCRA - Non Generators / No Longer Regulated | Environmental Protection Agency | 09/13/2021 | 09/15/2021 | 10/12/2021 |
| US | HMIRS | Hazardous Materials Information Reporting System | U.S. Department of Transportation | 09/12/2021 | 09/13/2021 | 09/28/2021 |
| US | DOT OPS | Incident and Accident Data | Department of Transporation, Office of Pipeli | 01/02/2020 | 01/28/2020 | 04/17/2020 |
| US | US CDL | Clandestine Drug Labs | Drug Enforcement Administration | 05/18/2021 | 05/18/2021 | 08/03/2021 |
| US | US BROWNFIELDS | A Listing of Brownfields Sites | Environmental Protection Agency | 06/10/2021 | 06/10/2021 | 08/17/2021 |
| US | DOD | Department of Defense Sites | USGS | 12/31/2005 | 11/10/2006 | 01/11/2007 |
| US | FEDLAND | Federal and Indian Lands | U.S. Geological Survey | 04/02/2018 | 04/11/2018 | 11/06/2019 |
| US | FUDS | Formerly Used Defense Sites | U.S. Army Corps of Engineers | 08/10/2021 | 08/17/2021 | 10/22/2021 |
| US | UMTRA | Uranium Mill Tailings Sites | Department of Energy | 08/30/2019 | 11/15/2019 | 01/28/2020 |
| US | ODI | Open Dump Inventory | Environmental Protection Agency | 06/30/1985 | 08/09/2004 | 09/17/2004 |
| US | US MINES | Mines Master Index File | Department of Labor, Mine Safety and Health A | 08/09/2021 | 08/24/2021 | 11/19/2021 |
| US | MINES VIOLATIONS | MSHA Violation Assessment Data | DOL, Mine Safety & Health Admi | 06/30/2021 | 07/01/2021 | 09/28/2021 |
| US | US MINES 2 | Ferrous and Nonferrous Metal Mines Database Listing | USGS | 05/06/2020 | 05/27/2020 | 08/13/2020 |
| US | US MINES 3 | Active Mines & Mineral Plants Database Listing | USGS | 04/14/2011 | 06/08/2011 | 09/13/2011 |
| US | PRP | Potentially Responsible Parties | EPA | 12/30/2020 | 01/14/2021 | 03/05/2021 |
| US | TRIS | Toxic Chemical Release Inventory System | EPA | 12/31/2018 | 08/14/2020 | 11/04/2020 |
| US | TSCA | Toxic Substances Control Act | EPA | 12/31/2016 | 06/17/2020 | 09/10/2020 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|
| US | FTTS | FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu | EPA/Office of Prevention, Pesticides and Toxi | 04/09/2009 | 04/16/2009 | 05/11/2009 |
| US | FTTS INSP | FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu | EPA | 04/09/2009 | 04/16/2009 | 05/11/2009 |
| US | HIST FTTS | FIFRA/TSCA Tracking System Administrative Case Listing | Environmental Protection Agency | 10/19/2006 | 03/01/2007 | 04/10/2007 |
| US | HIST FTTS INSP | FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis | Environmental Protection Agency | 10/19/2006 | 03/01/2007 | 04/10/2007 |
| US | SSTS | Section 7 Tracking Systems | EPA | 07/19/2021 | 07/19/2021 | 10/12/2021 |
| US | ICIS | Integrated Compliance Information System | Environmental Protection Agency | 11/18/2016 | 11/23/2016 | 02/10/2017 |
| US | PADS | PCB Activity Database System | EPA | 11/19/2020 | 01/08/2021 | 03/22/2021 |
| US | MLTS | Material Licensing Tracking System | Nuclear Regulatory Commission | 07/29/2021 | 08/24/2021 | 11/19/2021 |
| US | RADINFO | Radiation Information Database | Environmental Protection Agency | 07/01/2019 | 07/01/2019 | 09/23/2019 |
| US | FINDS | Facility Index System/Facility Registry System | EPA | 05/05/2021 | 05/18/2021 | 08/17/2021 |
| US | RAATS | RCRA Administrative Action Tracking System | EPA | 04/17/1995 | 07/03/1995 | 08/07/1995 |
| US | RMP | Risk Management Plans | Environmental Protection Agency | 10/20/2021 | 11/05/2021 | 11/12/2021 |
| US | BRS | Biennial Reporting System | EPA/NTIS | 12/31/2017 | 06/22/2020 | 11/20/2020 |
| US | PWS | Public Water System Data | EPA | 12/17/2013 | 01/09/2014 | 10/15/2014 |
| US | INDIAN RESERV | Indian Reservations | USGS | 12/31/2014 | 07/14/2015 | 01/10/2017 |
| US | INDIAN ODI | Report on the Status of Open Dumps on Indian Lands | Environmental Protection Agency | 12/31/1998 | 12/03/2007 | 01/24/2008 |
| US | IHS OPEN DUMPS | Open Dumps on Indian Land | Department of Health & Human Serivces, Indian | 04/01/2014 | 08/06/2014 | 01/29/2015 |
| US | ABANDONED MINES | Abandoned Mines | Department of Interior | 06/15/2021 | 06/16/2021 | 08/17/2021 |
| CA | CA BOND EXP. PLAN | Bond Expenditure Plan | Department of Health Services | 01/01/1989 | 07/27/1994 | 08/02/1994 |
| CA | CDL | Clandestine Drug Labs | Department of Toxic Substances Control | 12/31/2019 | 01/20/2021 | 04/08/2021 |
| CA | CHMIRS | California Hazardous Material Incident Report System | Office of Emergency Services | 06/30/2021 | 07/15/2021 | 10/06/2021 |
| CA | CORTESE | "Cortese" Hazardous Waste & Substances Sites List | CAL EPA/Office of Emergency Information | 06/17/2021 | 06/17/2021 | 09/14/2021 |
| CA | CUPA LIVERMORE-PLEASANTON | CUPA Facility Listing | Livermore-Pleasanton Fire Department | 05/01/2019 | 05/14/2019 | 07/17/2019 |
| CA | DEED | Deed Restriction Listing | DTSC and SWRCB | 08/30/2021 | 08/31/2021 | 11/19/2021 |
| CA | DRYCLEAN AVAQMD | Antelope Valley Air Quality Management District Drycleaner L | Antelope Valley Air Quality Management Distri | 08/24/2021 | 08/25/2021 | 11/17/2021 |
| CA | DRYCLEAN SOUTH COAST | South Coast Air Quality Management District Drycleaner Listi | South Coast Air Quality Management District | 08/18/2021 | 08/23/2021 | 11/12/2021 |
| CA | DRYCLEANERS | Cleaner Facilities | Department of Toxic Substance Control | 08/27/2021 | 09/01/2021 | 11/19/2021 |
| CA | EMI | Emissions Inventory Data | California Air Resources Board | 12/31/2019 | 06/10/2021 | 08/27/2021 |
| CA | ENF | Enforcement Action Listing | State Water Resoruces Control Board | 04/16/2021 | 04/20/2021 | 07/07/2021 |
| CA | Financial Assurance 1 | Financial Assurance Information Listing | Department of Toxic Substances Control | 04/14/2021 | 04/15/2021 | 07/06/2021 |
| CA | Financial Assurance 2 | Financial Assurance Information Listing | California Integrated Waste Management Board | 08/13/2021 | 08/13/2021 | 11/05/2021 |
| CA | HAULERS | Registered Waste Tire Haulers Listing | Integrated Waste Management Board | 09/14/2021 | 11/11/2021 | 11/23/2021 |
| CA | HAZNET | Facility and Manifest Data | California Environmental Protection Agency | 12/31/2019 | 04/15/2020 | 07/02/2020 |
| CA | HIST CORTESE | Hazardous Waste & Substance Site List | Department of Toxic Substances Control | 04/01/2001 | 01/22/2009 | 04/08/2009 |
| CA | HWP | EnviroStor Permitted Facilities Listing | Department of Toxic Substances Control | 08/13/2021 | 08/13/2021 | 11/08/2021 |
| CA | HWT | Registered Hazardous Waste Transporter Database | Department of Toxic Substances Control | 07/01/2021 | 07/01/2021 | 09/24/2021 |
| CA | ICE | ICE | Department of Toxic Subsances Control | 08/13/2021 | 08/13/2021 | 11/08/2021 |
| CA | LDS | Land Disposal Sites Listing (GEOTRACKER) | State Water Qualilty Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | LIENS | Environmental Liens Listing | Department of Toxic Substances Control | 08/25/2021 | 09/03/2021 | 11/22/2021 |
| CA | MCS | Military Cleanup Sites Listing (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | MINES | Mines Site Location Listing | Department of Conservation | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | MWMP | Medical Waste Management Program Listing | Department of Public Health | 08/05/2021 | 08/31/2021 | 11/19/2021 |
| CA | NPDES | NPDES Permits Listing | State Water Resources Control Board | 05/10/2021 | 05/11/2021 | 07/27/2021 |
| CA | PEST LIC | Pesticide Regulation Licenses Listing | Department of Pesticide Regulation | 08/30/2021 | 08/31/2021 | 11/19/2021 |
| CA | PROC | Certified Processors Database | Department of Conservation | 06/04/2021 | 06/04/2021 | 08/27/2021 |
| CA | NOTIFY 65 | Proposition 65 Records | State Water Resources Control Board | 03/12/2021 | 03/16/2021 | 06/01/2021 |
| CA | SCH | School Property Evaluation Program | Department of Toxic Substances Control | 07/22/2021 | 07/22/2021 | 10/08/2021 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|
| CA | SPILLS 90 | SPILLS90 data from FirstSearch | FirstSearch | 06/06/2012 | 01/03/2013 | 02/22/2013 |
| CA | TOXIC PITS | Toxic Pits Cleanup Act Sites | State Water Resources Control Board | 07/01/1995 | 08/30/1995 | 09/26/1995 |
| CA | UIC | UIC Listing | Deaprtment of Conservation | 06/03/2021 | 06/03/2021 | 08/25/2021 |
| CA | WASTEWATER PITS | Oil Wastewater Pits Listing | RWQCB, Central Valley Region | 02/11/2021 | 07/01/2021 | 09/29/2021 |
| CA | WDS | Waste Discharge System | State Water Resources Control Board | 06/19/2007 | 06/20/2007 | 06/29/2007 |
| CA | WIP | Well Investigation Program Case List | Los Angeles Water Quality Control Board | 07/03/2009 | 07/21/2009 | 08/03/2009 |
| CA | WMUDS/SWAT | Waste Management Unit Database | State Water Resources Control Board | 04/01/2000 | 04/10/2000 | 05/10/2000 |
| CA | CERS HAZ WASTE | CERS HAZ WASTE | CalEPA | 07/15/2021 | 07/15/2021 | 10/06/2021 |
| CA | CERS TANKS | California Environmental Reporting System (CERS) Tanks | California Environmental Protection Agency | 07/15/2021 | 07/15/2021 | 10/06/2021 |
| CA | HWTS | Hazardous Waste Tracking System | Department of Toxic Substances Control | 07/13/2021 | 07/14/2021 | 10/06/2021 |
| US | UXO | Unexploded Ordnance Sites | Department of Defense | 12/31/2018 | 07/02/2020 | 09/17/2020 |
| US | MINES MRDS | Mineral Resources Data System | USGS | 04/06/2018 | 10/21/2019 | 10/24/2019 |
| US | FEDERAL FACILITY | Federal Facility Site Information listing | Environmental Protection Agency | 05/25/2021 | 06/24/2021 | 09/20/2021 |
| CA | PFAS | PFAS Contamination Site Location Listing | State Water Resources Control Board | 09/07/2021 | 09/08/2021 | 12/01/2021 |
| CA | CIWQS | California Integrated Water Quality System | State Water Resources Control Board | 08/30/2021 | 08/31/2021 | 11/19/2021 |
| CA | PROJECT | Project Sites (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | SAMPLING POINT | Sampling Point ? Public Sites (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | WDR | Waste Discharge Requirements Listing | State Water Resources Control Board | 09/07/2021 | 09/08/2021 | 12/01/2021 |
| US | FUELS PROGRAM | EPA Fuels Program Registered Listing | EPA | 08/13/2021 | 08/13/2021 | 10/22/2021 |
| CA | CERS | CalEPA Regulated Site Portal Data | California Environmental Protection Agency | 07/15/2021 | 07/15/2021 | 10/06/2021 |
| CA | UIC GEO | Underground Injection Control Sites (GEOTRACKER) | State Water Resource Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | NON-CASE INFO | Non-Case Information Sites (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | OTHER OIL GAS | Other Oil & Gas Projects Sites (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | PROD WATER PONDS | Produced Water Ponds Sites (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| CA | WELL STIM PROJ | Well Stimulation Project (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |
| US | DOCKET HWC | Hazardous Waste Compliance Docket Listing | Environmental Protection Agency | 05/06/2021 | 05/21/2021 | 08/11/2021 |
| CA | AQUEOUS FOAM | Former Fire Training Facility Assessments Listing | State Water Resources Control Board | 12/01/2019 | 08/19/2021 | 10/28/2021 |
| US | ECHO | Enforcement & Compliance History Information | Environmental Protection Agency | 06/26/2021 | 07/01/2021 | 09/28/2021 |
| CA | MILITARY PRIV SITES | Military Privatized Sites (GEOTRACKER) | State Water Resources Control Board | 09/07/2021 | 09/07/2021 | 11/29/2021 |

**HISTORICAL USE RECORDS**

| | | | | | | |
|---|---|---|---|---|---|---|
| US | EDR MGP | EDR Proprietary Manufactured Gas Plants | EDR, Inc. | | | |
| US | EDR Hist Auto | EDR Exclusive Historical Auto Stations | EDR, Inc. | | | |
| US | EDR Hist Cleaner | EDR Exclusive Historical Cleaners | EDR, Inc. | | | |
| CA | RGA LF | Recovered Government Archive Solid Waste Facilities List | Department of Resources Recycling and Recover | | 07/01/2013 | 01/13/2014 |
| CA | RGA LUST | Recovered Government Archive Leaking Underground Storage Tan | State Water Resources Control Board | | 07/01/2013 | 12/30/2013 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|
| **COUNTY RECORDS** | | | | | | |
| CA | CS ALAMEDA | Contaminated Sites | Alameda County Environmental Health Services | 01/09/2019 | 01/11/2019 | 03/05/2019 |
| CA | UST ALAMEDA | Underground Tanks | Alameda County Environmental Health Services | 06/29/2021 | 06/30/2021 | 09/22/2021 |
| CA | CUPA AMADOR | CUPA Facility List | Amador County Environmental Health | 08/05/2021 | 08/06/2021 | 09/17/2021 |
| CA | CUPA BUTTE | CUPA Facility Listing | Public Health Department | 04/21/2017 | 04/25/2017 | 08/09/2017 |
| CA | CUPA CALVERAS | CUPA Facility Listing | Calveras County Environmental Health | 06/15/2021 | 06/16/2021 | 07/02/2021 |
| CA | CUPA COLUSA | CUPA Facility List | Health & Human Services | 04/06/2020 | 04/23/2020 | 07/10/2020 |
| CA | SL CONTRA COSTA | Site List | Contra Costa Health Services Department | 07/20/2021 | 07/20/2021 | 10/11/2021 |
| CA | CUPA DEL NORTE | CUPA Facility List | Del Norte County Environmental Health Divisio | 06/29/2021 | 07/23/2021 | 10/08/2021 |
| CA | CUPA EL DORADO | CUPA Facility List | El Dorado County Environmental Management Dep | 07/30/2021 | 08/03/2021 | 10/26/2021 |
| CA | CUPA FRESNO | CUPA Resources List | Dept. of Community Health | 04/09/2021 | 06/23/2021 | 09/17/2021 |
| CA | CUPA GLENN | CUPA Facility List | Glenn County Air Pollution Control District | 01/22/2018 | 01/24/2018 | 03/14/2018 |
| CA | CUPA HUMBOLDT | CUPA Facility List | Humboldt County Environmental Health | 08/12/2021 | 08/12/2021 | 11/08/2021 |
| CA | CUPA IMPERIAL | CUPA Facility List | San Diego Border Field Office | 07/13/2021 | 07/15/2021 | 10/06/2021 |
| CA | CUPA INYO | CUPA Facility List | Inyo County Environmental Health Services | 04/02/2018 | 04/03/2018 | 06/14/2018 |
| CA | CUPA KERN | CUPA Facility List | Kern County Public Health | 07/06/2021 | 08/12/2021 | 10/07/2021 |
| CA | UST KERN | Underground Storage Tank Sites & Tank Listing | Kern County Environment Health Services Depar | 07/06/2021 | 08/12/2021 | 08/18/2021 |
| CA | CUPA KINGS | CUPA Facility List | Kings County Department of Public Health | 12/03/2020 | 01/26/2021 | 04/14/2021 |
| CA | CUPA LAKE | CUPA Facility List | Lake County Environmental Health | 07/27/2021 | 07/28/2021 | 10/21/2021 |
| CA | CUPA LASSEN | CUPA Facility List | Lassen County Environmental Health | 07/31/2020 | 08/21/2020 | 11/09/2020 |
| CA | AOCONCERN | Key Areas of Concerns in Los Angeles County | | 03/30/2009 | 03/31/2009 | 10/23/2009 |
| CA | HMS LOS ANGELES | HMS: Street Number List | Department of Public Works | 07/08/2021 | 07/09/2021 | 09/29/2021 |
| CA | LF LOS ANGELES | List of Solid Waste Facilities | La County Department of Public Works | 07/09/2021 | 07/09/2021 | 09/29/2021 |
| CA | LF LOS ANGELES CITY | City of Los Angeles Landfills | Engineering & Construction Division | 01/01/2021 | 02/18/2021 | 05/10/2021 |
| CA | LOS ANGELES AST | Active & Inactive AST Inventory | Los Angeles Fire Department | 06/01/2019 | 06/25/2019 | 08/22/2019 |
| CA | LOS ANGELES CO LF METHANE | Methane Producing Landfills | Los Angeles County Department of Public Works | 02/04/2021 | 04/16/2021 | 04/21/2021 |
| CA | LOS ANGELES HM | Active & Inactive Hazardous Materials Inventory | Los Angeles Fire Department | 04/19/2021 | 06/17/2021 | 06/28/2021 |
| CA | LOS ANGELES UST | Active & Inactive UST Inventory | Los Angeles Fire Department | 04/19/2021 | 06/17/2021 | 09/14/2021 |
| CA | SITE MIT LOS ANGELES | Site Mitigation List | Community Health Services | 05/26/2021 | 07/09/2021 | 09/29/2021 |
| CA | UST EL SEGUNDO | City of El Segundo Underground Storage Tank | City of El Segundo Fire Department | 01/21/2017 | 04/19/2017 | 05/10/2017 |
| CA | UST LONG BEACH | City of Long Beach Underground Storage Tank | City of Long Beach Fire Department | 04/22/2019 | 04/23/2019 | 06/27/2019 |
| CA | UST TORRANCE | City of Torrance Underground Storage Tank | City of Torrance Fire Department | 02/02/2021 | 04/28/2021 | 07/13/2021 |
| CA | CUPA MADERA | CUPA Facility List | Madera County Environmental Health | 08/10/2020 | 08/12/2020 | 10/23/2020 |
| CA | UST MARIN | Underground Storage Tank Sites | Public Works Department Waste Management | 09/26/2018 | 10/04/2018 | 11/02/2018 |
| CA | UST MENDOCINO | Mendocino County UST Database | Department of Public Health | 09/22/2021 | 11/18/2021 | 11/22/2021 |
| CA | CUPA MERCED | CUPA Facility List | Merced County Environmental Health | 08/11/2021 | 08/12/2021 | 11/08/2021 |
| CA | CUPA MONO | CUPA Facility List | Mono County Health Department | 02/22/2021 | 03/02/2021 | 05/19/2021 |
| CA | CUPA MONTEREY | CUPA Facility Listing | Monterey County Health Department | 06/23/2021 | 06/23/2021 | 06/24/2021 |
| CA | LUST NAPA | Sites With Reported Contamination | Napa County Department of Environmental Manag | 01/09/2017 | 01/11/2017 | 03/02/2017 |
| CA | UST NAPA | Closed and Operating Underground Storage Tank Sites | Napa County Department of Environmental Manag | 09/05/2019 | 09/09/2019 | 10/31/2019 |
| CA | CUPA NEVADA | CUPA Facility List | Community Development Agency | 07/28/2021 | 07/28/2021 | 10/21/2021 |
| CA | IND_SITE ORANGE | List of Industrial Site Cleanups | Health Care Agency | 07/09/2021 | 08/03/2021 | 10/26/2021 |
| CA | LUST ORANGE | List of Underground Storage Tank Cleanups | Health Care Agency | 07/09/2021 | 08/03/2021 | 10/26/2021 |
| CA | UST ORANGE | List of Underground Storage Tank Facilities | Health Care Agency | 07/09/2021 | 07/29/2021 | 10/19/2021 |
| CA | MS PLACER | Master List of Facilities | Placer County Health and Human Services | 09/07/2021 | 09/09/2021 | 11/29/2021 |
| CA | CUPA PLUMAS | CUPA Facility List | Plumas County Environmental Health | 03/31/2019 | 04/23/2019 | 06/26/2019 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|
| CA | LUST RIVERSIDE | Listing of Underground Tank Cleanup Sites | Department of Environmental Health | 06/29/2021 | 06/30/2021 | 07/14/2021 |
| CA | UST RIVERSIDE | Underground Storage Tank Tank List | Department of Environmental Health | 06/29/2021 | 06/30/2021 | 07/14/2021 |
| CA | CS SACRAMENTO | Toxic Site Clean-Up List | Sacramento County Environmental Management | 03/30/2021 | 04/01/2021 | 06/23/2021 |
| CA | ML SACRAMENTO | Master Hazardous Materials Facility List | Sacramento County Environmental Management | 08/02/2021 | 08/04/2021 | 11/02/2021 |
| CA | CUPA SAN BENITO | CUPA Facility List | San Benito County Environmental Health | 07/27/2021 | 07/28/2021 | 10/21/2021 |
| CA | PERMITS SAN BERNARDINO | Hazardous Material Permits | San Bernardino County Fire Department Hazardo | 08/11/2021 | 08/12/2021 | 11/08/2021 |
| CA | HMMD SAN DIEGO | Hazardous Materials Management Division Database | Hazardous Materials Management Division | 08/30/2021 | 08/31/2021 | 11/19/2021 |
| CA | LF SAN DIEGO | Solid Waste Facilities | Department of Health Services | 10/01/2020 | 11/23/2020 | 02/08/2021 |
| CA | SAN DIEGO CO LOP | Local Oversight Program Listing | Department of Environmental Health | 07/14/2020 | 07/16/2020 | 09/29/2020 |
| CA | SAN DIEGO CO SAM | Environmental Case Listing | San Diego County Department of Environmental | 03/23/2010 | 06/15/2010 | 07/09/2010 |
| CA | CUPA SAN FRANCISCO CO | CUPA Facility Listing | San Francisco County Department of Environmen | 08/05/2021 | 08/05/2021 | 10/29/2021 |
| CA | LUST SAN FRANCISCO | Local Oversite Facilities | Department Of Public Health San Francisco Cou | 09/19/2008 | 09/19/2008 | 09/29/2008 |
| CA | UST SAN FRANCISCO | Underground Storage Tank Information | Department of Public Health | 08/05/2021 | 08/05/2021 | 10/29/2021 |
| CA | UST SAN JOAQUIN | San Joaquin Co. UST | Environmental Health Department | 06/22/2018 | 06/26/2018 | 07/11/2018 |
| CA | CUPA SAN LUIS OBISPO | CUPA Facility List | San Luis Obispo County Public Health Departme | 08/10/2021 | 08/11/2021 | 11/08/2021 |
| CA | BI SAN MATEO | Business Inventory | San Mateo County Environmental Health Service | 02/20/2020 | 02/20/2020 | 04/24/2020 |
| CA | LUST SAN MATEO | Fuel Leak List | San Mateo County Environmental Health Service | 03/29/2019 | 03/29/2019 | 05/29/2019 |
| CA | CUPA SANTA BARBARA | CUPA Facility Listing | Santa Barbara County Public Health Department | 09/08/2011 | 09/09/2011 | 10/07/2011 |
| CA | CUPA SANTA CLARA | Cupa Facility List | Department of Environmental Health | 08/04/2021 | 08/05/2021 | 10/29/2021 |
| CA | HIST LUST SANTA CLARA | HIST LUST - Fuel Leak Site Activity Report | Santa Clara Valley Water District | 03/29/2005 | 03/30/2005 | 04/21/2005 |
| CA | LUST SANTA CLARA | LOP Listing | Department of Environmental Health | 03/03/2014 | 03/05/2014 | 03/18/2014 |
| CA | SAN JOSE HAZMAT | Hazardous Material Facilities | City of San Jose Fire Department | 11/03/2020 | 11/05/2020 | 01/26/2021 |
| CA | CUPA SANTA CRUZ | CUPA Facility List | Santa Cruz County Environmental Health | 01/21/2017 | 02/22/2017 | 05/23/2017 |
| CA | CUPA SHASTA | CUPA Facility List | Shasta County Department of Resource Manageme | 06/15/2017 | 06/19/2017 | 08/09/2017 |
| CA | LUST SOLANO | Leaking Underground Storage Tanks | Solano County Department of Environmental Man | 06/04/2019 | 06/06/2019 | 08/13/2019 |
| CA | UST SOLANO | Underground Storage Tanks | Solano County Department of Environmental Man | 06/22/2021 | 06/23/2021 | 09/17/2021 |
| CA | CUPA SONOMA | Cupa Facility List | County of Sonoma Fire & Emergency Services De | 07/02/2021 | 07/06/2021 | 07/14/2021 |
| CA | LUST SONOMA | Leaking Underground Storage Tank Sites | Department of Health Services | 06/30/2021 | 06/30/2021 | 09/24/2021 |
| CA | CUPA STANISLAUS | CUPA Facility List | Stanislaus County Department of Ennvironmenta | 05/14/2021 | 05/17/2021 | 08/03/2021 |
| CA | UST SUTTER | Underground Storage Tanks | Sutter County Environmental Health Services | 08/23/2021 | 08/25/2021 | 11/17/2021 |
| CA | CUPA TEHAMA | CUPA Facility List | Tehama County Department of Environmental Hea | 01/13/2021 | 01/14/2021 | 04/06/2021 |
| CA | CUPA TRINITY | CUPA Facility List | Department of Toxic Substances Control | 07/14/2021 | 07/15/2021 | 10/06/2021 |
| CA | CUPA TULARE | CUPA Facility List | Tulare County Environmental Health Services D | 04/26/2021 | 04/28/2021 | 07/13/2021 |
| CA | CUPA TUOLUMNE | CUPA Facility List | Divison of Environmental Health | 04/23/2018 | 04/25/2018 | 06/25/2018 |
| CA | BWT VENTURA | Business Plan, Hazardous Waste Producers, and Operating Unde | Ventura County Environmental Health Division | 05/26/2021 | 07/19/2021 | 10/08/2021 |
| CA | LF VENTURA | Inventory of Illegal Abandoned and Inactive Sites | Environmental Health Division | 12/01/2011 | 12/01/2011 | 01/19/2012 |
| CA | LUST VENTURA | Listing of Underground Tank Cleanup Sites | Environmental Health Division | 05/29/2008 | 06/24/2008 | 07/31/2008 |
| CA | MED WASTE VENTURA | Medical Waste Program List | Ventura County Resource Management Agency | 05/26/2021 | 07/19/2021 | 10/07/2021 |
| CA | UST VENTURA | Underground Tank Closed Sites List | Environmental Health Division | 07/26/2021 | 09/08/2021 | 11/29/2021 |
| CA | UST YOLO | Underground Storage Tank Comprehensive Facility Report | Yolo County Department of Health | 06/22/2021 | 06/28/2021 | 09/21/2021 |
| CA | CUPA YUBA | CUPA Facility List | Yuba County Environmental Health Department | 07/20/2021 | 07/20/2021 | 10/08/2021 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

| St | Acronym | Full Name | Government Agency | Gov Date | Arvl. Date | Active Date |
|---|---|---|---|---|---|---|

**STREET AND ADDRESS INFORMATION**

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# APPENDIX F

December 6, 2021

Brynn McCulloch
Associate Geologist
Leighton and Associates, Inc.
17781 Cowan
Irvine, California 92614

**Subject: Murrieta Hot Springs Desktop Assessment**

Dear Ms. McCulloch,

This letter report summarizes the results of the data search and literature review conducted for the property located at the southeast corner of Murrieta Hot Springs Road and Jefferson Avenue just west of the Interstate 15 freeway in the City of Murrieta, California (Project Site). The purpose of the review was to determine the existence of any records of listed and/or sensitive plant and wildlife species and communities, and potential wetlands and/or waters of the United States, occurring on or in the immediate vicinity of the Project Site.

The data search and literature review are in support of the Phase I Environmental Site Assessment being prepared by Leighton and Associates, Inc. The approximately 19.22-acre Project Site is bounded by Murrieta Hot Springs Road to the northwest, Jefferson Avenue to the southwest, commercial buildings and parking to the northeast, and open land to the southeast. The immediate area is partially developed with commercial, industrial, and residential properties and undeveloped properties directly northwest and south of the site. Heavily trafficked commercial properties to the north of the Project Site include a Walmart, Home Depot, and Carmax. The Project Site consists of open ruderal and disturbed non-native vegetation with a native riparian corridor bisecting the property. The adjacent undeveloped land is primarily ruderal and open grassland and coastal sage scrub habitat with a few stands of trees.

## Data Search and Literature Review

Chambers Group, Inc. (Chambers Group) conducted database searches to determine which sensitive species are known to occur within the project vicinity. The most recent records of the California Natural Diversity Database (CNDDB) managed by the California Department of Fish and Wildlife (CDFW 2021), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants, and the United States Fish and Wildlife (USFWS) Endangered Species Database (USFWS 2021a) were reviewed for the quadrangle containing *(Murrieta,* California U.S. Geological Survey [USGS] 7.5-minute topographic quadrangle [USGS 2021]) and surrounding (*Lake Elsinore, Romoland, Winchester, Wildomar, Bachelor Mountain, Fallbrook, Temecula, Pechanga* [USGS 2021]) the Project Site. These databases contain records of reported occurrences of federally or state listed endangered or threatened species, proposed endangered or threatened species, California State Species of Special Concern (SSC), or otherwise sensitive species or habitats that may occur within or in the immediate vicinity of the Project Site. Although nine quadrangles were reviewed, the assessment focused on species known to occur within 5 miles of the Project Site. Existing critical habitat information from the USFWS (USFWS 2021b) and topographic maps and aerial photographs containing the Project Site also were reviewed.

The USFWS National Wetlands Inventory (NWI) maps (USFWS 2021c) were reviewed to identify potential areas within the Project Site that could be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) (as defined in 33 Code of Federal Regulations [CFR] Part 328 and other applicable guidance). The USGS *Murrieta,* California 7.5-minute topographic quadrangle (USGS 2021) was reviewed for blue-line features within and in the immediate vicinity of the Project Site that may indicate the presence of streams or drainage features.

## Results

The majority of the Project Site is classified as ruderal and disturbed grassland dominated by non-native grasses and forbs that are frequently disked. Native species included minimal amounts of scattered annual bur-sage (*Ambrosia acanthicarpa*), four-wing saltbush (*Atriplex canescens*), horseweed (*Erigeron canadensis*), and Jimson weed (*Datura wrightii*); however, the Project Site is mainly composed of non-native species, including Russian thistle (*Salsola tragus*), shortpod mustard (*Hirschfeldia incana*), annual Mediterranean grasses (*Bromus* spp.), prickly lettuce (*Lactuca serriola*), golden crownbeard (*Verbesina encelioides* subsp. *exauriculata*), white sweetclover (*Melilotus albus*), and tree tobacco (*Nicotiana glauca*).

A riparian corridor bisects the Project Site and is dominated by native riparian woodland species including black willow (*Salix gooddingii*), arroyo willow (*S. lasiolepis*), red willow (*S. laevigata*), Fremont cottonwood (*Populus fremontii*), and an occasional California sycamore (*Platanus racemosa*). Native riparian scrub species were present within the drier transitional edges of the creek including mugwort (*Artemisia douglasiana*), coyote brush (*Baccharis pilularis*), and mule fat (*Baccharis salicifolia* subsp. *salicifolia*). Non-native athel (*Tamarix aphylla*) was also present toward the northern end of the Project Site.

### *Sensitive Plant Species*

The USFWS (USFWS 2021a) database search resulted in two sensitive plant species occurrences within 5 miles of the Project site. The CNDDB (CDFW 2021) database searches resulted 28 plant species and 4 vegetation communities total within 5 miles of the Project site. Three rare plant 1B-ranking species (i.e., *Symphyotrichum defoliatum, Navarretia fossalis*, and *Lasthenia glabrata* ssp*. coulteri*) had a record occurrence within a quarter mile of the Project Site. Twenty rare plant 1B-ranking species (i.e., *Centromadia pungens* ssp*. laevis, Abronia villosa* var*. aurita, Orcuttia californica, Juncus luciensis, Sphaerocarpos drewiae, Clinopodium chandleri, Brodiaea santarosae, Eryngium aristulatum* var*. parishii, Arctostaphylos rainbowensis, Navarretia prostrata, Chorizanthe polygonoides* var*. longispina, Chorizanthe parryi* var*. parryi, Scutellaria bolanderi* ssp*. austromontana, Calochortus weedii* var*. intermedius, Brodiaea filifolia, Cryptantha wigginsii, Ambrosia pumila, Allium munzii, Monardella hypoleuca* ssp*. intermedia, Geothallus tuberosus*), two 2B-ranking species (*Pseudognaphalium leucocephalum* and *Almutaster pauciflorus*), one 3B-ranking species (*Myosurus minimus* ssp*. apus*), and two 4B-ranking species (*Harpagonella palmeri* and *Lepidium virginicum* var*. robinsonii*) have a record of occurrence within 5 miles of the Project Site.

The CNPS search resulted in 35 rare plant species within the Murrieta quad, but not specific to the project vicinity. Several species including *Centromadia pungens* ssp*. laevis, Navarretia fossalis, Lasthenia glabrata* ssp*. coulteri,* and *Symphyotrichum defoliatum* are known to occur in riparian woodland, wetlands, and/or grasslands; and suitable habitat may be present on the Project Site to support these species.

### *Sensitive Wildlife Species*

The USFWS (USFWS 2021a) database search resulted in nine sensitive wildlife species occurrences within 5 miles of the Project site. The CNDDB (CDFW 2021) database search resulted in 31 total wildlife species occurrences within 5 miles of the Project site. One federally and state listed endangered wildlife species (*Vireo bellii pusillus*), four federally listed endangered wildlife species (*Dipodomys stephensi, Streptocephalus woottoni, Dipodomys merriami parvus,* and *Euphydryas editha quino*), three federally listed threatened wildlife species (*Polioptila californica, Branchinecta lynchi*, and *Rana draytonii*), and one state listed threatened wildlife species (*Buteo swainsoni*) have records of occurrence within 5 miles of the Project Site. In addition to these species, two Species of Special Concern (*Arizona elegans occidentalis* and *Phrynosoma blainvillii*), were recorded within a quarter mile of the Project site, and 14 Species of Special Concern (*Arizona elegans occidentalis, Phrynosoma blainvillii, Crotalus ruber, Lepus californicus bennettii, Spea hammondii, Athene cunicularia, Chaetodipus fallax, Taricha torosa, Thamnophis hammondii, Emys marmorata, Perognathus longimembris brevinasus, Gila orcuttii, Eumops perotis californicus,* and *Lanius ludovicianus*) were identified within 5 miles of the Project site.

### *Critical Habitat*

USFWS-designated critical habitat for one wildlife species (*Polioptila californica californica*) and two plant species (*Brodiaea filifolia* and *Ambrosia pumila*) was identified within 5 miles of the Project Site (USFWS 2021b). The closest critical habitat is identified as 3.7 miles from the Project Site.

### *Wetlands and Waters of the United States*

Blue-line features and NWI mapped wetlands are found within the Project Site. The Project Site is located within the Murrieta Creek Watershed, and a tributary of Murrieta Creek is mapped as a National Hydrography Dataset (NHD) stream within the Project Site. The stream flows south through the Project site, entering on the northern edge from underneath Murrieta Hot Springs Road and crossing through the center of the Project Site before exiting at the southern corner. The southern end of the stream has been altered with gravel rip-rap prior to being culverted beneath Jefferson Avenue. An NWI Riverine wetland is also mapped within the Project Site. The wetland is seasonally flooded with surface water present for extended periods during the growing season but generally absent by the end of the season. The wetland boundary is delineated along the banks of the mapped stream and extends from the northern edge of the Project Site to the southern corner.

## Conclusion

A field survey was not performed for biological resources or jurisdictional waters for this Project. Recent aerial maps were reviewed. Sensitive species were identified as having known occurrences in the vicinity of the Project Site, with five species being recorded within a quarter of a mile of the site. Suitable habitat may be present within the Project Site, and sensitive plant and wildlife species do have the potential to occur. Although USFWS-designated critical habitat was identified within the vicinity of the Project Site, the critical habitat was not within or in the immediate vicinity of the Project Site.

Wetlands and waters of the United States under the jurisdiction of the USACE (as defined in 33 CFR Part 328 and other applicable guidance) occur on the site. If any impacts are to occur to these wetlands or waters, appropriate permit application would be required.

Please contact me if you have any questions or comments regarding this memo.

Sincerely,

**CHAMBERS GROUP, INC.**

**Lisa Louie**

*Senior Project Manager*

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## Attachments

Attachment 1: Project Figures

Attachment 2: Representative Site Photographs

Attachment 3: CNDDB and CNPSEI Results

## References

California Department of Fish and Wildlife (CDFW)

2021 California Natural Diversity Database (CNDDB). RareFind Version 5. Database Query for the *Murrieta, Lake Elsinore, Romoland, Winchester, Wildomar, Bachelor Mountain, Fallbrook, Temecula,* and *Pechanga* California USGS 7.5-minute quadrangles. Wildlife and Habitat Data Analysis Branch.

California Native Plant Society (CNPS), Rare Plant Program

2021 Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org. Accessed November 2021.

Google Earth

2021 Google Earth Pro application, 7.3.3.7786 (32-bit). Historical aerial imagery. Kh.google.com. Accessed November 2021.

U.S. Fish and Wildlife Service (USFWS)

2021a Endangered Species Database. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Accessed November 2021 from https://www.fws.gov/endangered/.

2021b Critical Habitat Portal. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Accessed November 2021 from http://criticalhabitat.fws.gov/crithab/.

2021c National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Accessed November 2021 from http://www.fws.gov/wetlands/.

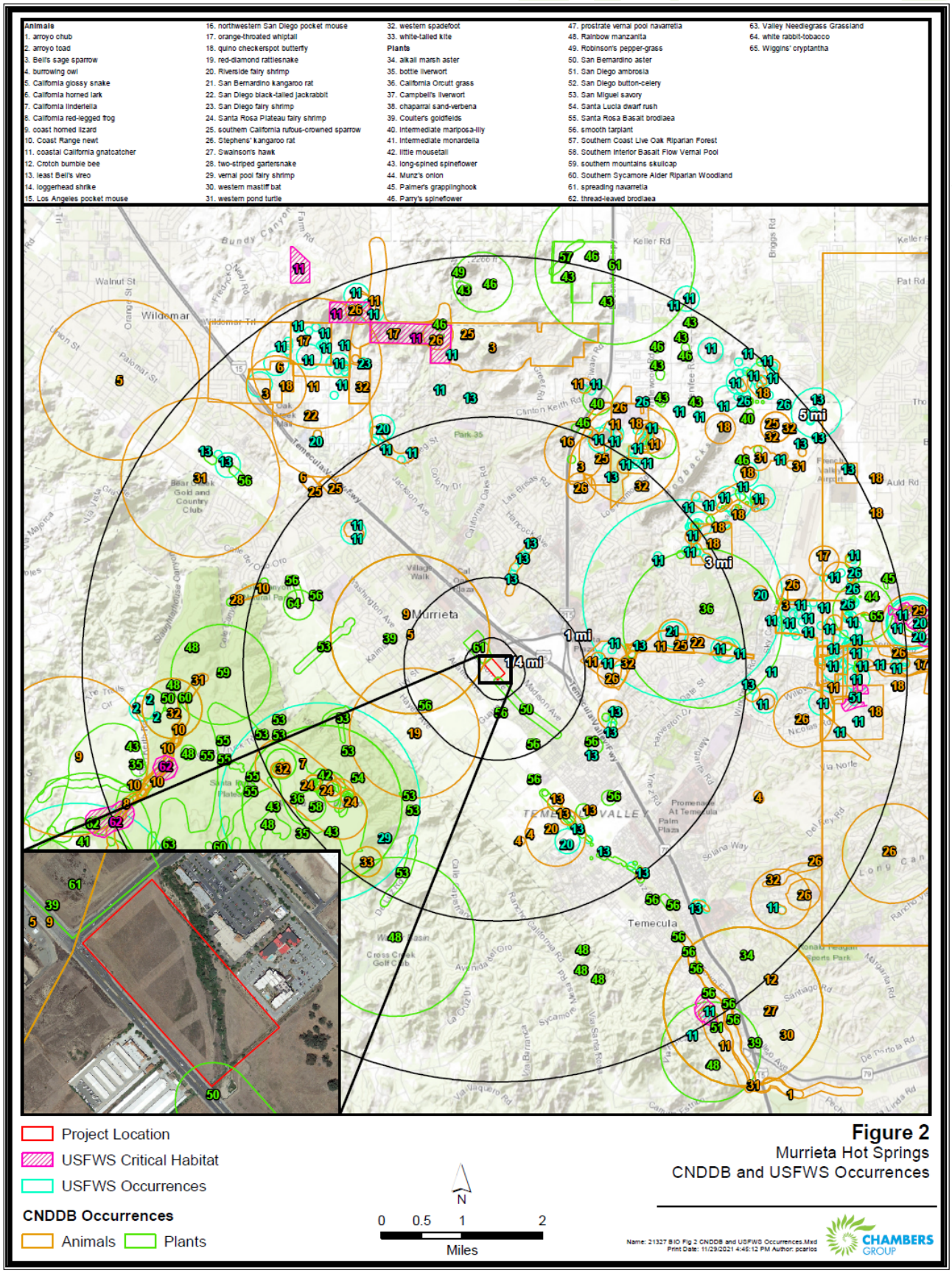
U.S. Geological Survey (USGS)

2021 *Murrieta*, California, Los Angeles County 7.5-minute topographic quadrangle.

# ATTACHMENT 1 – PROJECT FIGURES




**Figure 1**
Murrieta Hot Springs
Project Location and Vicinity


Animals
1. arroyo chub
2. arroyo toad
3. Bell's sage sparrow
4. burrowing owl
5. California glossy snake
6. California horned lark
7. California linderiella
8. California red-legged frog
9. coast horned lizard
10. Coast Range newt
11. coastal California gnatcatcher
12. Crotch bumble bee
13. least Bell's vireo
14. loggerhead shrike
15. Los Angeles pocket mouse
16. northwestern San Diego pocket mouse
17. orange-throated whiptail
18. quino checkerspot butterfly
19. red-diamond rattlesnake
20. Riverside fairy shrimp
21. San Bernardino kangaroo rat
22. San Diego black-tailed jackrabbit
23. San Diego fairy shrimp
24. Santa Rosa Plateau fairy shrimp
25. southern California rufous-crowned sparrow
26. Stephens' kangaroo rat
27. Swainson's hawk
28. two-striped gartersnake
29. vernal pool fairy shrimp
30. western mastiff bat
31. western pond turtle
32. western spadefoot
33. white-tailed kite
Plants
34. alkali marsh aster
35. bottle liverwort
36. California Orcutt grass
37. Campbell's liverwort
38. chaparral sand-verbena
39. Coulter's goldfields
40. intermediate mariposa-lily
41. intermediate monardella
42. little mousetail
43. long-spined spineflower
44. Munz's onion
45. Palmer's grapplinghook
46. Parry's spineflower
47. prostrate vernal pool navarretia
48. Rainbow manzanita
49. Robinson's pepper-grass
50. San Bernardino aster
51. San Diego ambrosia
52. San Diego button-celery
53. San Miguel savory
54. Santa Lucia dwarf rush
55. Santa Rosa Basalt brodiaea
56. smooth tarplant
57. Southern Coast Live Oak Riparian Forest
58. Southern Interior Basalt Flow Vernal Pool
59. southern mountains skullcap
60. Southern Sycamore Alder Riparian Woodland
61. spreading navarretia
62. thread-leaved brodiaea
63. Valley Needlegrass Grassland
64. white rabbit-tobacco
65. Wiggins' cryptantha
Wildomar
Murrieta
Temecula
1/4 mi
1 mi
3 mi
5 mi
Project Location
USFWS Critical Habitat
USFWS Occurrences
CNDDB Occurrences
Animals
Plants
N
0 0.5 1 2
Miles
Figure 2
Murrieta Hot Springs
CNDDB and USFWS Occurrences
Name: 21327 BIO Fig 2 CNDDB and USFWS Occurrences.Mxd
Print Date: 11/29/2021 4:45:12 PM Author: pcarlos
CHAMBERS GROUP

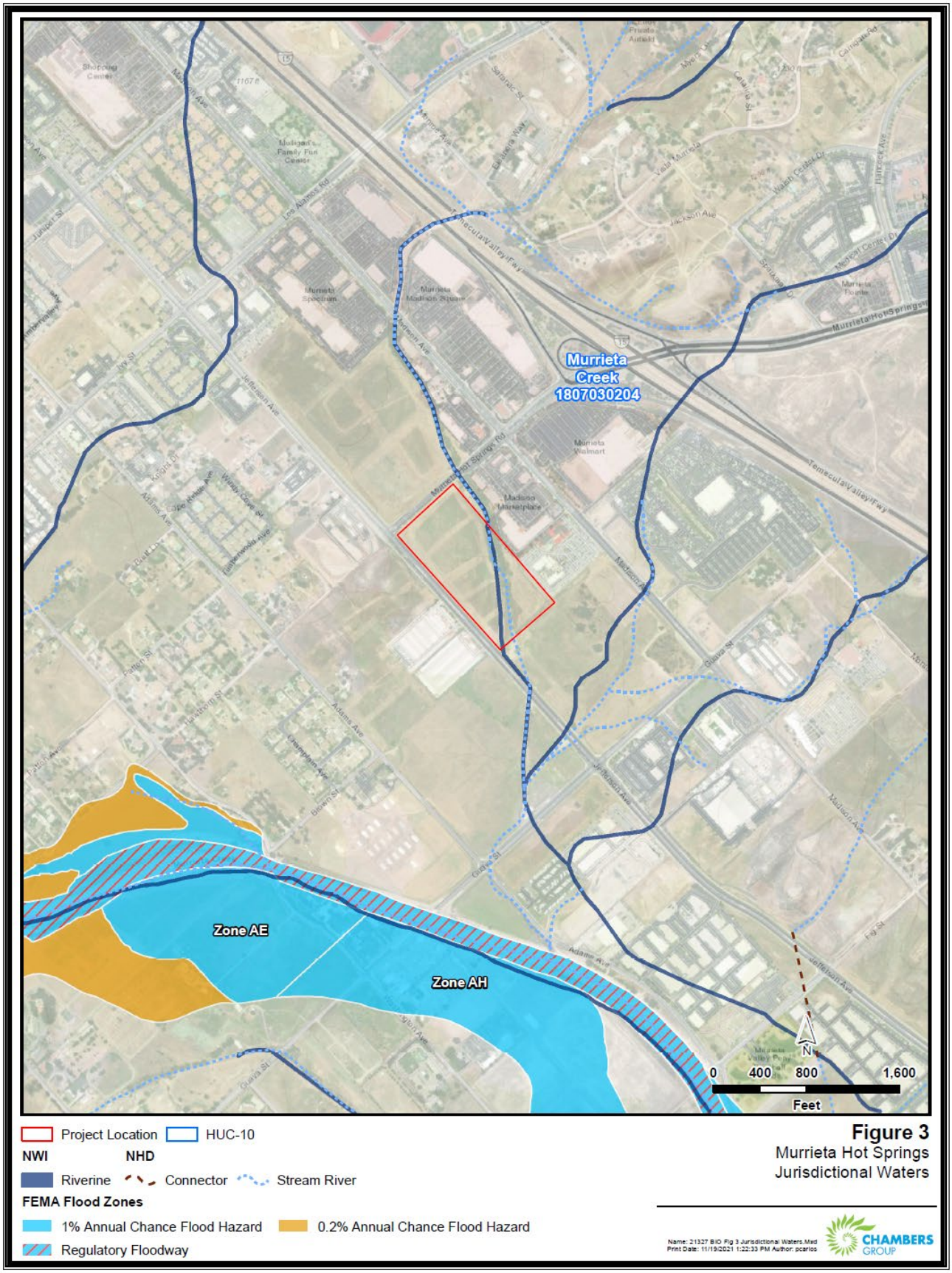



**Figure 3**
Murrieta Hot Springs
Jurisdictional Waters

# ATTACHMENT 2 – REPRESENTATIVE SITE PHOTOGRAPHS

**Representative Photographs of Project Site**

| | |
|---|---|
|  | **Photo 1**: Southern end of Project Site. |
|  | **Photo 2**: From southeast corner of Project Site facing north. |
|  | **Photo 3**: From southwest side of Project Site. |

| | |
|---|---|
|  | **Photo 4**: From western corner of the Project Site with Murrieta Hot Springs Road depicted on the left of the photo. |
|  | **Photo 5**: From the western corner of the Project Site depicting Jefferson Avenue. |
|  | **Photo 6**: From northern corner of the Project Site facing south |

| | |
|---|---|
|  | **Photo 7**: Looking southeast. |
|  | **Photo 8**: Facing northeast, depicting riparian corridor with transitional riparian scrub and ruderal vegetation in the foreground. |
|  | **Photo 9**: Looking north in the channel. |

# ATTACHMENT 3 – CNDDB, USFWS, AND CNPSEI RESULTS

CNPS (5 miles)

| ScientificName | CommonName | Lifeform | CRPR | GRank | SRank | CESA | FESA | BloomingPeriod | Habitat | LastUpdate |
|---|---|---|---|---|---|---|---|---|---|---|
| Ambrosia pumila | San Diego ambrosia | perennial rhizomatous herb | 1B.1 | G1 | S1 | None | FE | Apr-Oct | Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools | 8/25/2021 0:00 |
| Saltugilia latimeri | Latimer's woodland-gilia | annual herb | 1B.2 | G3 | S3 | None | None | Mar-Jun | Chaparral, Mojavean desert scrub, Pinyon and juniper woodland | 5/26/2021 0:00 |
| Allium munzii | Munz's onion | perennial bulbiferous herb | 1B.1 | G1 | S1 | CT | FE | Mar-May | Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill gra | 7/14/2021 0:00 |
| Comarostaphylis diversifolia ssp. | summer holly | perennial evergreen shrub | 1B.2 | G3T2 | S2 | None | None | Apr-Jun | Chaparral, Cismontane woodland | 5/26/2021 0:00 |
| Clarkia delicata | delicate clarkia | annual herb | 1B.2 | G3 | S3 | None | None | Apr-Jun | Chaparral, Cismontane woodland | 11/5/2021 0:00 |
| Atriplex coronata var. notatior | San Jacinto Valley crownscale | annual herb | 1B.1 | G4T1 | S1 | None | FE | Apr-Aug | Playas, Valley and foothill grassland, Vernal pools | 8/25/2021 0:00 |
| Atriplex parishii | Parish's brittlescale | annual herb | 1B.1 | G1G2 | S1 | None | None | Jun-Oct | Chenopod scrub, Playas, Vernal pools | 8/25/2021 0:00 |
| Ayenia compacta | California ayenia | perennial herb | 2B.3 | G4 | S3 | None | None | Mar-Apr | Mojavean desert scrub, Sonoran desert scrub | 8/25/2021 0:00 |
| Harpagonella palmeri | Palmer's grapplinghook | annual herb | 4.2 | G4 | S3 | None | None | Mar-May | Chaparral, Coastal scrub, Valley and foothill grassland | 5/26/2021 0:00 |
| Limnanthes alba ssp. parishii | Parish's meadowfoam | annual herb | 1B.2 | G4T2 | S2 | CE | None | Apr-Jun | Lower montane coniferous forest, Meadows and seeps, Vernal pools | 5/26/2021 0:00 |
| Brodiaea filifolia | thread-leaved brodiaea | perennial bulbiferous herb | 1B.1 | G2 | S2 | CE | FT | Mar-Jun | Chaparral, Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools | 8/25/2021 0:00 |
| Brodiaea orcuttii | Orcutt's brodiaea | perennial bulbiferous herb | 1B.1 | G2 | S2 | None | None | May-Jul | Chaparral, Cismontane woodland, Closed-cone coniferous forest, Meadows and seeps, Valley and foo | 8/25/2021 0:00 |
| Clinopodium chandleri | San Miguel savory | perennial shrub | 1B.2 | G3 | S2 | None | None | Mar-Jul | Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland | 11/5/2021 0:00 |
| Calochortus catalinae | Catalina mariposa lily | perennial bulbiferous herb | 4.2 | G3G4 | S3S4 | None | None | (Feb)Mar-Jun | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland | 5/26/2021 0:00 |
| Dudleya multicaulis | many-stemmed dudleya | perennial herb | 1B.2 | G2 | S2 | None | None | Apr-Jul | Chaparral, Coastal scrub, Valley and foothill grassland | 5/26/2021 0:00 |
| Caulanthus simulans | Payson's jewelflower | annual herb | 4.2 | G4 | S4 | None | None | (Feb)Mar-May(Jun) | Chaparral, Coastal scrub | 10/4/2021 0:00 |
| Dodecahema leptoceras | slender-horned spineflower | annual herb | 1B.1 | G1 | S1 | CE | FE | Apr-Jun | Chaparral, Cismontane woodland, Coastal scrub | 11/18/2021 0:00 |
| Chamaebatia australis | southern mountain misery | perennial evergreen shrub | 4.2 | G4 | S4 | None | None | Nov-May | Chaparral | 5/26/2021 0:00 |
| Hesperocyparis forbesii | Tecate cypress | perennial evergreen tree | 1B.1 | G2 | S2 | None | None | | Chaparral, Closed-cone coniferous forest | 5/26/2021 0:00 |
| Dudleya viscida | sticky dudleya | perennial herb | 1B.2 | G2 | S2 | None | None | May-Jun | Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub | 5/26/2021 0:00 |
| Polygala cornuta var. fishiae | Fish's milkwort | perennial deciduous shrub | 4.3 | G5T4 | S4 | None | None | May-Aug | Chaparral, Cismontane woodland, Riparian woodland | 5/26/2021 0:00 |
| Diplacus clevelandii | Cleveland's bush monkeyflower | perennial rhizomatous herb | 4.2 | G4 | S4 | None | None | Apr-Jul | Chaparral, Cismontane woodland, Lower montane coniferous forest | 11/18/2021 0:00 |
| Erythranthe diffusa | Palomar monkeyflower | annual herb | 4.3 | G4 | S3 | None | None | Apr-Jun | Chaparral, Lower montane coniferous forest | 9/27/2021 0:00 |
| Eryngium aristulatum var. parish | San Diego button-celery | annual/perennial herb | 1B.1 | G5T1 | S1 | CE | FE | Apr-Jun | Coastal scrub, Valley and foothill grassland, Vernal pools | 5/26/2021 0:00 |
| Githopsis diffusa ssp. filicaulis | Mission Canyon bluecup | annual herb | 3.1 | G5T1Q | S1 | None | None | Apr-Jun | Chaparral | 5/26/2021 0:00 |
| Centromadia pungens ssp. laevis | smooth tarplant | annual herb | 1B.1 | G3G4T2 | S2 | None | None | Apr-Sep | Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland | 10/4/2021 0:00 |
| Horkelia truncata | Ramona horkelia | perennial herb | 1B.3 | G3 | S3 | None | None | May-Jun | Chaparral, Cismontane woodland | 5/26/2021 0:00 |
| Juncus acutus ssp. leopoldii | southwestern spiny rush | perennial rhizomatous herb | 4.2 | G5T5 | S4 | None | None | (Mar)May-Jun | Coastal dunes, Marshes and swamps, Meadows and seeps | 5/26/2021 0:00 |
| Lathyrus splendens | pride-of-California | perennial herb | 4.3 | G4 | S4 | None | None | Mar-Jun | Chaparral | 5/26/2021 0:00 |
| Lepechinia cardiophylla | heart-leaved pitcher sage | perennial shrub | 1B.2 | G3 | S2S3 | None | None | Apr-Jul | Chaparral, Cismontane woodland, Closed-cone coniferous forest | 6/3/2021 0:00 |
| Lilium parryi | lemon lily | perennial bulbiferous herb | 1B.2 | G3 | S3 | None | None | Jul-Aug | Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous fo | 5/26/2021 0:00 |
| Berberis nevinii | Nevin's barberry | perennial evergreen shrub | 1B.1 | G1 | S1 | CE | FE | (Feb)Mar-Jun | Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub | 8/25/2021 0:00 |
| Diplacus aridus | low bush monkeyflower | perennial evergreen shrub | 4.3 | G4 | S3 | None | None | Apr-Jul | Chaparral, Sonoran desert scrub | 5/26/2021 0:00 |
| Monardella macrantha ssp. halli | Hall's monardella | perennial rhizomatous herb | 1B.3 | G5T3 | S3 | None | None | Jun-Oct | Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valle | 5/26/2021 0:00 |
| Myosurus minimus ssp. apus | little mousetail | annual herb | 3.1 | G5T2Q | S2 | None | None | Mar-Jun | Valley and foothill grassland, Vernal pools | 5/26/2021 0:00 |
| Navarretia fossalis | spreading navarretia | annual herb | 1B.1 | G2 | S2 | None | FT | Apr-Jun | Chenopod scrub, Marshes and swamps, Playas, Vernal pools | 5/26/2021 0:00 |
| Orcuttia californica | California Orcutt grass | annual herb | 1B.1 | G1 | S1 | CE | FE | Apr-Aug | Vernal pools | 5/26/2021 0:00 |
| Microseris douglasii ssp. platyca | small-flowered microseris | annual herb | 4.2 | G4T4 | S4 | None | None | Mar-May | Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools | 5/26/2021 0:00 |
| Lepidium virginicum var. robinsc | Robinson's pepper-grass | annual herb | 4.3 | G5T3 | S3 | None | None | Jan-Jul | Chaparral, Coastal scrub | 5/26/2021 0:00 |
| Quercus engelmannii | Engelmann oak | perennial deciduous tree | 4.2 | G3 | S3 | None | None | Mar-Jun | Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland | 9/27/2021 0:00 |
| Romneya coulteri | Coulter's matilija poppy | perennial rhizomatous herb | 4.2 | G4 | S4 | None | None | Mar-Jul(Aug) | Chaparral, Coastal scrub | 5/26/2021 0:00 |
| Packera ganderi | Gander's ragwort | perennial herb | 1B.2 | G2 | S2 | CR | None | Apr-Jun | Chaparral | 5/26/2021 0:00 |
| Tetracoccus dioicus | Parry's tetracoccus | perennial deciduous shrub | 1B.2 | G2G3 | S2 | None | None | Apr-May | Chaparral, Coastal scrub | 5/26/2021 0:00 |
| Viguiera laciniata | San Diego County viguiera | perennial shrub | 4.3 | G4 | S4 | None | None | Feb-Jun(Aug) | Chaparral, Coastal scrub | 6/3/2021 0:00 |
| Astragalus pachypus var. jaegeri | Jaeger's milk-vetch | perennial shrub | 1B.1 | G4T1 | S1 | None | None | Dec-Jun | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland | 8/25/2021 0:00 |
| Atriplex serenana var. davidsoni | Davidson's saltscale | annual herb | 1B.2 | G5T1 | S1 | None | None | Apr-Oct | Coastal bluff scrub, Coastal scrub | 8/25/2021 0:00 |
| Calochortus plummerae | Plummer's mariposa-lily | perennial bulbiferous herb | 4.2 | G4 | S4 | None | None | May-Jul | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill | 11/5/2021 0:00 |
| Calochortus weedii var. interme | intermediate mariposa-lily | perennial bulbiferous herb | 1B.2 | G3G4T2 | S3 | None | None | May-Jul | Chaparral, Coastal scrub, Valley and foothill grassland | 11/5/2021 0:00 |
| Camissoniopsis lewisii | Lewis' evening-primrose | annual herb | 3 | G4 | S4 | None | None | Mar-May(Jun) | Cismontane woodland, Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland | 9/27/2021 0:00 |
| Ceanothus ophiochilus | Vail Lake ceanothus | perennial evergreen shrub | 1B.1 | G1 | S1 | CE | FT | Feb-Mar | Chaparral | 5/26/2021 0:00 |
| Chorizanthe leptotheca | Peninsular spineflower | annual herb | 4.2 | G3 | S3 | None | None | May-Aug | Chaparral, Coastal scrub, Lower montane coniferous forest | 11/5/2021 0:00 |
| Chorizanthe parryi var. parryi | Parry's spineflower | annual herb | 1B.1 | G3T2 | S2 | None | None | Apr-Jun | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland | 11/5/2021 0:00 |
| Chorizanthe polygonoides var. lo | long-spined spineflower | annual herb | 1B.2 | G5T3 | S3 | None | None | Apr-Jul | Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools | 11/5/2021 0:00 |
| Convolvulus simulans | small-flowered morning-glory | annual herb | 4.2 | G4 | S4 | None | None | Mar-Jul | Chaparral, Coastal scrub, Valley and foothill grassland | 11/5/2021 0:00 |
| Holocarpha virgata ssp. elongata | graceful tarplant | annual herb | 4.2 | G5T3 | S3 | None | None | May-Nov | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland | 5/26/2021 0:00 |

CNPS (5 miles)

| ScientificName | CommonName | Lifeform | CRPR | GRank | SRank | CESA | FESA | BloomingPeriod | Habitat | LastUpdate |
|---|---|---|---|---|---|---|---|---|---|---|
| Hordeum intercedens | vernal barley | annual herb | 3.2 | G3G4 | S3S4 | None | None | Mar-Jun | Coastal dunes, Coastal scrub, Valley and foothill grassland, Vernal pools | 5/26/2021 0:00 |
| Juglans californica | Southern California black walnut | perennial deciduous tree | 4.2 | G4 | S4 | None | None | Mar-Aug | Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland | 9/27/2021 0:00 |
| Lasthenia glabrata ssp. coulteri | Coulter's goldfields | annual herb | 1B.1 | G4T2 | S2 | None | None | Feb-Jun | Marshes and swamps, Playas, Vernal pools | 5/26/2021 0:00 |
| Lilium humboldtii ssp. ocellatum | ocellated Humboldt lily | perennial bulbiferous herb | 4.2 | G4T4? | S4? | None | None | Mar-Jul(Aug) | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodlanc | 5/26/2021 0:00 |
| Scutellaria bolanderi ssp. austro | southern mountains skullcap | perennial rhizomatous herb | 1B.2 | G4T3 | S3 | None | None | Jun-Aug | Chaparral, Cismontane woodland, Lower montane coniferous forest | 5/26/2021 0:00 |
| Senecio aphanactis | chaparral ragwort | annual herb | 2B.2 | G3 | S2 | None | None | Jan-Apr(May) | Chaparral, Cismontane woodland, Coastal scrub | 5/26/2021 0:00 |
| Sidalcea neomexicana | salt spring checkerbloom | perennial herb | 2B.2 | G4 | S2 | None | None | Mar-Jun | Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas | 5/26/2021 0:00 |
| Arctostaphylos rainbowensis | Rainbow manzanita | perennial evergreen shrub | 1B.1 | G2 | S2 | None | None | Dec-Mar | Chaparral | 5/26/2021 0:00 |
| Abronia villosa var. aurita | chaparral sand-verbena | annual herb | 1B.1 | G5T2? | S2 | None | None | (Jan)Mar-Sep | Chaparral, Coastal scrub, Desert dunes | 7/14/2021 0:00 |
| Allium marvinii | Yucaipa onion | perennial bulbiferous herb | 1B.2 | G1 | S1 | None | None | Apr-May | Chaparral | 5/26/2021 0:00 |
| Carex buxbaumii | Buxbaum's sedge | perennial rhizomatous herb | 4.2 | G5 | S3 | None | None | Mar-Aug | Bogs and fens, Marshes and swamps, Meadows and seeps | 9/30/2021 0:00 |
| Chaenactis glabriuscula var. orcu | Orcutt's pincushion | annual herb | 1B.1 | G5T1T2 | S1 | None | None | Jan-Aug | Coastal bluff scrub, Coastal dunes | 5/26/2021 0:00 |
| Deinandra paniculata | paniculate tarplant | annual herb | 4.2 | G4 | S4 | None | None | (Mar)Apr-Nov | Coastal scrub, Valley and foothill grassland, Vernal pools | 11/18/2021 0:00 |
| Horkelia cuneata var. puberula | mesa horkelia | perennial herb | 1B.1 | G4T1 | S1 | None | None | Feb-Jul(Sep) | Chaparral, Cismontane woodland, Coastal scrub | 5/26/2021 0:00 |
| Navarretia prostrata | prostrate vernal pool navarretia | annual herb | 1B.2 | G2 | S2 | None | None | Apr-Jul | Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools | 7/14/2021 0:00 |
| Nolina cismontana | chaparral nolina | perennial evergreen shrub | 1B.2 | G3 | S3 | None | None | (Mar)May-Jul | Chaparral, Coastal scrub | 5/26/2021 0:00 |
| Piperia cooperi | chaparral rein orchid | perennial herb | 4.2 | G3G4 | S3S4 | None | None | Mar-Jun | Chaparral, Cismontane woodland, Valley and foothill grassland | 5/26/2021 0:00 |
| Sibaropsis hammittii | Hammitt's clay-cress | annual herb | 1B.2 | G2 | S2 | None | None | Mar-Apr | Chaparral, Valley and foothill grassland | 5/26/2021 0:00 |
| Mielichhoferia shevockii | Shevock's copper moss | moss | 1B.2 | G2 | S2 | None | None | | Cismontane woodland | 5/26/2021 0:00 |
| Tortula californica | California screw moss | moss | 1B.2 | G2G3 | S2? | None | None | | Chenopod scrub, Valley and foothill grassland | 5/26/2021 0:00 |
| Geothallus tuberosus | Campbell's liverwort | ephemeral liverwort | 1B.1 | G2 | S2 | None | None | | Coastal scrub, Vernal pools | 7/14/2021 0:00 |
| Sphaerocarpos drewiae | bottle liverwort | ephemeral liverwort | 1B.1 | G1 | S1 | None | None | | Chaparral, Coastal scrub | 7/14/2021 0:00 |
| Symphyotrichum defoliatum | San Bernardino aster | perennial rhizomatous herb | 1B.2 | G2 | S2 | None | None | Jul-Nov | Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Mead | 5/26/2021 0:00 |
| Selaginella cinerascens | ashy spike-moss | perennial rhizomatous herb | 4.1 | G3G4 | S3 | None | None | | Chaparral, Coastal scrub | 5/26/2021 0:00 |
| Pseudognaphalium leucocephalu | white rabbit-tobacco | perennial herb | 2B.2 | G4 | S2 | None | None | (Jul)Aug-Nov(Dec) | Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland | 6/3/2021 0:00 |
| Amsinckia douglasiana | Douglas' fiddleneck | annual herb | 4.2 | G4 | S4 | None | None | Mar-May | Cismontane woodland, Valley and foothill grassland | 9/27/2021 0:00 |
| Brodiaea santarosae | Santa Rosa Basalt brodiaea | perennial bulbiferous herb | 1B.2 | G1 | S1 | None | None | May-Jun | Valley and foothill grassland | 6/3/2021 0:00 |
| Juncus luciensis | Santa Lucia dwarf rush | annual herb | 1B.2 | G3 | S3 | None | None | Apr-Jul | Chaparral, Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools | 5/26/2021 0:00 |
| Monardella hypoleuca ssp. inter | intermediate monardella | perennial rhizomatous herb | 1B.3 | G4T2? | S2? | None | None | Apr-Sep | Chaparral, Cismontane woodland, Lower montane coniferous forest | 6/3/2021 0:00 |
| Cryptantha wigginsii | Wiggins' cryptantha | annual herb | 1B.2 | G2 | S1 | None | None | Feb-Jun | Coastal scrub | 11/5/2021 0:00 |
| Texosporium sancti-jacobi | woven-spored lichen | crustose lichen (terricolous) | 3 | G3 | S2 | None | None | | Chaparral | 10/8/2021 0:00 |
| Almutaster pauciflorus | alkali marsh aster | perennial herb | 2B.2 | G4 | S1S2 | None | None | Jun-Oct | Meadows and seeps | 7/14/2021 0:00 |
| Ceanothus pendletonensis | Pendleton ceanothus | perennial shrub | 1B.2 | G1 | S1 | None | None | Mar-Jun | Chaparral, Cismontane woodland | 6/3/2021 0:00 |

CNDDB Occurrences (5 miles)

| TAXONGROUP | SNAME | CNAME | DISTANCE | KQUADNAME | ACCURACY | SENSITIVE | SITEDATE | FEDLIST | CALLIST | GRANK | SRANK | RPLANTRA | CDFWSTATUS | LOCDETAILS | LASTUPDATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dicots | Symphyotrichum defoliatum | San Bernardino aster | 0.00 | Murrieta | non-specific ar | N | 19230923 | None | None | G2 | S2 | 1B.2 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS ~2 RD MILES SE OF MURRIETA ALOI | 20100427 |
| Dicots | Navarretia fossalis | spreading navarretia | 0.01 | Murrieta | non-specific ar | N | 20200506 | Threatened | None | G2 | S2 | 1B.1 | | MAPPED BY CNDDB AROUND THE FIELD W OF MADISON AVE (NOT MARKED ON TOPO) AND N OF MU | 20210831 |
| Dicots | Lasthenia glabrata ssp. coulteri | Coulter's goldfields | 0.01 | Murrieta | 1 mile | N | 19180427 | None | None | G4T2 | S2 | 1B.1 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS CENTERED ON MURRIETA. | 20101117 |
| Reptiles | Arizona elegans occidentalis | California glossy snake | 0.01 | Murrieta | 1 mile | N | 1946XXXX | None | None | G5T2 | S2 | | SSC | | 20170213 |
| Reptiles | Phrynosoma blainvillii | coast horned lizard | 0.01 | Murrieta | 1 mile | N | XXXXXXXX | None | None | G3G4 | S3S4 | | SSC | MAPPED TO LOCALITY "MURRIETA," AS REPORTED IN GLASER (1970). | 20121031 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 0.34 | Murrieta | 80 meters | N | 19980917 | None | None | G3G4T2 | S2 | 1B.1 | | POPULATION BEGINS 0.1 MILE SE OF ADAMS AVE & GUAVA STREET & CONTINUES APPROXIMATELY 1( | 20021114 |
| Reptiles | Crotalus ruber | red-diamond rattlesnake | 0.41 | Murrieta | 4/5 mile | N | XXXXXXXX | None | None | G4 | S3 | | SSC | | 20020403 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 0.80 | Murrieta | non-specific ar | N | 20070715 | Endangered | Endangered | G5T2 | S2 | | | MAPPED TO PROVIDED COORDINATES. GENERAL LOCATION DESCRIPTION WAS ""1 MILE N OF INTERSI | 20130904 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 0.82 | Murrieta | 80 meters | N | 19980917 | None | None | G3G4T2 | S2 | 1B.1 | | | 20021114 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 0.85 | Murrieta | 80 meters | N | 19990727 | None | None | G3G4T2 | S2 | 1B.1 | | | 20111221 |
| Mammals | Lepus californicus bennettii | San Diego black-tailed jackrabbit | 0.95 | Murrieta | non-specific ar | N | 20010315 | None | None | G5T3T4 | S3S4 | | SSC | | 20041013 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 1.08 | Murrieta | 1/10 mile | N | 19990905 | Threatened | None | G4G5T3Q | S2 | | SSC | | 20030731 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 1.15 | Murrieta | 1/5 mile | N | 19870714 | Endangered | Threatened | G2 | S2 | | | ONE ADULT OBSERVATION. | 19890810 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 1.25 | Murrieta | 1/5 mile | N | 20070516 | Endangered | Endangered | G5T2 | S2 | | | MAPPED TO PROVIDED LOCATION DESCRIPTION. LOCATION DESCRIBED AS "WARM SPRINGS CREEK, E | 20130918 |
| Amphibians | Spea hammondii | western spadefoot | 1.27 | Murrieta | non-specific ar | N | 19990314 | None | None | G2G3 | S3 | | SSC | | 20050330 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 1.29 | Murrieta | specific area | N | 19990727 | None | None | G3G4T2 | S2 | 1B.1 | | TWO COLONIES MAPPED, ONE NORTH OF INTERSECTION OF WASHINGTON AND ELM, AND ANOTHER | 20111219 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 1.32 | Murrieta | specific area | N | 20080525 | None | None | G3G4T2 | S2 | 1B.1 | | NEAR TRAILER PARK. MAPPED BY CNDDB AS 4 POLYGONS BASED ON 2004 & 2005 COORDINATES, 200 | 20181024 |
| Dicots | Abronia villosa var. aurita | chaparral sand-verbena | 1.47 | Murrieta | non-specific ar | N | 19941017 | None | None | G5T2? | S2 | 1B.1 | | | 20050308 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 1.52 | Murrieta | specific area | N | 20080801 | Endangered | Endangered | G5T2 | S2 | | | MAPPED TO PROVIDED COORDINATES FOR AUG 2008 DETECTIONS. DETECTIONS ALONG NARROW RIF | 20130913 |
| Monocots | Orcuttia californica | California Orcutt grass | 1.53 | Murrieta | 1 mile | N | 1976XXXX | Endangered | Endangered | G1 | S1 | 1B.1 | | | 20080409 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 1.55 | Murrieta | 80 meters | N | 20080801 | None | None | G3G4T2 | S2 | 1B.1 | | MAPPED BY CNDDB IN THE NORTH 1/2 OF THE NW 1/4 OF SECTION 23 ACCORDING TO 2008 TERACOR | 20111214 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 1.55 | Murrieta | non-specific ar | N | 20010414 | Threatened | None | G4G5T3Q | S2 | | SSC | ALL OBSERVATIONS AFTER 1998 ARE FOR THE EASTERN POLYGON ONLY; THE MIDDLE AND WEST POL\ | 20100804 |
| Birds | Aimophila ruficeps canescens | southern California rufous-crowned sparrow | 1.55 | Murrieta | non-specific ar | N | 20000420 | None | None | G5T3 | S3 | | WL | | 20100804 |
| Birds | Eremophila alpestris actia | California horned lark | 1.55 | Murrieta | non-specific ar | N | 19980428 | None | None | G5T4Q | S4 | | WL | 2009 AERIAL PHOTOS SHOW THAT ALL BUT THE EASTERN-MOST POLYGON HAVE BEEN DEVELOPED. | 20100804 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 1.60 | Murrieta | non-specific ar | N | 20160526 | Endangered | Endangered | G5T2 | S2 | | | MAPPED TO PROVIDED COORDINATES. MIDDLE FEATURE REPRESENTS 2007 DATA, NW FEATURE REPF | 20161115 |
| Bryophytes | Sphaerocarpos drewiae | bottle liverwort | 1.67 | Murrieta | 1 mile | N | 20010327 | None | None | G1 | S1 | 1B.1 | | EXACT LOCATION UNKNOWN. LOCATION INFORMATION IS VAGUE; ONLY GIVES "SANTA ROSA PLATEA | 20210512 |
| Monocots | Juncus luciensis | Santa Lucia dwarf rush | 1.67 | Murrieta | 1 mile | N | 19750520 | None | None | G3 | S3 | 1B.2 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND REGION OF MESA DE BUR | 20171218 |
| Dicots | Clinopodium chandleri | San Miguel savory | 1.69 | Murrieta | non-specific ar | N | 19650428 | None | None | G3 | S2 | 1B.2 | | EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG TENAJA ROAD AROUND 1 R | 20170419 |
| Crustaceans | Streptocephalus woottoni | Riverside fairy shrimp | 1.70 | Murrieta | 2/5 mile | N | 2005XXXX | Endangered | None | G1G2 | S1S2 | | | "TEMECULA EDUCATION COMPLEX" SITE (ACCORDING TO 2008 5-YEAR REVIEW). POOL LOCATED ON A | 20140320 |
| Dicots | Clinopodium chandleri | San Miguel savory | 1.76 | Murrieta | specific area | N | 20130522 | None | None | G3 | S2 | 1B.2 | | 2 POLYGONS MAPPED ACCORDING TO A 1990 MAP AND 2015 DIGITAL DATA. | 20170510 |
| Dicots | Clinopodium chandleri | San Miguel savory | 1.79 | Murrieta | specific area | N | 20130517 | None | None | G3 | S2 | 1B.2 | | 3 POLYGONS MAPPED ACCORDING TO A 1990 MAP AND 2015 DIGITAL DATA. | 20170510 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 1.83 | Murrieta | specific area | N | 20170812 | None | None | G3G4T2 | S2 | 1B.1 | | MAPPED BY CNDDB AS 11 POLYGONS ACCORDING TO A 1990 BRAMLET MAP, 2005 BRAMLET SITE DES | 20210913 |
| Birds | Athene cunicularia | burrowing owl | 1.89 | Murrieta | specific area | N | 20101208 | None | None | G4 | S3 | | SSC | MAPPED TO PROVIDED COORDINATES. | 20110214 |
| Mammals | Dipodomys merriami parvus | San Bernardino kangaroo rat | 1.96 | Murrieta | 1/5 mile | N | 1989XXXX | Endangered | Candidate Enc | G5T1 | S1 | | SSC | MAPPED TO POINT MARKED ON PHOTOCOPIED TOPO MAP FROM USFWS FILES. THIS IS FAR SOUTH FC | 20180724 |
| Dicots | Clinopodium chandleri | San Miguel savory | 2.19 | Murrieta | non-specific ar | N | 19890411 | None | None | G3 | S2 | 1B.2 | | EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB BASED ON COLLECTIONS FROM "GL | 20170419 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 2.20 | Murrieta | specific area | N | 20010506 | Threatened | None | G4G5T3Q | S2 | | SSC | | 20030728 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 2.20 | Murrieta | 1/5 mile | N | 198908XX | Endangered | Threatened | G2 | S2 | | | | 19920528 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 2.22 | Murrieta | 1/5 mile | N | 19900627 | Endangered | Threatened | G2 | S2 | | | FEW K-RATS TRAPPED HERE. | 19910621 |
| Dicots | Pseudognaphalium leucocephalum | white rabbit-tobacco | 2.24 | Murrieta | 1/5 mile | N | 19950629 | None | None | G4 | S2 | 2B.2 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS JUST NORTHWEST OF THE JUNCTIO | 20070921 |
| Crustaceans | Linderiella occidentalis | California linderiella | 2.25 | Murrieta | specific area | N | 19880218 | None | None | G2G3 | S2S3 | | | GENERAL LOCATIONS STATED AS EITHER E, W, OR NW SIDE/EDGE OF MESA DE BURRO. SEVERAL MICR | 20200529 |
| Herbaceous | Valley Needlegrass Grassland | Valley Needlegrass Grassland | 2.25 | Wildomar | specific area | N | 19850426 | None | None | G3 | S3.1 | | | IN MOSAIC W/ CHAPARRAL, COASTAL SCRUB, ENGELMANN OAK WOODLAND & VERNAL POOLS. | 19980715 |
| Herbaceous | Southern Interior Basalt Flow Vernal Pool | Southern Interior Basalt Flow Vernal Pool | 2.26 | Murrieta | 1/5 mile | N | 197605XX | None | None | G1 | S1.2 | | | 2 LARGE VERNAL POOLS HERE, 0.41 & 1.63 HA IN AREA. | 19980716 |
| Crustaceans | Linderiella santarosae | Santa Rosa Plateau fairy shrimp | 2.26 | Murrieta | non-specific ar | N | 20080428 | None | None | G1G2 | S1 | | | 1991 SPECIMEN LOCALITY "SANTA ROSA PLATEAU RESERVE, MESA DE BURRO," EXACT COLLECTION LC | 20140627 |
| Crustaceans | Branchinecta lynchi | vernal pool fairy shrimp | 2.26 | Murrieta | non-specific ar | N | 20080303 | Threatened | None | G3 | S3 | | | BELK CATALOG LOCALITIES GIVE W AND NW SIDES OF MESA AS 1988 DETECTION LOCATIONS. 1995 DE | 20150202 |
| Dicots | Myosurus minimus ssp. apus | little mousetail | 2.27 | Murrieta | specific area | N | 1990XXXX | None | None | G5T2Q | S2 | 3.1 | | | 19930318 |
| Monocots | Orcuttia californica | California Orcutt grass | 2.30 | Murrieta | specific area | N | 20090522 | Endangered | Endangered | G1 | S1 | 1B.1 | | MAPPED BY CNDDB AS 5 POLYGONS. THE 4 E-MOST POLYGONS (POOL #S B5-B8) ARE BASED MOSTLY ( | 20210820 |
| Monocots | Brodiaea santarosae | Santa Rosa Basalt brodiaea | 2.33 | Murrieta | specific area | N | 1979XXXX | None | None | G1 | S1 | 1B.2 | | IN POOLS B4, B7, AND B8 OF MESA DE BURRO. MAPPED ACCORDING TO A 1990 MAP FROM ERC ENVII | 20131030 |
| Dicots | Eryngium aristulatum var. parishii | San Diego button-celery | 2.33 | Murrieta | specific area | N | 20090522 | Endangered | Endangered | G5T1 | S1 | 1B.1 | | IN MESA DE BURRO POOLS B6, B8, AND IN SWALE JUST SOUTHWEST OF POOL B8. MAPPED BY CNDDB | 20170712 |
| Birds | Artemisiospiza belli belli | Bell's sage sparrow | 2.37 | Murrieta | non-specific ar | N | 1999XXXX | None | None | G5T2T3 | S3 | | WL | | 20030801 |
| Birds | Aimophila ruficeps canescens | southern California rufous-crowned sparrow | 2.37 | Murrieta | non-specific ar | N | 1999XXXX | None | None | G5T3 | S3 | | WL | | 20030801 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 2.38 | Murrieta | non-specific ar | N | 198806XX | Endangered | Threatened | G2 | S2 | | | 4 ADULTS AND ONE JUVENILE OBS IN 1987. SKR FOUND PRIMARILY IN ROCKY ISLANDS OF UNPLOWED | 19920528 |
| Mammals | Chaetodipus fallax fallax | northwestern San Diego pocket mouse | 2.39 | Murrieta | 2/5 mile | N | 20090820 | None | None | G5T3T4 | S3S4 | | SSC | TRAPPED IN STUDY PLOTS IN OPEN CHAPPARRAL HABITAT ON EITHER SIDE OF I-215 DURING PH.D. PR( | 20111101 |
| Amphibians | Spea hammondii | western spadefoot | 2.44 | Murrieta | 3/5 mile | N | 19980427 | None | None | G2G3 | S3 | | SSC | MAPPED TO GENERAL VICINITY OF ADOBE SPRINGS PROJECT SITE; EXACT LOCATIONS FOR SPADEFOOT | 20190423 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 2.45 | Murrieta | 1 mile | N | 19990921 | None | None | G2 | S2 | 1B.1 | | | 20160614 |
| Dicots | Navarretia fossalis | spreading navarretia | 2.58 | Murrieta | specific area | N | 20090522 | Threatened | None | G2 | S2 | 1B.1 | | MAPPED ACCORDING TO 2015 RIESZ DIGITAL DATA, IN THE NE 1/4 OF THE SW 1/4 OF SECTION 30. | 20210831 |
| Dicots | Navarretia prostrata | prostrate vernal pool navarretia | 2.58 | Murrieta | specific area | N | 20090522 | None | None | G2 | S2 | 1B.2 | | IN THE RESEARCH AREA. MAPPED BASED WESTERN RIVERSIDE COUNTY BIOLOGICAL MONITORING PR( | 20200601 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 2.59 | Murrieta | 80 meters | N | 20060510 | None | None | G5T3 | S3 | 1B.2 | | MAPPED BY CNDDB BASED ON COORDINATES FROM A 2006 GREEN FIELD SURVEY FORM. | 20100208 |
| Herbaceous | Southern Interior Basalt Flow Vernal Pool | Southern Interior Basalt Flow Vernal Pool | 2.59 | Murrieta | 1/5 mile | N | 197605XX | None | None | G1 | S1.2 | | | 0.25 HA OF VERNAL POOL. | 19980716 |
| Herbaceous | Southern Interior Basalt Flow Vernal Pool | Southern Interior Basalt Flow Vernal Pool | 2.60 | Murrieta | 1/5 mile | N | 197605XX | None | None | G1 | S1.2 | | | TWO SMALL VERNAL POOLS, <0.25 HA EACH. | 19980716 |
| Birds | Elanus leucurus | white-tailed kite | 2.60 | Murrieta | 1/5 mile | N | 198906XX | None | None | G5 | S3S4 | | FP | | 19940106 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 2.61 | Murrieta | 80 meters | N | 20080527 | None | None | G3T2 | S2 | 1B.1 | | MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 3 ACCORDING TO A 2008 MAP BY WHITE. | 20140314 |
| Dicots | Clinopodium chandleri | San Miguel savory | 2.62 | Murrieta | specific area | N | 20190621 | None | None | G3 | S2 | 1B.2 | | 3 POLYGONS MAPPED IN THE SE 1/4 OF SECTION 24. N POLYGON: GROWING ON SW SIDE OF TRAIL AN | 20210409 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 2.63 | Murrieta | 1/5 mile | N | 19940502 | None | None | G5T3 | S3 | 1B.2 | | NEAR VERNAL POOLS. MAPPED BY CNDDB AS BEST GUESS AT THE VERNAL POOLS JUST NE OF SOUTH S | 20100203 |
| Herbaceous | Southern Interior Basalt Flow Vernal Pool | Southern Interior Basalt Flow Vernal Pool | 2.63 | Murrieta | 1/5 mile | N | 197605XX | None | None | G1 | S1.2 | | | TWO ADJACENT VERNAL POOLS, 1.43 & 1.63 HA IN AREA. | 19980716 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 2.65 | Murrieta | specific area | N | 20010524 | Threatened | None | G4G5T3Q | S2 | | SSC | 1999: OBSERVATIONS IN CENTRAL/SOUTHERN PORTIONS OF OCCURRENCE. 2000, 2001: OBSERVATIOI | 20030730 |
| Dicots | Scutellaria bolanderi ssp. austromontana | southern mountains skullcap | 2.66 | Wildomar | 3/5 mile | N | 19890609 | None | None | G4T3 | S3 | 1B.2 | | NEAR THE STREAM. MAPPED BY CNDDB AS BEST GUESS NEAR THE HEAD OF COLE CANYON. | 20100414 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 2.68 | Murrieta | non-specific ar | N | 19990507 | Endangered | Endangered | G5T2 | S2 | | | | 20020503 |
| Amphibians | Spea hammondii | western spadefoot | 2.72 | Murrieta | specific area | N | 20080303 | None | None | G2G3 | S3 | | SSC | MAPPED TO COORDINATES PROVIDED. | 20190322 |
| Dicots | Eryngium aristulatum var. parishii | San Diego button-celery | 2.73 | Murrieta | specific area | N | 20150403 | Endangered | Endangered | G5T1 | S1 | 1B.1 | | MESA DE BURRO POOLS B-1, B-2, & B-3. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2015 RIE | 20170627 |
| Dicots | Navarretia fossalis | spreading navarretia | 2.74 | Murrieta | 80 meters | N | 20010613 | Threatened | None | G2 | S2 | 1B.1 | | MAPPED BY CNDDB ACCORDING TO A 2001 PCR SERVICES CORPORATION MAP. | 20090323 |
| Dicots | Myosurus minimus ssp. apus | little mousetail | 2.76 | Murrieta | specific area | N | 1990XXXX | None | None | G5T2Q | S2 | 3.1 | | | 19930513 |
| Monocots | Brodiaea santarosae | Santa Rosa Basalt brodiaea | 2.76 | Murrieta | 80 meters | N | 199XXXXX | None | None | G1 | S1 | 1B.2 | | MAPPED ACCORDING TO A 1991 MAP FROM BELL. | 20131030 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 2.77 | Murrieta | specific area | N | 20150320 | None | None | G5T3 | S3 | 1B.2 | | MAPPED ACCORDING TO RIESZ DIGITAL DATA, IN THE NW 1/4 OF THE NE 1/4 OF SECTION 31. | 20180625 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 2.78 | Murrieta | specific area | N | 19980415 | Endangered | None | G5T1T2 | S1S2 | | | | 20011204 |
| Monocots | Orcuttia californica | California Orcutt grass | 2.79 | Murrieta | specific area | N | 20150403 | Endangered | Endangered | G1 | S1 | 1B.1 | | FOUND IN POOL #S B1 & B2. | 20210818 |

| TAXONGROUP | SNAME | CNAME | DISTANCE | KQUADNAME | ACCURACY | SENSITIVE | SITEDATE | FEDLIST | CALLIST | GRANK | SRANK | RPLANTRA | CDFWSTATUS | LOCDETAILS | LASTUPDATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dicots | Navarretia prostrata | prostrate vernal pool navarretia | 2.79 | Murrieta | specific area | N | 20150403 | None | None | G2 | S2 | 1B.2 | | MAPPED BY CNDDB BASED ON UCR DIGITAL DATA AND WESTERN RIVERSIDE COUNTY BIOLOGICAL MC | 20200601 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 2.80 | Murrieta | 1/10 mile | N | 19990312 | Threatened | None | G4G5T3Q | S2 | | SSC | NORTH OF HUNTER RD AND EAST OF CALLE DE AMOR. | 20020118 |
| Dicots | Navarretia fossalis | spreading navarretia | 2.81 | Murrieta | specific area | N | 20150403 | Threatened | None | G2 | S2 | 1B.1 | | IN A SERIES OF 4 VERNAL POOLS. MAPPED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 25 ACCORDING T | 20210903 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 2.81 | Murrieta | specific area | N | 20020320 | Threatened | None | G4G5T3Q | S2 | | SSC | WEST HILL:'99, 2 PRS (1 PR W/4FLEDGES). EAST HILL:'89, 2 TERRITORIAL MALES, 5 FEMALE/GENDER?; | 20031203 |
| Amphibians | Taricha torosa | Coast Range newt | 2.87 | Murrieta | non-specific ar | N | 200106XX | None | None | G4 | S4 | | SSC | | 20040706 |
| Reptiles | Thamnophis hammondii | two-striped gartersnake | 2.87 | Murrieta | non-specific ar | N | 200106XX | None | None | G4 | S3S4 | | SSC | | 20040706 |
| Birds | Aimophila ruficeps canescens | southern California rufous-crowned sparrow | 2.87 | Murrieta | non-specific ar | N | 19980428 | None | None | G5T3 | S3 | | WL | | 20020327 |
| Birds | Eremophila alpestris actia | California horned lark | 2.87 | Murrieta | non-specific ar | N | 19980428 | None | None | G5T4Q | S4 | | WL | | 20020327 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 2.87 | Murrieta | 80 meters | N | 19900530 | None | None | G3G4T2 | S2 | 1B.1 | | SITE IS ABOUT 0.4 MILE WEST OF BEAR VALLEY (THOMPSON) AIRFIELD. | 19960909 |
| Mammals | Lepus californicus bennettii | San Diego black-tailed jackrabbit | 2.92 | Murrieta | non-specific ar | N | 19980428 | None | None | G5T3T4 | S3S4 | | SSC | SEVERAL SOURCES MAPPED HERE, INCLUDING LARGE PROJECT AREAS. NEEDS FIELDWORK. | 20060808 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 2.93 | Murrieta | specific area | N | 20120530 | Endangered | Endangered | G5T2 | S2 | | | MAPPED TO PROVIDED COORDINATES. DETECTIONS WERE MADE ON NORTH AND SOUTH BANKS OF M | 20130910 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 2.94 | Murrieta | specific area | N | 20120427 | None | None | G5T3 | S3 | 1B.2 | | MAPPED BY CNDDB AS SEVERAL POLYGONS NEAR ROAD, ACCORDING TO 2003 MORAN COORDINATES | 20180622 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 2.99 | Murrieta | 1/10 mile | N | 20160623 | Endangered | Endangered | G5T2 | S2 | | | MAPPED TO PROVIDED COORDINATES. | 20170310 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 3.00 | Murrieta | specific area | N | 20080527 | None | None | G3T2 | S2 | 1B.1 | | 2 POLYGONS MAPPED IN THE SW 1/4 OF THE NE 1/4 OF SECTION 3 ACCORDING TO A 2008 MAP BY WI | 20140225 |
| Dicots | Navarretia fossalis | spreading navarretia | 3.12 | Murrieta | 80 meters | N | 20040903 | Threatened | None | G2 | S2 | 1B.1 | | CLAYTON RANCH DEVELOPMENT. LOCATED 3 FT ABOVE THE EDGE OF THE POOL. | 20210901 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 3.15 | Murrieta | specific area | N | 20150223 | None | None | G5T3 | S3 | 1B.2 | | MAPPED ACCORDING TO RIESZ DIGITAL DATA, IN THE EAST 1/2 OF THE SE 1/4 OF SECTION 25. | 20180622 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 3.15 | Murrieta | specific area | N | 20040915 | None | None | G2 | S2 | 1B.1 | | THREE POLYGONS MAPPED AT CNDDB JUST SW OF MESA DE BURRO. | 20160609 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 3.15 | Murrieta | specific area | N | 19980426 | Threatened | None | G4G5T3Q | S2 | | SSC | | 19981203 |
| Monocots | Brodiaea santarosae | Santa Rosa Basalt brodiaea | 3.18 | Wildomar | specific area | N | 20090530 | None | None | G1 | S1 | 1B.2 | | SEVERAL COLONIES MAPPED ACCORDING TO A 1990 MAP BY ERC ENVIRONMENTAL AND ENERGY SER | 20131030 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 3.18 | Murrieta | 1/10 mile | N | 20000119 | Threatened | None | G4G5T3Q | S2 | | SSC | THE 0.2 ACRE AREA WAS PART OF A TERRITORY THAT EXTENDED ONTO RSS WITHIN THE ADJACENT LA | 20030731 |
| Reptiles | Aspidoscelis hyperythra | orange-throated whiptail | 3.19 | Murrieta | 1/5 mile | N | 19891027 | None | None | G5 | S2S3 | | WL | 1 JUVENILE SEEN IN ROCKY INTERMITTENT DRAINAGE AREA. | 19911218 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 3.20 | Wildomar | 80 meters | N | 19990726 | None | None | G3G4T2 | S2 | 1B.1 | | JUST OUTSIDE OF THE SANTA ROSA PLATEAU ECOLOGIAL RESERVE. MAPPED BY CNDDB IN THE SW 1/4 | 20111221 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 3.21 | Murrieta | 1/5 mile | N | 20050329 | None | None | G5T3 | S3 | 1B.2 | | MAPPED BY CNDDB AS BEST GUESS EAST OF MEADOWLARK LANE, WEST OF LOS ALAMOS RD, ABOUT | 20100203 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 3.22 | Murrieta | non-specific ar | N | 19980403 | Endangered | None | G5T1T2 | S1S2 | | | PRIMARILY NEAR HILLTOPS. | 20011204 |
| Crustaceans | Streptocephalus woottoni | Riverside fairy shrimp | 3.23 | Murrieta | 1/10 mile | N | 19860328 | Endangered | None | G1G2 | S1S2 | | | TYPE LOCALITY, "...BETWEEN MURRIETTA HOT SPRINGS GOLF COURSE AND CALIFORNIA HIGHWAY 79, | 20140521 |
| Reptiles | Emys marmorata | western pond turtle | 3.24 | Wildomar | 1 mile | N | 1987XXXX | None | None | G3G4 | S3 | | SSC | | 19951122 |
| Monocots | Calochortus weedii var. intermedius | intermediate mariposa-lily | 3.28 | Murrieta | 1/5 mile | N | 20030617 | None | None | G3G4T2 | S3 | 1B.2 | | | 20051212 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 3.38 | Murrieta | 2/5 mile | N | 19900121 | Endangered | Threatened | G2 | S2 | | | SKR ON OLD STREAM TERRACE FORMERLY IN AGRICULTURE. | 19920528 |
| Dicots | Clinopodium chandleri | San Miguel savory | 3.40 | Murrieta | 80 meters | N | 19660511 | None | None | G3 | S2 | 1B.2 | | MAPPED ACCORDING TO A 1983 INGRAM MAP. | 20210412 |
| Birds | Artemisiospiza belli belli | Bell's sage sparrow | 3.40 | Bachelor Mtn. | non-specific ar | N | 200004XX | None | None | G5T2T3 | S3 | | WL | 1998: PRIMARILY SOUTHERN PORTION OF SECTION 18. 1999: PORTION OF NE 1/4 SECTION 19. 2000: F | 20070703 |
| Birds | Eremophila alpestris actia | California horned lark | 3.40 | Murrieta | non-specific ar | N | 199806XX | None | None | G5T4Q | S4 | | WL | | 20030805 |
| Birds | Aimophila ruficeps canescens | southern California rufous-crowned sparrow | 3.40 | Bachelor Mtn. | non-specific ar | N | 200204XX | None | None | G5T3 | S3 | | WL | | 20030801 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 3.40 | Bachelor Mtn. | non-specific ar | N | 200204XX | Threatened | None | G4G5T3Q | S2 | | SSC | MAPPED GENERALLY SAME AS PROJECT MAPS. SECT 18(SOUTH):OBS JUN '98. SECT 19(EAST):OBS MAF | 20100804 |
| Crustaceans | Streptocephalus woottoni | Riverside fairy shrimp | 3.41 | Murrieta | specific area | N | 20091203 | Endangered | None | G1G2 | S1S2 | | | ALSO CALLED ""INLAND VALLEY PROFESSIONAL CENTER"" SITE. MAPPED TO POOLS SP-1 (SW END OF M | 20140325 |
| Reptiles | Emys marmorata | western pond turtle | 3.43 | Wildomar | specific area | N | 1989XXXX | None | None | G3G4 | S3 | | SSC | 50+ INDIVIDUALS (INCLUDING 40+ ADULTS) OBSERVED IN THE SEMI-PERMANENT ROCK POOLS ALONG | 19951116 |
| Birds | Athene cunicularia | burrowing owl | 3.44 | Murrieta | specific area | N | 20060511 | None | None | G4 | S3 | | SSC | BLOCK CODE 3705-485 - LOCATION CODES 2 AND 3. MAPPED TO PROVIDED COORDINATES. | 20101025 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 3.45 | Murrieta | 4/5 mile | N | 20160522 | Threatened | None | G4G5T3Q | S2 | | SSC | NW, SE, AND SW PORTIONS OF OCCURRENCE HAVE BEEN DEVELOPED. 2006-2016 DETECTIONS ON EX | 20180404 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 3.48 | Murrieta | 1/10 mile | N | 20010607 | Threatened | None | G4G5T3Q | S2 | | SSC | | 20020612 |
| Dicots | Harpagonella palmeri | Palmer's grapplinghook | 3.48 | Murrieta | specific area | N | 19830401 | None | None | G4 | S3 | 4.2 | | MAPPED IN SW1/4 OF NW1/4 SEC 18. | 20091008 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 3.49 | Temecula | specific area | N | 20080223 | None | None | G2 | S2 | 1B.1 | | MAPPED AS 3 POLYGONS ACCORDING TO A 1990 LARUE MAP, UCR DIGITAL DATA, AND 2008 ROBERTS | 20160614 |
| Birds | Artemisiospiza belli belli | Bell's sage sparrow | 3.51 | Murrieta | non-specific ar | N | 19990630 | None | None | G5T2T3 | S3 | | WL | 1997,1998: PARECEL 190-302, 190-321 (CENTRAL PORTION OF MAPPED AREA). 1998: SW PORTION OF | 20040409 |
| Amphibians | Spea hammondii | western spadefoot | 3.51 | Murrieta | non-specific ar | N | 199804XX | None | None | G2G3 | S3 | | SSC | MAPPED TO PROJECT SITE BOUNDARY; UNCLEAR WHERE SPEA SPECIFICALLY FOUND. FORMERLY BEFC | 20200417 |
| Birds | Aimophila ruficeps canescens | southern California rufous-crowned sparrow | 3.51 | Murrieta | non-specific ar | N | 19990630 | None | None | G5T3 | S3 | | WL | 1997, 1998: PARCEL 190-302 & 190-321, 0.75 - 1.25 MI N OF CLINTON KEITH RD (SEC 30, 32). 1988: N | 20040412 |
| Riparian | Southern Sycamore Alder Riparian Woodland | Southern Sycamore Alder Riparian Woodland | 3.52 | Wildomar | specific area | N | 198602XX | None | None | G4 | S4 | | | GRIGGS MAP INDICATES WOODLAND EXTENDS NORTH OF PRESERVE FOR UNKNOWN EXTENT. | 19980722 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 3.53 | Murrieta | 1/5 mile | N | 19880916 | Endangered | Threatened | G2 | S2 | | | | 19970123 |
| Dicots | Symphyotrichum defoliatum | San Bernardino aster | 3.55 | Wildomar | 2/5 mile | N | 200XXXXX | None | None | G2 | S2 | 1B.2 | | MAPPED BY CNDDB AS BEST GUESS AROUND THE GRANITE LOOP TRAIL NEAR THE SANTA ROSA PLATE | 20171109 |
| Amphibians | Spea hammondii | western spadefoot | 3.55 | Wildomar | 2/5 mile | N | 199909XX | None | None | G2G3 | S3 | | SSC | LOCATION NOTED AS ""BEHIND INTERPRETIVE CENTER."" MAPPED TO THE AREA BEHIND THE RESERVI | 20190322 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 3.59 | Wildomar | 80 meters | N | 19990903 | None | None | G2 | S2 | 1B.1 | | | 20160614 |
| Monocots | Calochortus weedii var. intermedius | intermediate mariposa-lily | 3.62 | Murrieta | specific area | N | 20160531 | None | None | G3G4T2 | S3 | 1B.2 | | MAPPED ACCORDING TO DIGITAL DATA FROM THE WESTERN RIVERSIDE COUNTY MSHCP BIOLOGICAL | 20210721 |
| Birds | Vireo bellii pusillus | least Bell's vireo | 3.68 | Murrieta | specific area | N | 20080627 | Endangered | Endangered | G5T2 | S2 | | | MAPPED ACCORDING TO PROVIDED MAPS AND COORDINATES. AERIAL PHOTOS SHOW THAT LOCATIO | 20130910 |
| Reptiles | Aspidoscelis hyperythra | orange-throated whiptail | 3.70 | Murrieta | non-specific ar | N | 19980408 | None | None | G5 | S2S3 | | WL | 1996: THE HIGHLANDS PROJECT PROPERTY (SE SECTION 29). 1997, 1998: PARCEL 190-321 IN THE NOR | 20040409 |
| Mammals | Lepus californicus bennettii | San Diego black-tailed jackrabbit | 3.70 | Murrieta | non-specific ar | N | 199804XX | None | None | G5T3T4 | S3S4 | | SSC | 1996: THE HIGHLANDS PROJECT PROPERTY. 1997/98: PARCEL 190-321 (N PORTION SECTION 32). | 20040615 |
| Riparian | Southern Sycamore Alder Riparian Woodland | Southern Sycamore Alder Riparian Woodland | 3.70 | Wildomar | specific area | N | 198602XX | None | None | G4 | S4 | | | | 19980722 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 3.72 | Wildomar | specific area | N | 20100610 | None | None | G3G4T2 | S2 | 1B.1 | | AREA IS 1100 FT WEST OF INTERSECTION OF CLINTON KEITH RD. AND WASHINGTON STREET. MAPPED | 20111221 |
| Riparian | Southern Sycamore Alder Riparian Woodland | Southern Sycamore Alder Riparian Woodland | 3.73 | Wildomar | specific area | N | 198602XX | None | None | G4 | S4 | | | | 19980722 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 3.74 | Murrieta | 80 meters | N | 20100322 | None | None | G3T2 | S2 | 1B.1 | | MAPPED IN THE NE 1/4 OF THE NE 1/4 OF SECTION 12 ACCORDING TO 2010 SPARKS COORDINATES. | 20181024 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 3.74 | Wildomar | 1/10 mile | N | 2006XXXX | None | None | G2 | S2 | 1B.1 | | MAPPED NEAR JUNCTION OF WATERLINE ROAD AND TENAJA TRUCK TRAIL BASED ON A PLANT GUIDE | 20160613 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 3.76 | Murrieta | specific area | N | 20060525 | None | None | G5T3 | S3 | 1B.2 | | MAPPED BY CNDDB BASED ON COORDINATES FROM A 2006 LEATHERMAN FIELD SURVEY FORM. | 20100211 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 3.76 | Murrieta | specific area | N | 20130321 | None | None | G3T2 | S2 | 1B.1 | | MAPPED BY CNDDB AS 7 POLYGONS ACCORDING TO 2006 LEATHERMAN GPS COORDINATES AND 201 | 20181024 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 3.80 | Wildomar | specific area | N | 20041007 | None | None | G2 | S2 | 1B.1 | | MAPPED AS 2 POLYGONS ACCORDING TO A 1990 ERC MAP (NORTHERN POLYGON) AND UCR DIGITAL | 20160616 |
| Amphibians | Rana draytonii | California red-legged frog | 3.81 | Wildomar | specific area | N | 2000XXXX | Threatened | None | G2G3 | S2S3 | | SSC | MOST INDIVIDUALS FOUND IN 1989 WERE IN SEMI-PERMANENT POOLS (TENAJAS) WITH CLAY BOTTO | 20190919 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 3.84 | Murrieta | 1/5 mile | N | 19990414 | Endangered | None | G5T1T2 | S1S2 | | | | 20011206 |
| Monocots | Brodiaea filifolia | thread-leaved brodiaea | 3.85 | Wildomar | specific area | N | 20200617 | Threatened | Endangered | G2 | S2 | 1B.1 | | MAPPED AS 2 POLYGONS BY CNDDB, IN THE NORTH 1/2 OF SECTION 26 AND THE SW 1/4 OF THE SE 1/ | 20210211 |
| Mammals | Perognathus longimembris brevinasus | Los Angeles pocket mouse | 3.85 | Bachelor Mtn. | non-specific ar | N | 19930629 | None | None | G5T2 | S1S2 | | SSC | INDIVIDUAL CAPTURED AT WEST END OF PROPOSED ROADWAY IN AREA VEGETATED WITH FLAT-TOPF | 20020308 |
| Amphibians | Taricha torosa | Coast Range newt | 3.86 | Wildomar | specific area | N | 20120629 | None | None | G4 | S4 | | SSC | 1994 DETECTION FROM NRIS (USFS); LOCATION APPROX. INCLUDES ""TURTLE POND"" & ""LOG POND | 20180629 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 3.88 | Temecula | specific area | N | 20090810 | None | None | G3G4T2 | S2 | 1B.1 | | MAPPED BY CNDDB AS 3 COLONIES: NORTHERN COLONY BASED ON 2009 WHITE COORDINATES, TWO | 20160503 |
| Birds | Elanus leucurus | white-tailed kite | 3.89 | Bachelor Mtn. | non-specific ar | N | 19990323 | None | None | G5 | S3S4 | | FP | | 20020625 |
| Birds | Athene cunicularia | burrowing owl | 3.89 | Bachelor Mtn. | non-specific ar | N | 19990501 | None | None | G4 | S3 | | SSC | | 20020625 |
| Mammals | Lepus californicus bennettii | San Diego black-tailed jackrabbit | 3.89 | Bachelor Mtn. | non-specific ar | N | 2002XXXX | None | None | G5T3T4 | S3S4 | | SSC | | 20031226 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 3.89 | Murrieta | 1/5 mile | N | 19980408 | Endangered | Threatened | G2 | S2 | | | NE PORTION OF PARCEL 190-321. | 20040616 |
| Fish | Gila orcuttii | arroyo chub | 3.90 | Temecula | non-specific ar | N | 19981001 | None | None | G2 | S2 | | SSC | TEMECULA CREEK (CHADWICK & ASSOCIATES SITE #2): CHUB MOST ABUNDANT FISH IN CREEK. 571 FI | 20000621 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 3.93 | Bachelor Mtn. | non-specific ar | N | 199804XX | Endangered | None | G5T1T2 | S1S2 | | | | 20011203 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 3.94 | Murrieta | specific area | N | 20110407 | None | None | G5T3 | S3 | 1B.2 | | MAPPED AS TWO POLYGONS ACCORDING TO RIESZ DIGITAL DATA. | 20180627 |
| Birds | Artemisiospiza belli belli | Bell's sage sparrow | 3.94 | Murrieta | 2/5 mile | N | 20010418 | None | None | G5T2T3 | S3 | | WL | | 20040525 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 3.94 | Murrieta | 80 meters | N | 20100510 | None | None | G3T2 | S2 | 1B.1 | | MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 1 ACCORDING TO 2010 DVORAK COORDINATES. | 20181024 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 3.95 | Bachelor Mtn. | specific area | Y | 2003XXXX | Endangered | None | G5T1T2 | S1S2 | | | | 20030826 |

CNDDB Occurrences (5 miles)

| TAXONGROUP | SNAME | CNAME | DISTANCE | KQUADNAME | ACCURACY | SENSITIVE | SITEDATE | FEDLIST | CALLIST | GRANK | SRANK | RPLANTRA | CDFWSTATUS | LOCDETAILS | LASTUPDATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 3.95 | Bachelor Mtn. | 80 meters | Y | 2003XXXX | Endangered | None | G5T1T2 | S1S2 | | | | 20030826 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 3.95 | Bachelor Mtn. | specific area | Y | 2003XXXX | Endangered | None | G5T1T2 | S1S2 | | | | 20030826 |
| Reptiles | Emys marmorata | western pond turtle | 3.99 | Murrieta | non-specific ar | N | 20170922 | None | None | G3G4 | S3 | | SSC | MAPPED TO PROVIDED COORDINATES AND SHAPEFILES. | 20190430 |
| Amphibians | Spea hammondii | western spadefoot | 3.99 | Murrieta | specific area | N | 20170314 | None | None | G2G3 | S3 | | SSC | MAPPED AS A 2-PART POLYGON TO TWO DIFFERNT POOLS. WEST POND IS INDICATED ON TOPOGRAPI | 20200417 |
| Dicots | Navarretia fossalis | spreading navarretia | 3.99 | Murrieta | specific area | N | 20170509 | Threatened | None | G2 | S2 | 1B.1 | | MAPPED ACCORDING TO 2017 BOMKAMP COORDINATES. | 20210901 |
| Bryophytes | Sphaerocarpos drewiae | bottle liverwort | 4.00 | Wildomar | 1/5 mile | N | 2001XXXX | None | None | G1 | S1 | 1B.1 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB CENTERED AT VISITOR CENTER TO ENCOMPASS 0.2 | 20210510 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.00 | Murrieta | 80 meters | N | 20150326 | None | None | G5T3 | S3 | 1B.2 | | MAPPED ACCORDING TO 2015 PROVANCE COORDINATES. IN THE SE CORNER OF SECTION 35 AND THE | 20180625 |
| Reptiles | Aspidoscelis hyperythra | orange-throated whiptail | 4.02 | Bachelor Mtn. | 1/5 mile | N | 19900613 | None | None | G5 | S2S3 | | WL | | 19911218 |
| Birds | Athene cunicularia | burrowing owl | 4.03 | Bachelor Mtn. | non-specific ar | N | 19990508 | None | None | G4 | S3 | | SSC | | 19990615 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.04 | Murrieta | specific area | N | 20120411 | None | None | G5T3 | S3 | 1B.2 | | MAPPED ACCORDING TO RIESZ DIGITAL DATA, IN THE NE 1/4 OF THE NE 1/4 OF SECTION 32. | 20180625 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 4.05 | Bachelor Mtn. | 1/10 mile | N | 1998XXXX | Endangered | None | G5T1T2 | S1S2 | | | SE CORNER OF PROJECT SITE. | 20011203 |
| Amphibians | Spea hammondii | western spadefoot | 4.05 | Murrieta | 2/5 mile | N | 19750503 | None | None | G2G3 | S3 | | SSC | GIVEN LOCATION: "1 MI E OF RANCHO CALIFORNIA PLAZA, RANCHO MEADOWS." RANCHO CALIFORNI | 20190314 |
| Dicots | Almutaster pauciflorus | alkali marsh aster | 4.09 | Temecula | 1 mile | N | 19370522 | None | None | G4 | S1S2 | 2B.2 | | EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN THE VICINITY OF TEMECULA, BAS | 20170622 |
| Dicots | Lasthenia glabrata ssp. coulteri | Coulter's goldfields | 4.09 | Temecula | 1 mile | N | 19390417 | None | None | G4T2 | S2 | 1B.1 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS CENTERED ON TEMECULA. | 19950711 |
| Insects | Bombus crotchii | Crotch bumble bee | 4.09 | Temecula | 1 mile | N | 19490404 | None | None | G3G4 | S1S2 | | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE VICINITY OF THE CITY OF TEMECULA. | 20151007 |
| Mammals | Eumops perotis californicus | western mastiff bat | 4.09 | Temecula | 1 mile | N | 19910726 | None | None | G4G5T4 | S3S4 | | SSC | EXACT LOCATION UNKNOWN. MAPPED IN THE GENERAL VICINITY OF TEMECULA. | 20061102 |
| Birds | Buteo swainsoni | Swainson's hawk | 4.09 | Temecula | 1 mile | N | 1933XXXX | None | Threatened | G5 | S3 | | | 1948 SPECIMEN LOCALITY GIVEN AS ""TEMECULA."" | 20131023 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 4.11 | Murrieta | non-specific ar | N | 19980428 | Endangered | None | G5T1T2 | S1S2 | | | | 20011204 |
| Birds | Eremophila alpestris actia | California horned lark | 4.11 | Murrieta | non-specific ar | N | 1998XXXX | None | None | G5T4Q | S4 | | WL | AREA NORTH OF CLINTON KEITH/CATT ROAD AND BOYLAN SPRINGS ROAD (LA ESTRELLA STREET?). | 20030729 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 4.12 | Murrieta | 80 meters | N | 20120411 | None | None | G3T2 | S2 | 1B.1 | | MAPPED ACCORDING TO RIESZ DIGITAL DATA, IN THE NE 1/4 OF THE NE 1/4 OF SECTION 32. | 20181024 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.13 | Murrieta | specific area | N | 20060525 | None | None | G5T3 | S3 | 1B.2 | | MAPPED BY CNDDB BASED ON COORDINATES FROM A 2006 LEATHERMAN FIELD SURVEY FORM. | 20100211 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 4.13 | Murrieta | non-specific ar | N | 19880818 | Endangered | Threatened | G2 | S2 | | | 50 ACRES OF TRACE TO LOW ABUNDANCE WITHIN THIS SITE. DISTRIBUTION ALONG RIDGELINE. | 19970123 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 4.14 | Bachelor Mtn. | 1/5 mile | N | 19890212 | Threatened | None | G4G5T3Q | S2 | | SSC | 3-4 PAIRS (7 ADULTS) OBSERVED OVER APPROXIMATELY 120 ACRES OF SUITABLE HABITAT. | 19910409 |
| Dicots | Navarretia fossalis | spreading navarretia | 4.14 | Murrieta | 1 mile | N | 19220519 | Threatened | None | G2 | S2 | 1B.1 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS ABOUT 5 MILES NE OF MURRIETA C | 20090223 |
| Dicots | Cryptantha wigginsii | Wiggins' cryptantha | 4.14 | Bachelor Mtn. | 2/5 mile | N | 2012XXXX | None | None | G2 | S1 | 1B.2 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE FIRST HILL WEST OF S | 20130806 |
| Reptiles | Aspidoscelis hyperythra | orange-throated whiptail | 4.16 | Murrieta | non-specific ar | N | 1998XXXX | None | None | G5 | S2S3 | | WL | | 20030729 |
| Herbaceous | Southern Interior Basalt Flow Vernal Pool | Southern Interior Basalt Flow Vernal Pool | 4.17 | Wildomar | 1/5 mile | N | 197605XX | None | None | G1 | S1.2 | | | 0.25 HA VERNAL POOL. | 19980716 |
| Reptiles | Emys marmorata | western pond turtle | 4.17 | Temecula | specific area | N | 20151005 | None | None | G3G4 | S3 | | SSC | TURTLES OBSERVED IN PERTINENT PORTIONS OF TEMECULA AND MURRIETA CREEKS IN 1970 AND 19 | 20160721 |
| Amphibians | Spea hammondii | western spadefoot | 4.25 | Bachelor Mtn. | non-specific ar | N | 20010303 | None | None | G2G3 | S3 | | SSC | MAPPED AREA IS THE PROJECT SITE. DEPRESSIONS AND PONDING AT SOUTH END OF SITE CONTAINED | 20031226 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 4.28 | Murrieta | non-specific ar | N | 20080416 | None | None | G3T2 | S2 | 1B.1 | | MAPPED TO ENCOMPASS TRS INFORMATION FROM TWO 2006 SANDERS COLLECTIONS (NE 1/4, E 1/2 | 20140221 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.29 | Bachelor Mtn. | specific area | N | 20140513 | None | None | G5T3 | S3 | 1B.2 | | MAPPED AS 4 POLYGONS ACCORDING TO 2011 CRAIN COORDINATES, RIESZ DIGITAL DATA, AND AECO | 20180622 |
| Monocots | Calochortus weedii var. intermedius | intermediate mariposa-lily | 4.30 | Murrieta | specific area | N | 20150529 | None | None | G3G4T2 | S3 | 1B.2 | | MAPPED AS SEVERAL POLYGONS ACCORDING TO DIGITAL DATA FROM THE WESTERN RIVERSIDE COUI | 20210708 |
| Reptiles | Phrynosoma blainvillii | coast horned lizard | 4.30 | Wildomar | 1 mile | N | 19920508 | None | None | G3G4 | S3S4 | | SSC | LOCALITY STATED AS "COASTAL SAGE SCRUB, 1 MI W OF CLINTON KEITH RD, SANTA ROSA PLATEAU; T | 20110112 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 4.30 | Murrieta | 2/5 mile | N | 20060526 | None | None | G3T2 | S2 | 1B.1 | | NEAR NURSERY GROWING GROUNDS AT ORV AREA. MAPPED AS BEST GUESS TO ENCOMPASS TRS INF | 20081021 |
| Monocots | Brodiaea santarosae | Santa Rosa Basalt brodiaea | 4.31 | Wildomar | 80 meters | N | XXXXXXXX | None | None | G1 | S1 | 1B.2 | | POOL #P1. MAPPED ACCORDING TO A 1982 LATHROP MAP AND A 1990 MAP FROM ERC ENVIRONMEI | 20131030 |
| Dicots | Ambrosia pumila | San Diego ambrosia | 4.33 | Bachelor Mtn. | specific area | N | 20170517 | Endangered | None | G1 | S1 | 1B.1 | | ALONG UTILITY RIGHT-OF-WAY NEAR SANTA GERTRUDIS CREEK. 2 POLYGONS MAPPED ON THE EASTE | 20210127 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 4.34 | Bachelor Mtn. | 80 meters | N | 20140508 | None | None | G3T2 | S2 | 1B.1 | | MAPPED ACCORDING TO 2014 AECOM DIGITAL DATA, ON THE SECTION LINE BETWEEN THE NE 1/4 OF | 20181024 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.35 | Bachelor Mtn. | specific area | N | 20140508 | None | None | G5T3 | S3 | 1B.2 | | MAPPED ACCORDING TO 2011 CRAIN COORDINATES AND 2014 AECOM DIGITAL DATA, IN THE NE 1/4 | 20180622 |
| Birds | Aimophila ruficeps canescens | southern California rufous-crowned sparrow | 4.36 | Murrieta | 1/5 mile | N | 19990426 | None | None | G5T3 | S3 | | WL | | 20000726 |
| Mammals | Lepus californicus bennettii | San Diego black-tailed jackrabbit | 4.36 | Murrieta | 1/5 mile | N | 19990426 | None | None | G5T3T4 | S3S4 | | SSC | | 20000726 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 4.36 | Murrieta | specific area | N | 19990318 | Threatened | None | G4G5T3Q | S2 | | SSC | | 20030801 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 4.38 | Bachelor Mtn. | specific area | N | 19940607 | Endangered | Threatened | G2 | S2 | | | SEC 21 & N SEC 20. PORTIONS OF GERTRUDIS CREEK CYN & LONG VALLEY E OF TEMECULA. K-RATS OC | 20110128 |
| Reptiles | Aspidoscelis hyperythra | orange-throated whiptail | 4.39 | Bachelor Mtn. | non-specific ar | N | 19990505 | None | None | G5 | S2S3 | | WL | NORTH PORTION IS LOCATED ON A UC RESERVE, BUT IS SURROUNDED BY AGRICULTURE AND RURAL F | 20030715 |
| Bryophytes | Sphaerocarpos drewiae | bottle liverwort | 4.40 | Wildomar | 1/10 mile | N | 19950405 | None | None | G1 | S1 | 1B.1 | | LOCATION DESCRIPTION IS GIVEN AS "NORTH SIDE OF CLINTON KEITH ROAD ABOUT 0.2 MILE EAST OF | 20210512 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 4.41 | Wildomar | 80 meters | N | 20070326 | None | None | G2 | S2 | 1B.1 | | MAPPED ACCORDING TO 2007 MENUZ COORDINATES. | 20160610 |
| Amphibians | Spea hammondii | western spadefoot | 4.41 | Murrieta | specific area | N | 20140414 | None | None | G2G3 | S3 | | SSC | MAPPED TO COORDINATES PROVIDED. | 20190322 |
| Reptiles | Phrynosoma blainvillii | coast horned lizard | 4.41 | Wildomar | 1/5 mile | N | 19890822 | None | None | G3G4 | S3S4 | | SSC | AREA IS A PRESERVE. | 19980225 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 4.42 | Bachelor Mtn. | specific area | N | 19980424 | Endangered | None | G5T1T2 | S1S2 | | | | 20011203 |
| Reptiles | Emys marmorata | western pond turtle | 4.43 | Wildomar | 1/5 mile | N | 19890915 | None | None | G3G4 | S3 | | SSC | IN THE TENAJAS (ROCK POOLS) ALONG THE CREEK JUST EAST OF THE SANTA ROSA PLATEAU PRESERVE | 20111007 |
| Monocots | Brodiaea filifolia | thread-leaved brodiaea | 4.44 | Wildomar | specific area | N | 20200605 | Threatened | Endangered | G2 | S2 | 1B.1 | | EXTENDING ALONG COLE CREEK CENTERED ON TRANS PRESERVE TRAIL. MAPPED BY CNDDB AS 3 POL' | 20210125 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 4.45 | Murrieta | 1/5 mile | N | 19980403 | Endangered | Threatened | G2 | S2 | | | NORTHEAST PORTION OF PARCEL 190-302. | 20040614 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.45 | Bachelor Mtn. | 1/10 mile | N | 20030625 | None | None | G5T3 | S3 | 1B.2 | | | 20180702 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.47 | Murrieta | 80 meters | N | 20130319 | None | None | G5T3 | S3 | 1B.2 | | MAPPED ACCORDING TO COORDINATES ON A 2013 SALVATO & LOVIO COLLECTION, IN THE SW 1/4 OF | 20141125 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 4.47 | Murrieta | specific area | N | 20150413 | None | None | G3G4T2 | S2 | 1B.1 | | MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 2009 TERACOR COORDINATES AND SCE DIGITAL I | 20210908 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.48 | Wildomar | specific area | N | 20130417 | None | None | G5T3 | S3 | 1B.2 | | MAPPED ACCORDING TO COORDINATES PROVIDED ON A 2008 MENUZ COLLECTION AND RIESZ DIGITA | 20180622 |
| Dicots | Harpagonella palmeri | Palmer's grapplinghook | 4.50 | Bachelor Mtn. | specific area | N | 19860501 | None | None | G4 | S3 | 4.2 | | FOUR COLONIES MAPPED IN W1/2 SEC 17 ON HILLSLOPES. | 20080812 |
| Monocots | Allium munzii | Munz's onion | 4.50 | Bachelor Mtn. | specific area | N | 20130404 | Endangered | Threatened | G1 | S1 | 1B.1 | | SKUNK HOLLOW"" POPULATION. MAPPED AS 2 POLYGONS. NORTHERN POLYGON BASED ON A 1986 B | 20191113 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 4.51 | Murrieta | non-specific ar | N | 20010319 | Threatened | None | G4G5T3Q | S2 | | SSC | THE HIGHLANDS PROJECT PROPERTY, PORTION OF PARCEL 190-302. | 20040616 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.52 | Murrieta | non-specific ar | N | 20080416 | None | None | G5T3 | S3 | 1B.2 | | MAPPED BY CNDDB BASED ON COORDINATES FROM A 2008 WHITE FIELD SURVEY FORM AND BASED ( | 20110810 |
| Reptiles | Phrynosoma blainvillii | coast horned lizard | 4.55 | Murrieta | specific area | N | 20030423 | None | None | G3G4 | S3S4 | | SSC | | 20070531 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.56 | Murrieta | specific area | N | 20060526 | None | None | G5T3 | S3 | 1B.2 | | ON ROADSIDE, NEAR JUNCTION OF DIRT ROADS. MAPPED BY CNDDB ACCORDING TO COORDINATES P | 20180627 |
| Dicots | Monardella hypoleuca ssp. intermedia | intermediate monardella | 4.58 | Wildomar | 4/5 mile | N | 19870425 | None | None | G4T2? | S2? | 1B.3 | | MAPPED BY CNDDB AS BEST GUESS AROUND THE NORTH END OF MESA DE COLORADO. | 20130125 |
| Dicots | Chorizanthe parryi var. parryi | Parry's spineflower | 4.60 | Bachelor Mtn. | specific area | N | 20110602 | None | None | G3T2 | S2 | 1B.1 | | MAPPED ON THE BORDER BETWEEN THE SE 1/4 OF THE SE 1/4 OF SECTION 7 AND THE SW 1/4 OF THE | 20140303 |
| Dicots | Chorizanthe polygonoides var. longispina | long-spined spineflower | 4.61 | Murrieta | specific area | N | 20130321 | None | None | G5T3 | S3 | 1B.2 | | 2 POLYGONS: SW POLYGON MAPPED BASED ON COORDINATES FROM 2006 LEATHERMAN FIELD SURV | 20141201 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 4.63 | Murrieta | specific area | N | 20030407 | Endangered | None | G5T1T2 | S1S2 | | | SITE CONTAINS HIGH QUALITY COASTAL SAGE SCRUB AND RIPARIAN HABITAT. | 20060112 |
| Dicots | Centromadia pungens ssp. laevis | smooth tarplant | 4.65 | Temecula | specific area | N | 20080918 | None | None | G3G4T2 | S2 | 1B.1 | | MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 1990 BRAMLET MAPS AND 1999 UCR COORDINA | 20120110 |
| Mammals | Dipodomys stephensi | Stephens' kangaroo rat | 4.69 | Bachelor Mtn. | 3/5 mile | N | 19890327 | Endangered | Threatened | G2 | S2 | | | LOW ABUNDANCE WITH ONE PATCH OF MEDIUM ABUNDANCE. | 19920519 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 4.71 | Temecula | 3/5 mile | N | 19920926 | None | None | G2 | S2 | 1B.1 | | | 20160606 |
| Crustaceans | Branchinecta lynchi | vernal pool fairy shrimp | 4.72 | Bachelor Mtn. | 2/5 mile | N | 2011XXXX | Threatened | None | G3 | S3 | | | ALWAYS TAKEN IN DEEPER WATER AMONG LOOSE EMERGENT VEGETATION. | 20140417 |
| Dicots | Lepidium virginicum var. robinsonii | Robinson's pepper-grass | 4.74 | Murrieta | 80 meters | N | 20060528 | None | None | G5T3 | S3 | 4.3 | | MAPPED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 28 ACCORDING TO 2006 SANDERS COORDINATES | 20120301 |
| Birds | Lanius ludovicianus | loggerhead shrike | 4.75 | Bachelor Mtn. | non-specific ar | N | 20060610 | None | None | G4 | S4 | | SSC | JUST SE OF ADOBE SPRING, ALONG SAN DIEGO AQUEDUCT AT THE NW CORNER OF LEON ROAD AND A | 20110311 |
| Reptiles | Arizona elegans occidentalis | California glossy snake | 4.76 | Wildomar | 1 mile | N | 1946XXXX | None | None | G5T2 | S2 | | SSC | | 20170213 |
| Reptiles | Aspidoscelis hyperythra | orange-throated whiptail | 4.78 | Fallbrook | specific area | N | 20170428 | None | None | G5 | S2S3 | | WL | MAPPED TO PROVIDED COORDINATES. | 20180924 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 4.80 | Fallbrook | non-specific ar | N | 19990921 | None | None | G2 | S2 | 1B.1 | | SITE IS ABOUT 3 MILES NORTH OF THE COUNTY LINE WHERE IT CROSSES SANDIA CANYON. | 20160616 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 4.80 | Temecula | non-specific ar | N | 20010920 | Threatened | None | G4G5T3Q | S2 | | SSC | | 20030703 |
| Dicots | Ambrosia pumila | San Diego ambrosia | 4.81 | Temecula | specific area | N | 20190707 | Endangered | None | G1 | S1 | 1B.1 | | MAPPED BY CNDDB AS TWO POLYGONS, PRIMARILY ALONG DIRT ROADS. IN THE NORTH 1/2 OF THE N | 20210120 |

CNDDB Occurrences (5 miles)

| TAXONGROUP | SNAME | CNAME | DISTANCE | KQUADNAME | ACCURACY | SENSITIVE | SITEDATE | FEDLIST | CALLIST | GRANK | SRANK | RPLANTRA | CDFWSTATUS | LOCDETAILS | LASTUPDATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Riparian | Southern Coast Live Oak Riparian Forest | Southern Coast Live Oak Riparian Forest | 4.81 | Murrieta | specific area | N | 19800504 | None | None | G4 | S4 | | | EXTANT, 1980, PER INTERPRETATION OF AERIAL PHOTOS. | 19980831 |
| Monocots | Juncus luciensis | Santa Lucia dwarf rush | 4.89 | Wildomar | 1 mile | N | 19780521 | None | None | G3 | S3 | 1B.2 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS GENERALLY AROUND MESA DE COL | 20090528 |
| Bryophytes | Geothallus tuberosus | Campbell's liverwort | 4.89 | Wildomar | 1 mile | N | XXXXXXXX | None | None | G2 | S2 | 1B.1 | | EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO INCLUDE THE GENERAL AREA OF THE PRESERVE | 20050523 |
| Crustaceans | Streptocephalus woottoni | Riverside fairy shrimp | 4.90 | Bachelor Mtn. | non-specific ar | N | 201103XX | Endangered | None | G1G2 | S1S2 | | | SKUNK HOLLOW (SH) IS LARGER (33 ACRE) POOL TO NORTHWEST, FIELD POOL (FP) IS SMALLER (ABOU | 20140325 |
| Insects | Euphydryas editha quino | quino checkerspot butterfly | 4.91 | Bachelor Mtn. | specific area | N | 19990413 | Endangered | None | G5T1T2 | S1S2 | | | ALL BUTTERFLIES OBSERVED IN OR NEAR PLANTAGO ERECTA (FOOD PLANT) PATCH. COASTAL CALIFOR | 20030826 |
| Birds | Polioptila californica californica | coastal California gnatcatcher | 4.91 | Murrieta | specific area | N | 20000331 | Threatened | None | G4G5T3Q | S2 | | SSC | 1 PAIR ON EACH OF THE 2 HILLS. | 20030731 |
| Monocots | Orcuttia californica | California Orcutt grass | 4.96 | Bachelor Mtn. | specific area | N | 20170517 | Endangered | Endangered | G1 | S1 | 1B.1 | | ORCUTTIA CALIFORNICA LOCATED WITHIN INUNDATION AREA OF POOL. | 20210824 |
| Amphibians | Spea hammondii | western spadefoot | 4.97 | Bachelor Mtn. | non-specific ar | N | 2011XXXX | None | None | G2G3 | S3 | | SSC | SKUNK HOLLOW VERNAL POOL PRESERVE. | 20190903 |
| Dicots | Arctostaphylos rainbowensis | Rainbow manzanita | 4.99 | Wildomar | 80 meters | N | 20070413 | None | None | G2 | S2 | 1B.1 | | MAPPED ACCORDING TO 2007 ROBERTS COORDINATES. | 20160613 |
| Dicots | Ambrosia pumila | San Diego ambrosia | 4.99 | Bachelor Mtn. | specific area | N | 20170517 | Endangered | None | G1 | S1 | 1B.1 | | MAPPED BY CNDDB AS 6 POLYGONS, ON UPLANDS SURROUNDING SKUNK HOLLOW. | 20210120 |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Vireo bellii pusillus | least Bell's vireo | 0.98 | 20080730 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 1.03 | 20080730 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 1.12 | 20080730 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 1.14 | 19990905 | INTERSECTION OF MURRIETA HOT SPRINGS & WHITEWOOD CANYON RDS |
| Euphydryas editha quino | Quino checkerspot butterfly | 1.15 | 19710213 | MURRIETA HOT SPRINGS |
| Polioptila californica californica | coastal California gnatcatcher | 1.22 | 20040802 | |
| Polioptila californica californica | coastal California gnatcatcher | 1.22 | 20000501 | MURRIETA HOT SPRINGS |
| Vireo bellii pusillus | least Bell's vireo | 1.27 | 20080730 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 1.32 | 20000501 | MURRIETA HOT SPRINGS |
| Polioptila californica californica | coastal California gnatcatcher | 1.36 | 20000501 | MURRIETA HOT SPRINGS |
| Vireo bellii pusillus | least Bell's vireo | 1.38 | 20100726 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 1.38 | 20080730 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 1.39 | 20080627 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 1.40 | 20100726 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 1.40 | 20050411 | |
| Branchinecta lynchi | vernal pool fairy shrimp | 1.43 | 19950216 | MESA DE BURRO |
| Vireo bellii pusillus | least Bell's vireo | 1.43 | 20100726 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 1.44 | 20080730 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 1.45 | 20100726 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 1.54 | 20080801 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 1.65 | 20080801 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 1.98 | 20200727 | COUNTY OF RIVERSIDE |
| Dipodomys merriami parvus | San Bernardino kangaroo rat | 1.99 | 19891000 | CAT KILL SPECIMEN @ MURRIETA |
| Streptocephalus woottoni | Riverside fairy shrimp | 2.03 | 20051012 | APN 909-370-002 |
| Vireo bellii pusillus | least Bell's vireo | 2.06 | 20200727 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 2.16 | 20010415 | WASHINGTON AVE AND JEFFERSON AVE AT NUTMEG |
| Polioptila californica californica | coastal California gnatcatcher | 2.20 | 19990927 | MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 2.23 | 20200727 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 2.29 | 20021130 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 2.30 | 20180502 | CITY OF MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 2.30 | 20190417 | CITY OF MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.35 | 19980221 | MURRIETA HOT SPRINGS |
| Vireo bellii pusillus | least Bell's vireo | 2.46 | 20200727 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 2.58 | 20040518 | SW CORNER OF WINCHESTER RD AND MURRIETA HOT SPRINGS RD |
| Polioptila californica californica | coastal California gnatcatcher | 2.63 | 20010401 | MURRIETA HOT SPRINGS ROAD |
| Polioptila californica californica | coastal California gnatcatcher | 2.63 | 20000511 | S OF MURRIETA HOT SPRINGS RD |
| Polioptila californica californica | coastal California gnatcatcher | 2.64 | 20040518 | SW CORNER OF WINCHESTER RD AND MURRIETA HOT SPRINGS RD |
| Polioptila californica californica | coastal California gnatcatcher | 2.66 | 19990507 | TM 23435 |
| Vireo bellii pusillus | least Bell's vireo | 2.66 | 20200716 | CITY OF MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.67 | 20040324 | |
| Polioptila californica californica | coastal California gnatcatcher | 2.71 | 20030422 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 2.71 | 19990507 | TM 23435 |
| Navarretia fossalis | spreading navarretia | 2.74 | 20010613 | RIVERSIDE COUNTY |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.76 | 19990409 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.76 | 19990405 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.77 | 19990318 | MIRAMOSA |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Euphydryas editha quino | Quino checkerspot butterfly | 2.77 | 19990408 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.77 | 19990329 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.77 | 19990326 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.77 | 19990401 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.78 | 19990416 | MIRAMOSA |
| Vireo bellii pusillus | least Bell's vireo | 2.80 | 20200727 | COUNTY OF RIVERSIDE |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.82 | 19990415 | MIRAMOSA |
| Polioptila californica californica | coastal California gnatcatcher | 2.82 | 19990511 | TM 23435 |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.83 | 19990312 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.83 | 19990326 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.83 | 19990329 | MIRAMOSA |
| Polioptila californica californica | coastal California gnatcatcher | 2.85 | 19990312 | N OF HUNTER RD |
| Polioptila californica californica | coastal California gnatcatcher | 2.87 | 20000511 | S OF MURRIETA HOT SPRINGS RD |
| Polioptila californica californica | coastal California gnatcatcher | 2.87 | 19990419 | TM 23435 |
| Polioptila californica californica | coastal California gnatcatcher | 2.88 | 19990615 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.88 | 20030411 | WSP Q#33117E2 |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.88 | 20040316 | |
| Polioptila californica californica | coastal California gnatcatcher | 2.89 | 19980317 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.89 | 19980415 | MIRAMOSA |
| Polioptila californica californica | coastal California gnatcatcher | 2.90 | 20120406 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.92 | 20030411 | WSP Q#33117E2 |
| Vireo bellii pusillus | least Bell's vireo | 2.93 | 20120730 | CITY OF TEMECULA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.94 | 20030411 | WSP Q#33117E2 |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.94 | 19990329 | MIRAMOSA |
| Vireo bellii pusillus | least Bell's vireo | 2.95 | 20120730 | CITY OF TEMECULA |
| Polioptila californica californica | coastal California gnatcatcher | 2.95 | 20180425 | CITY OF MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.96 | 20030411 | WSP Q#33117E2 |
| Polioptila californica californica | coastal California gnatcatcher | 2.96 | 20180425 | CITY OF MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 2.97 | 20180712 | COUNTY OF RIVERSIDE |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.98 | 19990329 | MIRAMOSA |
| Polioptila californica californica | coastal California gnatcatcher | 2.99 | 20150427 | CITY OF MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 2.99 | 20020320 | N OF LOS ALAMOS RD |
| Euphydryas editha quino | Quino checkerspot butterfly | 2.99 | 20030411 | WSP Q#33117E2 |
| Polioptila californica californica | coastal California gnatcatcher | 2.99 | 19990615 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.00 | 20040310 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.00 | 19980330 | BUIE COMMUNITIES |
| Polioptila californica californica | coastal California gnatcatcher | 3.01 | 20190417 | CITY OF MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.01 | 19990329 | TM 23435 |
| Navarretia fossalis | spreading navarretia | 3.02 | 20031008 | S OF CLINTON KEITH RD |
| Vireo bellii pusillus | least Bell's vireo | 3.04 | 20180712 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 3.05 | 20010607 | N OF LOS ALAMOS RD |
| Polioptila californica californica | coastal California gnatcatcher | 3.06 | 20180425 | CITY OF MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.06 | 20180425 | CITY OF MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.08 | 20120406 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.09 | 19991115 | NE OF NICOLAS AND WINCHESTER RDS |
| Streptocephalus woottoni | Riverside fairy shrimp | 3.12 | 20010400 | S OF CLINTON KEITH RD |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Polioptila californica californica | coastal California gnatcatcher | 3.13 | 20120406 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.13 | 20010524 | S OF CLINTON KEITH RD |
| Polioptila californica californica | coastal California gnatcatcher | 3.16 | 20150427 | CITY OF MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.18 | 19980426 | HOGBACKS |
| Vireo bellii pusillus | least Bell's vireo | 3.22 | 20020425 | ANTELOPE HILLS |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.22 | 19980403 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.22 | 19980426 | HOGBACKS |
| Polioptila californica californica | coastal California gnatcatcher | 3.24 | 19980427 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.25 | 19990326 | MIRAMOSA |
| Polioptila californica californica | coastal California gnatcatcher | 3.26 | 20010318 | MURRIETA HOT SPRINGS |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.27 | 19980403 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.27 | 19990409 | MIRAMOSA |
| Streptocephalus woottoni | Riverside fairy shrimp | 3.28 | 19880910 | WEST OF SR 79 NEXT TO MURRIETA GOLF COURSE |
| Polioptila californica californica | coastal California gnatcatcher | 3.31 | 20180425 | CITY OF MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.32 | 20100320 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.34 | 20190315 | CITY OF MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.36 | 19980415 | MIRAMOSA |
| Polioptila californica californica | coastal California gnatcatcher | 3.36 | 20150427 | CITY OF MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.37 | 19980403 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.37 | 20020425 | ANTELOPE HILLS |
| Polioptila californica californica | coastal California gnatcatcher | 3.37 | 19980427 | MURRIETA |
| Streptocephalus woottoni | Riverside fairy shrimp | 3.41 | 20080304 | SAN BERNARDINO COUNTY |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.42 | 19980415 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.43 | 19980403 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.43 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.44 | 20180425 | CITY OF MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.45 | 19980426 | HOGBACKS |
| Polioptila californica californica | coastal California gnatcatcher | 3.46 | 19980727 | INTERSECTION OF TECHNOLOGY DR AND INNOVATION CT |
| Streptocephalus woottoni | Riverside fairy shrimp | 3.48 | 20080304 | SAN BERNARDINO COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.49 | 20010426 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.50 | 20030511 | |
| Polioptila californica californica | coastal California gnatcatcher | 3.50 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.51 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.55 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.57 | 20021205 | FORMERLY CALLED BENNET PROPERTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.58 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.60 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.61 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.63 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Dipodomys stephensi | Stephens' kangaroo rat | 3.63 | 20030900 | |
| Vireo bellii pusillus | least Bell's vireo | 3.66 | 20180618 | CITY OF TEMECULA |
| Polioptila californica californica | coastal California gnatcatcher | 3.67 | 20051012 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 3.69 | 20080728 | CITY OF TEMECULA |
| Polioptila californica californica | coastal California gnatcatcher | 3.70 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.71 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.71 | 19980426 | HOGBACKS |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Vireo bellii pusillus | least Bell's vireo | 3.72 | 20180618 | CITY OF TEMECULA |
| Vireo bellii pusillus | least Bell's vireo | 3.72 | 20080627 | CITY OF TEMECULA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.72 | 19980415 | MIRAMOSA |
| Euphydryas editha quino | Quino checkerspot butterfly | 3.73 | 19980415 | MIRAMOSA |
| Polioptila californica californica | coastal California gnatcatcher | 3.75 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.75 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.76 | 20160522 | WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 3.78 | 19990519 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 3.78 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.79 | 19980426 | HOGBACKS |
| Polioptila californica californica | coastal California gnatcatcher | 3.79 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.80 | 20000412 | SILVERHAWK |
| Vireo bellii pusillus | least Bell's vireo | 3.80 | 20080707 | CITY OF TEMECULA |
| Polioptila californica californica | coastal California gnatcatcher | 3.81 | 20030603 | |
| Polioptila californica californica | coastal California gnatcatcher | 3.84 | 20160522 | WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 3.85 | 20000412 | SILVERHAWK |
| Vireo bellii pusillus | least Bell's vireo | 3.88 | 20070710 | MURRIETA CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 3.88 | 20030501 | |
| Polioptila californica californica | coastal California gnatcatcher | 3.91 | 20030506 | |
| Polioptila californica californica | coastal California gnatcatcher | 3.92 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.94 | 20000412 | SILVERHAWK |
| Polioptila californica californica | coastal California gnatcatcher | 3.94 | 20060727 | CLINTON KEITH RD. |
| Polioptila californica californica | coastal California gnatcatcher | 3.95 | 20001222 | |
| Branchinecta sandiegonensis | San Diego fairy shrimp | 3.96 | 20200428 | CITY OF MURRIETA |
| Branchinecta sandiegonensis | San Diego fairy shrimp | 3.96 | 20190307 | CITY OF MURRIETA |
| Streptocephalus woottoni | Riverside fairy shrimp | 3.96 | 20200428 | CITY OF MURRIETA |
| Streptocephalus woottoni | Riverside fairy shrimp | 3.96 | 20091109 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 3.97 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.98 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 3.99 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.00 | 20060727 | CLINTON KEITH RD. |
| Polioptila californica californica | coastal California gnatcatcher | 4.00 | 20160522 | WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 4.01 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.03 | 20000412 | SILVERHAWK |
| Polioptila californica californica | coastal California gnatcatcher | 4.03 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.03 | 20060727 | CLINTON KEITH RD. |
| Polioptila californica californica | coastal California gnatcatcher | 4.04 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Vireo bellii pusillus | least Bell's vireo | 4.04 | 20140711 | CITY OF WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 4.05 | 20060727 | CLINTON KEITH RD. |
| Polioptila californica californica | coastal California gnatcatcher | 4.07 | 20160522 | WILDOMAR |
| Anaxyrus californicus | arroyo toad | 4.07 | 20050000 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.09 | 20030501 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.09 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.11 | 20000412 | SILVERHAWK |
| Polioptila californica californica | coastal California gnatcatcher | 4.12 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Anaxyrus californicus | arroyo toad | 4.13 | 20010509 | BETWEEN VISITOR CENTER AND AVENIDA LA CRESTA INTERSECTION |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Anaxyrus californicus | arroyo toad | 4.14 | 20050000 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.14 | 19980625 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.16 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Vireo bellii pusillus | least Bell's vireo | 4.17 | 20140711 | CITY OF WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 4.17 | 20000516 | SE OF NICHOLAS AND VIA LOBO RDS |
| Polioptila californica californica | coastal California gnatcatcher | 4.19 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.20 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.20 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.20 | 20030520 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.20 | 20120713 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.21 | 20030501 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.21 | 20020319 | MURRIETA HOT SPRINGS RD AND SERAPHINA RD |
| Polioptila californica californica | coastal California gnatcatcher | 4.22 | 19980702 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.23 | 20020319 | MURRIETA HOT SPRINGS RD AND SERAPHINA RD |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.23 | 19980320 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.23 | 19980330 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.25 | 19990511 | SW FLANK OF SKUNK HOLLOW HILL |
| Polioptila californica californica | coastal California gnatcatcher | 4.25 | 20110613 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.26 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.26 | 20110613 | RIVERSIDE COUNTY |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.26 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.27 | 20001222 | |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.27 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.28 | 20051012 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.28 | 20100506 | RIVERSIDE COUNTY |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.28 | 20140514 | COUNTY OF RIVERSIDE |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.29 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.29 | 20140717 | RIVERSIDE COUNTY |
| Ambrosia pumila | San Diego ambrosia | 4.30 | 20060000 | N OF NICHOLAS RD AND S OF MURRIETA HOT SPRINGS RD |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.30 | 19980422 | WILDOMAR |
| Ambrosia pumila | San Diego ambrosia | 4.30 | 20060000 | N OF NICHOLAS RD AND S OF MURRIETA HOT SPRINGS RD |
| Ambrosia pumila | San Diego ambrosia | 4.31 | 20060000 | N OF NICHOLAS RD AND S OF MURRIETA HOT SPRINGS RD |
| Polioptila californica californica | coastal California gnatcatcher | 4.31 | 20030501 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.31 | 19980625 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.32 | 20190328 | COUNTY OF RIVERSIDE |
| Vireo bellii pusillus | least Bell's vireo | 4.32 | 20140711 | CITY OF WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 4.32 | 20040712 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.32 | 20040517 | |
| Ambrosia pumila | San Diego ambrosia | 4.33 | 20060000 | N OF NICHOLAS RD AND S OF MURRIETA HOT SPRINGS RD |
| Polioptila californica californica | coastal California gnatcatcher | 4.33 | 20190328 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.33 | 19980623 | WINCHESTER PROPERTIES SPECIFIC PLAN |
| Polioptila californica californica | coastal California gnatcatcher | 4.34 | 20110613 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.34 | 20100506 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.35 | 19990300 | END OF NICHOLAS RD ALONG SANTA GERTRUDIS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.35 | 20190328 | COUNTY OF RIVERSIDE |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.35 | 19940602 | SANTA GERTRUDIS CREEK; LONG VALLEY |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Polioptila californica californica | coastal California gnatcatcher | 4.35 | 19990318 | S OF RANCHO CALIFORNIA RD |
| Polioptila californica californica | coastal California gnatcatcher | 4.36 | 20100506 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.37 | 19990511 | SW FLANK OF SKUNK HOLLOW HILL |
| Polioptila californica californica | coastal California gnatcatcher | 4.37 | 19990511 | SW FLANK OF SKUNK HOLLOW HILL |
| Polioptila californica californica | coastal California gnatcatcher | 4.38 | 20110613 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.38 | 19980702 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.38 | 19980610 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.38 | 19990511 | SW FLANK OF SKUNK HOLLOW HILL |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.38 | 19980416 | WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 4.39 | 20190328 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.39 | 20190328 | COUNTY OF RIVERSIDE |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.39 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.39 | 20030501 | |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.39 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.39 | 19980604 | MURRIETA |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.39 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.40 | 20110613 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.40 | 20190328 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.41 | 20010502 | |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.41 | 19980320 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.42 | 20030403 | N OF LOS ALAMOS RD AND E OF WARM SPRINGS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.42 | 19940609 | SKUNK HOLLOW |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.43 | 20030900 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.45 | 20100506 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.45 | 20030603 | |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.47 | 19980402 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.47 | 19990300 | END OF NICHOLAS RD ALONG SANTA GERTRUDIS CREEK |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.48 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.48 | 19990318 | S OF RANCHO CALIFORNIA RD |
| Polioptila californica californica | coastal California gnatcatcher | 4.48 | 19980625 | MURRIETA |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.48 | 20140514 | COUNTY OF RIVERSIDE |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.50 | 20030900 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.51 | 20110613 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.52 | 20190328 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.53 | 19980610 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.54 | 20120713 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.55 | 20030612 | WARM SPRINGS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.58 | 20050520 | WILDOMAR |
| Vireo bellii pusillus | least Bell's vireo | 4.60 | 20140717 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.60 | 19990316 | MURRIETA |
| Branchinecta lynchi | vernal pool fairy shrimp | 4.61 | 19950217 | MESA DE COLORADO |
| Polioptila californica californica | coastal California gnatcatcher | 4.61 | 19990330 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.62 | 19990300 | END OF NICHOLAS RD ALONG SANTA GERTRUDIS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.62 | 20050520 | WILDOMAR |
| Polioptila californica californica | coastal California gnatcatcher | 4.63 | 19980610 | MURRIETA |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.64 | 20030319 | N. LOS ALAMOS RD. E. 215 |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Polioptila californica californica | coastal California gnatcatcher | 4.65 | 20030612 | WARM SPRINGS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.65 | 20010319 | |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.69 | 20030319 | N. LOS ALAMOS RD. E. 215 |
| Polioptila californica californica | coastal California gnatcatcher | 4.70 | 20030612 | WARM SPRINGS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.71 | 19980625 | MURRIETA |
| Polioptila californica californica | coastal California gnatcatcher | 4.72 | 20030612 | WARM SPRINGS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.72 | 20030425 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.72 | 20030603 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.72 | 19980304 | MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 4.74 | 20180731 | COUNTY OF RIVERSIDE |
| Dipodomys stephensi | Stephens' kangaroo rat | 4.74 | 20140514 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.74 | 20030612 | WARM SPRINGS CREEK |
| Streptocephalus woottoni | Riverside fairy shrimp | 4.78 | 20080229 | RIVERSIDE COUNTY |
| Branchinecta lynchi | vernal pool fairy shrimp | 4.78 | 20080229 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.79 | 20030612 | WARM SPRINGS CREEK |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.79 | 20030407 | N. LOS ALAMOS RD. E. 215 |
| Streptocephalus woottoni | Riverside fairy shrimp | 4.80 | 19880910 | |
| Vireo bellii pusillus | least Bell's vireo | 4.80 | 20180731 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.80 | 19990300 | END OF NICHOLAS RD ALONG SANTA GERTRUDIS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.80 | 20180731 | COUNTY OF RIVERSIDE |
| Polioptila californica californica | coastal California gnatcatcher | 4.80 | 19990300 | END OF NICHOLAS RD ALONG SANTA GERTRUDIS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.81 | 19940515 | TEMECULA |
| Polioptila californica californica | coastal California gnatcatcher | 4.84 | 20010809 | TEMECULA |
| Polioptila californica californica | coastal California gnatcatcher | 4.85 | 20130418 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 4.88 | 20140711 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.88 | 20030703 | MURRIETA; RIVERSIDE CO. |
| Polioptila californica californica | coastal California gnatcatcher | 4.89 | 20060316 | FRENCH VALLEY |
| Vireo bellii pusillus | least Bell's vireo | 4.89 | 20140711 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.90 | 20030612 | WARM SPRINGS CREEK |
| Polioptila californica californica | coastal California gnatcatcher | 4.90 | 19990300 | END OF NICHOLAS RD ALONG SANTA GERTRUDIS CREEK |
| Vireo bellii pusillus | least Bell's vireo | 4.91 | 20140711 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.93 | 20050607 | |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.93 | 19990322 | |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.93 | 19990328 | |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.93 | 19990404 | |
| Euphydryas editha quino | Quino checkerspot butterfly | 4.93 | 19990413 | |
| Polioptila californica californica | coastal California gnatcatcher | 4.93 | 20000331 | NW OF LOS ALAMOS & BRIGGS RDS |
| Polioptila californica californica | coastal California gnatcatcher | 4.94 | 19940506 | TEMECULA |
| Polioptila californica californica | coastal California gnatcatcher | 4.94 | 20180410 | COUNTY OF RIVERSIDE |
| Vireo bellii pusillus | least Bell's vireo | 4.94 | 20150717 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.94 | 20030425 | |
| Vireo bellii pusillus | least Bell's vireo | 4.94 | 20150706 | MURRIETA |
| Vireo bellii pusillus | least Bell's vireo | 4.95 | 20140711 | RIVERSIDE COUNTY |
| Polioptila californica californica | coastal California gnatcatcher | 4.95 | 20060316 | FRENCH VALLEY |
| Polioptila californica californica | coastal California gnatcatcher | 4.97 | 19980122 | FOOTHILLS OF THE SANTA ANA MOUNTAINS |
| Polioptila californica californica | coastal California gnatcatcher | 4.97 | 20030612 | WARM SPRINGS CREEK |

USFWS Occurrences (5 miles)

| SNAME | CNAME | NEAR_DIST | DATE_ | LOC_DESCRI |
|---|---|---|---|---|
| Vireo bellii pusillus | least Bell's vireo | 4.98 | 20140711 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 4.99 | 20140711 | RIVERSIDE COUNTY |
| Vireo bellii pusillus | least Bell's vireo | 4.99 | 20140711 | RIVERSIDE COUNTY |
| Euphydryas editha quino | Quino checkerspot butterfly | 5.00 | 20000416 | MENIFEE |

| comname | sciname | NEAR_DIST | fedreg | pubdate | listing_st |
|---|---|---|---|---|---|
| Coastal California gnatcatcher | Polioptila californica californica | 3.70 | 72FR72010 72213 | 20071219 | Threatened |
| Thread-leaved brodiaea | Brodiaea filifolia | 4.02 | 76FR6848 6925 | 20110208 | Threatened |
| San Diego ambrosia | Ambrosia pumila | 4.20 | 75FR74546 74604 | 20101130 | Endangered |

# APPENDIX G

**LMC Murrieta**

Murrieta Hot Springs Road/Jefferson Avenue

Murrieta, CA 92562

Inquiry Number: 6756783.11

November 18, 2021

# The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

# EDR Aerial Photo Decade Package

11/18/21

**Site Name:**

LMC Murrieta
Murrieta Hot Springs Road/Jeff
Murrieta, CA 92562
EDR Inquiry # 6756783.11

**Client Name:**

Leighton and Associates, Inc.
17781 Cowan
Irvine, CA 92614
Contact: Brynn Mcculloch

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

***Search Results:***

| Year | Scale | Details | Source |
|---|---|---|---|
| 2016 | 1"=500' | Flight Year: 2016 | USDA/NAIP |
| 2012 | 1"=500' | Flight Year: 2012 | USDA/NAIP |
| 2009 | 1"=500' | Flight Year: 2009 | USDA/NAIP |
| 2005 | 1"=500' | Flight Year: 2005 | USDA/NAIP |
| 2002 | 1"=500' | Acquisition Date: January 01, 2002 | USGS/DOQQ |
| 1996 | 1"=500' | Acquisition Date: September 30, 1996 | USGS/DOQQ |
| 1989 | 1"=500' | Flight Date: August 15, 1989 | USDA |
| 1985 | 1"=500' | Flight Date: July 28, 1985 | USDA |
| 1978 | 1"=500' | Flight Date: September 20, 1978 | USDA |
| 1967 | 1"=500' | Flight Date: July 15, 1967 | USDA |
| 1961 | 1"=500' | Flight Date: June 14, 1961 | USDA |
| 1953 | 1"=500' | Flight Date: August 28, 1953 | USDA |
| 1949 | 1"=500' | Flight Date: May 08, 1949 | USDA |
| 1938 | 1"=500' | Flight Date: June 14, 1938 | USDA |

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INQUIRY #: 6756783.11
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 6756783.11
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 6756783.11
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 6756783.11
YEAR: 2005
= 500'
N
EDR



INQUIRY #: 6756783.11

YEAR: 2002

= 500'

N

EDR



INQUIRY #: 6756783.11

YEAR: 1996

= 500'

N

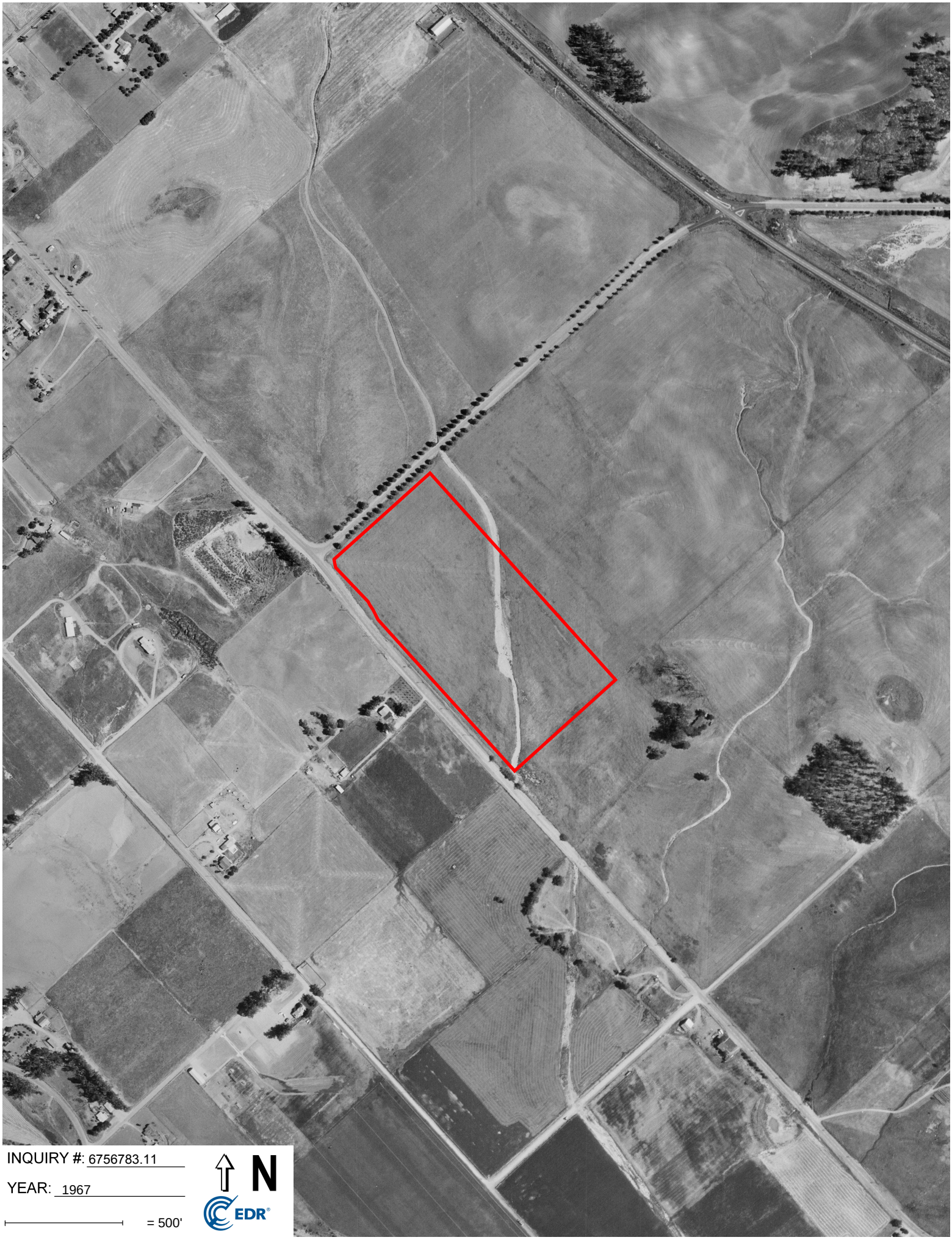
EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 6756783.11
YEAR: 1989
= 500'
N
EDR


INQUIRY #: 6756783.11
YEAR: 1985
= 500'
N
EDR


INQUIRY #: 6756783.11
YEAR: 1978
= 500'
N
EDR



INQUIRY #: 6756783.11

YEAR: 1967

= 500'

N

EDR


INQUIRY #: 6756783.11
YEAR: 1961
= 500'
N
EDR



INQUIRY #: 6756783.11

YEAR: 1953

= 500'

N

EDR


INQUIRY #: 6756783.11
YEAR: 1949
= 500'
N
EDR



INQUIRY #: 6756783.11

YEAR: 1938

= 500'

N

EDR

LMC Murrieta

Murrieta Hot Springs Road/Jefferson Avenue

Murrieta, CA 92562

Inquiry Number: 6756783.4

November 18, 2021

# EDR Historical Topo Map Report

## with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

# EDR Historical Topo Map Report

11/18/21

**Site Name:**

LMC Murrieta
Murrieta Hot Springs Road/Jeff
Murrieta, CA 92562
EDR Inquiry # 6756783.4

**Client Name:**

Leighton and Associates, Inc.
17781 Cowan
Irvine, CA 92614
Contact: Brynn Mcculloch

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Leighton and Associates, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

***Search Results:***

**P.O.#** 13343.001
**Project:** LMC Murrieta Hot Springs

***Coordinates:***

| | |
|---|---|
| **Latitude:** | 33.549825 33° 32' 59" North |
| **Longitude:** | -117.196525 -117° 11' 47" West |
| **UTM Zone:** | Zone 11 North |
| **UTM X Meters:** | 481756.15 |
| **UTM Y Meters:** | 3712260.58 |
| **Elevation:** | 1079.00' above sea level |

**Maps Provided:**

2012
1979
1973
1953
1947
1943
1942
1901

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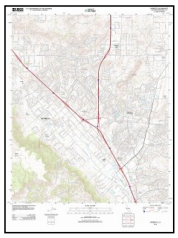
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## *Topo Sheet Key*

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 2012 Source Sheets



Murrieta
2012
7.5-minute, 24000

### 1979 Source Sheets



Murrieta
1979
7.5-minute, 24000
Aerial Photo Revised 1976

### 1973 Source Sheets



Murrieta
1973
7.5-minute, 24000
Aerial Photo Revised 1973

### 1953 Source Sheets

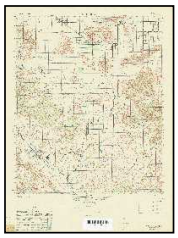


Murrieta
1953
7.5-minute, 24000
Aerial Photo Revised 1951

## *Topo Sheet Key*

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 1947 Source Sheets



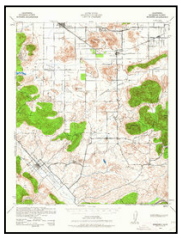
MURRIETA
1947
15-minute, 50000

### 1943 Source Sheets



Murrieta
1943
15-minute, 62500
Aerial Photo Revised 1939

### 1942 Source Sheets



Murrieta
1942
15-minute, 62500
Aerial Photo Revised 1939

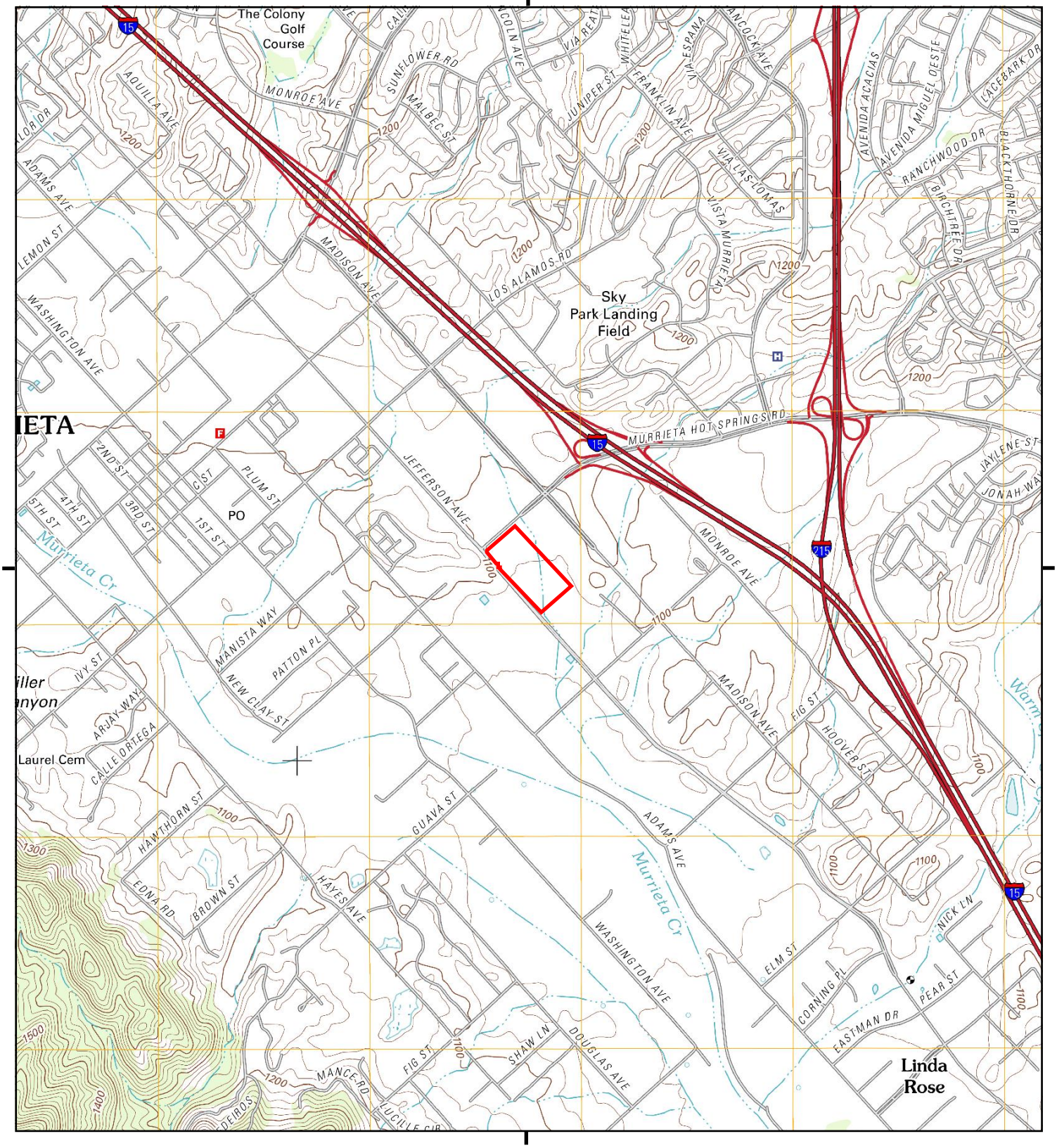
### 1901 Source Sheets



Elsinore
1901
30-minute, 125000

# Historical Topo Map

2012




This report includes information from the following map sheet(s).

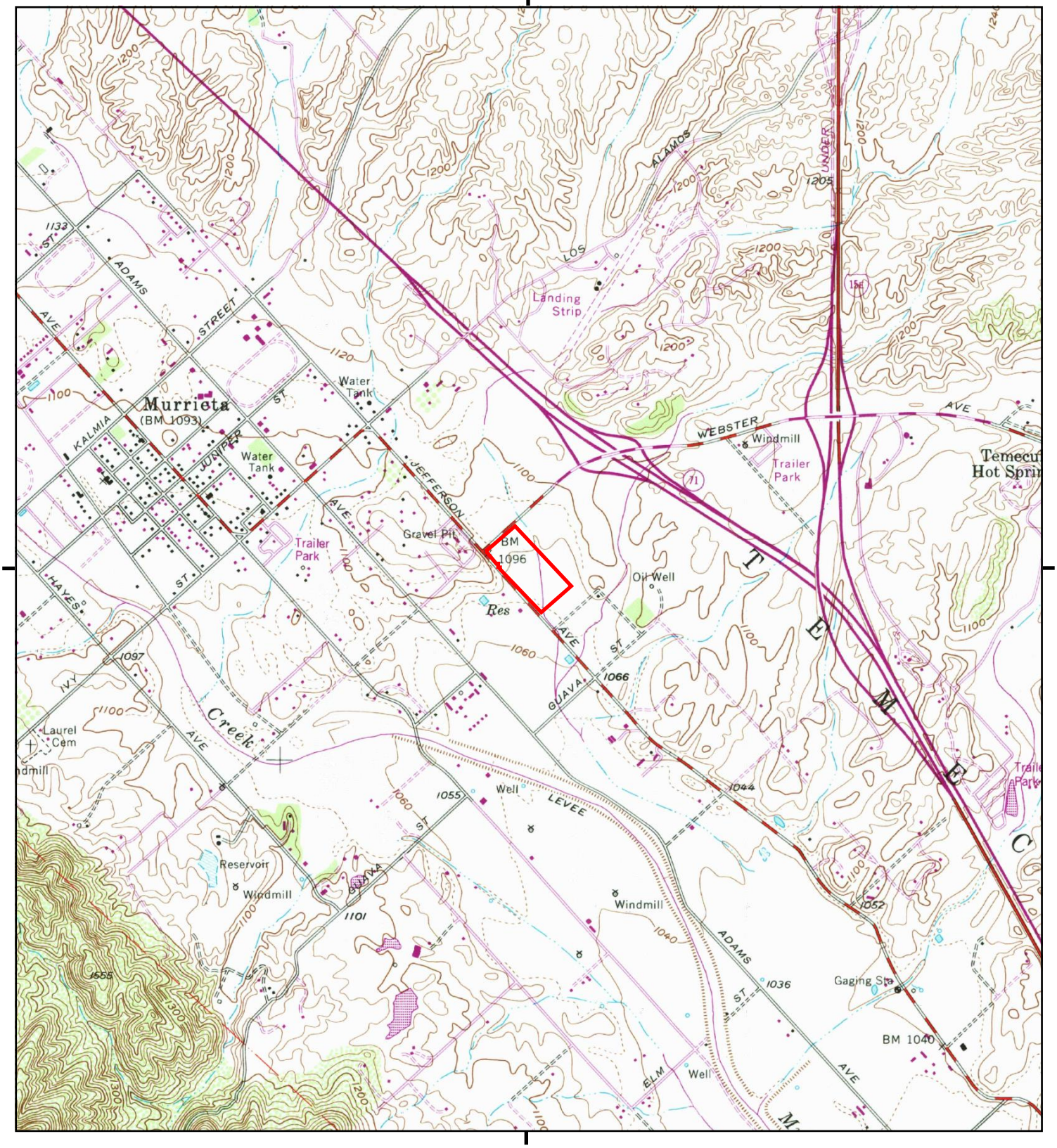
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Murrieta, 2012, 7.5-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N




This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

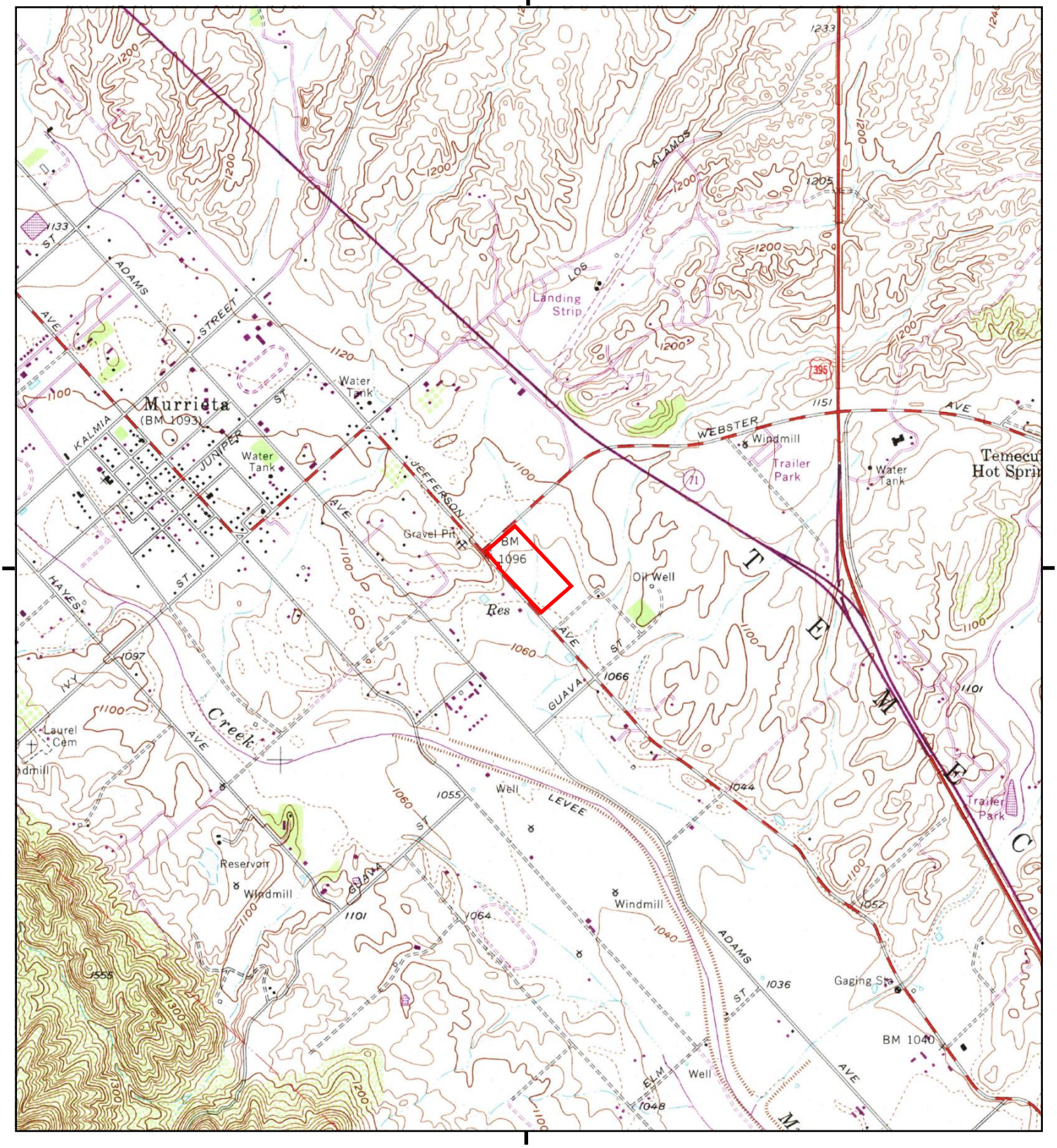
TP, Murrieta, 1979, 7.5-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N

# Historical Topo Map

1973




This report includes information from the following map sheet(s).

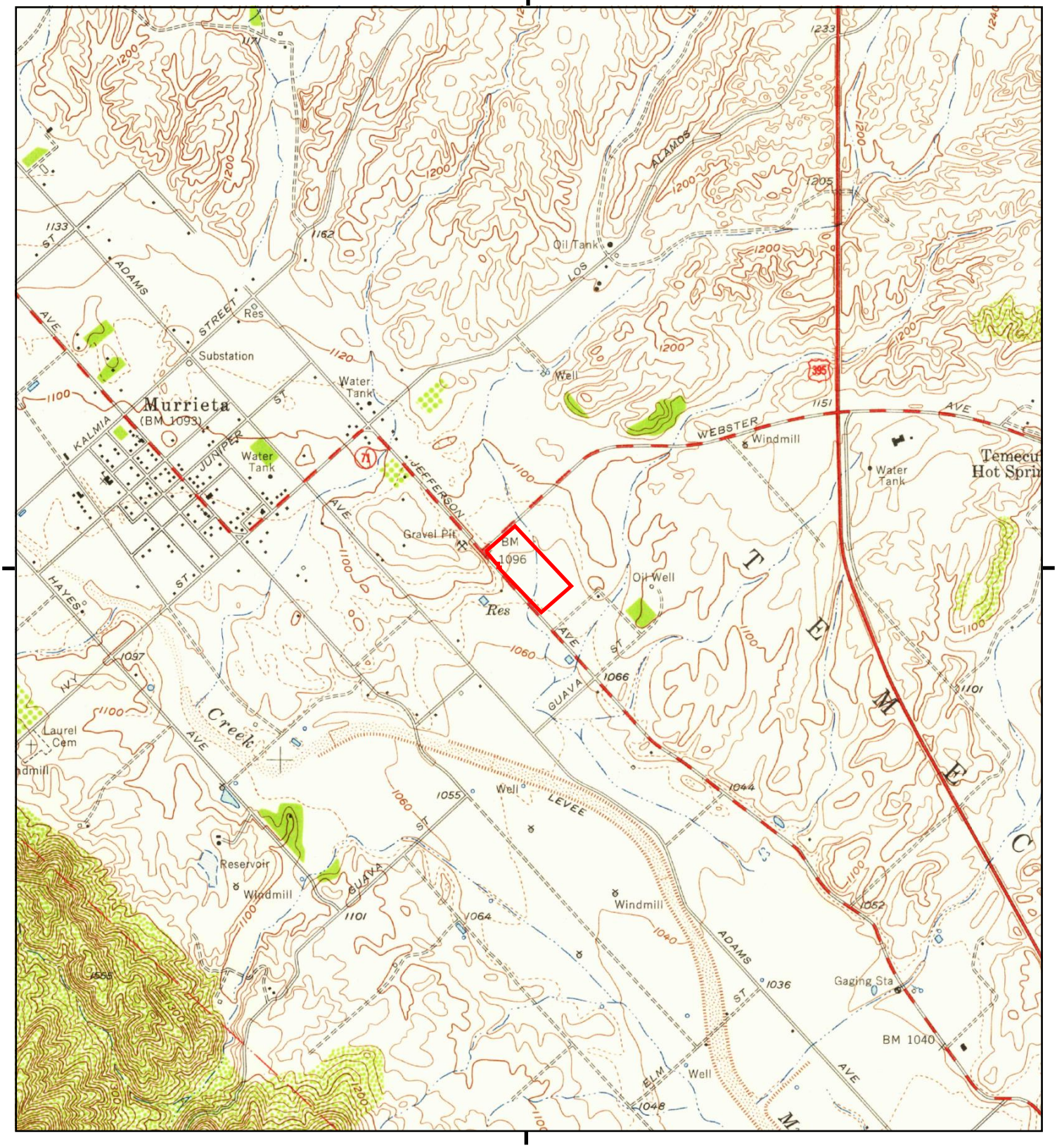
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Murrieta, 1973, 7.5-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N




This report includes information from the following map sheet(s).

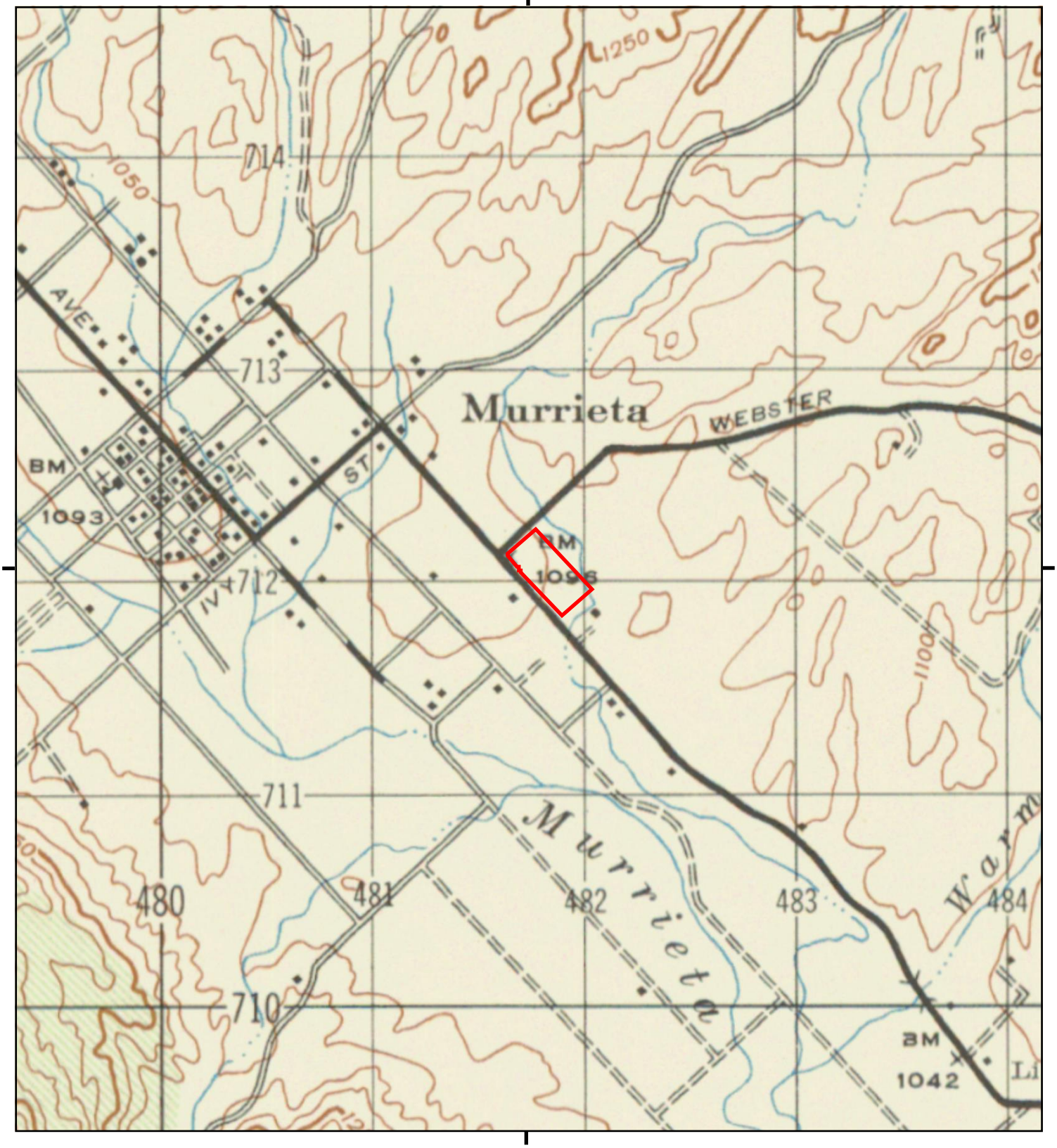
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Murrieta, 1953, 7.5-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N




This report includes information from the following map sheet(s).

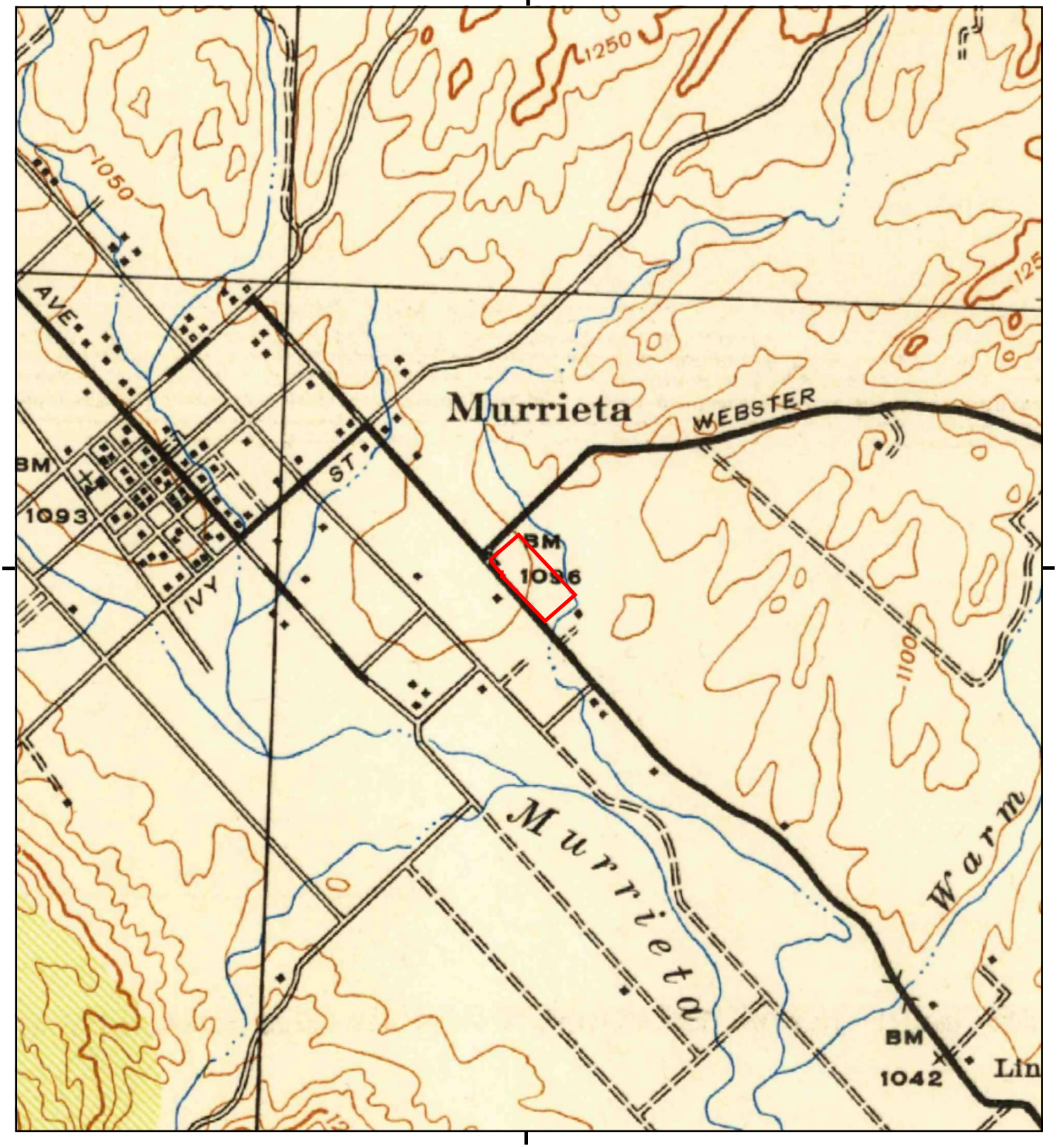
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, MURRIETA, 1947, 15-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N




This report includes information from the following map sheet(s).

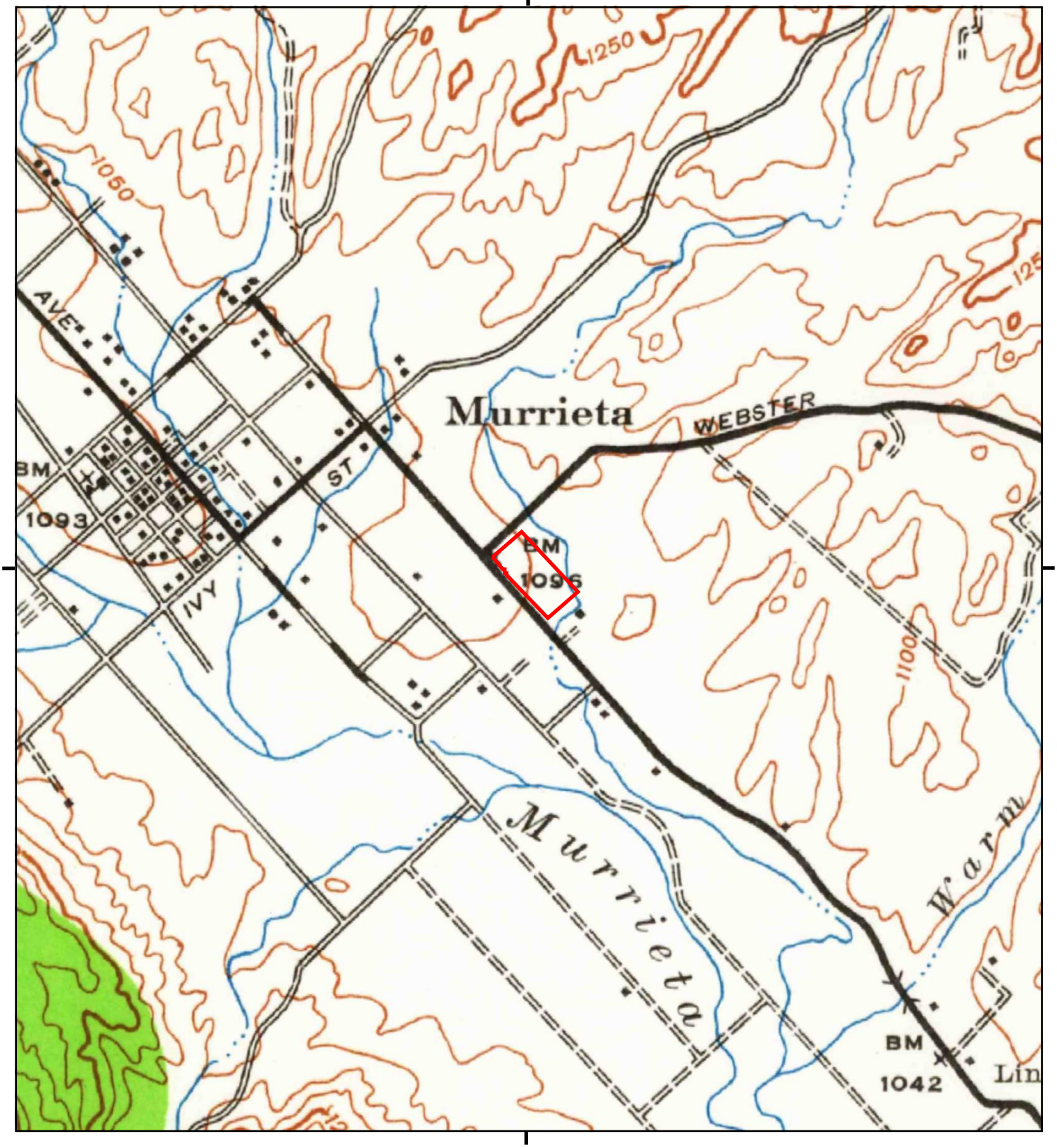
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Murrieta, 1943, 15-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N




This report includes information from the following map sheet(s).

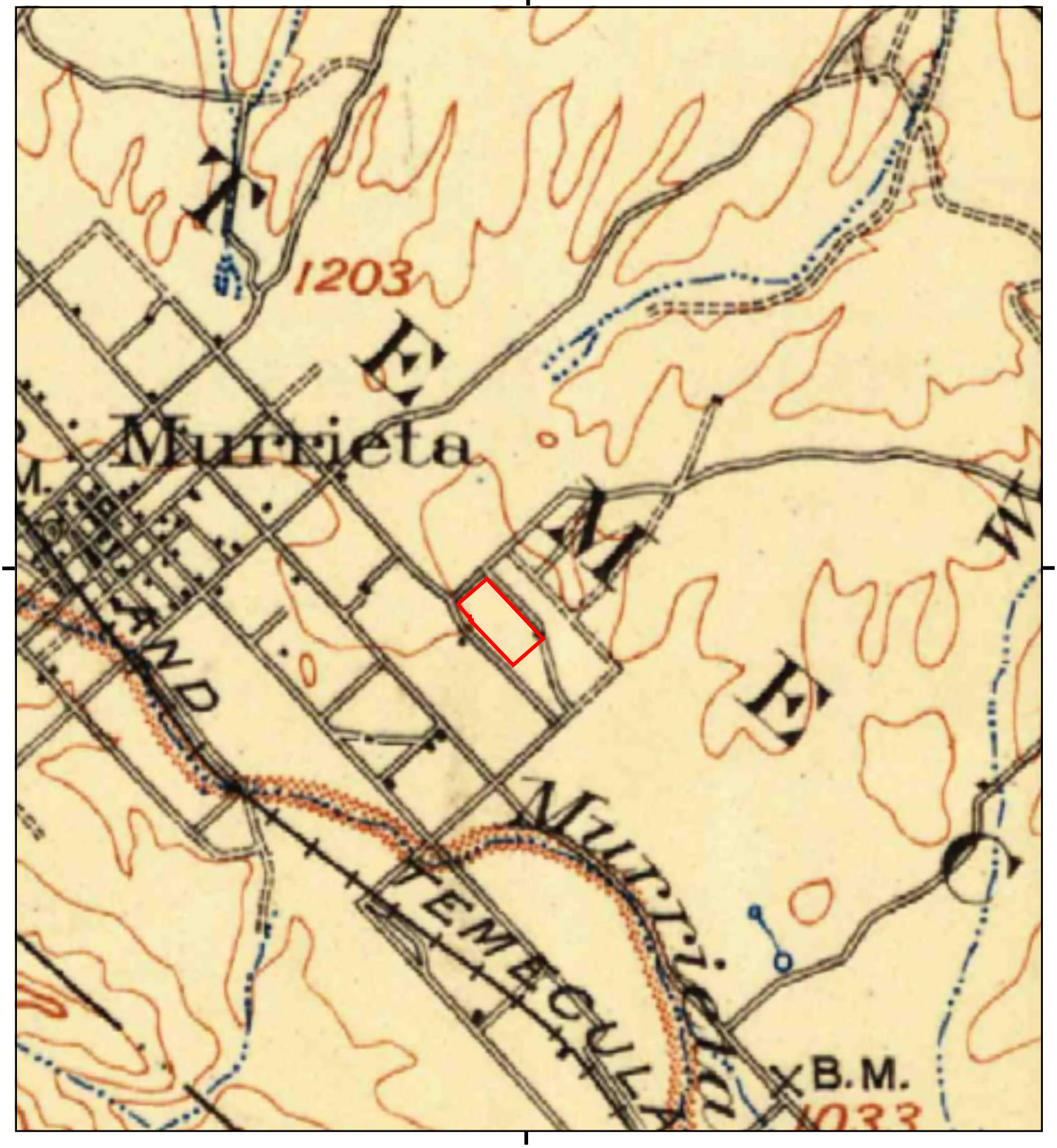
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Murrieta, 1942, 15-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N




This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Elsinore, 1901, 30-minute

SITE NAME: LMC Murrieta
ADDRESS: Murrieta Hot Springs Road/Jefferson Ave
Murrieta, CA 92562
CLIENT: Leighton and Associates, Inc.

N

LMC Murrieta

Murrieta Hot Springs Road/Jefferson Avenue

Murrieta, CA 92562

Inquiry Number: 6756783.3

November 18, 2021

# Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

# Certified Sanborn® Map Report

11/18/21

**Site Name:**

LMC Murrieta
Murrieta Hot Springs Road/Jeff
Murrieta, CA 92562
EDR Inquiry # 6756783.3

**Client Name:**

Leighton and Associates, Inc.
17781 Cowan
Irvine, CA 92614
Contact: Brynn Mcculloch

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

## *Certified Sanborn Results:*

**Certification #** B5E1-4939-ADEE

**PO #** 13343.001

**Project** LMC Murrieta Hot Springs

### UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: B5E1-4939-ADEE

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

*The Sanborn Library LLC Since 1866™*

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**LMC Murrieta**
Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

Inquiry Number: 6756783.5
November 22, 2021

# The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

# TABLE OF CONTENTS

## SECTION

**Executive Summary**

**Findings**

**City Directory Images**

***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

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# EXECUTIVE SUMMARY

## DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

## RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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## RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

| Year | Target Street | Cross Street | Source |
|---|---|---|---|
| 2017 | ☑ | ☐ | EDR Digital Archive |
| 2014 | ☑ | ☐ | EDR Digital Archive |
| 2010 | ☑ | ☐ | EDR Digital Archive |
| 2005 | ☑ | ☐ | EDR Digital Archive |
| 2000 | ☑ | ☐ | EDR Digital Archive |
| 1995 | ☑ | ☐ | EDR Digital Archive |
| 1992 | ☑ | ☐ | EDR Digital Archive |
| 1990 | ☑ | ☑ | Haines Criss-Cross Directory |
| 1985 | ☑ | ☑ | Haines Criss-Cross Directory |
| 1980 | ☑ | ☑ | Haines Criss-Cross Directory |
| 1976 | ☑ | ☑ | Haines Criss-Cross Directory |
| 1973 | ☑ | ☑ | Haines Criss-Cross Directory |

# FINDINGS

## TARGET PROPERTY STREET

Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

| *Year* | *CD Image* | *Source* | |
|---|---|---|---|
| **JEFFERSON AVE** | | | |
| 2017 | pg A2 | EDR Digital Archive | |
| 2014 | pg A6 | EDR Digital Archive | |
| 2010 | pg A10 | EDR Digital Archive | |
| 2005 | pg A14 | EDR Digital Archive | |
| 2000 | pg A16 | EDR Digital Archive | |
| 1995 | pg A18 | EDR Digital Archive | |
| 1992 | pg A19 | EDR Digital Archive | |
| 1990 | pg A21 | Haines Criss-Cross Directory | |
| 1985 | pg A23 | Haines Criss-Cross Directory | |
| 1980 | pg A25 | Haines Criss-Cross Directory | |
| 1976 | pg A27 | Haines Criss-Cross Directory | |
| 1973 | pg A29 | Haines Criss-Cross Directory | |
| **MURRIETA HOT SPRINGS RD** | | | |
| 2017 | pg A5 | EDR Digital Archive | |
| 2014 | pg A9 | EDR Digital Archive | |
| 2010 | pg A13 | EDR Digital Archive | |
| 2005 | pg A15 | EDR Digital Archive | |
| 2000 | pg A17 | EDR Digital Archive | |
| 1995 | - | EDR Digital Archive | Target and Adjoining not listed in Source |
| 1992 | pg A20 | EDR Digital Archive | |

# FINDINGS

## CROSS STREETS

| *Year* | *CD Image* | *Source* |
|---|---|---|
| **MURRIETA HOT SPRINGS RD** | | |
| 1990 | pg. A22 | Haines Criss-Cross Directory |
| 1985 | pg. A24 | Haines Criss-Cross Directory |
| 1980 | pg. A26 | Haines Criss-Cross Directory |
| 1976 | pg. A28 | Haines Criss-Cross Directory |
| 1973 | pg. A30 | Haines Criss-Cross Directory |

# City Directory Images

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

# JEFFERSON AVE 2017

| | |
|---|---|
| 24837 | PACIFIC DENTAL CLINIC |
| | STAGE 2 CYCLERY |
| | TENAJA COMMUNITY SERVICES DISTRICT |
| | TRINITY HEALTH ACADEMY |
| 24958 | BRANDT, JACK P |
| 25086 | UHAUL MOVING & STORAGE OF MURRIETA |
| 25090 | APS AQUATIC SERVICES INC |
| 25095 | CARVER INSURANCE SERVICES |
| | HOPE PLAZA PHARMACY |
| | HOPE SCOTT I DMD MS |
| | KELLY MCKERAHAN DO |
| | MARJAN NOURAI DDS |
| | MCKERAHAN, KELLY |
| | MURRIETA ANIMAL HOSPITAL INC |
| | MURRIETA BAIL BONDS |
| | NOURAI, KEYA V |
| | SCOLA VALERIE A DDS INC |
| | SCOTT I HOPE DMD |
| 25096 | ALLIS ENGINEERING INC |
| | C C & R CONSTRUCTION |
| | HOME LIFE DEVELOPMENT COMPANY |
| | NEW SEASON PROPERTIES |
| | P R W LENDING |
| | PACIFIC COAST LAND CONSULTANTS INC |
| 25102 | FRESH CONCEPTS INC |
| | KISHORE VASANT MD |
| | LUCID SPEECH & LANGUAGE |
| | WILLIAMS & ASSOCIATES LAURA DR |
| 25108 | BRAND NEW DAY MURRIETTA |
| | EQUIPOISE CORPORATION |
| | SUDWEEKS DEVELOPMENT |
| | TLC CREATIVE SERVICES INC |
| 25109 | BLACK JASON A |
| | CENTER FOR SLEEP EXCELLENCE |
| | CHANNAH PERVAIZ MD & ASSOCIATES |
| | CHERRY WILLIAM MD |
| | FINANCIAL NETWORK INVESTMENT CORPORA |
| | FRESH CONCEPTS INC |
| | HIVE TECHNOLOGY INC |
| | JOHN K GUNDERSON DDS |
| | MAINERI PAUL E LAW OFFICES |
| | NATIONAL LICENSE SERVICES |
| | OAK GROVE EQUITIES |
| | RICARDO VEGA MD INC |
| | WALTERS MANAGEMENT |
| 25114 | CALIFORNIA TEACHERS ASSOCIATION |
| | INLAND PSYCHIATRIC MED |
| | MURRIETA TEACHERS ASSOCIATION |
| 25155 | CHACON, JUVENTINO |
| 25217 | J & W LUMBER CO |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## JEFFERSON AVE 2017 (Cont'd)

25225 SUPERIOR FRAMING INC
25261 SUTTLE, THOMAS D
25275 FORKEY, RAY L
25425 FULL REALTY SERVICES
25435 JEFFERSON SELF STORAGE
PENSKE TRUCK RENTAL
TOTAL STORAGE SOLUTIONS
25485 EXTRA SPACE STORAGE
25687 GREAT OAKS APOSTOLIC CHURCH
NEW ESTATE MANAGEMENT
25695 AUTOMATION I
DEC SERVICES INC SOLAR & ELECTRI
GEORGE PLUMBING COMPANY INC
NCLAUGHLIN ENGINEERING & MINING
NEW ESTATE MANAGEMENT
NSA WIRELESS
RENTACENTER
25703 AKA PRODUCTS INC
GLASSFORCE INC
HNM RACE & DESIGN
NEW ESTATE MANAGEMENT
NEWSMINDED INC
PGM RECOVERY SYSTEM LLC
SAN DIEGO CENTER FOR SPINAL DISORDER
25720 AVEZ CORP
CRYOCHEM INC
CRYOGENIC INDUSTRIES INC
CRYOQUIP INC
HEX INDUSTRIES
25725 RCP BLOCK & BRICK
25747 BUWW COVERINGS INC
25751 ANDYS GLASS & WINDOW COMPANY
25755 ATD PLUMBING
ELITE CABINETRY INC
HOME EXPO HOME IMPROVEMENT DESIGN CE
25763 SWING AWAY BASEBALL ACADEMY
25767 BUWW COVERINGS INC
HELIOPOWER
25771 TEMECULA CALVARY KOREAN PRESBYTERIAN
25775 MILA PERFORMANCE
25779 H&M FOUR SLIDE INC
25783 EMMISSIONS COMPLIANCE CONTROL CORP
KCI CABINETS
KROGSTAD COMPANY
SRS ENGINEERING CORP
SUPPORT PRODUCT SERVICES
25787 TITAN ENGINEERING INC
25791 PROCRAFT DENTAL LABORATORY INC
25795 TORTLLERIA TEMECULA
VOLK ENVIRONMENTAL SOLUTIONS

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## JEFFERSON AVE 2017 (Cont'd)

25795 WORD OF LIFE CHRISTIAN FELLOWSHIP
25799 HEALTH LIQUID
25807 CALIFORNIA CAR CARE
KINGS SCREW PRODUCTS
PALADIN INDUSTRIES
TREASURE COAST RECOVERY
25815 PACIFIC COAST CHEER
25819 FREEDOM SOLAR SERVICES
SQUARE ONE PARACHUTES
25823 GREATER WORKS CHURCH
25831 MOTHER JUNGLE HERBS
25835 SUB STATION SPECIALISTS
25839 BILTWELL INC
LSC PERFORMANCE
25843 POWER AUTO MEDIA
25851 A & C PERFORMANCE & SERVICE
25859 COPPER CREEK INC

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

# MURRIETA HOT SPRINGS RD 2017

| | |
|---|---|
| 40651 | RICHIES REAL AMERICAN DINER |
| 40663 | CENTER FOR MEDICAL WEIGHT LOSS |
| | KOTIJA TACO SHOP |
| | LA LASER CENTER |
| | MURRIETA DERMATOLOGY & SKIN CANCER |
| | TEMECULA VALLEY DIGESTIVE DISEASE CO |
| 40675 | JAYS BARBER SHOP |
| | SPELLYS PUB & GRILL |
| 40711 | ARNOLD, JAMES |
| | MURRIETA RETAIL LP |
| | NONNOS RISTORANT |
| | SALON O |
| | TMOBILE |
| | YAP HAZEL DMD |
| 40723 | PACIFIC PREMIER BANK |
| | RABOBANK |
| | SECURITY BANK OF CALIFORNIA |
| 40735 | MURRIETA RETAIL LP |
| | STARBUCKS |
| | STARBUCKS COFFEE |
| 41200 | CAL AUTO LICENSE |
| | FIRSTSIGHT VISION SERVICES |
| | GAMESTOP |
| | MCDONALDS |
| | VERIZON WIRELESS |
| | WALMART |
| | WALMART SUPERCENTER |
| 41232 | WELLS FARGO BANK |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

# JEFFERSON AVE 2014

| | |
|---|---|
| 24837 | A & E VAPOR CONNECTIONS |
| | CALREDA COLLECTIVE LIFESTYLE |
| | COOPERS BOARDSHOP |
| | SOUTHERN CALIFORNIA EMS TRAINING INS |
| | STAGE 2 CYCLERY |
| | TRINITY HEALTH ACADEMY |
| | WEST MURRIETA DENTAL DDS INC |
| 24861 | RENTAWRECK |
| 24865 | OCCUPANT UNKNOWN, |
| 24890 | GEOSOILS INC |
| 24940 | BRIMFIELD, ARLENE P |
| 24958 | OCCUPANT UNKNOWN, |
| 24980 | IM, MYUNG O |
| 25075 | OCCUPANT UNKNOWN, |
| 25086 | BUDGET TRUCK RENTAL |
| | UHAUL MOVING & TRAILER HITCH CENTER |
| 25090 | FIRST MORTGAGE CORP |
| | FIST MORTGAGE CORPORATION |
| 25095 | CARVER INSURANCE SERVICES |
| | EVANS TODD DDS |
| | HOPE SCOTT I DMD |
| | MARJAN NOURAI DDS INC |
| | MCKERAHAN KELLY DO |
| | MCKERAHAN, KELLY |
| | SCOLA VALERIE A DDS INC |
| | WHITE GARY W MS DVM |
| 25096 | ALINE AUTO WHOLESALE |
| | ALLIS ENGINEERING INC |
| | C C & R CONSTRUCTION |
| | EDWARD G TOPOLSKI APC |
| | FRENCH VALLEY PROPERTIES |
| | PACIFIC COAST LAND CONSULTANTS INC |
| | PREMIER PUMP & SUPPLY |
| | TOPOLSKI EDWARD G APC |
| | TRANSUNIVERSAL ASSOCIATES |
| 25102 | CAMBRIDGE CONTRACTING GROUP |
| | LUCID SPEECH & LANGUAGE |
| | PATHOLOGY INC FAX |
| | WILLIAMS LAURA MD MPH & ASSOCIATES |
| 25108 | BRAND NEW DAY MURRIETTA |
| | EQUIPOISE CORPORATION |
| | JS HELD INC |
| | SUDWEEKS DEVELOPMENT |
| | TLC CREATIVE SERVICES INC |
| 25109 | BEFORE N AFTER |
| | CASTIS GROUP INC |
| | CHANNAH PERVAIZ MD & ASSOCIATES |
| | FINANCIAL NETWORK INVESTMENT CORPORA |
| | FRESH CONCEPTS INC |
| | GUNDERSON JOHN K DDS |

# JEFFERSON AVE 2014 (Cont'd)

| | |
| --- | --- |
| 25109 | LANCE SOLL |
| | NATIONAL LICENSE SERVICES |
| | OAK GROVE EQUITIES |
| | PROACTIVE ENGINEERING CONSULTANTS WE |
| | RICARDO VEGA MD INC |
| | UNITED WAY |
| | WALTERS MANAGEMENT |
| | WILLIAM CHERRY MD |
| 25114 | CALIFORNIA TEACHERS ASSOCIATION |
| | INLAND PSYCHIATRIC MED |
| | MURRIETA TEACHERS ASSOCIATION |
| | ORANGE PSYCHIATRIC MEDICAL GROUP |
| 25155 | FRYER, DANA L |
| 25175 | COBB J ERICK DVM |
| | EQUINE HEALTH MANAGEMENT |
| | LAWRENCE DOUGLAS DVM |
| | LIEBELT BARRY DVM |
| | MCNEEL M WAYNE DVM |
| | RUTZ JERRY DVM |
| 25217 | J & W LUMBER CO |
| 25225 | SUPERIOR FRAMING INC |
| 25261 | SUTTLE, THOMAS D |
| 25275 | FORKEY, RAY L |
| 25425 | FULL REALTY SERVICES INC |
| 25435 | JEFFERSON SELF STORAGE |
| 25485 | EXTRA SPACE STORAGE |
| 25687 | NEW ESTATE MANAGEMENT |
| 25695 | DEC SERVICES INC SOLAR & ELECTRI |
| | DIRECT ELECTRIC COMPANY |
| | GEORGE PLUMBING COMPANY INC |
| | MB SERVICES |
| | NCLAUGHLIN ENGINEERING & MINING |
| | NEW ESTATE MANAGEMENT |
| | RENTACENTER |
| | TEMECULA VALLEY LANDSCAPE |
| 25703 | AKA PRODUCTS INC |
| | HNM RACE & DESIGN |
| | NEW ESTATE MANAGEMENT |
| | NEWSMINDED INC |
| 25720 | AVEZ CORP |
| | CRYOCHEM INC |
| | CRYOQUIP INC |
| | HEX INDUSTRIES |
| 25725 | RCP BLOCK & BRICK |
| 25751 | ANDYS GLASS |
| 25755 | ATD PLUMBING |
| | ELITE CABINETRY INC |
| | HOME EXPO HOME IMPROVEMENT DESIGN CE |
| 25763 | JNJLD LLC |
| 25767 | BUWW COVERINGS INC |

| Target Street | Cross Street | Source |
|---|---|---|
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## JEFFERSON AVE 2014 (Cont'd)

| | |
|---|---|
| 25767 | HELIOPOWER |
| 25771 | TEMECULA CALVARY KOREAN PRESBYTERIAN |
| 25775 | NATIONAL METAL STAMPINGS |
| 25779 | H&M FOUR SLIDE INC |
| 25783 | ALLIANCE ENERGY & MECHANICAL |
| | KCI CABINETS |
| | SRS ENGINEERING CORP |
| | SUPPORT PRODUCT SERVICES |
| 25787 | TITAN ENGINEERING INC |
| 25791 | PRO CRAFT DENTAL LABS |
| 25795 | ABELLADONNA INC |
| | TORTILLERIA TEMECULA |
| | WORD OF LIFE CHRISTIAN FELLOWSHIP |
| 25807 | KINGS SCREW PRODUCTS |
| | PALADIN INDUSTRIES |
| | PILOT PACIFIC INC |
| 25815 | ALESCO DEVELOPMENT CO LLC |
| | PACIFIC COAST CHEER |
| 25819 | DOMENICO, ANTHONY J |
| | NEXUS IS |
| | SQUARE ONE PARACHUTES |
| 25823 | GREATER WORKS CHURCH |
| 25827 | PC RACING |
| 25831 | CAFE BRAVO |
| 25835 | SUB STATION SPECIALISTS |
| 25843 | POWER AUTO MEDIA |
| 25851 | A & C PERFORMANCE & SERVICE |
| 25859 | COPPER CREEK INC |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## MURRIETA HOT SPRINGS RD 2014

| | |
|---|---|
| 40651 | RICHIES REAL AMERICAN DINER |
| 40663 | CENTER FOR MEDICAL WEIGHT LOSS |
| | KOTIJA TACO SHOP |
| | LA LASER CENTER |
| | MURRIETA DERMATOLOGY & SKIN CENTER |
| | TEMECULA VALLEY DIGESTIVE DISEASE CO |
| 40675 | JAYS BARBER SHOP |
| | SCOTTRADE |
| | SPELLYS PUB & GRILL |
| 40711 | ARNOLD, JAMES |
| | HAZEL YAP DMD |
| | NONNOS RISTORANTE |
| | SALON O |
| 40723 | RABOBANK |
| 40735 | STARBUCKS COFFEE |
| 41200 | FIRSTSIGHT VISION SERVICES INSIDE WA |
| | MCDONALDS |
| | VZW AT WALMART 02952 MURRIETA |
| | WALMART |
| | WALMART CONNECTION CENTER |
| | WALMART ONE HOUR PHOTO |
| | WALMART PHARMACY |
| | WALMART VISION CENTER |
| 41232 | WELLS FARGO BANK |
| 41260 | 7ELEVEN |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## JEFFERSON AVE 2010

| | |
|---|---|
| 24831 | GIMEL PROPERTIES |
| | HOW SWEET IT IS |
| | MURRIETA COOKS |
| | RIVIERA NAILS & SPA |
| | SKY COUTURE |
| 24861 | PENSKE TRUCK RENTAL |
| 24865 | OCCUPANT UNKNOWN, |
| 24940 | OCCUPANT UNKNOWN, |
| 24980 | IM, MYUNG O |
| 25075 | POLISKA, KEITH |
| 25086 | BUDGET TRUCK RENTAL |
| | MURRIETA MOTOR CORRAL |
| 25090 | NIGRO NIGRO & WHITE |
| 25095 | CARVER INSURANCE SVC |
| | EVANS, TODD H |
| | HOPE SCOTT I DDS |
| | MARJAN NOURAI INC |
| | MC KERAHAN KELLY L DO |
| | MCKERAHAN, KELLY |
| | NOURAI, MARJAN M |
| | VALLEY VETERINARY CLINIC |
| 25096 | A LINE AUTO WHOLESALE |
| | ALLIS ENGINEERING INC |
| | CAL REALTY AMERICA |
| | CALCOM REALTY INC |
| | COVINGTON, WILLIAM T |
| | CROWN PROPERTY MANAGEMENT |
| | D P PROPERTIES |
| | FARMERS INSURANCE GROUP |
| | GRILL, KIMBERLY |
| | HJK CONSULTANTS & ASSOC |
| | NATIONAL ONE MORTGAGE |
| | PACIFIC COAST LAND CONSLNT INC |
| | PRUDENTIAL INSURANCE CO |
| 25102 | DIY LOAN INC |
| | KINETIC DISTRIBUTION CORP |
| | KISHORE K VASANT MEDICAL GROUP |
| | LUCID SPEECH & LANGUAGE |
| | M & MS REPAIR SVC & PARK |
| 25108 | CAPITAL REAL ESTATE & MORTGAGE |
| | DRESBACH ELAINE MD |
| | J S HELD INC |
| | SUDWEEKS DEVELOPMENT |
| 25109 | BEFORE N AFTER |
| | BLACK JASON MD |
| | BRAR HERB MD |
| | CHANNAH PERVAIZ & ASSOC |
| | CHERRY WILLIAM H MD |
| | CREATIVE HEIGHTS DESIGNS INC |
| | CWARD MANAGEMENT INC |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## JEFFERSON AVE 2010 (Cont'd)

25109 EDWARD A SHEPHERD CPA INC
INLAND HEART & VASCULAR
MARSTELLER CATHERINE MD
NGUYEN KEVIN K MD
OAK GROVE EQUITIES
PAUL E MAINERI LAW OFFICES
RIVERSIDE CARDIOLOGY ASSOC
WALTERS MANAGEMENT
WESCO PLUMBING
25114 CALIFORNIA TEACHERS ASSN
INLAND PSYCHIATRIC MED
MURRIETA TEACHERS ASSN
25155 GWINN, JESSEE R
25217 J & W LUMBER CO
25225 MADERA CONTRACTORS
25261 AGUILAR, A
25275 FORKEY, RAY L
25315 RIVERSIDE CNTY TRANSPORTATION
25435 JEFFERSON SELF STORAGE
25485 MURRIETA SPRINGS SELF STORAGE
25580 OCCUPANT UNKNOWN,
25695 ARROW PACKAGING MACHINERY CORP
FARMER BROTHERS
KILLER MILLER FABRICATIONS
25703 ABORBALL LLC
AKA PRODUCTS INC
NEWSMINDED INC
25720 AVEL CORP
CRYOGENIC INDUSTRIES INC
CRYOGENIC INDUSTRIES SVC CO
CRYOQUIP INC
HEX INDUSTRIES INC
25725 RCP BLOCK & BRICK
25747 FURNITURE & MORE
25751 ANDYS GLASS & WINDOW CO
DIARON ENTERPRISES INC
25755 ADVANCE ALERT SECURITY
ATD PLUMBING
ELITE CABINETRY INC
HOME EXPO HM IMPRVMT DESIGN
PACIFIC COAST BUILDERS
25759 EN GEN CORP
25767 HELIOPOWER
25771 TEMECULA CALVARY KOREAN
25779 H & M FOUR SLIDE INC
25783 HAWRANIK, RUPALI
KROGSTAD CO
25787 TITAN ENGINEERING
25791 PROCRAFT DENTAL LABS
25795 FOUR SEASONS LIGHTING INC

| Target Street | Cross Street | Source |
|---|---|---|
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## JEFFERSON AVE 2010 (Cont'd)

25795 PALADIN INDUSTRIES
25799 LIQUID HEALTH
MATSUN LABS
TENAJA NUTRITION
25803 MKD RACING LLC
25807 FAMILY ANIMAL SVC
INLAND DISTRIBUTING
PILOT PACIFIC INC
SANDYS CARPET REMNANT STORE
SUPERIOR POWDER COATING
25811 HITSVILLE
25815 PACIFIC COAST CHEER
25819 NEXUS IS INC
25827 T B CONSTRUCTION INC
25843 SRS ENGINEERING CORP
25851 AEROTECH ALLOYS LLC
GBS INVESTMENTS LLC
25855 RKR PROMOTIONAL PRODUCTS

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## MURRIETA HOT SPRINGS RD 2010

| | |
|---|---|
| 40651 | RICHIES REAL AMERICAN DINER |
| 40663 | AT HOME FITNESS |
| | WEIGHT LOSS & PATHOLOGY CTR |
| 40675 | DUDLEYS WINE & GIFTS |
| | HEALING FLOWERS & GIFTSHOP |
| | POSH AXXENTS |
| | SCOTTRADE |
| | TWINKLE TWINKLE BOUTIQUE |
| 40711 | ARNOLD, JAMES |
| | GOURMET ITALIA NORTH |
| | HOUSEHOLD FINANCE |
| | RED PERSIMMON NAIL & SPA |
| | SALON O |
| | TREE HOUSE |
| | YAP HAZEL DDS |
| 40723 | RABOBANK |
| 40735 | STARBUCKS |
| 41200 | FIRST SIGHT VISION SVCS INC |
| | MC DONALDS |
| | PICTURE ME PORTRAIT STUDIOS |
| | WALMART SUPERCENTER |
| 41232 | WELLS FARGO BANK |
| 41260 | 7ELEVEN |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

# JEFFERSON AVE 2005

| | |
|---|---|
| 24861 | RENT A WRECK |
| 24865 | BALDWIN, WILLIAM M |
| 24958 | BRANDT, LAURA L |
| 25075 | AKP CONSTRUCTION CO |
| | POLISKA, KEITH |
| 25086 | MURRIETA MOTOR CORRAL |
| | SALEM, CHRISTOPHER M |
| | SANTOS, MIGUEL A |
| 25090 | MURRIETA VALLEY UNIVERSITY SCHOOL DS |
| 25095 | ADVANTAGE HIGHWAY |
| | EVANS TODD DDS |
| | GARY WHITE DR MS DVM |
| | MCKERAHAN KELLY DO |
| | MCKERAHAN, KELLY |
| | MURRIETA MEDICAL PROFESSIONAL BUILDI |
| | NOURAI MARJAN DDS |
| | NOURAI, MARIAN |
| | SCOTT I HOPE |
| | VALLEY VETERINARY CLINIC |
| | WHITE, GARY D |
| 25155 | GWINN, GARY L |
| 25175 | ECKER ENTERPRISE |
| | GYPSUM CONSTRUCTION |
| 25217 | J & W REDWOOD LUMBER CO |
| 25225 | MADERA CONTRACTORS |
| 25275 | FORKEY, RAY L |
| 25315 | RIVERSIDE COUNTY TRANSPORTATION DEPT |
| 25435 | JEFFERSON SELF STORAGE |
| 25580 | OCCUPANT UNKNOWN, |
| 25720 | CRYOGENIC GROUP INC |
| | CRYOQUIP INC |
| | HEX INDUSTRIES |
| 25725 | RCP BLOCK AND BRICK |
| | SALVATION ARMY THE |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## MURRIETA HOT SPRINGS RD 2005

| | |
|---|---|
| 41200 | AT & T WIRELESS |
| | JACKSON HEWITT TAX SERVICE |
| | MCDONALDS RESTAURANT # 29480 |
| | PCA INTERNATIONAL |
| | QUAKER CITY BANK |
| | WAL MART |
| | WAL MART PHARMACY # 2952 |
| 41232 | WELLS FARGO BANK |
| 41260 | 7 ELEVEN INC |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## JEFFERSON AVE 2000

24831 STEFFEN, DIRK
24861 OCCUPANT UNKNOWN,
RENT A WRECK
24865 BALDWIN, WILLIAM M
24890 GEOSOILS INCORPORATED
24940 OCCUPANT UNKNOWN,
24958 ALZHEIMERS CARE OUR FAMILY COTTAGE
ANSWERED PRAYER A FREE ELDER PLACEMENT SERVICE FOR ALL
OCCUPANT UNKNOWN,
25075 OCCUPANT UNKNOWN,
25086 CAMPISTA, MARCO A
CHRISS MURRIETA MOTOR CORRAL
MURRIETA MOTOR CORRAL
SALEM, C M
SANTOS, MIGUEL A
25095 EVANS TODD DDS
HARRIS DENTAL LABORATORY
OCCUPANT UNKNOWN,
VALLEY VETERINARY CLINIC
WHITE GARY DR MS DVM
25155 RUSSELL, LAURA
25163 MURRIETA RENTALS & BUILDING MATERIALS
25175 ASSOCIATED INDUSTRIES
25217 J & W REDWOOD
25225 MADERA CONTRACTORS
OCCUPANT UNKNOWN,
25261 HADEN, MARILYN P
25275 CLIP JOINT THE
FORKEY RAYMOND
FORKEY, RAYMOND
25720 CRYO CHEM INCORPORATED
CRYOQUIP INCORPORATED
HEX INDUSTRIES
25725 RCP BLOCK & BRICK

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## MURRIETA HOT SPRINGS RD 2000

| | |
|---|---|
| 40461 | HEMET FEDERAL SAVINGS & LOAN ASSOCIATION |
| | LAMAR COMPANIES |
| | MURRIETA TOWN CENTER |
| 40469 | CAVEMAN PIZZA |
| | COMPUTER STUFF |
| | CORONAS TACOS |
| | HOT WOK |
| | LITTLE CAESARS PIZZA PIZZA |
| | ONE DOLLAR VIDEO |
| | TOWER CLEANERS INCORPORATED |
| 40473 | DOWNEY SAVINGS & LOAN |
| | RALPHS GROCERY COMPANY |
| 40477 | CHOCOLATE FLORIST & GIFT SHOPPE |
| | DEBBIES SKIN ESSENTIALS |
| | DROUILLARD WENDY HAIR STYLI |
| | ERIN MANN SALON & DESIGN TEAM |
| | EUROPEAN HAIR |
| | FANTASTIC SAMS |
| | HIS & HER HAIR |
| | HONEYCUTT FARMS |
| | JUDY RUFE SKIN BIZ |
| | KHALAF CYNDIE HAIR STYLIST |
| | LUDWA, DIANA |
| | PAUL S SHOES INCORPORATED |
| | PET STOP |
| | PIZZA FACTORY |
| | RIVA, MARY J |
| | SIGNATURE NAILS |
| | SIGNATURES SALON |
| | SKIN BIZ |
| | SNOWBOARDS |
| | TOPS & TIPS BEAUTY SALON |
| 40485 | A 1 TUSCANY TRAVEL |
| | ALDRIDGE, OLIN C |
| | ALTA MURRIETA CHIROPRACTIC CENTER |
| | BLANKENSHIP, C |
| | DAVIS, BARBARA A |
| | DEANS PHOTO |
| | GATES, SARAH |
| | GOGATZ, NATALIE |
| | GUTIERREZ, MARTHA |
| | KIRCHOFF, EDWARD G |
| | M & M ENTERPRISES |
| | POSTAL PLACE |
| | RUSSELL, ROBIN L |
| | WAGONIS, TAMRA |
| | WELLANDER, MITCH |
| | WILLIAMS, JEANENE A |
| 40489 | SIZZLER RESTAURANTS |

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | EDR Digital Archive |

## JEFFERSON AVE 1995

| | |
|---|---|
| 24831 | STEFFEN, DIRK |
| 24861 | MCGOLDRICK, MICHAEL |
| 24865 | BALDWIN, WILLIAM M |
| 24958 | HUNT, BARBARA J |
| 25075 | KENDRICK, WILLIAM |
| 25217 | J & W REDWOOD |
| 25225 | MADERA CONSTRUCTION |
| 25275 | CLIP JOINT |
| | FORKEY, RAYMOND |
| 25580 | CHARNOCK, MARTIN |
| 25720 | AVEL CORP |
| | CRYO CHEM INC |
| | CRYOQUIP INC |
| | HEX INDUSTRIES INC |
| | STERES, GARY A |
| 25725 | RCP BLOCK & BRICK INC |

| Target Street | Cross Street | Source |
|---|---|---|
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## JEFFERSON AVE 1992

24831 STEFFEN, DIRK
24861 MCGOLDRICK, MICHAEL
24865 BALDWIN, WILLIAM M
24890 GEOSOILS INC
24958 HUNT, BARBARA J
25086 G&R TACK SHOP
WINDMILL INN
25109 SIMMONS, C
25185 DOUBLEWOOD CONTRS
25225 MADERA CONSTRUCTION
25275 CLIP JOINT THE
FORKEY, RAYMOND
25485 SMITH, JOSEPH F
25580 CHARNOCK, MARTIN
25720 AVEZ CORP
CRYO CHEM INC
HEX INDUSTRIES
25725 DIX, BRENT
R C P BLOCK&BRICK

| Target Street | Cross Street | Source |
|---|---|---|
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# MURRIETA HOT SPRINGS RD 1992

40461 HEMET FDRL SAVINGS
TEAMS PLUS SPORT CT
40469 FISH N CHICS RSTRNT
LITTLE CAESARS PZZA
PENGUINS FRZN YOGRT
T JS MOVIE MUSIC
TOWER CLEANERS INC
40473 HUGHES MARKETS
40477 CRAFT E LADY
CRAFT, E L
FANTASTIC SAMS
HOT SPRINGS PHOTO
JS SURF N SPORT
MALT SHOPPE THE
PET STOP
PIZZA FACTORY
40481 PAY LESS DRG CAMERA
40485 ARNOLD JEWELERS
CHIROPRACTIC DCTRS
GOGATZ, ROBERT W
MARGES VITAMIN CNTR
POSTAL ANNEX
QUICK BLINDS
RAGS 2 RICHES
40489 SIZZLER RESTAURANT

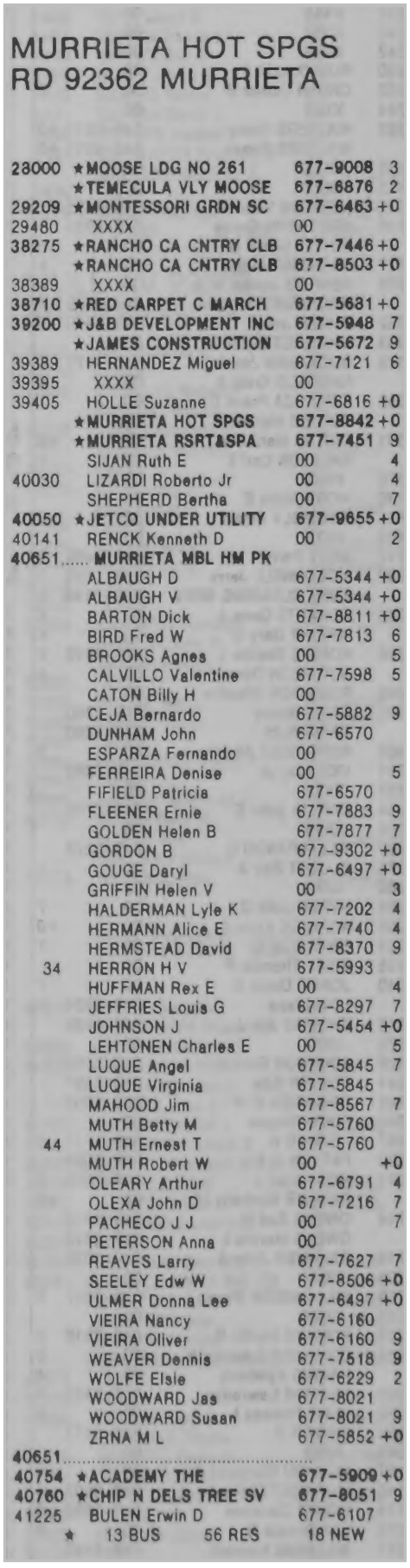
| Target Street | Cross Street | Source |
|---|---|---|
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## JEFFERSON AVE 1990

| | | | |
|---|---|---|---|
| 25075 | GWINN Gary L | 00 | 4 |
| 25086 | ★G&R TACK SHOP | 677-7504 | 5 |
| | ★MURRIETA WATER DIST | 677-7667 | 7 |
| | ★WINDMILL INN | 677-6313 | |
| 25090 | ★CARPENTERIA MOTOR | 677-7471 | +0 |
| 25109 | GARRISON J S | 677-6117 | |
| 25143 | BRANTS Martina | 677-5150 | |
| 25155 | LOZA Jose H | 00 | 7 |
| | RUSSELL Jas E | 677-8097 | +0 |
| 25175 | GOMEZ Oscar A | 00 | 4 |
| 25185 | MAZEIKAS Deanna | 677-8005 | 9 |
| | MAZEIKAS Mike | 677-8005 | |
| 25217 | ★MOBLEY GONZALEZ | 677-6489 | +0 |
| 25225 | GOMEZ Bethel | 677-6566 | |
| | GOMEZ Gabriel | 677-6566 | 9 |
| 25261 | WATSON Hugh E | 677-5583 | |
| 25275 | ★CLIP JOINT THE | 677-7953 | 7 |
| | FORKEY Raymond | 677-7953 | |
| 25445 | MORRIS Belinda A | 00 | 4 |
| | MORRIS Robt | 677-5866 | |
| 25485 | SMITH Joe F | 677-5925 | +0 |
| | VENABLE William E | 00 | 5 |
| | VILLEGAS Anita F | 00 | 4 |
| 25580 | CHARNOCK Martin | 677-5917 | |
| 25679 | XXXX | 00 | |
| 25699 | PAYNE Karen | 677-6429 | 5 |
| | PAYNE Robin | 00 | 4 |
| 25720 | XXXX | 00 | |
| 25725 | ★GREENFIELDS | 677-5315 | |
| | HUTT David | 677-5315 | |
| | HUTT Devid | 677-7575 | |
| | HUTT John C | 00 | +0 |
| | HUTT Valorie | 677-5315 | |
| | HUTT Valorie | 677-7575 | |
| 25747 | NEWKIRK Janet | 677-5860 | |
| | NEWKIRK Robt | 677-5860 | 2 |
| 25751 | LEE Donald | 677-8307 | +0 |
| | LEE Linda | 677-8307 | +0 |
| | VAUGHN Cheryl | 677-9191 | +0 |
| | VAUGHN Jesse | 677-9191 | +0 |
| 25755 | XXXX | 00 | |
| 26170 | SIMON Paul | 677-5341 | 6 |

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# MURRIETA HOT SPRINGS RD 1990



MURRIETA HOT SPGS
RD 92362 MURRIETA

| | | | |
|---|---|---|---|
| 28000 | ★MOOSE LDG NO 261 | 677-9008 | 3 |
| | ★TEMECULA VLY MOOSE | 677-6876 | 2 |
| 29209 | ★MONTESSORI GRDN SC | 677-6463 | +0 |
| 29480 | XXXX | 00 | |
| 38275 | ★RANCHO CA CNTRY CLB | 677-7446 | +0 |
| | ★RANCHO CA CNTRY CLB | 677-8503 | +0 |
| 38389 | XXXX | 00 | |
| 38710 | ★RED CARPET C MARCH | 677-5681 | +0 |
| 39200 | ★J&B DEVELOPMENT INC | 677-5948 | 7 |
| | ★JAMES CONSTRUCTION | 677-5672 | 9 |
| 39389 | HERNANDEZ Miguel | 677-7121 | 6 |
| 39395 | XXXX | 00 | |
| 39405 | HOLLE Suzanne | 677-6816 | +0 |
| | ★MURRIETA HOT SPGS | 677-8842 | +0 |
| | ★MURRIETA RSRT&SPA | 677-7451 | 9 |
| | SIJAN Ruth E | 00 | 4 |
| 40030 | LIZARDI Roberto Jr | 00 | 4 |
| | SHEPHERD Bertha | 00 | 7 |
| 40050 | ★JETCO UNDER UTILITY | 677-9655 | +0 |
| 40141 | RENCK Kenneth D | 00 | 2 |
| 40651 | ..... MURRIETA MBL HM PK | | |
| | ALBAUGH D | 677-5344 | +0 |
| | ALBAUGH V | 677-5344 | +0 |
| | BARTON Dick | 677-8811 | +0 |
| | BIRD Fred W | 677-7813 | 6 |
| | BROOKS Agnes | 00 | 5 |
| | CALVILLO Valentine | 677-7598 | 5 |
| | CATON Billy H | 00 | |
| | CEJA Bernardo | 677-5882 | 9 |
| | DUNHAM John | 677-6570 | |
| | ESPARZA Fernando | 00 | |
| | FERREIRA Denise | 00 | 5 |
| | FIFIELD Patricia | 677-6570 | |
| | FLEENER Ernie | 677-7883 | 9 |
| | GOLDEN Helen B | 677-7877 | 7 |
| | GORDON B | 677-9302 | +0 |
| | GOUGE Daryl | 677-6497 | +0 |
| | GRIFFIN Helen V | 00 | 3 |
| | HALDERMAN Lyle K | 677-7202 | 4 |
| | HERMANN Alice E | 677-7740 | 4 |
| | HERMSTEAD David | 677-8370 | 9 |
| 34 | HERRON H V | 677-5993 | |
| | HUFFMAN Rex E | 00 | 4 |
| | JEFFRIES Louis G | 677-8297 | 7 |
| | JOHNSON J | 677-5454 | +0 |
| | LEHTONEN Charles E | 00 | 5 |
| | LUQUE Angel | 677-5845 | 7 |
| | LUQUE Virginia | 677-5845 | |
| | MAHOOD Jim | 677-8567 | 7 |
| | MUTH Betty M | 677-5760 | |
| 44 | MUTH Ernest T | 677-5760 | |
| | MUTH Robert W | 00 | +0 |
| | OLEARY Arthur | 677-6791 | 4 |
| | OLEXA John D | 677-7216 | 7 |
| | PACHECO J J | 00 | 7 |
| | PETERSON Anna | 00 | |
| | REAVES Larry | 677-7627 | 7 |
| | SEELEY Edw W | 677-8506 | +0 |
| | ULMER Donna Lee | 677-6497 | +0 |
| | VIEIRA Nancy | 677-6160 | |
| | VIEIRA Oliver | 677-6160 | 9 |
| | WEAVER Dennis | 677-7518 | 9 |
| | WOLFE Elsie | 677-6229 | 2 |
| | WOODWARD Jas | 677-8021 | |
| | WOODWARD Susan | 677-8021 | 9 |
| | ZRNA M L | 677-5852 | +0 |
| 40651 | ..... | | |
| 40754 | ★ACADEMY THE | 677-5909 | +0 |
| 40760 | ★CHIP N DELS TREE SV | 677-8051 | 9 |
| 41225 | BULEN Erwin D | 677-6107 | |
| | ★ 13 BUS 56 RES | 18 NEW | |

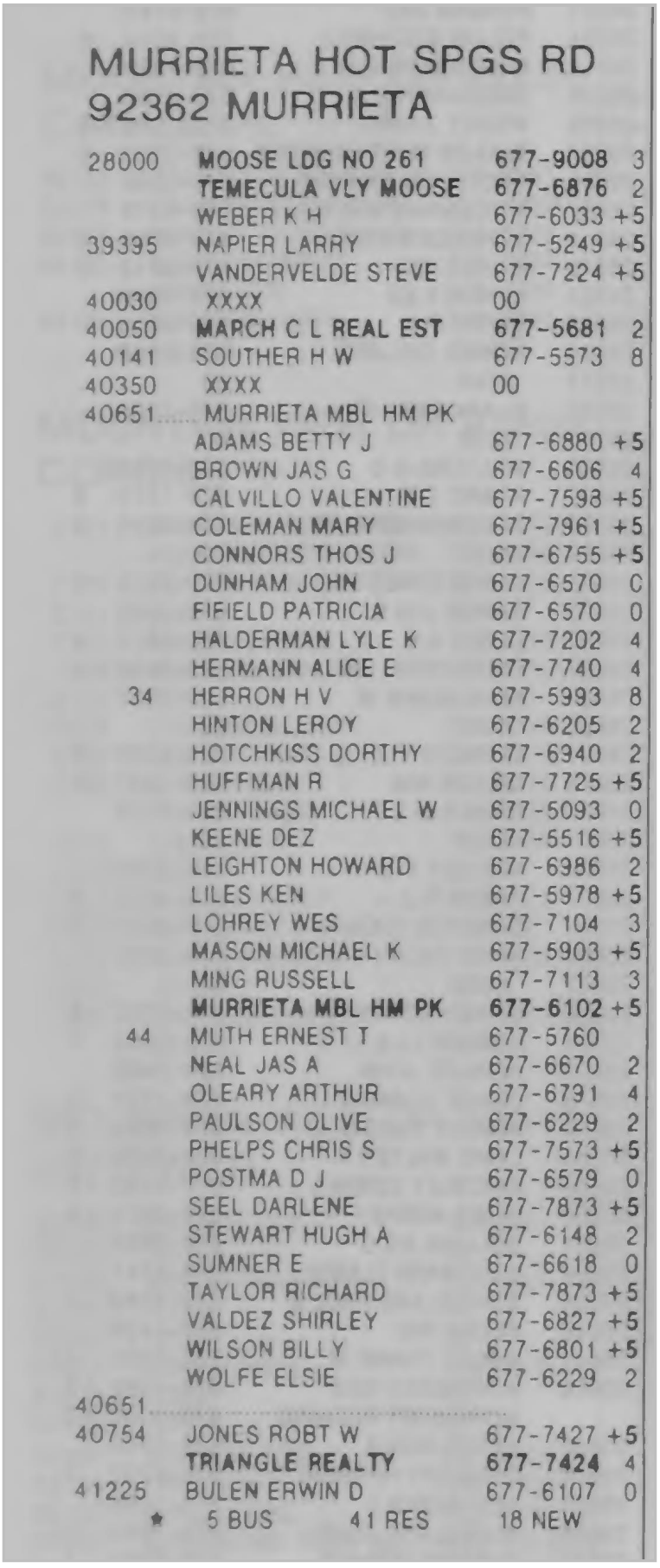
| Target Street | Cross Street | Source |
|---|---|---|
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# JEFFERSON AVE 1985

| | | | |
|---|---|---|---|
| 25075 | SYKES DUDLEY | 677-5509 | +5 |
| | SYKES DUDLEY | 677-7581 | +5 |
| 25086 | G&R TACK SHOP | 677-7504 | +5 |
| | WINDMILL INN | 677-6313 | 0 |
| 25090 | REIDY RANCH REALTY | 677-7474 | 4 |
| 25109 | GARRISON J S | 677-6117 | |
| 25143 | BRANTS MARTINS | 677-5150 | |
| 25155 | GOMEZ GABRIEL | 677-6566 | +5 |
| 25175 | GOMEZ OSCAR A | 677-6655 | 2 |
| A | RIGOS PATTERN | 677-5012 | 3 |
| 25185 | RIOS ALFRED | 677-6245 | 1 |
| 25217 | HATHAWAY S NURSERY | 677-6098 | +5 |
| 25261 | WATSON HUGH E | 677-5583 | |
| 25275 | FORKEY RAYMOND | 677-7953 | +5 |
| 25315 | XXXX | 00 | |
| 25445 | MORRIS ROBT | 677-5866 | |
| 25485 | VENABLE MARILYN | 677-5387 | +5 |
| | VENABLE RUTH | 677-5536 | |
| | VENABLE WM E | 677-5536 | |
| 25580 | CHARNOCK MARTIN | 677-5917 | 0 |
| 25679 | LINCOLN J D | 677-7958 | +5 |
| 25699 | PAYNE KAREN | 677-6429 | +5 |
| 25720 | JORDAN VIRGINIA M | 677-5852 | 6 |
| 25725 | GREENFIELDS | 677-5315 | 0 |
| | HUTT DAVID | 677-5315 | 0 |
| 25747 | NEWKIRK ROBT | 677-5860 | 2 |
| 25751 | WADLOW HAZEL | 677-5912 | +5 |
| 25755 | PARK GINA | 677-7321 | 4 |
| 26230 | WONGS ORIENTAL CRPT | 677-7713 | +5 |
| 26529 | STEWART WALT | 677-7101 | +5 |
| | TEMECULA PLUMBING | 677-7101 | +5 |
| 26745 | DWYER THOROBRD RNCH | 677-5037 | |
| | LOPEZ ROSA | 677-6473 | 3 |
| 26821 | CLEVELAND DAVID | 677-6241 | +5 |
| | VALDIVIA EDW | 677-7574 | 4 |
| ★ | 12 BUS 59 RES | 22 NEW | |

| Target Street | Cross Street | Source |
|---|---|---|
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# MURRIETA HOT SPRINGS RD 1985



MURRIETA HOT SPGS RD
92362 MURRIETA

| | | | |
|---|---|---|---|
| 28000 | MOOSE LDG NO 261 | 677-9008 | 3 |
| | TEMECULA VLY MOOSE | 677-6876 | 2 |
| | WEBER K H | 677-6033 | +5 |
| 39395 | NAPIER LARRY | 677-5249 | +5 |
| | VANDERVELDE STEVE | 677-7224 | +5 |
| 40030 | XXXX | 00 | |
| 40050 | MARCH C L REAL EST | 677-5681 | 2 |
| 40141 | SOUTHER H W | 677-5573 | 8 |
| 40350 | XXXX | 00 | |
| 40651 | MURRIETA MBL HM PK | | |
| | ADAMS BETTY J | 677-6880 | +5 |
| | BROWN JAS G | 677-6606 | 4 |
| | CALVILLO VALENTINE | 677-7598 | +5 |
| | COLEMAN MARY | 677-7961 | +5 |
| | CONNORS THOS J | 677-6755 | +5 |
| | DUNHAM JOHN | 677-6570 | C |
| | FIFIELD PATRICIA | 677-6570 | 0 |
| | HALDERMAN LYLE K | 677-7202 | 4 |
| | HERMANN ALICE E | 677-7740 | 4 |
| 34 | HERRON H V | 677-5993 | 8 |
| | HINTON LEROY | 677-6205 | 2 |
| | HOTCHKISS DORTHY | 677-6940 | 2 |
| | HUFFMAN R | 677-7725 | +5 |
| | JENNINGS MICHAEL W | 677-5093 | 0 |
| | KEENE DEZ | 677-5516 | +5 |
| | LEIGHTON HOWARD | 677-6986 | 2 |
| | LILES KEN | 677-5978 | +5 |
| | LOHREY WES | 677-7104 | 3 |
| | MASON MICHAEL K | 677-5903 | +5 |
| | MING RUSSELL | 677-7113 | 3 |
| | MURRIETA MBL HM PK | 677-6102 | +5 |
| 44 | MUTH ERNEST T | 677-5760 | |
| | NEAL JAS A | 677-6670 | 2 |
| | OLEARY ARTHUR | 677-6791 | 4 |
| | PAULSON OLIVE | 677-6229 | 2 |
| | PHELPS CHRIS S | 677-7573 | +5 |
| | POSTMA D J | 677-6579 | 0 |
| | SEEL DARLENE | 677-7873 | +5 |
| | STEWART HUGH A | 677-6148 | 2 |
| | SUMNER E | 677-6618 | 0 |
| | TAYLOR RICHARD | 677-7873 | +5 |
| | VALDEZ SHIRLEY | 677-6827 | +5 |
| | WILSON BILLY | 677-6801 | +5 |
| | WOLFE ELSIE | 677-6229 | 2 |
| 40651 | | | |
| 40754 | JONES ROBT W | 677-7427 | +5 |
| | TRIANGLE REALTY | 677-7424 | 4 |
| 41225 | BULEN ERWIN D | 677-6107 | 0 |

★ 5 BUS 41 RES 18 NEW

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## JEFFERSON AVE 1980

| | | | |
|---|---|---|---|
| 25086 ★ | **BURNHAMS GENL MDSE** | **677-5501** | 6 |
| | MCNABB DONALD A MRS | 677-6151 | 5 |
| ★ | **MEL MILLER ENTPRS** | **677-5501** | 7 |
| ★ | **TOMS TELEVISION RPR** | **677-5077** | 9 |
| ★ | **WINDMILL INN** | **677-6313** | +0 |
| 25109 | GARRISON J S | 677-6117 | 5 |
| 25143 | BRANTS MARTINS | 677-5150 | 4 |
| 25155 | MORRIS DAVID | 677-5142 | 5 |
| 25175 | GOMEZ OSCAR A | 677-5012 | 9 |
| 25261 | WATSON HUGH E | 677-5583 | 5 |
| 25315 ★ | **CO RVRSD RD MRTA** | **677-5889** | |
| | PETTIT BUEL | 677-6662 | +0 |
| 25445 | MORRIS ROBT | 677-5866 | 5 |
| 25485 | VENABLE RUTH | 677-5536 | 5 |
| | VENABLE WM E | 677-5536 | 5 |
| 25580 | CHARNOCK MARTIN | 677-5917 | +0 |
| 25679 | LINCOLN JAS D | 677-5957 | 8 |
| 25720 | JORDAN VIRGINIA M | 677-5852 | 6 |
| 25725 ★ | **GREENFIELDS** | **677-5315** | +0 |
| | HUTT DAVID | 677-5315 | +0 |
| 25751 | HANNAY MARIEL | 677-6567 | +0 |
| 25755 | LISK T | 677-5465 | +0 |
| 26230 | GALLAGHER JAMES W | 677-5237 | 9 |
| 26529 | SMITH WIRT STANLEY | 677-5159 | 5 |
| 26745 ★ | **DWYER THOROBRD RNCH** | **677-5037** | 4 |
| | LOPEZ TEOFILO | 677-5458 | 6 |
| 26821 | LEWIS LARRY | 677-6155 | 9 |
| | MCCROSSEN H | 677-5083 | +0 |
| 27099 | RODRIGUEZ RICHARD | 677-5126 | 9 |
| NO # | DRAUCKER C D | 677-5210 | 4 |
| ★ | 10 BUS 52 RES | 12 NEW | |

| Target Street | Cross Street | Source |
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# MURRIETA HOT SPRINGS RD 1980



MURRIETA RD 92381 CONT

28465 XXXX 00
28477 EVRAETS V J 679-4200 7
28478 WHITE AUSTIN 679-2487
28490 HAINES W L 679-2458
28491 UNDERWOOD FRANK B 679-4592
UNDERWOOD W R 679-4592 4
28506 NICOLAY F G 679-2090
28507 PATON N J 679-4553 8
28521 DUNSTON THOMAS L 679-3820 9
28536 WADE RALPH E MRS 679-2485 5
28537 DAVISON SCOTT M COL 679-4455
28546 BAHRS J ROSS 679-1763
28547 BAELE CLAYMAN 679-3495
28560 ANDREWS EVERETT L 679-1614
28561 KUGLER L 679-5542 7
28572 HEISLER JOHN 679-2486
28573 CHASE NORMAN L 679-1801 8
28590 WRIGHT THOS J 679-7931 +0
28591 LAMB WALTER K 679-7528 9
28604 MILLER GLADYS M 679-3042 8
28620 PIERT PETER 679-3888
28621 ROLLINS MILO 679-3898
28634 HASEMANN ELMER 679-4741
28635 MACK CHARLES C 679-7648 9
28640 PECHA WM 679-4406
28641 RIPLEY FRANK M 679-6305 6
28656 LAUSCH B V 679-5108
28657 GETZELMAN E 679-3140
28670 GREGORY HERBERT C 679-6237 8
28671 REID DORIS G 679-3598
28684 BUCELLATO JOHN 679-7965 +0
28685 XXXX 00
28698 TREVORROW GEO A 679-1303
28699 LEWIS E 679-5655 7
28710 WHITCOMB BENJAMIN 679-5651 6
28711 DEVITT O W 679-5500 4
28721 CRIDDLE HARRY 679-2505
28722 CORDELL HERCHELL R 679-2820 6
28738 VACCA JOHN 679-9424 +0
28739 SHARPE WM M 679-3743
28750 NESS LYLE E 679-9308 +0
28751 BONEBRAKE F T 679-2906 7
28764 JOHNSON WM O 679-5206
28765 MORRIS RALPH E 679-1986 5
28777 PATMORE LESTER C SR 679-3590
28778 ZIMMER J T 679-7186 9
28798 LEBARON BERNARD 679-2484 6
28799 BILLINGS ELDRIDGE 679-2169 6
28810 LONGACRE LEONARD L 679-4219
28811 XXXX 00
28824 ZELLER ROSE 679-4554
28825 BURNS E L 679-6233 8
28838 CONTRERAS A H 679-3792 5
28839 LORANG JOHN J 679-4578
28850 LUND CHRISTIAN P 679-4639
28851 ROBLEY GEO 679-4504 4
28864 OLDENBURG HARRY 679-4349
28912 HENNINGER WM F 679-3196 5
28913 MOORE LOUIS W 679-5225 7
28926 WILLARD FRED J 679-1994
28927 SCHMOELZER CARL 679-3206
28940 MCCURRY JOHN J 679-6125 6
28941 RENO W B 679-1235 7
30480 PANDZA STEVEN 679-6564 7
30485★ **G&W TRUCKING 679-6288** 9
30530 WARD DAVID F 679-2560
30720 MCKAY GERALD L 679-5247 9
30730 HARRISON KAREN 679-6478 9
30983 CRAIL B J 679-7160 9
31115★ **GILDENS DIGGING SRV 679-7705** 9
ROWLES LAMOYNE 679-7705 9
31135 VIGEANT REAL 679-6672 +0
31265★ **J&A MCGRATH ATO RPR 679-5559** +0
31285 XXXX 00
31339 MAGNO GEO E 679-3529
31355 BREWER OLGA 679-4492 8
31361 GRIEVE GLENN 679-4378 8
31371 COUNTRY STORE 679-3611 +0
SMITH B B 679-6058 +0
31421 DUITSCHER H L 679-4142
31497 ENGLEHART LARRY A 679-1531
31765 RUSSO HENRY 679-7331 9
31925 XXXX 00
32231 CHRISTENSEN HERBERT 679-3125 4
32249★ **DOORCO 679-3405** 5
32535 VANHOUTEN ROBERT 679-5519 9
32541 XXXX 00
32545 DREW PAUL W 679-4791 6
32551 CARTER NEAL H 679-4636 8
32701 FANCHER EUGENE C 679-5186 5
32843 ADRAGNA JOSEPH 679-3805 9
32850 MURPHY ELMO D 679-4312
32905 BEHLING DONALD A 679-1767 6
32935★ **GENERAL REAL ESTATE 679-6866** +0
NO #★ **MENIFEE FIRST BAP 679-4739** 8
★ 9 BUS 261 RES 85 NEW

## MURRIETA HOT SPG RD 92362 MURRIETA

39389 XXXX 00
39400 AUERBACH S 677-6312 9
GREEN ERNEST E 677-6361 9
★ **HALRE INC 677-5671** 9
★ **HULL WILLIAM F PHD 677-5671** 9
JACKSON JIMMIE 677-6572 +0
★ **MURRIETA TENNIS CTR 677-6690** +0
WEINSTEIN SIDNEY 677-6507 9
40030 MCAFEE CLYDE 677-5432 5
40141 SOUTHER H W 677-5573 8
40350 YODER CHAS E 677-5785 5
40651 MURRIETA MBL HM PK
21 ALLEN ROBERT 677-5378 9
BALDWIN S 677-5781 +0
27 BERNSTEIN C 677-6390 9
25 BROWN M M 677-6218 8
4 COLEMAN NANCY J 677-5903 8
DUNHAM JOHN 677-6570 +0
45 EDDY PHYLL 677-5073 7
FIFIELD PATRICIA 677-6570 +0
8 GEORGE HAROLD P 677-6183 8
GONSALVES SHERRY A 677-6532 +0
34 HERRON H V 677-5993 8
JENNINGS MICHAEL W 677-5093 +0
MILLER TED 677-6583 +0
20 MOODY M 677-6242 8
11 MUELLER EVERETT L 677-6283 9
★ **MURRIETA MBL HM PRK 677-5757** 9
44 MUTH ERNEST T 677-5760 5
MUTH ROBT 677-6678 +0
NEVICO MICHAEL 677-5877 +0
POLIGH C 677-5069 +0
POSTMA ROGER 677-6579 +0
RANDELS JIM 677-6559 +0
SEEL JOAN 677-6206 +0
3 SHELD ALLEN 677-5724 7
2 SHELD CALVIN 677-5088 6
SHELD DEANNA 677-6624 +0
SHEPHERD BOBBY 677-6605 +0
SMITH FRED 677-6587 +0
SUMNER E 677-6618 +0
7 TRUXALL ROBERT 677-6241 9

MURRIETA HOT SPG RD 92362 CONT

WILKINS VERONA D 677-5107 +0
40651
41225 BULEN ERWIN D 677-6107 +0
★ 4 BUS 39 RES 20 NEW

## MUSCAT 92335 FONTANA

15323 THOMPSON F 822-4096 9
15351 RANDALL S K 829-9083 +0
15359 XXXX 00
15363 JUREZ SEREFINA 822-5782 5
★ 0 BUS 4 RES 1 NEW

## MUSCATEL 92345 HESPERIA

14959 XXXX 00
15091 PADILLA EPIMENIO 244-2241 8
15104 TOOTLE ROGER P 244-5802 9
15165 MIXER DON H 244-7211 +0
15185 NELSON LARRY C 244-5614 9
15230 GAMBLE JAMES M 244-9931 6
15519 XXXX 00
15675 NYBERG ARTHUR 244-9708 5
15757 XXXX 00
15849 XXXX 00
15872 ASHLEY ALBERT R 244-3076
★ 0 BUS 11 RES 1 NEW

## MUSCATEL AV 91764 ONTARIO

304 XXXX 00
305 PATTEE L E 984-4080
306 ESATMAN GARY 984-1125 +0
313 XXXX 00
315 ARNOLD MUNROE 986-0740 9
317 DAVIDSON WM A 984-3432 +0
320 XXXX 00
323 XXXX 00
330 SATTERFIELD WM D 983-1927 7
341 BALE ELMORE 986-5241
353 PEARSON LINDA 983-6521 9
★ 0 BUS 11 RES 2 NEW

## MUSCOTT N 92411 SAN BERNARDINO

608 HEIDLER GEORGE O 888-4791 9
618 GONZALES PAUL 889-9434 9
626 XXXX 00
634 XXXX 00
642 FRED PAUL 888-4795
650 HARRIS ANDREW 885-1892
658 TAYLOR GEO 885-4013
666 BUFFINGTON ALEX 885-1342 +0
680 MAJOR R 889-4305 8
708 ANDERSON J E SR 884-9109 8
720 XXXX 00
731 XXXX 00
753 CARTER ALBERT 889-4290
780 REED YANCY 885-0582
808 XXXX 00
815★ **GOODES BARBER SHOP 889-3846** 8
817★ **LEES HOUSE OF BTY 885-8912** 7
840★ **TACO KID 889-5118** 5
856★ **ERNIES MKT NO 1 885-5454**
861 XXXX 00
863★ **MAGIC WHEELS 885-9753** +0
907 CHAMBERLAIN SHERMAN 884-6925 +0
908 SALDIVAR RUBEN E 889-3719 +0
917 HENSON MARY E 888-5477
918 XXXX 00
927 XXXX 00
928 HALL ELBERT 885-2836 +0
987 CEJA SALVADOR M 888-3589 +0
988 POPE ORA MAE 885-0107
997 XXXX 00
1053 XXXX 00
1054½ WILLIS CURTIS 884-0943
1061 BIVINS THELMA 884-0223 +0
1068 XXXX 00
1074 XXXX 00
1077 PATTERSON CERISE 889-9154 +0
1080 DRAYTON OLDEN J 889-5090
1081 MULDREW ARMOR 888-4514
1088 HOLLAND JAS D 889-4196
1115 MOODY JESSIE M 889-7700
1130 GRIGSBY BESSIE 885-1992 8
1131 RUSS E 889-1608 5
1147 XXXX 00
1148 THOMAS JAS M REV 888-4533
1250★ **SC SBDO CITRUS 888-0236** 8
★ **SC SBDO PRSNL SV 888-0211** 8
1290 XXXX 00
1322★ **DENNIS EDCTNL CNTR 889-9432** +0
1370 WILLIAMS F R REV 889-5735 5
1444 JACKSON BERVIN 885-3062
1494 MORRIS EUGENE P 884-5242 +0
MORRIS J F 889-2438
1504 XXXX 00
1514 STEPHENS ROBT L 885-3512
1524 OWENS A M 885-4636 +0
OWENS STERLING D 885-8242 9
1535 XXXX 00
1545 CARTER WILLIE D 885-3155 5
1605 HUGHES CRISTELLA 887-4818 9
1635 WHITTLE JOS N 887-4109
1645 XXXX 00
1666★ **CO SBD MNTL HLTH 887-4212**
★ **DELTA DRUGS 887-2596** 8
★ **GOLDEN STATE MTL LF 887-6464** 3
★ **HAWKINS R M MD 887-2533** 3
★ **OUTREACH MNTL HLTH 887-4212** 9
★ **WESTSIDE OUTREACH 887-4212** 9
★ **WILSON HAROLD T DDS 887-6441**
1667★ **ALPHA&OMEGA APOS CH 887-5326** 7
1676★ **PARKSIDE CNVLSCNT 887-6481** 4
1683 XXXX 00
1908★ **A A A REFRIGERATION 885-6424** 7
2006 BAINS PAULINE 887-4328 9
WILBOURN WILLIE C 887-4309 3
2016 JONES GERALD E 887-1593 +0
2036 HARTFIELD CARL 887-5534 5
HARTFIELD JEAN 887-5534 5
2088★ **LANGENDORF BAKRYS 887-5611** 7
★ **LANGENDORF B BAKING 887-2846** 7
2196 XXXX 00
2276★ **LITTLE ZION BAPT CH 887-2813** 6
2277 XXXX 00
2305 GAULT LOVIE O 887-1060 8
2319 DUVAL JAMES 887-1429 9
2320 TODD DAVID M 883-8161 +0
2365 XXXX 00
2390 DALY JOE 883-9369 9
2506 XXXX 00
2550 SOLORIO ALBERT P 883-3112 +0
2590 MANOR MBL HM PK 2
ALDRIDGE HULDA I 887-2900 +0
7 ALLEN W A 887-3258
54 AMMONS OTIS N 887-5127 3
41 ANDREWS N H 887-4688

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | Haines Criss-Cross Directory |

# JEFFERSON AVE 1976

JEFFERSON AV 92362 MURRIETA

| | | |
|---|---|---|
| 24250 | BLACKMORE TERRY | 677-5831+6 |
| 24340* | BLACKMORE K TRUCKNG | 677-6114+6 |
| 24403 | KENTY W H | 677-5985 5 |
| | NEWMAN ISHBELLE | 677-5985 5 |
| 24413 | BASTIAN BESSIE M | 677-5413 5 |
| 24421 | WICKERD HAROLD | 677-5812 5 |
| 24441 | STOWELL BRADFORD | 677-6136 5 |
| 24451 | ESTES LEONARD M | 677-5334 5 |
| 24461 | GRACE ERNEST B | 677-5070+6 |
| 24473 | THORESON J A | 677-5588 5 |
| 24513 | RAZO ARTURO J | 677-5083+6 |
| | STRATEMEYER DONALD | 677-5083+6 |
| 24531 | CLOUD RUTH | 677-5370 5 |
| 24537 | CLOUD JAS L | 677-5071 5 |
| 24543 | ASBELL WM | 677-5738+6 |
| 24685 | XXXX | OO |
| 24831 | COOPER WALTER | 677-5402 5 |
| 24861 | CLARK BERT | 677-5030 5 |
| 24865 | BALDWIN WM M | 677-5295+6 |
| 24890 | COLLINS BETTY J | 677-5103+6 |
| 24940 | ESSENBERG H W | 677-6168 5 |
| | FLANIGAN T W | 677-5029 4 |
| 24958 | BUSH D | 677-5111+6 |
| 25086* | BURNHAMS GENL MDSE | 677-5501+6 |
| | *DONS CAFE | 677-6140+6 |
| | MCNABB DONALD A MRS | 677-6151 5 |
| 25109 | GARRISON J S | 677-6117 5 |
| 25143 | BRANTS MARTINS | 677-5150 4 |
| 25155 | MORRIS DAVID | 677-5142 5 |
| 25261 | WATSON HUGH E | 677-5583 5 |
| 25445 | MORRIS ROBT | 677-5866 5 |
| 25485 | VENABLE RUTH | 677-5536 5 |
| | VENABLE WM E | 677-5536 5 |
| 25580 | JONES CARL C | 677-5925 5 |
| 25679 | BROOKS WM | 677-6183 5 |
| 25720 | JORDAN VIRGINIA M | 677-5852+6 |
| 25725* | WESTERN HYDROPONICS | 677-5315 5 |
| 25751 | GREENE D E | 677-5465 5 |
| 25755 | HOLLAND W B | 677-5345 5 |
| 26529 | SMITH WIRT STANLEY | 677-5159 5 |
| 26745* | DWYER THOROBRD RNCH | 677-5037 4 |
| | LOPEZ TEOFILO | 677-5458+6 |
| 26821 | XXXX | OO |
| NO # | DRAUCKER C D | 677-5210 4 |
| | * 5 BUS 39 RES 13 NEW | |

| Target Street | Cross Street | Source |
|---|---|---|
| - | ✓ | Haines Criss-Cross Directory |

# MURRIETA HOT SPRINGS RD 1976

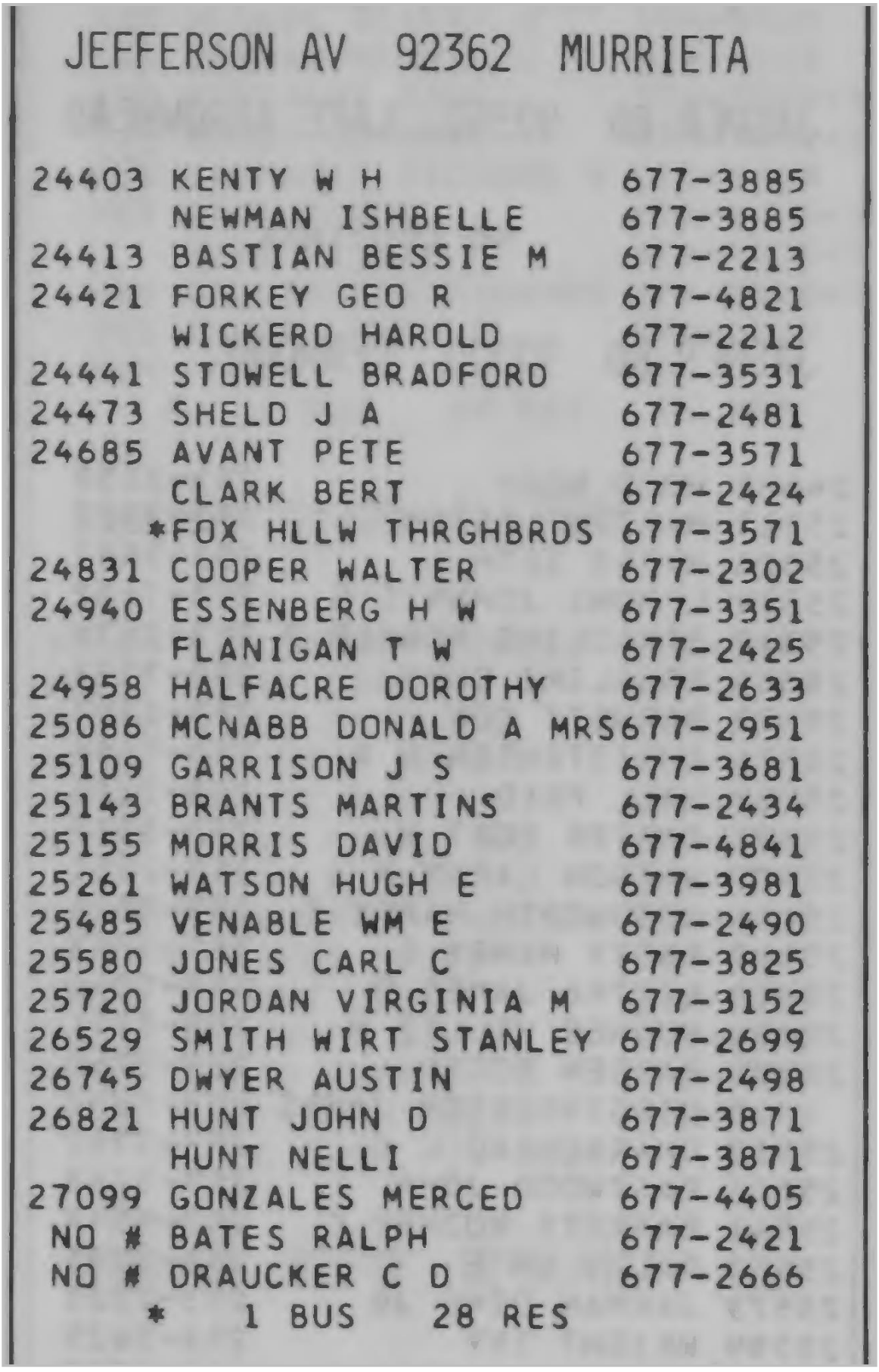
MURRIETA HOT SPGS RD 92362

MURRIETA

29260 *CAPRICORN CONSTR CO 677-5919+6
39400 AGUIRRE AURALIANO 677-5519+6
*ARMOR CONSTRUCTION 677-5400+6
*MURRIETA HOT SPRNGS 677-5655+6
*MURRIETA REAL EST 677-5601+6
40030 MCAFEE CLYDE 677-5432 5
*MURRIETA WEST 677-9003+6
40141 TERRENCE AL 677-5573 5
40350 YODER CHAS E 677-5785 5
40651...APARTMENTS
CARRILLO AGNES 677-5859+6
CARRILLO RALPH 677-5859+6
DIXON LEN 677-5807+6
EDELMAN ALBERT 677-5535+6
42 FREEMAN EVELYN C 677-5066 5
42 FREEMAN RICHARD L 677-5066 5
40 GRIFFIN LESTER L 677-5984 5
HUNT STEPHEN L 677-5823+6
MERCER FREDA 677-5222+6
44 MUTH ERNEST T 677-5760 5
45 NEILL MICHAEL H 677-5957 5
46 PRICE N D 677-5183 5
48 REINERTSEN GENEVA 677-4655 4
48 REINERTSEN LOUIS 677-6155 5
RUBEN MAYNARD 677-5093+6
SCHULZE NANCY J 677-5903+6
SHELD CALVIN 677-5088+6
24 STODOLA HORACE 677-5247 5
33 VOYLES HOMER 677-5943 5
WENDT M H 677-5082+6
WESTBROOK BARBARA 677-5847+6
23 WESTER CAROLE J 677-5353 5
WHITEMAN LYNN C 677-5423+6
40651.....
NO #*COUNTRY STORE THE 677-5013+6
NO #*ENVIRNMTL CMTY DVLP 677-5910+6
NO #*SEWARD M CMNT CONTR 677-5582 5
* 8 BUS 27 RES 20 NEW

| Target Street | Cross Street | Source |
|---|---|---|
| ✓ | - | Haines Criss-Cross Directory |

# JEFFERSON AVE 1973



JEFFERSON AV 92362 MURRIETA

| | | |
|---|---|---|
| 24403 | KENTY W H | 677-3885 |
| | NEWMAN ISHBELLE | 677-3885 |
| 24413 | BASTIAN BESSIE M | 677-2213 |
| 24421 | FORKEY GEO R | 677-4821 |
| | WICKERD HAROLD | 677-2212 |
| 24441 | STOWELL BRADFORD | 677-3531 |
| 24473 | SHELD J A | 677-2481 |
| 24685 | AVANT PETE | 677-3571 |
| | CLARK BERT | 677-2424 |
| | *FOX HLLW THRGHBRDS | 677-3571 |
| 24831 | COOPER WALTER | 677-2302 |
| 24940 | ESSENBERG H W | 677-3351 |
| | FLANIGAN T W | 677-2425 |
| 24958 | HALFACRE DOROTHY | 677-2633 |
| 25086 | MCNABB DONALD A MRS | 677-2951 |
| 25109 | GARRISON J S | 677-3681 |
| 25143 | BRANTS MARTINS | 677-2434 |
| 25155 | MORRIS DAVID | 677-4841 |
| 25261 | WATSON HUGH E | 677-3981 |
| 25485 | VENABLE WM E | 677-2490 |
| 25580 | JONES CARL C | 677-3825 |
| 25720 | JORDAN VIRGINIA M | 677-3152 |
| 26529 | SMITH WIRT STANLEY | 677-2699 |
| 26745 | DWYER AUSTIN | 677-2498 |
| 26821 | HUNT JOHN D | 677-3871 |
| | HUNT NELLI | 677-3871 |
| 27099 | GONZALES MERCED | 677-4405 |
| NO # | BATES RALPH | 677-2421 |
| NO # | DRAUCKER C D | 677-2666 |
| | * 1 BUS 28 RES | |

| Target Street | Cross Street | Source |
|---|---|---|
| - | ✓ | Haines Criss-Cross Directory |

## MURRIETA HOT SPRINGS RD 1973

MURRIETA HOT SPGS RD 92362

MURRIETA

| | | |
|---|---|---|
| 39400 | EISENBERG MILDRED | 677-8380 |
| | EISENBERG NATHAN P | 677-8380 |
| 40030 | MCAFEE CLYDE | 677-2822 |
| 40141 | TERENCE AL | 677-2273 |
| 40350 | YODER CHAS E | 677-2785 |
| 40651 | MUTH ERNEST T | 677-4760 |
| | TUNSTALL DENNIS G | 677-4871 |
| NO | #*MURRIETA HOT SPRNGS | 677-2311 |
| NO | #*MURRIETA RIDNG STBL | 677-2311 |
| NO | #*MURRIETA RL EST OFC | 677-5601 |
| NO | #*R P BIDNEY CORP | 677-4095 |
| NO | #*SEWARD MICKEY CEMNT | 677-4081 |

* 5 BUS 7 RES

**LMC Murrieta**
Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

Inquiry Number: 6756783.7
November 22, 2021

# EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

# EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

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# EDR Environmental Lien and AUL Search

**TARGET PROPERTY INFORMATION**

**ADDRESS**

Murrieta Hot Springs Road/Jefferson Avenue
LMC Murrieta
Murrieta, CA 92562

**ENVIRONMENTAL LIEN**

Environmental Lien: Found ☐ Not Found ☒

**OTHER ACTIVITY AND USE LIMITATIONS (AULs)**

AULs: Found ☐ Not Found ☒

**RESEARCH SOURCE**

---

**Source 1:**

Riverside Recorder
Riverside, CA

**PROPERTY INFORMATION**

**Deed 1:**

| | |
|---|---|
| Type of Deed: | deed |
| Title is vested in: | Antonious LLC |
| Title received from: | Regent Murrieta 18 LLC |
| Deed Dated | 2/6/2015 |
| Deed Recorded: | 2/13/2015 |
| Book: | NA |
| Page: | na |
| Volume: | na |
| Instrument: | na |
| Docket: | NA |
| Land Record Comments: | |
| Miscellaneous Comments: | |
| **Legal Description:** | See Exhibit |
| **Legal Current Owner:** | Antonious LLC |
| **Parcel # / Property Identifier:** | 910-410-011 |
| **Comments:** | See Exhibit |

# Deed Exhibit 1

Recording Requested By:
First American Title Company
National Homebuilder Services
Subdivision Department

**DOC # 2015-0061576**
02/13/2015 04:38 PM Fees: $31.00
Page 1 of 3 Doc T Tax Paid
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor, County Clerk & Recorder

**This document was electronically submitted to the County of Riverside for recording**
Receipted by: AGONZALEZ

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO
AND MAIL TAX STATEMENTS TO:

Antonious LLC
4030 Birch Street, Suite 100
Newport Beach, California 92660
Attention: Emad Bolous
4791800

APN: 910-410-011-9
TRA: 024-233

(Space Above For Recorder's Use)

# GRANT DEED

THE UNDERSIGNED GRANTOR DECLARES:
Documentary transfer tax is $ 3,372.60
(X) computed on full value of property conveyed, or
( ) computed on full value, less value of liens and encumbrances remaining at time of sale.

City of Murrieta
County of Riverside

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, REGENT MURRIETA 18, LLC, a Delaware limited liability company ("**Grantor**"), hereby GRANTS to ANTONIOUS LLC, a California limited liability company, that certain real property located in the City of Murrieta, County of Riverside, State of California, which is more particularly described on Exhibit "A" attached hereto.

Subject to:

1. Non-delinquent taxes and assessments;

2. All other covenants, conditions, restrictions, reservations, rights, rights-of-way, easements, encumbrances, and title matters of record or visible from an inspection of the property or which an accurate survey of the property would disclose.

[Signature on Next Page]

Mail Tax Statements to
SAME AS ABOVE

IN WITNESS WHEREOF, Grantor has executed this Grant Deed on the day and year hereafter written

Dated: February 6, 2015

**"Grantor":**

**REGENT MURRIETA 18, LLC,**
a Delaware limited liability company

By: _____
Name: ERIC FLEISS
Title: President

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )
County of Los Angeles )

On 2.6.15, before me, Nicole Stanton, (insert name of notary),

Notary Public, personally appeared ERIC FLEISS,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

NICOLE STANTON
Commission # 1974518
Notary Public - California
Los Angeles County
My Comm. Expires Apr 8, 2016

# EXHIBIT "A"

## LEGAL DESCRIPTION OF PROPERTY

Real property located in the City of Murrieta, County of Riverside, State of California, described as follows:

PARCEL 4 OF PARCEL MAP 15420 AS SHOWN BY MAP ON FILE IN BOOK 95 PAGE(S) 81 AND 82 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

APN: 910-410-011-9

**LMC Murrieta**
Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

Inquiry Number: 6756783.8
November 18, 2021

# EDR Building Permit Report

## Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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**SECTION**

**About This Report**

**Executive Summary**

**Findings**

**Glossary**

***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

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# EDR BUILDING PERMIT REPORT

## About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

## ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

## Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

# EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of Leighton and Associates, Inc. on Nov 18, 2021.

**TARGET PROPERTY**

Murrieta Hot Springs Road/Jefferson Avenue
Murrieta, CA 92562

**SEARCH METHODS**

EDR searches available lists for both the Target Property and Surrounding Properties.

**RESEARCH SUMMARY**

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

**Murrieta**

| *Year* | *Source* | *TP* | *Adjoining* |
|---|---|---|---|
| 2021 | City of Murrieta, Building and Safety Department | | |
| 2020 | City of Murrieta, Building and Safety Department | | X |
| 2019 | City of Murrieta, Building and Safety Department | | X |
| 2018 | City of Murrieta, Building and Safety Department | | X |
| 2017 | City of Murrieta, Building and Safety Department | | X |
| 2016 | City of Murrieta, Building and Safety Department | | X |
| 2015 | City of Murrieta, Building and Safety Department | | X |
| 2014 | City of Murrieta, Building and Safety Department | | X |
| 2013 | City of Murrieta, Building and Safety Department | | X |
| 2012 | City of Murrieta, Building and Safety Department | | X |
| 2011 | City of Murrieta, Building and Safety Department | | X |
| 2010 | City of Murrieta, Building and Safety Department | | X |
| 2009 | City of Murrieta, Building and Safety Department | | X |
| 2008 | City of Murrieta, Building and Safety Department | | |
| 2007 | City of Murrieta, Building and Safety Department | | X |
| 2006 | City of Murrieta, Building and Safety Department | | X |
| 2005 | City of Murrieta, Building and Safety Department | | X |

**Riverside County**

| *Year* | *Source* | *TP* | *Adjoining* |
|---|---|---|---|
| 2021 | Riverside County, Building and Safety | | |
| 2020 | Riverside County, Building and Safety | | |
| 2019 | Riverside County, Building and Safety | | |
| 2018 | Riverside County, Building and Safety | | |
| 2017 | Riverside County, Building and Safety | | |
| 2016 | Riverside County, Building and Safety | | |
| 2015 | Riverside County, Building and Safety | | |
| 2014 | Riverside County, Building and Safety | | |

# EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

| Year | Source | TP | Adjoining |
|---|---|---|---|
| 2013 | Riverside County, Building and Safety | | |
| 2012 | Riverside County, Building and Safety | | |
| 2011 | Riverside County, Building and Safety | | |
| 2010 | Riverside County, Building and Safety | | |
| 2009 | Riverside County, Building and Safety | | |
| 2008 | Riverside County, Building and Safety | | |
| 2007 | Riverside County, Building and Safety | | |
| 2006 | Riverside County, Building and Safety | | |
| 2005 | Riverside County, Building and Safety | | |
| 2004 | Riverside County, Building and Safety | | |
| 2003 | Riverside County, Building and Safety | | |
| 2002 | Riverside County, Building and Safety | | |
| 2001 | Riverside County, Building and Safety | | |
| 2000 | Riverside County, Building and Safety | | |
| 1999 | Riverside County, Building and Safety | | |
| 1998 | Riverside County, Building and Safety | | |
| 1997 | Riverside County, Building and Safety | | |
| 1996 | Riverside County, Building and Safety | | |
| 1995 | Riverside County, Building and Safety | | |
| 1994 | Riverside County, Building and Safety | | |
| 1993 | Riverside County, Building and Safety | | |
| 1992 | Riverside County, Building and Safety | | |
| 1991 | Riverside County, Building and Safety | | |
| 1990 | Riverside County, Building and Safety | | |
| 1989 | Riverside County, Building and Safety | | |
| 1988 | Riverside County, Building and Safety | | |
| 1987 | Riverside County, Building and Safety | | |
| 1986 | Riverside County, Building and Safety | | |
| 1985 | Riverside County, Building and Safety | | |
| 1984 | Riverside County, Building and Safety | | |
| 1983 | Riverside County, Building and Safety | | |
| 1982 | Riverside County, Building and Safety | | |
| 1981 | Riverside County, Building and Safety | | |
| 1980 | Riverside County, Building and Safety | | |
| 1979 | Riverside County, Building and Safety | | |
| 1978 | Riverside County, Building and Safety | | X |
| 1977 | Riverside County, Building and Safety | | |
| 1976 | Riverside County, Building and Safety | | |
| 1975 | Riverside County, Building and Safety | | |
| 1974 | Riverside County, Building and Safety | | |
| 1973 | Riverside County, Building and Safety | | |
| 1972 | Riverside County, Building and Safety | | |
| 1971 | Riverside County, Building and Safety | | |
| 1970 | Riverside County, Building and Safety | | |
| 1969 | Riverside County, Building and Safety | | |

# EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

| Year | Source | TP | Adjoining |
|---|---|---|---|
| 1968 | Riverside County, Building and Safety | | |
| 1967 | Riverside County, Building and Safety | | |
| 1966 | Riverside County, Building and Safety | | |
| 1965 | Riverside County, Building and Safety | | |
| 1964 | Riverside County, Building and Safety | | |
| 1963 | Riverside County, Building and Safety | | |

Name: JurisdictionName
Years: Years
Source: Source
Phone: Phone

**BUILDING DEPARTMENT RECORDS SEARCHED**

Name: Murrieta
Years: 2005-2021
Source: City of Murrieta, Building and Safety Department, MURRIETA, CA
Phone: (951) 304-2489

Name: Riverside County
Years: 1963-2021
Source: Riverside County, Building and Safety, MURRIETA, CA
Phone: (951) 955-6742

# TARGET PROPERTY FINDINGS

**TARGET PROPERTY DETAIL**

**Murrieta Hot Springs Road/Jefferson Avenue**
**Murrieta, CA 92562**

No Permits Found

# ADJOINING PROPERTY FINDINGS

## ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

### JEFFERSON AVE

**25425 JEFFERSON AVE**

| | |
|---|---|
| Date: | **9/23/2020** |
| Permit Type: | |
| Description: | **Misc. Occupancy Inspection** |
| Permit Description: | **CofO** |
| Work Class: | Miscellaneous |
| Proposed Use: | Building Misc |
| Permit Number: | 2020-22504 |
| Status: | |
| Valuation: | $1.00 |
| Contractor Company: | |
| Contractor Name: | ALONZO TRUMAN |

| | |
|---|---|
| Date: | **9/22/2020** |
| Permit Type: | |
| Description: | **Misc. Sign** |
| Permit Description: | **SIGN** |
| Work Class: | 329 Non Bldg Structures |
| Proposed Use: | Building Misc |
| Permit Number: | 2020-22787 |
| Status: | |
| Valuation: | $5,665.00 |
| Contractor Company: | |
| Contractor Name: | BRUCE PATTERSON |

# ADJOINING PROPERTY FINDINGS

Date: **11/20/2019**
Permit Type:
Description: **Misc. Sign**

Permit Description: **SIGNS**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2019-20136
Status:
Valuation: $4,675.00
Contractor Company:
Contractor Name: WILLIAM COMER

Date: **5/6/2019**
Permit Type:
Description: **Misc. Sign**

Permit Description: **Monument Sign**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2019-18093
Status:
Valuation: $3,500.00
Contractor Company:
Contractor Name: GREG BUECHLER

Date: **2/19/2019**
Permit Type:
Description: **Misc. Sign**

Permit Description: **Sign**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2019-17530
Status:
Valuation: $3,500.00
Contractor Company:
Contractor Name: EAGLE SIGNS INC

# ADJOINING PROPERTY FINDINGS

Date: **8/9/2017**
Permit Type:
Description: **Misc. Sign**

Permit Description: **Sign**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2017-11948
Status:
Valuation: $2,200.00
Contractor Company:
Contractor Name: EAGLE SIGNS INC

Date: **2/8/2017**
Permit Type:
Description: **Commerical Occupancy Inspection**

Permit Description: **CofO & TI**
Work Class: Miscellaneous
Proposed Use: Commercial Building
Permit Number: 2017-10331
Status:
Valuation: $1.00
Contractor Company:
Contractor Name: Kai Delozier

Date: **3/31/2016**
Permit Type:
Description: **Misc. Sign**

Permit Description: **Sign**
Work Class: Structures
Proposed Use: Building Misc
Permit Number: 2016-7857
Status:
Valuation: $2,200.00
Contractor Company:
Contractor Name: BOB KNEEVERS

# ADJOINING PROPERTY FINDINGS

Date: **2/25/2016**
Permit Type:
Description: **Commercial Addition**

Permit Description: **TI**
Work Class: 437 Non Res'd Add/Alt
Proposed Use: Commercial Building
Permit Number: 2015-7018
Status:
Valuation: $110,000.00
Contractor Company:
Contractor Name: TYSON POLLITT

Date: **12/18/2014**
Permit Type:
Description: **Commercial Tenant Improvement**

Permit Description:
Work Class: 437 Non Res'd Add/Alt
Proposed Use:
Permit Number: 2014-3437
Status:
Valuation: $15,000.00
Contractor Company:
Contractor Name: JEFFERSON INV PROP

Date: **4/29/2009**
Permit Type:
Description: **Commercial Ind Alt - Add**

Permit Description:
Work Class: IV-437 Non Res Add/Alt
Proposed Use:
Permit Number: 67864
Status:
Valuation: $10,000.00
Contractor Company:
Contractor Name:

# ADJOINING PROPERTY FINDINGS

Date: **9/25/2007**
Permit Type:
Description: **Encroachment**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 64014
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

Date: **6/19/2007**
Permit Type:
Description: **Encroachment**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 63951
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

Date: **11/9/2006**
Permit Type:
Description: **Commercial Ind - New**

Permit Description:
Work Class: III-327 Stores New
Proposed Use:
Permit Number: 59990
Status:
Valuation: $1,000,000.00
Contractor Company:
Contractor Name:

# ADJOINING PROPERTY FINDINGS

Date: **11/9/2006**
Permit Type:
Description: **Wall**

Permit Description:
Work Class: III-329 Structures New
Proposed Use:
Permit Number: 61980
Status:
Valuation: $15,000.00
Contractor Company:
Contractor Name:

Date: **10/6/2006**
Permit Type:
Description: **Precise**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 61578
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

**25427 JEFFERSON AVE**

Date: **12/14/2006**
Permit Type:
Description: **Temporary Power**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 62232
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AMERICAN GUNITE, INC. DBA AMERICAN CONTRACTORS

# ADJOINING PROPERTY FINDINGS

**25435 JEFFERSON AVE**

| | |
|---|---|
| Date: | **10/8/2009** |
| Permit Type: | |
| Description: | **Signs** |
| Permit Description: | |
| Work Class: | MISC |
| Proposed Use: | |
| Permit Number: | 68608 |
| Status: | |
| Valuation: | $10,255.00 |
| Contractor Company: | |
| Contractor Name: | |

**25485 JEFFERSON AVE**

| | |
|---|---|
| Date: | **5/15/2013** |
| Permit Type: | |
| Description: | **Signs** |
| Permit Description: | |
| Work Class: | MISC |
| Proposed Use: | |
| Permit Number: | 75629 |
| Status: | |
| Valuation: | $7,500.00 |
| Contractor Company: | |
| Contractor Name: | P S SERVICES, P. S. Services |

# ADJOINING PROPERTY FINDINGS

Date: **10/28/2005**
Permit Type:
Description: **Commercial Ind Alt - Add**

Permit Description:
Work Class: IV-437 Non Res Add/Alt
Proposed Use:
Permit Number: 57657
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

Date: **4/14/1978**
Permit Type:
Description: **BARN REGISTRATION**

Permit Description:
Work Class:
Proposed Use:
Permit Number: BZ327927
Status: CANCELED
Valuation: $0.00
Contractor Company:
Contractor Name:

# ADJOINING PROPERTY FINDINGS

**MADISON AVE**

**25359 MADISON AVE**

| | |
|---|---|
| Date: | **8/20/2020** |
| Permit Type: | |
| Description: | **Misc. Sign** |
| Permit Description: | **Sign** |
| Work Class: | Miscellaneous |
| Proposed Use: | Building Misc |
| Permit Number: | 2020-22148 |
| Status: | |
| Valuation: | $2,450.00 |
| Contractor Company: | |
| Contractor Name: | Franklin Murch |

| | |
|---|---|
| Date: | **1/22/2020** |
| Permit Type: | |
| Description: | **Misc. Permit w/ Planning** |
| Permit Description: | **TI** |
| Work Class: | 437 Non Res'd Add/Alt |
| Proposed Use: | Building Misc |
| Permit Number: | 2019-19490 |
| Status: | |
| Valuation: | $3,000.00 |
| Contractor Company: | |
| Contractor Name: | Natalia Cappellini |

# ADJOINING PROPERTY FINDINGS

Date: **12/16/2019**
Permit Type:
Description: **Misc. Sign**

Permit Description: **SIGNS**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2019-20337
Status:
Valuation: $3,200.00
Contractor Company:
Contractor Name: LAVENDER FUNG

Date: **3/28/2019**
Permit Type:
Description: **Misc. Sign**

Permit Description: **Sign**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2019-17779
Status:
Valuation: $2,850.00
Contractor Company:
Contractor Name: Franklin Murch

Date: **9/6/2018**
Permit Type:
Description: **EMP**

Permit Description: **AC**
Work Class: Miscellaneous
Proposed Use: EMP
Permit Number: 2018-15544
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: Steven Scott Evans

# ADJOINING PROPERTY FINDINGS

Date: **7/2/2018**
Permit Type:
Description: **EMP**

Permit Description: **HVAC**
Work Class: Miscellaneous
Proposed Use: EMP
Permit Number: 2018-15050
Status:
Valuation: $6,000.00
Contractor Company:
Contractor Name: Steven Scott Evans

Date: **6/28/2018**
Permit Type:
Description: **EMP**

Permit Description: **Electrical**
Work Class: Miscellaneous
Proposed Use: EMP
Permit Number: 2018-15023
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name: JAMES GLOCKNER

Date: **12/20/2017**
Permit Type:
Description: **Misc. Sign**

Permit Description: **Sign**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2017-13282
Status:
Valuation: $7,300.00
Contractor Company:
Contractor Name: BRUCE PATTERSON

# ADJOINING PROPERTY FINDINGS

Date: **8/8/2017**
Permit Type:
Description: **Misc. Permit w/o Planning**

Permit Description: **TI**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2017-10210
Status:
Valuation: $83,000.00
Contractor Company:
Contractor Name: James Jordan

Date: **7/6/2017**
Permit Type:
Description: **Misc. Sign**

Permit Description: **Sign**
Work Class: Miscellaneous
Proposed Use: Building Misc
Permit Number: 2017-11644
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name: BRUCE PATTERSON

Date: **4/3/2017**
Permit Type:
Description: **Misc. Sign**

Permit Description:
Work Class: Miscellaneous
Proposed Use:
Permit Number: 2017-10771
Status:
Valuation: $3,600.00
Contractor Company:
Contractor Name: BRUCE PATTERSON

# ADJOINING PROPERTY FINDINGS

Date: **4/3/2017**
Permit Type:
Description: **Misc. Sign**

Permit Description:
Work Class:
Proposed Use: Building Misc
Permit Number: 2017-10771- Sign
Status:
Valuation: $3,600.00
Contractor Company:
Contractor Name:

Date: **3/6/2017**
Permit Type:
Description: **Commerical Occupancy Inspection**

Permit Description: **CofO w/plmbg**
Work Class: 437 Non Res'd Add/Alt
Proposed Use: Commercial Building
Permit Number: 2017-10546
Status:
Valuation: $7,500.00
Contractor Company:
Contractor Name: Rick Jaramillo

Date: **12/10/2015**
Permit Type:
Description: **Misc. Sign**

Permit Description:
Work Class: Miscellaneous
Proposed Use:
Permit Number: 2015-6646
Status:
Valuation: $2,400.00
Contractor Company:
Contractor Name: ALL SIGNS GRAPHICS AND DESIGNS

# ADJOINING PROPERTY FINDINGS

Date: **1/13/2014**
Permit Type:
Description: **Misc. Sign**

Permit Description:
Work Class: Miscellaneous
Proposed Use:
Permit Number: 2014-1330
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name: FORD SIGNS INC.

Date: **9/19/2013**
Permit Type:
Description: **B: Building Misc**

Permit Description:
Work Class: Misc. Sign
Proposed Use: SIGN
Permit Number: 2013-778
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name: D & S SIGNS

Date: **8/2/2012**
Permit Type:
Description: **Signs**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 73831
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name: Dennis Sever Signs, SEVER SIGNS

# ADJOINING PROPERTY FINDINGS

Date: **9/28/2011**
Permit Type:
Description: **Signs**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 72143
Status:
Valuation: $2,500.00
Contractor Company:
Contractor Name: MAIN STREET SIGNS AND MAINTENANCE, MAIN STREET SIGNS

Date: **8/24/2011**
Permit Type:
Description: **Commercial: Add/Alt Tenant Improvement**

Permit Description:
Work Class: IV-437 Non Res Add/Alt
Proposed Use:
Permit Number: 71869
Status:
Valuation: $90,000.00
Contractor Company:
Contractor Name: CIENFUEGOS CONSULTING

Date: **11/18/2010**
Permit Type:
Description: **Signs: Sign Miscellaneous Signs**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 70301
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: CLEAR SIGN & DESIGN, INC, CLEAR SIGN & DESIGN, INC.

# ADJOINING PROPERTY FINDINGS

Date: **9/21/2010**
Permit Type:
Description: **Misc.: Certificate of Occupancy without Const.**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 69993
Status:
Valuation: $100.00
Contractor Company:
Contractor Name:

Date: **8/11/2010**
Permit Type:
Description: **Misc.: Misc. Category/With Planning Plan Check**

Permit Description:
Work Class: IV-437 Non Res Add/Alt
Proposed Use:
Permit Number: 69824
Status:
Valuation: $10,000.00
Contractor Company:
Contractor Name: WORKMAN CONTRACTORS

Date: **6/12/2009**
Permit Type:
Description: **Signs: Sign Miscellaneous Signs**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 68056
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name:

# ADJOINING PROPERTY FINDINGS

Date: **9/13/2006**
Permit Type:
Description: **Signs**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 61439
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: D & S SIGNS

Date: **9/6/2006**
Permit Type:
Description: **Miscellaneous Permit**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 61368
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: Thai Orchid Restaurant

Date: **3/28/2006**
Permit Type:
Description: **Signs**

Permit Description:
Work Class: MISC
Proposed Use:
Permit Number: 59370
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

# GLOSSARY

**General Building Department concepts**

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

# GLOSSARY

**Permit Content Definitions**

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use (s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

**Sample Building Permit Data**

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

# APPENDIX H

JONES ENVIRONMENTAL, INC.

714-449-9937
562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
WWW.JONESENV.COM

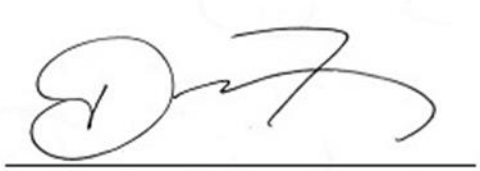
**JONES ENVIRONMENTAL**
**LABORATORY RESULTS**

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Tustin, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/15/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

**ANALYSES REQUESTED**

**Soil:**

1. EPA 6010B by 3050B – Arsenic
2. EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD

**Approval:** 

Douglas A. Fowler, B.S.
Stationary Lab Chemist

JONES ENVIRONMENTAL, INC.

714-449-9937
562-646-1611
805-399-0060

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
WWW.JONESENV.COM

# JONES ENVIRONMENTAL
# LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Tustin, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/15/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

## EPA 6010B by 3050 - by ICP-OES

| **Sample ID:** | **SB1-0.5** | **SB1-2.0** | **SB2-0.5** | **SB2-2.0** | **SB3-0.5** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **ST-18800-01** | **ST-18800-02** | **ST-18800-03** | **ST-18800-04** | **ST-18800-05** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| Arsenic, As | ND | ND | ND | ND | ND | 0.5 | mg/kg |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Batch:** | I21121401 | I21121401 | I21121401 | I21121401 | I21121401 | | |

ND = Value less than reporting limit

JONES ENVIRONMENTAL, INC.

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## JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Tustin, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/15/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

**EPA 6010B by 3050 - by ICP-OES**

| **Sample ID:** | **SB3-2.0** | **SB4-0.5** | **SB4-2.0** | **SB5-0.5** | **SB5-2.0** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **ST-18800-06** | **ST-18800-07** | **ST-18800-08** | **ST-18800-09** | **ST-18800-10** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| Arsenic, As | ND | ND | ND | ND | ND | 0.5 | mg/kg |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Batch:** | I21121401 | I21121401 | I21121401 | I21121401 | I21121401 | | |

ND = Value less than reporting limit

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## JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Tustin, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/15/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

### EPA 6010B by 3050 - by ICP-OES

| **Sample ID:** | **SB6-0.5** | **SB6-2.0** | **SB7-0.5** | **SB7-2.0** | **SB8-0.5** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **ST-18800-11** | **ST-18800-12** | **ST-18800-13** | **ST-18800-14** | **ST-18800-15** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| Arsenic, As | ND | ND | ND | ND | ND | 0.5 | mg/kg |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Batch:** | I21121401 | I21121401 | I21121401 | I21121401 | I21121401 | | |

ND = Value less than reporting limit

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## JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Tustin, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/15/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

### EPA 6010B by 3050 - by ICP-OES

| **Sample ID:** | **SB8-2.0** | | |
|---|---|---|---|
| **Jones ID:** | **ST-18800-16** | **Reporting Limit** | **Units** |
| **Analytes:** | | | |
| Arsenic, As | ND | 0.5 | mg/kg |
| **Dilution Factor** | 1 | | |
| **Batch:** | I21121401 | | |

ND = Value less than reporting limit

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## JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan | **Jones Ref. No.:** | ST-18800 |
| | Tustin, CA | **Client Ref. No.:** | 13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/15/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd | **Physical State:** | Soil |
| | Murrieta, CA | | |

**BATCH:** **I21121401** **Prepared:** 12/14/2021 **Analyzed:** 12/15/2021

### EPA 6010B by 3050 - by ICP-OES

| Analytes: | Result | Spike Level | % REC | % RPD | % REC Limits | Reporting Limit | Units |
|---|---|---|---|---|---|---|---|
| **Method Blank:** | **I211214-MB1** | | | | | | |
| Arsenic, As | ND | | | | | 0.5 | mg/kg |
| **LCS:** | **I211214-LCS1** | | | | | | |
| Arsenic, As | **186** | 200 | 93% | | 80 - 120 | | mg/kg |
| **LCSD:** | **I211214-LCSD1** | | | | | | |
| Arsenic, As | **184** | 200 | 92% | 1.1% | 80 - 120 | | mg/kg |
| **CCV:** | **I211214-CCV1** | | | | | | |
| Arsenic, As | **0.98** | 1.00 | 98% | | 90-110 | | mg/L |

ND= Not Detected
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

LCS = Laboratory Control Sample
LCSD= Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference

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# JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Irvine, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/14/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

**EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD**

| **Sample ID:** | **SB1-0.5** | **SB1-2.0** | **SB2-0.5** | **SB2-2.0** | **SB3-0.5** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **ST-18800-01** | **ST-18800-02** | **ST-18800-03** | **ST-18800-04** | **ST-18800-05** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| α-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| γ-BHC (Lindane) | ND | ND | ND | ND | ND | 10 | ug/kg |
| β-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| Heptachlor | ND | ND | ND | ND | ND | 10 | ug/kg |
| δ-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| Aldrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| Heptachlor Epoxide | ND | ND | ND | ND | ND | 10 | ug/kg |
| γ-Chlordane | ND | ND | ND | ND | ND | 10 | ug/kg |
| α-Chlordane | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan I | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDE | ND | ND | ND | ND | ND | 10 | ug/kg |
| Dieldrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDD | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan II | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDT | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin Aldehyde | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan Sulfate | ND | ND | ND | ND | ND | 10 | ug/kg |
| Methoxychlor | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin Ketone | ND | ND | ND | ND | ND | 20 | ug/kg |
| Toxaphene | ND | ND | ND | ND | ND | 20 | ug/kg |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Surrogate Recovery:** | | | | | | **QC Limits** | |
| TCMX | 83% | 81% | 95% | 98% | 46% | 30 - 120 | |
| Decachlorobiphenyl | 65% | 57% | 71% | 71% | 38% | 30 - 120 | |
| **Batch:** | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | | |

ND = Value less than reporting limit

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## JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Irvine, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/14/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

**EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD**

| **Sample ID:** | **SB3-2.0** | **SB4-0.5** | **SB4-2.0** | **SB5-0.5** | **SB5-2.0** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **ST-18800-06** | **ST-18800-07** | **ST-18800-08** | **ST-18800-09** | **ST-18800-10** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| α-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| γ-BHC (Lindane) | ND | ND | ND | ND | ND | 10 | ug/kg |
| β-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| Heptachlor | ND | ND | ND | ND | ND | 10 | ug/kg |
| δ-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| Aldrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| Heptachlor Epoxide | ND | ND | ND | ND | ND | 10 | ug/kg |
| γ-Chlordane | ND | ND | ND | ND | ND | 10 | ug/kg |
| α-Chlordane | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan I | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDE | ND | ND | ND | ND | ND | 10 | ug/kg |
| Dieldrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDD | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan II | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDT | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin Aldehyde | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan Sulfate | ND | ND | ND | ND | ND | 10 | ug/kg |
| Methoxychlor | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin Ketone | ND | ND | ND | ND | ND | 20 | ug/kg |
| Toxaphene | ND | ND | ND | ND | ND | 20 | ug/kg |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Surrogate Recovery:** | | | | | | **QC Limits** | |
| TCMX | 98% | 72% | 90% | 83% | 83% | 30 - 120 | |
| Decachlorobiphenyl | 72% | 60% | 71% | 65% | 65% | 30 - 120 | |
| **Batch:** | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | | |

ND = Value less than reporting limit

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## JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Irvine, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/14/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

**EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD**

| **Sample ID:** | **SB6-0.5** | **SB6-2.0** | **SB7-0.5** | **SB7-2.0** | **SB8-0.5** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **ST-18800-11** | **ST-18800-12** | **ST-18800-13** | **ST-18800-14** | **ST-18800-15** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| α-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| γ-BHC (Lindane) | ND | ND | ND | ND | ND | 10 | ug/kg |
| β-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| Heptachlor | ND | ND | ND | ND | ND | 10 | ug/kg |
| δ-BHC | ND | ND | ND | ND | ND | 10 | ug/kg |
| Aldrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| Heptachlor Epoxide | ND | ND | ND | ND | ND | 10 | ug/kg |
| γ-Chlordane | ND | ND | ND | ND | ND | 10 | ug/kg |
| α-Chlordane | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan I | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDE | ND | ND | ND | ND | ND | 10 | ug/kg |
| Dieldrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDD | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan II | ND | ND | ND | ND | ND | 10 | ug/kg |
| 4,4'-DDT | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin Aldehyde | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endosulfan Sulfate | ND | ND | ND | ND | ND | 10 | ug/kg |
| Methoxychlor | ND | ND | ND | ND | ND | 10 | ug/kg |
| Endrin Ketone | ND | ND | ND | ND | ND | 20 | ug/kg |
| Toxaphene | ND | ND | ND | ND | ND | 20 | ug/kg |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Surrogate Recovery:** | | | | | | **QC Limits** | |
| TCMX | 92% | 87% | 88% | 88% | 90% | 30 - 120 | |
| Decachlorobiphenyl | 67% | 69% | 73% | 65% | 74% | 30 - 120 | |
| **Batch:** | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | ECD4_121421_01 | | |

ND = Value less than reporting limit

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## JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan<br>Irvine, CA | **Jones Ref. No.:**<br>**Client Ref. No.:** | ST-18800<br>13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/14/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd<br>Murrieta, CA | **Physical State:** | Soil |

**EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD**

| **Sample ID:** | **SB8-2.0** | | |
|---|---|---|---|
| **Jones ID:** | **ST-18800-16** | **Reporting Limit** | **Units** |
| **Analytes:** | | | |
| α-BHC | ND | 10 | ug/kg |
| γ-BHC (Lindane) | ND | 10 | ug/kg |
| β-BHC | ND | 10 | ug/kg |
| Heptachlor | ND | 10 | ug/kg |
| δ-BHC | ND | 10 | ug/kg |
| Aldrin | ND | 10 | ug/kg |
| Heptachlor Epoxide | ND | 10 | ug/kg |
| γ-Chlordane | ND | 10 | ug/kg |
| α-Chlordane | ND | 10 | ug/kg |
| Endosulfan I | ND | 10 | ug/kg |
| 4,4'-DDE | ND | 10 | ug/kg |
| Dieldrin | ND | 10 | ug/kg |
| Endrin | ND | 10 | ug/kg |
| 4,4'-DDD | ND | 10 | ug/kg |
| Endosulfan II | ND | 10 | ug/kg |
| 4,4'-DDT | ND | 10 | ug/kg |
| Endrin Aldehyde | ND | 10 | ug/kg |
| Endosulfan Sulfate | ND | 10 | ug/kg |
| Methoxychlor | ND | 10 | ug/kg |
| Endrin Ketone | ND | 20 | ug/kg |
| Toxaphene | ND | 20 | ug/kg |
| **Dilution Factor** | 1 | | |
| **Surrogate Recovery:** | | **QC Limits** | |
| TCMX | 84% | 30 - 120 | |
| Decachlorobiphenyl | 59% | 30 - 120 | |
| **Batch:** | ECD4_<br>121421_01 | | |

ND = Value less than reporting limit

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# JONES ENVIRONMENTAL
## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan | **Jones Ref. No.:** | ST-18800 |
| | Irvine, CA | **Client Ref. No.:** | 13343.003 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/14/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd | **Physical State:** | Soil |
| | Murrieta, CA | | |

**EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD**

| **Sample ID:** | **METHOD BLANK #1** | | |
|---|---|---|---|
| **Jones ID:** | **MB1-121421ECD4** | **Reporting Limit** | **Units** |
| **Analytes:** | | | |
| α-BHC | ND | 10 | ug/kg |
| γ-BHC (Lindane) | ND | 10 | ug/kg |
| β-BHC | ND | 10 | ug/kg |
| Heptachlor | ND | 10 | ug/kg |
| δ-BHC | ND | 10 | ug/kg |
| Aldrin | ND | 10 | ug/kg |
| Heptachlor Epoxide | ND | 10 | ug/kg |
| γ-Chlordane | ND | 10 | ug/kg |
| α-Chlordane | ND | 10 | ug/kg |
| Endosulfan I | ND | 10 | ug/kg |
| 4,4'-DDE | ND | 10 | ug/kg |
| Dieldrin | ND | 10 | ug/kg |
| Endrin | ND | 10 | ug/kg |
| 4,4'-DDD | ND | 10 | ug/kg |
| Endosulfan II | ND | 10 | ug/kg |
| 4,4'-DDT | ND | 10 | ug/kg |
| Endrin Aldehyde | ND | 10 | ug/kg |
| Endosulfan Sulfate | ND | 10 | ug/kg |
| Methoxychlor | ND | 10 | ug/kg |
| Endrin Ketone | ND | 20 | ug/kg |
| Toxaphene | ND | 20 | ug/kg |
| **Dilution Factor** | 1 | | |
| **Surrogate Recovery:** | | **QC Limits** | |
| TCMX | 104% | 30 - 120 | |
| Decachlorobiphenyl | 70% | 30 - 120 | |
| **Batch:** | ECD4_121421_01 | | |

ND = Value less than reporting limit

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## JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan | **Jones Ref. No.:** | ST-18800 |
| | Irvine, CA | **Client Ref. No.:** | 7/12/1936 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/14/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd | **Physical State:** | Soil |
| | Murrieta, CA | | |

**BATCH:** **ECD4_ 121421_01** **Prepared:** 12/14/2021 **Analyzed:** 12/14/2021

### EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD

| | LCS | LCSD | % RPD | Spike Level | % Recovery Limits | Units |
|---|---|---|---|---|---|---|
| | LCS1-121421ECD4 | LCSD1-121421ECD4 | | | | |
| **Analytes:** | | | | | | |
| α-BHC | 123 | 130 | 6% | 100 | 60 - 140 | ppb |
| Heptachlor | 118 | 125 | 6% | 100 | 60 - 140 | ppb |
| Aldrin | 113 | 117 | 3% | 100 | 60 - 140 | ppb |
| Heptachlor Epoxide | 110 | 115 | 4% | 100 | 60 - 140 | ppb |
| γ-Chlordane | 101 | 108 | 7% | 100 | 60 - 140 | ppb |
| Endosulfan I | 104 | 109 | 5% | 100 | 60 - 140 | ppb |
| 4,4'-DDE | 108 | 115 | 6% | 100 | 60 - 140 | ppb |
| Dieldrin | 111 | 118 | 6% | 100 | 60 - 140 | ppb |
| Endrin | 123 | 130 | 6% | 100 | 60 - 140 | ppb |
| 4,4'-DDD | 109 | 116 | 6% | 100 | 60 - 140 | ppb |
| Endosulfan II | 111 | 118 | 6% | 100 | 60 - 140 | ppb |
| 4,4'-DDT | 99.9 | 106 | 6% | 100 | 60 - 140 | ppb |
| Endrin Ketone | 97.9 | 104 | 6% | 100 | 60 - 140 | ppb |
| **Surrogate Recoveries:** | | | | | | |
| TCMX | 119% | 120% | | | 30 - 120 | |
| Decachlorobiphenyl | 77% | 81% | | | 30 - 120 | |

LCS= Laboratory Control Sample
LCSD= Laboratory Control Sample Duplicate
RPD = Relative Percent Difference

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## JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

| | | | |
|---|---|---|---|
| **Client:** | Leighton and Associates, Inc. | **Report date:** | 12/15/2021 |
| **Client Address:** | 17781 Cowan | **Jones Ref. No.:** | ST-18800 |
| | Irvine, CA | **Client Ref. No.:** | 7/12/1936 |
| **Attn:** | Brynn McCulloch | **Date Sampled:** | 12/13/2021 |
| | | **Date Received:** | 12/13/2021 |
| **Project:** | Murrieta Hot Springs | **Date Analyzed:** | 12/14/2021 |
| **Project Address:** | SE Jefferson Ave and Murrieta Hot Springs Rd | **Physical State:** | Soil |
| | Murrieta, CA | | |

**BATCH:** **ECD4_ 121421_01** **Prepared:** 12/14/2021 **Analyzed:** 12/14/2021

### EPA 8081A by 3546 – Chlorinated Pesticides by GC/ECD

| | Result | Spike Level | % Recovery | % Recovery Limits | Units |
|---|---|---|---|---|---|
| **CCV:** | CCV1-121421ECD4 | | | | |
| **Analytes:** | | | | | |
| α-BHC | 231 | 200 | 116% | 80-120 | ppb |
| Heptachlor | 239 | 200 | 120% | 80-120 | ppb |
| Aldrin | 236 | 200 | 118% | 80-120 | ppb |
| Heptachlor Epoxide | 234 | 200 | 117% | 80-120 | ppb |
| γ-Chlordane | 215 | 200 | 108% | 80-120 | ppb |
| Endosulfan I | 213 | 200 | 107% | 80-120 | ppb |
| 4,4'-DDE | 236 | 200 | 118% | 80-120 | ppb |
| Dieldrin | 238 | 200 | 119% | 80-120 | ppb |
| Endrin | 237 | 200 | 119% | 80-120 | ppb |
| 4,4'-DDD | 227 | 200 | 114% | 80-120 | ppb |
| Endosulfan II | 238 | 200 | 119% | 80-120 | ppb |
| 4,4'-DDT | 220 | 200 | 110% | 80-120 | ppb |
| Endrin Ketone | 209 | 200 | 105% | 80-120 | ppb |
| **Surrogate Recovery:** | | | | | |
| TCMX | 120% | | | 80-120 | |
| Decachlorobiphenyl | 69%@ | | | 80-120 | |

@= Surrogate is outside acceptable limits. All other QC parameters in control, therefore data was accepted.
CCV= Continuing Calibration Verification

# Chain-of-Custody Record

JONES ENVIRONMENTAL, INC.
11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

**Client**
Leighton and Associates, Inc.

**Project Name**
Murrieta Hot Springs

**Project Address**
SE Jefferson Ave and Murrieta Hot Springs Rd

Murrieta, CA

**Email**
bmcculloch@leightongroup.com

**Phone**
949-681-4287

**Report To** Brynn McCulloch
**Sampler** Sabrina Gonzalez

**Date**
12/13/2021

**Client Project #**
13343.003

**Turn Around Requested:**
- □ Immediate Attention
- □ Rush 24 Hours
- □ Rush 48 Hours
- X Rush 72 Hours
- □ Normal

**Report Options**
EDD _____
EDF* - 10% Surcharge____
*Global ID _____

*LAB USE ONLY*
**Jones Project #**
ST-18800
Page 1 of 2

Sample Condition as Recieved:
Chilled □ yes □ no
Sealed □ yes □ no

Sample Container / Preservative Abbreviations
AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

**Analysis Requested**

| Sample ID | Date | Sample Collection Time | Laboratory Sample ID | Preservative | Sample Container | Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP) | | OCPs (8081A) | Arsenic (6010B) | | | | | | | | Number of Containers | Notes & Special Instructions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SB1-0.5 | 12/13/2021 | 0714 | ST-18800-01 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB1-2.0 | 12/13/2021 | 0716 | ST-18800-02 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB2-0.5 | 12/13/2021 | 0710 | ST-18800-03 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB2-2.0 | 12/13/2021 | 0712 | ST-18800-04 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB3-0.5 | 12/13/2021 | 0720 | ST-18800-05 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB3-2.0 | 12/13/2021 | 0722 | ST-18800-06 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB4-0.5 | 12/13/2021 | 0725 | ST-18800-07 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB4-2.0 | 12/13/2021 | 0727 | ST-18800-08 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB5-0.5 | 12/13/2021 | 0730 | ST-18800-09 | Ice | Jar | S | | X | X | | | | | | | | 1 | |
| SB5-2.0 | 12/13/2021 | 0733 | ST-18800-10 | Ice | Jar | S | | X | X | | | | | | | | 1 | |

| | | | | |
|---|---|---|---|---|
| Relinquished By (Signature) | Printed Name: Sabrina Gonzalez | Received By (Signature) | Printed Name | 10 Total Number of Containers |
| Company: Leighton | Date: 12/13/21 Time: 1144 | Company | Date Time | |
| Relinquished By (Signature) | Printed Name | Received By Laboratory (Signature) | Printed Name: Juan Camacho | |
| Company | Date: Time | Company: Jones Env. | Date: 12-13-21 Time: 1144 | |

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

# Chain-of-Custody Record

JONES ENVIRONMENTAL, INC.
11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

**Client**
Leighton and Associates, Inc.

**Project Name**
Murrieta Hot Springs

**Project Address**
SE Jefferson Ave and Murrieta Hot Springs Rd

Murrieta, CA

**Email**
bmcculloch@leightongroup.com

**Phone**
949-681-4287

**Report To**
Brynn McCulloch

**Sampler**
Sabrina Gonzalez

**Date**
12/13/2021

**Client Project #**
13343.003

**Turn Around Requested:**
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☒ Rush 72 Hours
- ☐ Normal

**Report Options**
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

*LAB USE ONLY*
**Jones Project #**
ST-18800

Page 2 of 2

Sample Condition as Recieved:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Sample Container / Preservative Abbreviations

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MeOH - Methanol
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HNO3 - Nitric Acid
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**Analysis Requested**

| Sample ID | Date | Sample Collection Time | Laboratory Sample ID | Preservative | Sample Container | Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP) | OCPs (8081A) | Arsenic (6010B) | Number of Containers | Notes & Special Instructions |
|---|---|---|---|---|---|---|---|---|---|---|
| SB6-0.5 | 12/13/2021 | 0737 | ST-18800-11 | Ice | Jar | S | X | X | 1 | |
| SB6-2.0 | 12/13/2021 | 0741 | ST-18800-12 | Ice | Jar | S | X | X | 1 | |
| SB7-0.5 | 12/13/2021 | 0807 | ST-18800-13 | Ice | Jar | S | X | X | 1 | |
| SB7-2.0 | 12/13/2021 | 0810 | ST-18800-14 | Ice | Jar | S | X | X | 1 | |
| SB8-0.5 | 12/13/2021 | 0800 | ST-18800-15 | Ice | Jar | S | X | X | 1 | |
| SB8-2.0 | 12/13/2021 | 0805 | ST-18800-16 | Ice | Jar | S | X | X | 1 | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| | | | |
|---|---|---|---|
| Relinquished By (Signature) | Printed Name | Received By (Signature) | Printed Name |
| | Sabrina Gonzalez | | |
| Company | Date / Time | Company | Date / Time |
| Leighton | 12/13/21 1144 | | |
| Relinquished By (Signature) | Printed Name | Received By Laboratory (Signature) | Printed Name |
| | | | Juan Comacho |
| Company | Date: / Time | Company | Date / Time |
| | | | 12-13-21 1144 |

6 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

JONES ENVIRONMENTAL, INC.
714-449-9937
562-646-1611
11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
WWW.JONESENV.COM

# SAMPLE RECEIPT FORM

Jones ID: ST-18850

CLIENT: Leighton and Associates
PROJECT: 13343.003

DATE/TIME(LAB RECEIVED): 12-13-21 / 1144
LAB RECEIVED BY: JC

Delivered by: ☑ Client ☐ Jones Courier ☐ UPS / FedEx / USPS ☐ Other _____

**TEMPERATURE:** Thermometer ID: T-1 (Corrected Temp.) Calibration Due: 08/03/2022

| | | | | | |
|---|---|---|---|---|---|
| Temperature | Cooler #1 | 2.5 °C +/- the CF (-0.5°C) | 2.0 °C | Blank | Sample |
| Temperature | Cooler #2 | ____.____ °C +/- the CF (-0.5°C) | ____.____ °C | Blank | Sample |

Temp Criteria: 0 ≤ 6°C (NO frozen containers) Criteria met? ☑ Yes ☐ No

If criteria is not met:

Sample(s) received on ice? ☐ Yes ☐ No*

Sample(s) received chilled on same day of sampling? ☐ Yes ☐ No*

Checked by: JC

| SAMPLE CONDITION: | YES | NO* | N/A |
|---|---|---|---|
| Chain of Custody (COC) received filled out completely | ☑ | ☐* | ☐ |
| Total number of containers received match COC | ☑ | ☐* | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐* | ☐ |
| Sample container(s) intact and in good condition | ☑ | ☐* | ☐ |
| Proper containers and sufficient volume for analyses requested on COC | ☑ | ☐* | ☐ |
| Proper preservative indicated on COC/containers for analyses requested | ☐ | ☐* | ☑ |
| Volatile analysis container(s) free of headspace (EPA 8260 water) | ☐ | ☐* | ☑ |
| Custody Seals Intact on Cooler/Sample | ☐ | ☐* | ☑ |

**CONTAINER TYPE:**

Solid:
VOAs: ____
Glass Jar: 16
Sleeve: ____
Other: ____

Aqueous:
Amber Bottle: ____
VOAs: ____
Poly Bottle: ____

Air / Soil Gas:
Tedlar Bag: ____
6 hr
72 hr
5 Day
Summa:
(1L) ____ (6L) ____

**MILEAGE:**

Round Trip Mileage: _____ Travel Time: _____ On Site Time: _____

*Complete Non-Conformance if checked*

Checked by: JC

09.21.2021 - Version 5.1

# APPENDIX I

# Important Information about This

# Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

## Beware of Change; Keep Your Geoenvironmental Professional Advised

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

## Recognize the Impact of Time

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

## Prepare To Deal with Unanticipated Conditions

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental

professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change*, sometimes suddenly, due to any number of events, not the least of which include occurrences at adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered,* because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

## Do Not Permit Any Other Party To Rely on the Report

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

## Avoid Misinterpretation of the Report

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

## Give Contractors Access to the Report

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

## Do Not Separate Documentation from the Report

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

## Understand the Role of Standards

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care. Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

## Realize That Recommendations May Not Be Final

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

## Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

## Read Responsibility Provisions Closely

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

## Rely on Your Geoenvironmental Professional for Additional Assistance

Membership in the Geoprofessional Business Association exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your GBA-member geoenvironmental professional for more information.

GEOPROFESSIONAL BUSINESS ASSOCIATION

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

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d. Low nutrient compost used in BSM shall be sourced from a facility permitted through CalRecyle, preferably through USCC STA program. Compost shall conform to the following requirements: Physical contaminants <1% by dry weight; Carbon:Nitrogen ratio: 12:1 to 40:1, Maturity/Stability shall conform to either: Solvita Maturity Index: ≥ 5.5, CO2 Evolution: < 2.5 mg CO2-C per g compost organic matter per day, or < 5 mg CO2 – shall be more than 6 months old and representative of current stockpiles.
e. Coconut coir pith used in BSM shall be thoroughly rinsed with freshwater and screened to remove coarse fibers as part of production and aged > 6 months. Peat used in BSM shall be sphagnum peat.

Potential BSM sources may include (not part of construction note): Gail Materials (Temescal Valley), Agriservice (Oceanside), Greatsoils (Escondido), and Earthworks (Riverside).

Potential Laboratories may include (not part of construction note): Fruit Growers Laboratory, Inc. (Santa Paula, http://www.fglinc.com/), Wallace Laboratories (El Segundo, http://us.wlabs.com/), Control Labs (Watsonville, http://controllabs.com) and A&L Western Laboratories (Modesto, http://www.al-labs-west.com/)

# Appendix 5: LID Feasibility Supplemental Information

*Information that supports or supplements the determination of LID technical feasibility documented in Section D*

Examples of material to provide in Appendix 5 may include but are not limited to the following:

- Technical feasibility criteria for DMAs
- Site specific analysis of technical infeasibility of all LID BMPs (if Alternative Compliance is needed)
- Documentation of Approval criteria for Proprietary Biofiltration BMPs

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 2.3 of the SMR WQMP and Sections D of this Template.

Bio Clean

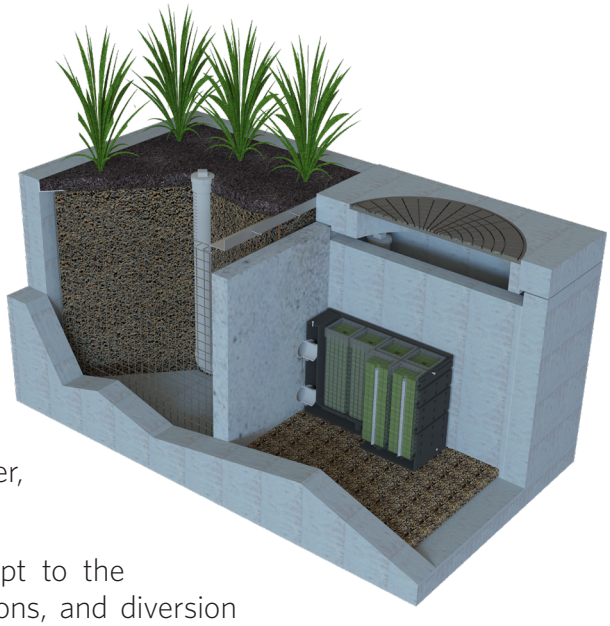
A Forterra Company

# Modular Wetlands® Linear

## A Stormwater Biofiltration Solution



# OVERVIEW



The Modular Wetlands® Linear is the only biofiltration system to utilize patented horizontal flow, allowing for a smaller footprint, higher treatment capacity, and a wide range of adaptability. The Modular Wetlands® is also the only pre-packaged subsurface flow wetland for stormwater treatment. While most biofilters use little or no pretreatment, the Modular Wetlands Linear incorporates an advanced pretreatment chamber that includes separation and pre-filter boxes. In this chamber, sediment and hydrocarbons are removed from runoff before entering the biofiltration chamber, reducing maintenance costs and improving performance.

Horizontal flow also gives the system the unique ability to adapt to the environment through a variety of configurations, bypass orientations, and diversion applications.

### The Urban Impact

For hundreds of years, natural wetlands surrounding our shores have played an integral role as nature's stormwater treatment system. But as cities grow and develop, our environment's natural filtration systems are blanketed with impervious roads, rooftops, and parking lots.

Bio Clean understands this loss and has spent years re-establishing nature's presence in urban areas, and rejuvenating waterways with the Modular Wetlands Linear.

*Also known as: Modular Wetlands®, Modular Wetlands® System Linear, Modwet™, or MWS Linear™.

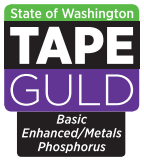
## PERFORMANCE

The Modular Wetlands Linear continues to outperform other treatment methods with superior pollutant removal for TSS, heavy metals, nutrients, hydrocarbons, and bacteria. The Modular Wetlands Linear is field-tested on numerous sites across the country and is proven to effectively remove pollutants through a combination of physical, chemical, and biological filtration processes.

| | | | | |
|---|---|---|---|---|
| **66%** REMOVAL OF DISSOLVED ZINC | **69%** REMOVAL OF TOTAL ZINC | **38%** REMOVAL OF DISSOLVED COPPER | **85%** REMOVAL OF TSS | **100%** REMOVAL OF TRASH |
| **45%** REMOVAL OF NITROGEN | **50%** REMOVAL OF TOTAL COPPER | **95%** REMOVAL OF MOTOR OIL | **67%** REMOVAL OF ORTHO PHOSPHORUS | **64%** REMOVAL OF TOTAL PHOSPHORUS |

# APPROVALS

The Modular Wetlands® Linear has successfully met years of challenging technical reviews and testing from some of the most prestigious and demanding agencies in the nation and perhaps the world.
Here is a list of some of the most high-profile approvals, certifications, and verifications from around the country.




### Washington State Department of Ecology TAPE Approved

The Modular Wetlands Linear (MWS-Linear) is approved for General Use Level Designation (GULD) for Basic, Enhanced, and Phosphorus treatment at 1 gpm/ft$^2$ loading rate. The highest performing BMP on the market for all main pollutant categories.




### California Water Resources Control Board, Full Capture Certification

The Modular Wetlands® Linear is the first biofiltration system to receive certification as a full capture trash treatment control device.




### Virginia Department of Environmental Quality, Assignment

The Virginia Department of Environmental Quality assigned the Modular Wetlands Linear the highest phosphorus removal rating for manufactured treatment devices to meet the new Virginia Stormwater Management Program (VSMP) regulation technical criteria.




### Maryland Department of the Environment, Approved ESD

Granted Environmental Site Design (ESD) status for new construction, redevelopment, and retrofitting when designed in accordance with the design manual.




### MASTEP Evaluation

The University of Massachusetts at Amherst – Water Resources Research Center issued a technical evaluation report noting removal rates up to 84% TSS, 70% total phosphorus, 68.5% total zinc, and more.




### Rhode Island Department of Environmental Management BMP Approval




### Texas Commission on Environmental Quality (TCEQ) Approval




### Atlanta Regional Commission Certification

## ADVANTAGES

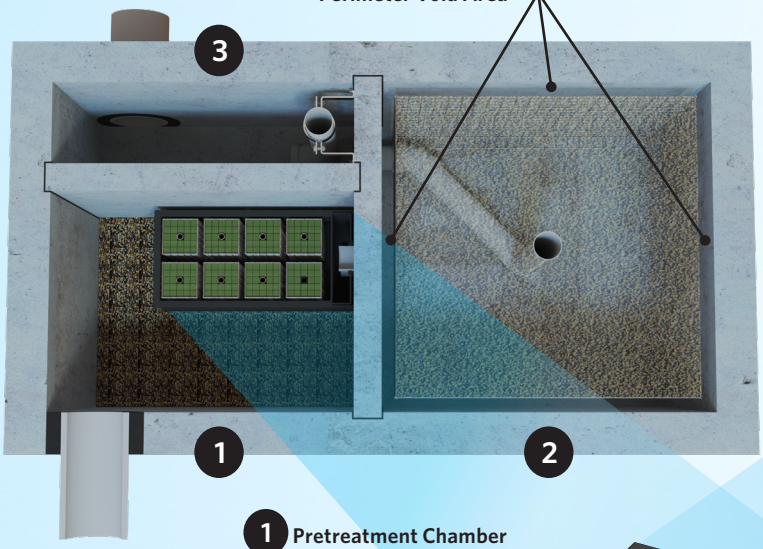
- HORIZONTAL FLOW BIOFILTRATION
- GREATER FILTER SURFACE AREA
- PRETREATMENT CHAMBER
- PATENTED PERIMETER VOID AREA
- FLOW CONTROL
- NO DEPRESSED PLANTER AREA
- AUTO DRAINDOWN MEANS NO MOSQUITO VECTOR

# DIAGRAMS

The Modular Wetlands® Linear biofilter supports superior root penetration and plant uptake of metals and nutrients with treatment that includes both aerobic and anaerobic zones.

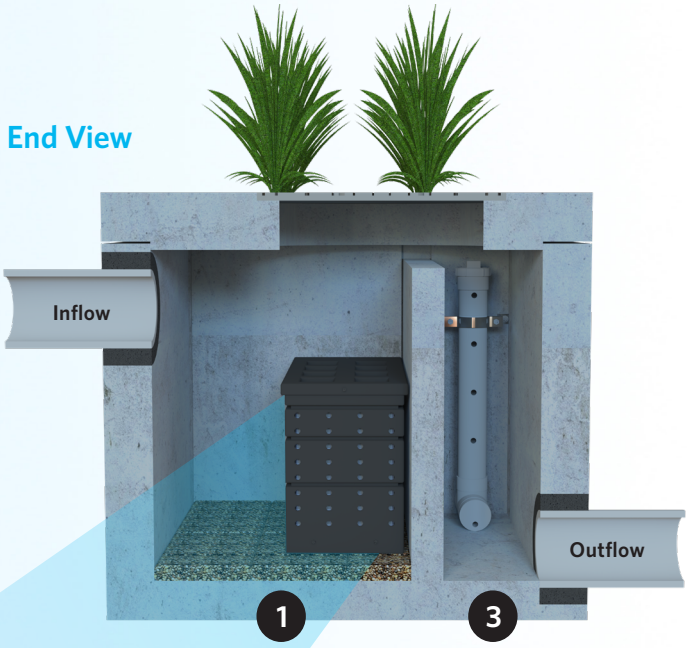
**Modular Wetlands Linear**
**Display Unit - 4x8 Vault Type Unit**

## Top View

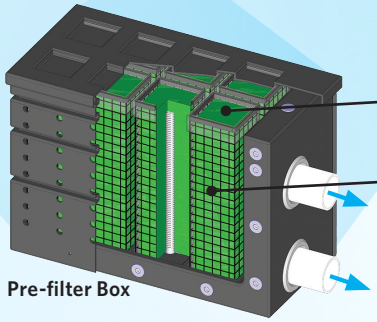



1 Pretreatment Chamber
2 Biofiltration Chamber
3 Discharge Chamber

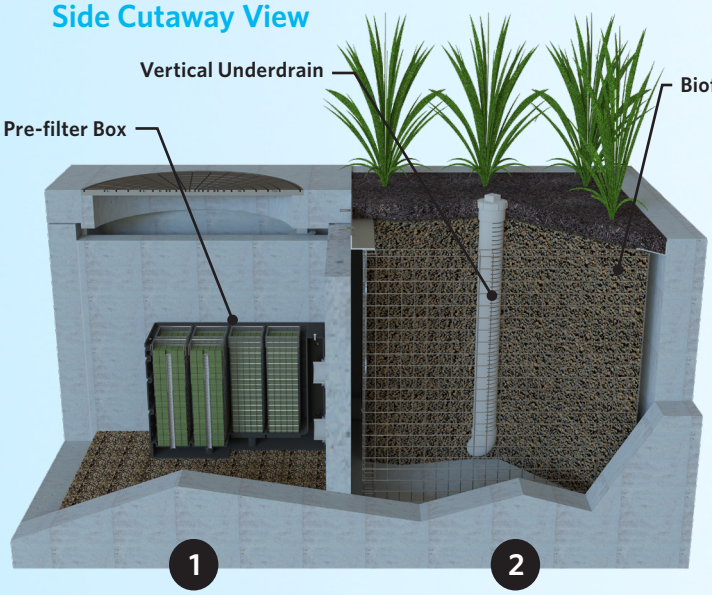
## End View




1 Pretreatment Chamber
3 Discharge Chamber

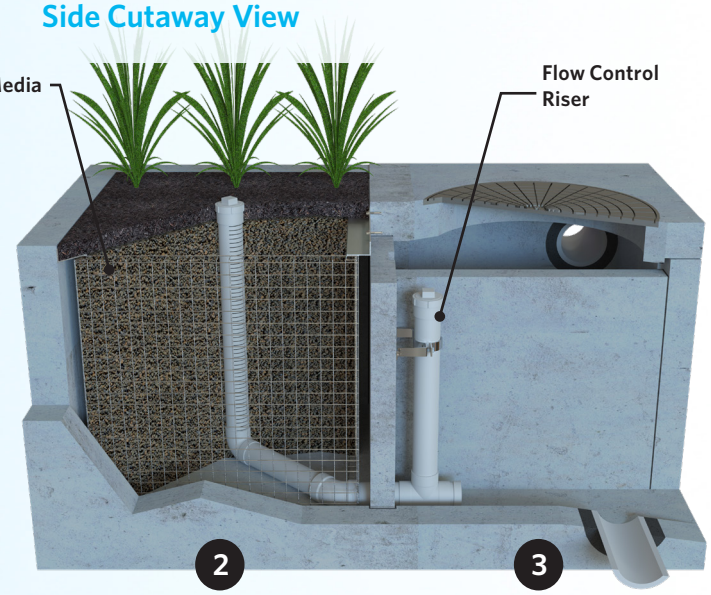



## Side Cutaway View



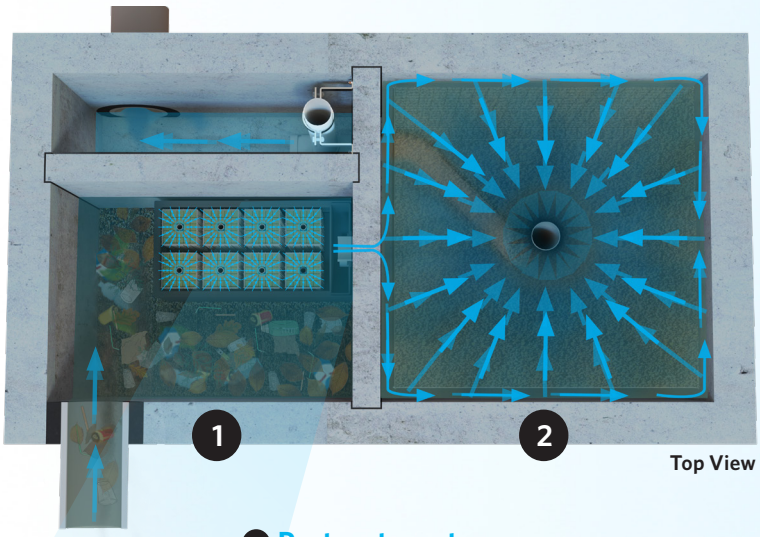

1 Pretreatment Chamber
2 Biofiltration Chamber

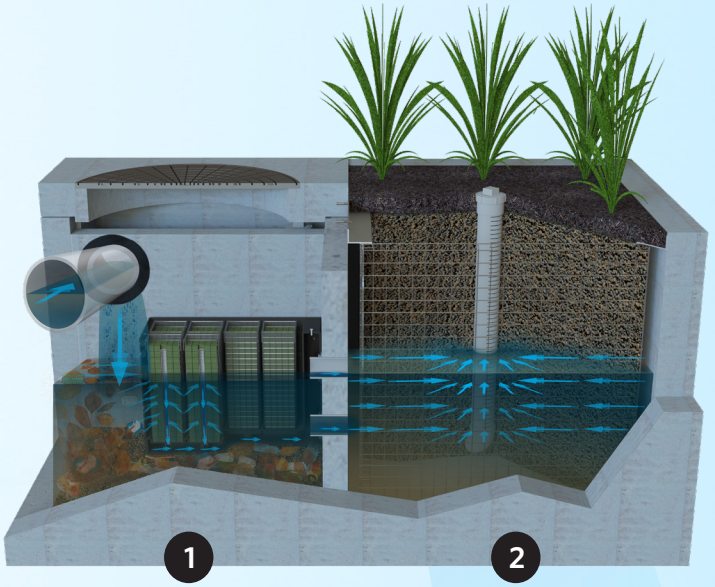
## Side Cutaway View



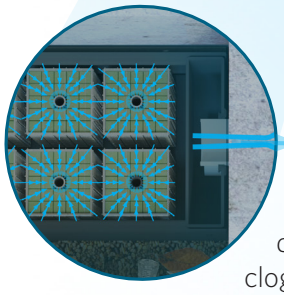

2 Biofiltration Chamber
3 Discharge Chamber

# OPERATION



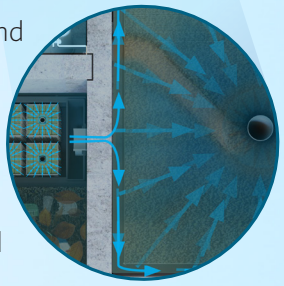

## ❶ Pretreatment

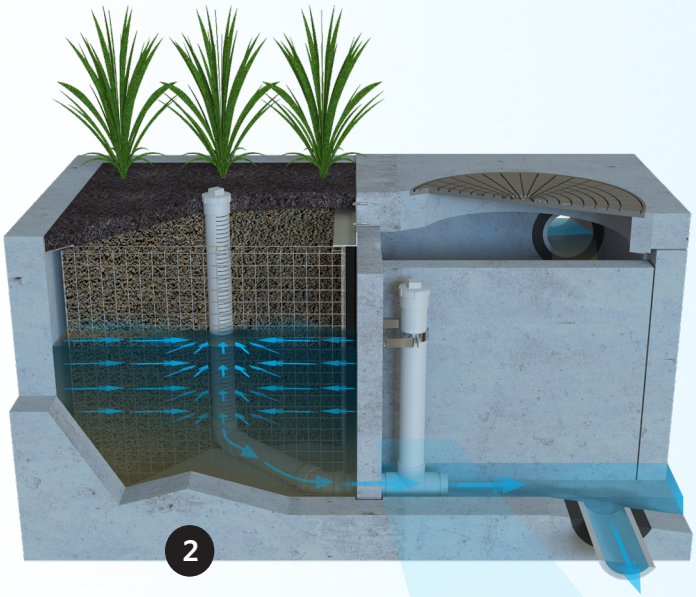


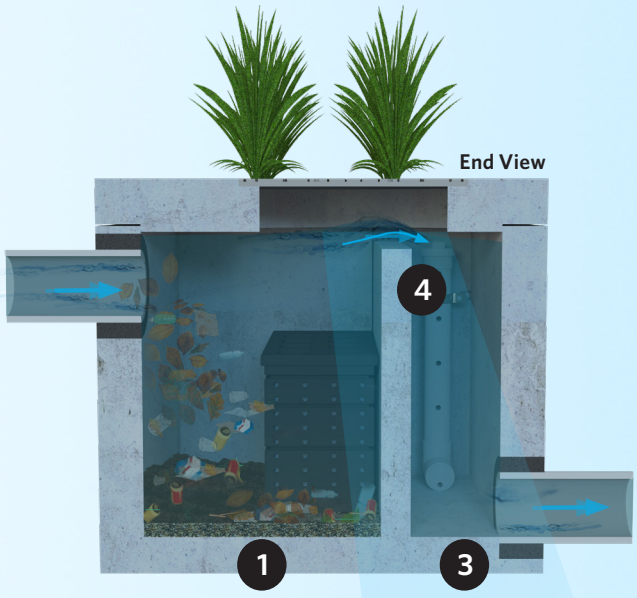
Stormwater and other pollutants all enter the pretreatment chamber first. The larger material remains contained within the pretreatment stage as stormwater travels through the pre-filter boxes and on to the biofiltration chamber. This design enhances treatment, prevents clogging, and expedites the maintenance process.

## ❷ Biofiltration

As water leaves the pre-filter box and enters the biofiltration chamber, it initially fills the void space at the perimeter of the biofiltration chamber. The water's horizontal force grows, pushing it inward toward the centrally located vertical drain pipe, and out to discharge.

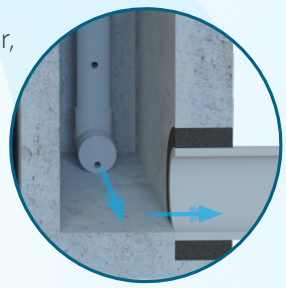




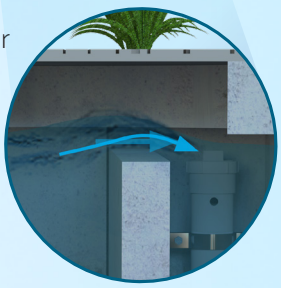

## ❸ Discharge

In the final stage or discharge chamber, the flow control riser (shown in the close-up) and the orifice plate, control the flow of water through the media to a level lower than the media's capacity. This extends the life of the media and improves performance.



## ❹ Bypass

In a side-by-side Modular Wetlands unit, the pretreatment and discharge chambers are adjacent to each other. Another unique advantage of horizontal flow. This allows unusually large flows to bypass the system to avoid flooding.



# SIZING CHART

## FLOW-BASED DESIGNS

The Modular Wetlands® Linear can be used in stand-alone applications to meet treatment flow requirements, and since it is the only biofiltration system that can accept inflow pipes several feet below the surface, it can be used in decentralized design applications as well as large central end-of-the-line applications.

| Model # | Dimensions | WetlandMEDIA Surface Area (sq.ft.) | Treatment Flow Rate (cfs) |
|---|---|---|---|
| MWS-L-4-4 | 4'x4' | 23 | 0.052 |
| MWS-L-4-6 | 4'x6' | 32 | 0.073 |
| MWS-L-4-8 | 4'x8' | 50 | 0.115 |
| MWS-L-8-8 | 8'x8' | 100 | 0.230 |
| MWS-L-8-12 | 8'x12' | 151 | 0.346 |
| MWS-L-8-16 | 8'x16' | 201 | 0.462 |
| MWS-L-8-20 | 8'x20' | 252 | 0.577 |
| MWS-L-8-24 | 8'x24' | 302 | 0.693 |

# APPLICATIONS



The Modular Wetlands® Linear has been successfully used on numerous new construction and retrofit projects. The system's superior versatility makes it beneficial for a wide range of stormwater and waste water applications.

### INDUSTRIAL

The Modular Wetlands has helped various sites meet difficult EPA-mandated effluent limits for dissolved metals and other pollutants.

### RESIDENTIAL

Low to high density developments can benefit from the versatile design of the Modular Wetlands. The system can be used in both decentralized LID design and cost-effective end-of-the-line configurations.

### STREETS

The Modular Wetlands is extremely space efficient, and adept to meeting special constraints of existing utilities on retrofit projects.

### PARKING LOTS

Parking lots are designed to maximize space and the Modular Wetlands' 4 ft. standard planter width allows for easy integration into parking lot islands and other landscape medians.

### COMMERCIAL

Compared to bioretention systems, the Modular Wetlands can treat far more area in less space, meeting treatment and volume control requirements.

**More applications include:**

• Agriculture • Reuse • Low Impact Development • Waste Water • Mixed Use

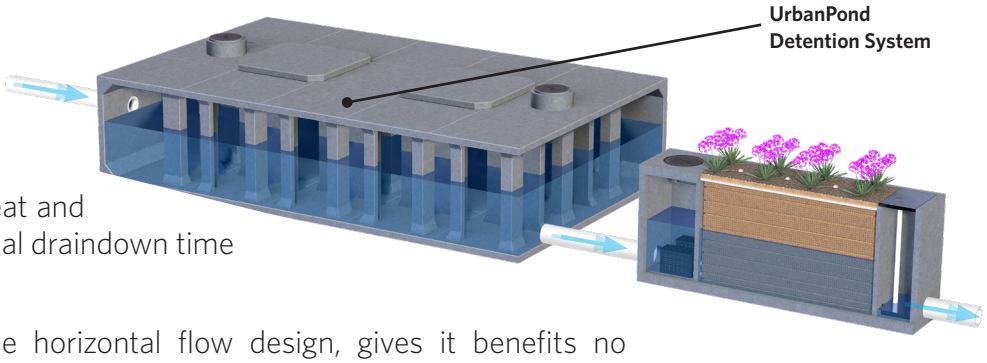
# HORIZONTAL FLOW ADVANTAGES

## VOLUME-BASED DESIGNS



### URBANPOND™ PRESTORAGE

In the example above, the Modular Wetlands Linear is installed downstream of the UrbanPond storage system. The Modular Wetlands Linear is designed for the water quality volume and will treat and discharge the required volume within local draindown time requirements.




The Modular Wetlands Linear's unique horizontal flow design, gives it benefits no other biofilter has - the ability to be placed downstream of detention ponds, extended dry detention basins, underground storage systems and permeable paver reservoirs. The system's horizontal flow configuration and built-in orifice control allows it to be installed with just 6" of fall between inlet and outlet pipe for a simple connection to projects with shallow downstream tie-in points.

### DESIGN SUPPORT

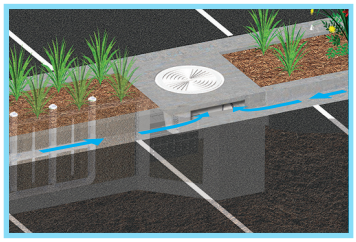
Volume control and hydromodification regulations are expanding the need to decrease the cost and size of your biofiltration system. Bio Clean will help you realize these cost savings with the Modular Wetlands Linear. Bio Clean engineers are aware of state and local regulations, and they are trained to provide you with superior support, so they can optimize a system to maximize feasibility.

## ADVANTAGES

- LOWER COST THAN FLOW-BASED DESIGN
- MEETS LID REQUIREMENTS
- BUILT-IN ORIFICE CONTROL STRUCTURE
- WORKS WITH DEEP INSTALLATIONS

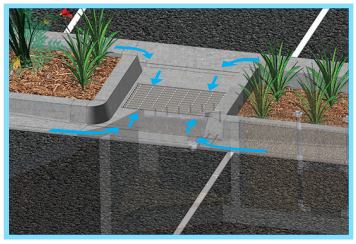
# CONFIGURATIONS

The Modular Wetlands® Linear is the preferred biofiltration system of civil engineers across the country due to its versatile design. This highly versatile system has available "pipe-in" options on most models, along with built-in curb or grated inlets for simple integration into your storm drain design.



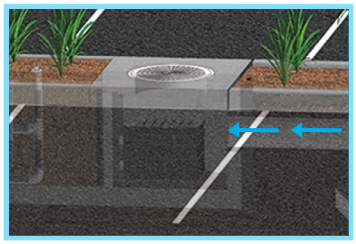
### CURB TYPE

The Curb Type configuration accepts sheet flow through a curb opening and is commonly used along roadways and parking lots. It can be used in sump or flow-by conditions. Length of curb opening varies based on model and size.



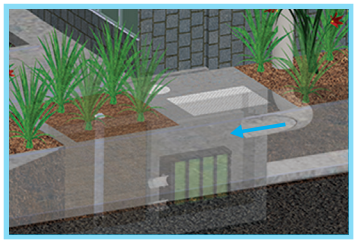
### GRATE TYPE

The Grate Type configuration offers the same features and benefits as the Curb Type but with a grated/drop inlet above the system's pretreatment chamber. It has the added benefit of allowing pedestrian access over the inlet. The Grate Type can also be used in scenarios where runoff needs to be intercepted on both sides of landscape islands.



### VAULT TYPE

Modular Wetlands® can be used in end-of-the-line installations. This greatly improves feasibility over typical decentralized designs that are required with other biofiltration/bioretention systems. Another benefit of the "pipe-in" design is the ability to install the system downstream of underground detention systems to meet water quality volume requirements, or for traffic-rated designs (no plants).



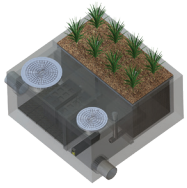
### DOWNSPOUT TYPE

The Downspout Type is a variation of the Vault Type and is designed to accept a vertical downspout pipe from rooftop and podium areas. Some models have the option of utilizing an internal bypass, simplifying the overall design. The system can be installed as a raised planter, and the exterior can be stuccoed or covered with other finishes to match the look of adjacent buildings.

# ORIENTATIONS

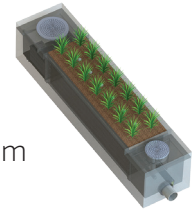
### Side-by-Side (Internal Bypass)

The Side-by-Side orientation places the pretreatment and discharge chamber adjacent to one another with the biofiltration chamber running parallel on either side.



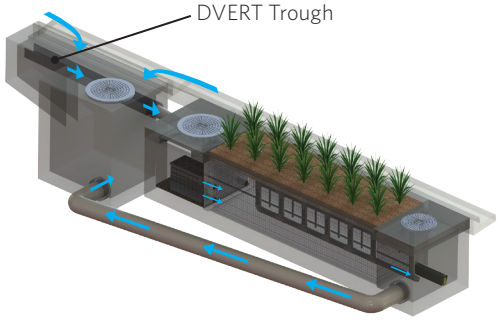
### End-to-End

The End-To-End orientation places the pretreatment and discharge chambers on opposite ends of the biofiltration chamber, therefore minimizing the width of the system to 5 ft. (outside dimension).



### Dvert Low-Flow Diversion

A simple diversion trough can be installed in existing or new curb and grate inlets to divert the first flush to the Modular Wetlands Linear, and then back to the catch basin outlet.




### External Diversion Weir Structure

This traditional offline diversion method can be used with the Modular Wetlands® Linear in scenarios where runoff is being piped to the system.

# PLANT SELECTION



Abundant plants, trees, and grasses bring value and an aesthetic benefit to any urban setting, but those in the Modular Wetlands® System Linear do even more - they increase pollutant removal. What's not seen, but very important, is that below grade, the stormwater runoff/flow is being subjected to nature's secret weapon: a dynamic physical, chemical, and biological process working to break down and remove non-point source pollutants. The flow rate is controlled in the Modular Wetlands®, giving the plants more contact time so that pollutants are more successfully decomposed, volatilized, and incorporated into the biomass of the Modular Wetlands'® micro/macro flora and fauna.

A wide range of plants are suitable for use in the Modular Wetlands®, but selections vary by location and climate. View suitable plants by visiting biocleanenvironmental.com/plants.

# INSTALLATION



The Modular Wetlands® is simple, easy to install, and has a space-efficient design that offers lower excavation and installation costs compared to traditional tree-box type systems. The structure of the system resembles precast catch basin or utility vaults and is installed in a similar fashion.

The system is delivered fully assembled for quick installation. Generally, the structure can be unloaded and set in place in 15 minutes. Our experienced team of field technicians is available to supervise installations and provide technical support.

# MAINTENANCE



Reduce your maintenance costs, man hours, and materials with the Modular Wetlands®. Unlike other biofiltration systems that provide no pretreatment, the Modular Wetlands® is a self-contained treatment train which incorporates simple and effective pretreatment.

Maintenance requirements for the biofilter itself are almost completely eliminated, as the pretreatment chamber removes and isolates trash, sediments, and hydrocarbons. What's left is the simple maintenance of an easily accessible pretreatment chamber that can be cleaned by hand or with a standard vac truck. Only periodic replacement of low-cost media in the pre-filter cartridges is required for long-term operation, and there is absolutely no need to replace expensive biofiltration media.







Bio Clean
A Forterra Company

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stormwater@forterrabp.com
biocleanenvironmental.com

0324_2022

WASHINGTON STATE DEPARTMENT OF ECOLOGY

**August 2021**

# GENERAL USE LEVEL DESIGNATION FOR BASIC (TSS) ENHANCED AND PHOSPHORUS TREATMENT

## For

## MWS-Linear Modular Wetland

### Ecology's Decision

Based on Modular Wetland Systems, Inc, application submissions, including the Technical Evaluation Report, dated April 1, 2014, Ecology hereby issues the following use level designation:

1. General Use Level Designation (GULD) for the MWS-Linear Modular Wetland Stormwater Treatment System for Basic, Phosphorus, and Enhanced treatment
    - Sized at a hydraulic loading rate of:
        - 1 gallon per minute (gpm) per square foot (sq ft) of Wetland Cell Surface Area
        - Prefilter box (approved at either 22 inches or 33 inches tall)
            - 3.0 gpm/sq ft of prefilter box surface area for moderate pollutant loading rates (low to medium density residential basins).
            - 2.1 gpm/sq ft of prefilter box surface area for high pollutant loading rates (commercial and industrial basins).
2. Ecology approves the MWS – Linear Modular Wetland Stormwater Treatment System units for Basic, Phosphorus, and Enhanced treatment at the hydraulic loading rate listed above. Designers shall calculate the water quality design flow rates using the following procedures:
    - Western Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute water quality treatment design flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology- approved continuous runoff model.

- Eastern Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute water quality treatment design flow rate as calculated using one of the three methods described in Chapter 2.2.5 of the Stormwater Management Manual for Eastern Washington (SWMMEW) or local manual.
- Entire State: For treatment installed downstream of detention, the water quality treatment design flow rate is the full 2-year release rate of the detention facility.

3. These use level designations have no expiration date but may be amended or revoked by Ecology, and are subject to the conditions specified below.

**Ecology's Conditions of Use**

Applicants shall comply with the following conditions:

1) Design, assemble, install, operate, and maintain the MWS – Linear Modular Wetland Stormwater Treatment System units, in accordance with Modular Wetland Systems, Inc. applicable manuals and documents and the Ecology Decision.
2) Each site plan must undergo Modular Wetland Systems, Inc. review and approval before site installation. This ensures that site grading and slope are appropriate for use of a MWS – Linear Modular Wetland Stormwater Treatment System unit.
3) MSW – Linear Modular Wetland Stormwater Treatment System media shall conform to the specifications submitted to and approved by Ecology.
4) The applicant tested the MWS – Linear Modular Wetland Stormwater Treatment System with an external bypass weir. This weir limited the depth of water flowing through the media, and therefore the active treatment area, to below the root zone of the plants. This GULD applies to MWS – Linear Modular Wetland Stormwater Treatment Systems whether plants are included in the final product or not.
5) Maintenance: The required maintenance interval for stormwater treatment devices is often dependent upon the degree of pollutant loading from a particular drainage basin. Therefore, Ecology does not endorse or recommend a "one size fits all" maintenance cycle for a particular model/size of stormwater treatment technology.
    - Typically, Modular Wetland Systems, Inc. designs MWS – Linear Modular Wetland systems for a target prefilter media life of 6 to 12 months.
    - Indications of the need for maintenance include effluent flow decreasing to below the design flow rate or decrease in treatment below required levels.
    - Owners/operators must inspect MWS – Linear Modular Wetland systems for a minimum of twelve months from the start of post-construction operation to determine site-specific maintenance schedules and requirements. You must conduct inspections monthly during the wet season, and every other month during the dry season (According to the SWMMWW, the wet season in western Washington is October 1 to April

30. According to the SWMMEW, the wet season in eastern Washington is October 1 to June 30). After the first year of operation, owners/operators must conduct inspections based on the findings during the first year of inspections.

- Conduct inspections by qualified personnel, follow manufacturer's guidelines, and use methods capable fo determining either a decrease in treated effluent flowrate and/or a decrease in pollutant removal ability.
- When inspections are performed, the following findings typically serve as maintenance triggers:
    - Standing water remains in the vault between rain events, or
    - Bypass occurs during storms smaller than the design storm.
    - If excessive floatables (trash and debris) are present (but no standing water or excessive sedimentation), perform a minor maintenance consisting of gross solids removal, not prefilter media replacement.
    - Additional data collection will be used to create a correlation between pretreatment chamber sediment depth and pre-filter clogging (see *Issues to be Addressed by the Company* section below)

6) Discharges from the MWS – Linear Modular Wetland Stormwater Treatment System units shall not cause or contribute to water quality standards violations in receiving waters.

| | |
|---|---|
| **Applicant:** | Modular Wetland Systems, Inc. |
| **Applicant's Address:** | 5796 Armada Drive, Suite 250<br>Carlsbad, CA 92008 |

**Application Documents:**

*Original Application for Conditional Use Level Designation,* Modular Wetland System, Linear Stormwater Filtration System Modular Wetland Systems, Inc., January 2011

*Quality Assurance Project Plan:* Modular Wetland System – Linear Treatment System Performance Monitoring Project, draft, January 2011

*Revised Application for Conditional Use Level Designation,* Modular Wetland System, Linear Stormwater Filtration System Modular Wetland Systems, Inc., May 2011

*Memorandum: Modular Wetland System-Linear GULD Application Supplementary Data,* April 2014

*Technical Evaluation Report: Modular Wetland System Stormwater Treatment System Performance Monitoring,* April 2014

**Applicant's Use Level Request:**

- General Use Level Designation as a Basic, Enhanced, and Phosphorus treatment device in accordance with Ecology's Guidance for Evaluating Emerging Stormwater Treatment Technologies Technology Assessment Protocol – Ecology (TAPE) January 2011 Revision.

**Applicant's Performance Claims:**

- The MWS – Linear Modular wetland is capable of removing a minimum of 80-percent of TSS from stormwater with influent concentrations between 100 and 200 mg/L.
- The MWS – Linear Modular wetland is capable of removing a minimum of 50-percent of total phosphorus from stormwater with influent concentrations between 0.1 and 0.5 mg/L.
- The MWS – Linear Modular wetland is capable of removing a minimum 30-percent of dissolved copper from stormwater with influent concentrations between 0.005 and 0.020 mg/L.
- The MWS – Linear Modular wetland is capable of removing a minimum 60-percent of dissolved zinc from stormwater with influent concentrations between 0.02 and 0.30 mg/L.

**Ecology's Recommendations:**

- Modular Wetland System, Inc. has shown Ecology, through laboratory and field-testing, that the MWS – Linear Modular Wetland Stormwater Treatment System filter system is capable of attaining Ecology's Basic, Phosphorus, and Enhanced treatment goals.

**Findings of Fact:**

<u>Laboratory Testing</u>

The MWS-Linear Modular wetland has the:

- Capability to remove 99 percent of total suspended solids (using Sil-Co-Sil 106) in a quarter-scale model with influent concentrations of 270 mg/L.
- Capability to remove 91 percent of total suspended solids (using Sil-Co-Sil 106) in laboratory conditions with influent concentrations of 84.6 mg/L at a flow rate of 3.0 gpm per square foot of media.
- Capability to remove 93 percent of dissolved Copper in a quarter-scale model with influent concentrations of 0.757 mg/L.
- Capability to remove 79 percent of dissolved Copper in laboratory conditions with influent concentrations of 0.567 mg/L at a flow rate of 3.0 gpm per square foot of media.

- Capability to remove 80.5-percent of dissolved Zinc in a quarter-scale model with influent concentrations of 0.95 mg/L at a flow rate of 3.0 gpm per square foot of media.
- Capability to remove 78-percent of dissolved Zinc in laboratory conditions with influent concentrations of 0.75 mg/L at a flow rate of 3.0 gpm per square foot of media.

Field Testing

- Modular Wetland Systems, Inc. conducted monitoring of an MWS-Linear (Model # MWS-L-4-13) from April 2012 through May 2013, at a transportation maintenance facility in Portland, Oregon. The manufacturer collected flow-weighted composite samples of the system's influent and effluent during 28 separate storm events. The system treated approximately 75 percent of the runoff from 53.5 inches of rainfall during the monitoring period. The applicant sized the system at 1 gpm/sq ft. (wetland media) and 3gpm/sq ft. (prefilter).
- Influent TSS concentrations for qualifying sampled storm events ranged from 20 to 339 mg/L. Average TSS removal for influent concentrations greater than 100 mg/L (n=7) averaged 85 percent. For influent concentrations in the range of 20-100 mg/L (n=18), the upper 95 percent confidence interval about the mean effluent concentration was 12.8 mg/L.
- Total phosphorus removal for 17 events with influent TP concentrations in the range of 0.1 to 0.5 mg/L averaged 65 percent. A bootstrap estimate of the lower 95 percent confidence limit (LCL95) of the mean total phosphorus reduction was 58 percent.
- The lower 95 percent confidence limit of the mean percent removal was 60.5 percent for dissolved zinc for influent concentrations in the range of 0.02 to 0.3 mg/L (n=11). The lower 95 percent confidence limit of the mean percent removal was 32.5 percent for dissolved copper for influent concentrations in the range of 0.005 to 0.02 mg/L (n=14) at flow rates up to 28 gpm (design flow rate 41 gpm). Laboratory test data augmented the data set, showing dissolved copper removal at the design flow rate of 41 gpm (93 percent reduction in influent dissolved copper of 0.757 mg/L).

**Issues to be addressed by the Company:**

1. Modular Wetland Systems, Inc. should collect maintenance and inspection data for the first year on all installations in the Northwest in order to assess standard maintenance requirements for various land uses in the region. Modular Wetland Systems, Inc. should use these data to establish required maintenance cycles.
2. Modular Wetland Systems, Inc. should collect pre-treatment chamber sediment depth data for the first year of operation for all installations in the Northwest. Modular Wetland Systems, Inc. will use these data to create a correlation between sediment depth and pre-filter clogging.

**Technology Description:**
Download at http://www.modularwetlands.com/

**Contact Information:**


Applicant: Zach Kent
BioClean A Forterra Company
5796 Armada Drive, Suite 250
Carlsbad, CA 92008
zach.kent@forterrabp.com

Applicant website: http://www.modularwetlands.com/

Ecology web link: http://www.ecy.wa.gov/programs/wg/stormwater/newtech/index.html

Ecology: Douglas C. Howie, P.E. Department of Ecology Water Quality Program
(360) 870-0983
douglas.howie@ecy.wa.gov


**Revision History**

| Date | Revision |
|---|---|
| June 2011 | Original use-level-designation document |
| September 2012 | Revised dates for TER and expiration |
| January 2013 | Modified Design Storm Description, added Revision Table, added maintenance discussion, modified format in accordance with Ecology standard |
| December 2013 | Updated name of Applicant |
| April 2014 | Approved GULD designation for Basic, Phosphorus, and Enhanced treatment |
| December 2015 | Updated GULD to document the acceptance of MWS – Linear Modular Wetland installations with or without the inclusion of plants |
| July 2017 | Revised Manufacturer Contact Information (name, address, and email) |
| December 2019 | Revised Manufacturer Contact Address |
| July 2021 | Added additional prefilter sized at 33 inches |
| August 2021 | Changed “Prefilter” to “Prefilter box” |

# Appendix 6: LID BMP Design Details

*BMP Sizing, Design Details and other Supporting Documentation to supplement Section D*

Examples of material to provide in Appendix 6 may include but are not limited to the following:

- DCV calculations,
- LID BMP sizing calculations from Exhibit C of the SMR WQMP
- Design details/drawings from manufacturers for proprietary BMPs

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 3.4 of the SMR WQMP and Sections D.4 of this Template.

**DCV Calculations- Flow**

| PROPOSED CONDITIONS | | | | | | | |
|---|---|---|---|---|---|---|---|
| | DA-1 | DA-2 | DA-3 | DA-4 | DA-5 | Total (sf) | Total (AC) |
| Area (s.f.) | 122,126 | 140,165 | 51,427 | 75,292 | 178,824 | 567,834 | 13.04 |
| Pervious Area (s.f.) | 15645 | 12913 | 1485 | 6958 | 25265 | 62,267 | 1.43 |
| Permeable Pavement (s.f) | 8780 | 15120 | 8800 | 8100 | 10500 | | |
| Impervious Area (s.f.) | 97701 | 112132 | 41142 | 60233 | 143059 | 454,267 | 10.43 |
| Percent Impervious (%) | 80% | 80% | 80% | 80% | 80% | 80% | |
| Effective Impervious Fraction, If | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.81 | |
| Area (AC) | 2.80 | 3.22 | 1.18 | 1.73 | 4.11 | | |

| DA-6 | Total (sf) | Total (AC) |
|---|---|---|
| 13,621 | 581,455 | 13.35 |
| | 62,267 | 1.43 |
| | | |
| 13621 | 467,888 | 10.74 |
| 100% | 80% | |
| 1.00 | 0.82 | |
| 0.31 | | |

# Effective Impervious Fraction

| Developed Cover Types | Effective Impervious Fraction |
|---|---|
| Roofs | 1.00 |
| Concrete or Asphalt | 1.00 |
| Grouted or Gapless Paving Blocks | 1.00 |
| Compacted Soil (e.g. unpaved parking) | 0.40 |
| Decomposed Granite | 0.40 |
| Permeable Paving Blocks w/ Sand Filled Gap | 0.25 |
| Class 2 Base | 0.30 |
| Gravel or Class 2 Permeable Base | 0.10 |
| Pervious Concrete / Porous Asphalt | 0.10 |
| Open and Porous Pavers | 0.10 |
| Turf block | 0.10 |
| Ornamental Landscaping | 0.10 |
| Natural (A Soil) | 0.03 |
| Natural (B Soil) | 0.15 |
| Natural (C Soil) | 0.30 |
| Natural (D Soil) | 0.40 |
| Mixed Surface Types | |

Use this table to determine the effective impervious fraction for the $V_{BMP}$ and $Q_{BMP}$ calculation sheets

# Santa Margarita Watershed

BMP Design Flow Rate, $Q_{BMP}$

Company Name: Kimley Horn and Associates, Inc. Date: 5/13/2020

Designed by: LAC County/City Case No:

Company Project Number/Name: UHS Rancho Springs

Drainage Area Number/Name: DMA 1

Enter the Area Tributary to this Feature $A_T$ = 2.80 acres

## Determine the Effective Impervious Fraction

Type of post-development surface cover: Mixed Surface Types

Effective Impervious Fraction $I_f$ = 0.82

## Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$

C = 0.62

## BMP Design Flow Rate

$Q_{BMP} = C \times I \times A_T$

$Q_{BMP}$ = 0.3495 $ft^3/s$

Notes:

# Santa Margarita Watershed

BMP Design Flow Rate, $Q_{BMP}$

Company Name: Kimley Horn and Associates, Inc. Date: 5/13/2020

Designed by: LAC County/City Case No:

Company Project Number/Name: UHS Rancho Springs

Drainage Area Number/Name: DMA 2

Enter the Area Tributary to this Feature $A_T$ = 3.22 acres

## Determine the Effective Impervious Fraction

Type of post-development surface cover: Mixed Surface Types

Effective Impervious Fraction $I_f$ = 0.82

## Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$

C = 0.62

## BMP Design Flow Rate

$Q_{BMP} = C \times I \times A_T$

$Q_{BMP}$ = 0.4011 $ft^3/s$

Notes:

# Santa Margarita Watershed

BMP Design Flow Rate, $Q_{BMP}$

Company Name: Kimley Horn and Associates, Inc. Date: 5/13/2020

Designed by: LAC County/City Case No:

Company Project Number/Name: UHS Rancho Springs

Drainage Area Number/Name: DMA 3

Enter the Area Tributary to this Feature $A_T$ = 1.18 acres

## Determine the Effective Impervious Fraction

Type of post-development surface cover: Mixed Surface Types

Effective Impervious Fraction $I_f$ = 0.82

## Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$

C = 0.62

## BMP Design Flow Rate

$Q_{BMP} = C \times I \times A_T$

$Q_{BMP}$ = 0.1472 $ft^3/s$

Notes:

# Santa Margarita Watershed

BMP Design Flow Rate, $Q_{BMP}$

Company Name: Kimley Horn and Associates, Inc. Date: 5/13/2020

Designed by: LAC County/City Case No:

Company Project Number/Name: UHS Rancho Springs

Drainage Area Number/Name: DMA 4

Enter the Area Tributary to this Feature $A_T$ = 1.73 acres

## Determine the Effective Impervious Fraction

Type of post-development surface cover: Mixed Surface Types

Effective Impervious Fraction $I_f$ = 0.82

## Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$

C = 0.62

## BMP Design Flow Rate

$Q_{BMP} = C \times I \times A_T$

$Q_{BMP}$ = 0.2155 $ft^3/s$

Notes:

# Santa Margarita Watershed

BMP Design Flow Rate, $Q_{BMP}$

Company Name: Kimley Horn and Associates, Inc. Date: 5/13/2020

Designed by: LAC County/City Case No:

Company Project Number/Name: UHS Rancho Springs

Drainage Area Number/Name: DMA 4

Enter the Area Tributary to this Feature $A_T$ = 4.11 acres

## Determine the Effective Impervious Fraction

Type of post-development surface cover: Mixed Surface Types

Effective Impervious Fraction $I_f$ = 0.82

## Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$

C = 0.6233

## BMP Design Flow Rate

$Q_{BMP} = C \times I \times A_T$

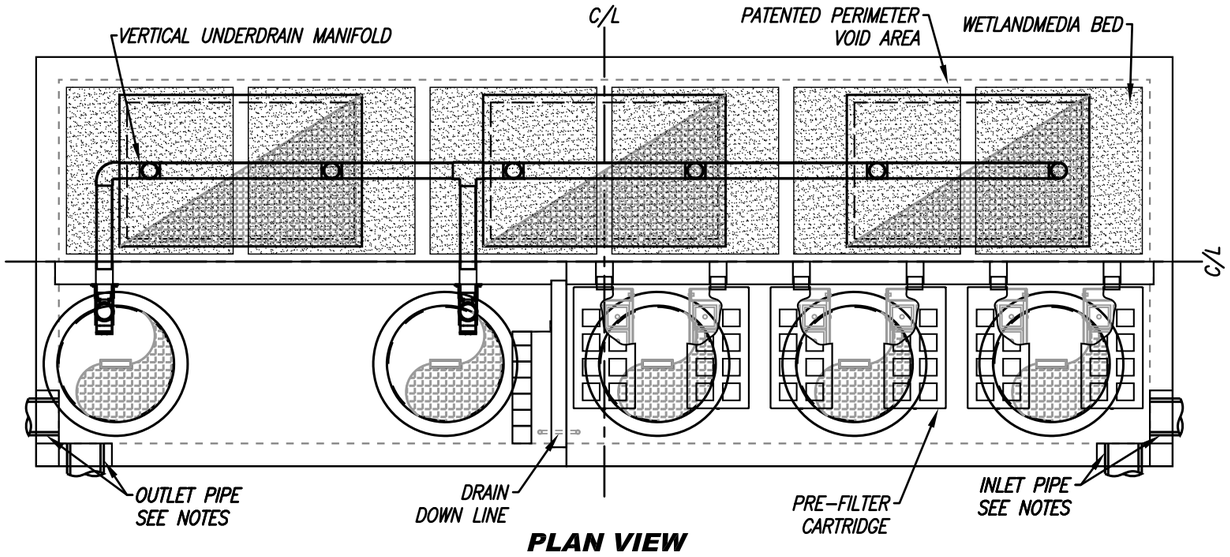
$Q_{BMP}$ = 0.5117 $ft^3/s$

Notes:

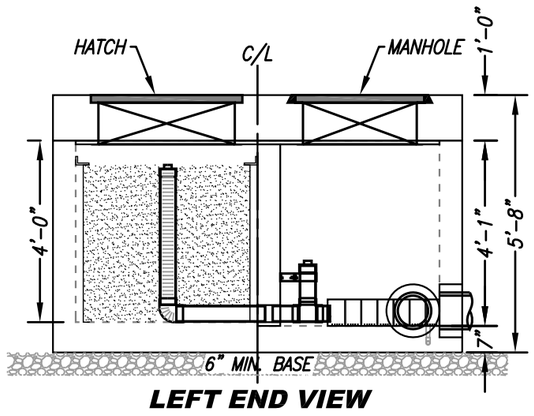
# MWS Linear 2.0 HGL Sizing Calculations

| MWS MODEL SIZE | WETLAND PERMITER LENGTH | LOADING RATE GPM/SF | HGL HEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SHALLOW MODELS | | | | | | | | | | | | | | | | | | | | STANDARD HEIGHT MODEL | HIGH CAPACITY MODELS | | | | | | | | |
| | | | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 3.6 | 3.65 | 3.70 | 3.75 | 3.80 | 3.85 | 3.90 | 3.95 |
| MWS-L-4-4 | 6.70 | 1.0 | 0.022 | 0.023 | 0.025 | 0.026 | 0.028 | 0.029 | 0.031 | 0.032 | 0.034 | 0.035 | 0.037 | 0.038 | 0.040 | 0.042 | 0.043 | 0.045 | 0.046 | 0.048 | 0.049 | 0.051 | 0.052 | 0.054 | 0.055 | 0.056 | 0.057 | 0.058 | 0.058 | 0.059 | 0.060 | 0.061 |
| MWS-L-3-6 | 10.06 | 1.0 | 0.032 | 0.035 | 0.037 | 0.039 | 0.042 | 0.044 | 0.046 | 0.048 | 0.051 | 0.053 | 0.055 | 0.058 | 0.060 | 0.062 | 0.065 | 0.067 | 0.069 | 0.072 | 0.074 | 0.076 | 0.078 | 0.081 | 0.083 | 0.084 | 0.085 | 0.087 | 0.088 | 0.089 | 0.090 | 0.091 |
| MWS-L-4-6 | 9.30 | 1.0 | 0.030 | 0.032 | 0.034 | 0.036 | 0.038 | 0.041 | 0.043 | 0.045 | 0.047 | 0.049 | 0.051 | 0.053 | 0.055 | 0.058 | 0.060 | 0.062 | 0.064 | 0.066 | 0.068 | 0.070 | 0.073 | 0.075 | 0.077 | 0.078 | 0.079 | 0.080 | 0.081 | 0.082 | 0.083 | 0.084 |
| MWS-L-4-8 | 14.80 | 1.0 | 0.048 | 0.051 | 0.054 | 0.058 | 0.061 | 0.065 | 0.068 | 0.071 | 0.075 | 0.078 | 0.082 | 0.085 | 0.088 | 0.092 | 0.095 | 0.099 | 0.102 | 0.105 | 0.109 | 0.112 | 0.115 | 0.119 | 0.122 | 0.124 | 0.126 | 0.127 | 0.129 | 0.131 | 0.132 | 0.134 |
| MWS-L-4-13 | 18.40 | 1.0 | 0.059 | 0.063 | 0.068 | 0.072 | 0.076 | 0.080 | 0.084 | 0.089 | 0.093 | 0.097 | 0.101 | 0.106 | 0.110 | 0.114 | 0.118 | 0.122 | 0.127 | 0.131 | 0.135 | 0.139 | 0.144 | 0.148 | 0.152 | 0.154 | 0.156 | 0.158 | 0.160 | 0.163 | 0.165 | 0.167 |
| MWS-L-4-15 | 22.40 | 1.0 | 0.072 | 0.077 | 0.082 | 0.087 | 0.093 | 0.098 | 0.103 | 0.108 | 0.113 | 0.118 | 0.123 | 0.129 | 0.134 | 0.139 | 0.144 | 0.149 | 0.154 | 0.159 | 0.165 | 0.170 | 0.175 | 0.180 | 0.185 | 0.188 | 0.190 | 0.193 | 0.195 | 0.198 | 0.200 | 0.203 |
| MWS-L-4-17 | 26.40 | 1.0 | 0.085 | 0.091 | 0.097 | 0.103 | 0.109 | 0.115 | 0.121 | 0.127 | 0.133 | 0.139 | 0.145 | 0.151 | 0.158 | 0.164 | 0.170 | 0.176 | 0.182 | 0.188 | 0.194 | 0.200 | 0.206 | 0.212 | 0.218 | 0.221 | 0.224 | 0.227 | 0.230 | 0.233 | 0.236 | 0.239 |
| MWS-L-4-19 | 30.40 | 1.0 | 0.098 | 0.105 | 0.112 | 0.119 | 0.126 | 0.133 | 0.140 | 0.147 | 0.153 | 0.160 | 0.167 | 0.174 | 0.181 | 0.188 | 0.195 | 0.202 | 0.209 | 0.216 | 0.223 | 0.230 | 0.237 | 0.244 | 0.251 | 0.255 | 0.258 | 0.262 | 0.265 | 0.269 | 0.272 | 0.276 |
| MWS-L-4-21 | 34.40 | 1.0 | 0.111 | 0.118 | 0.126 | 0.134 | 0.142 | 0.150 | 0.158 | 0.166 | 0.174 | 0.182 | 0.189 | 0.197 | 0.205 | 0.213 | 0.221 | 0.229 | 0.237 | 0.245 | 0.253 | 0.261 | 0.268 | 0.276 | 0.284 | 0.288 | 0.292 | 0.296 | 0.300 | 0.304 | 0.308 | 0.312 |
| MWS-L-6-8 | 18.80 | 1.0 | 0.060 | 0.065 | 0.069 | 0.073 | 0.078 | 0.082 | 0.086 | 0.091 | 0.095 | 0.099 | 0.104 | 0.108 | 0.112 | 0.116 | 0.121 | 0.125 | 0.129 | 0.134 | 0.138 | 0.142 | 0.147 | 0.151 | 0.155 | 0.157 | 0.160 | 0.162 | 0.164 | 0.166 | 0.168 | 0.170 |
| MWS-L-8-8 | 29.60 | 1.0 | 0.095 | 0.102 | 0.109 | 0.115 | 0.122 | 0.129 | 0.136 | 0.143 | 0.149 | 0.156 | 0.163 | 0.170 | 0.177 | 0.183 | 0.190 | 0.197 | 0.204 | 0.211 | 0.217 | 0.224 | 0.231 | 0.238 | 0.245 | 0.248 | 0.251 | 0.255 | 0.258 | 0.262 | 0.265 | 0.268 |
| MWS-L-8-12 | 44.40 | 1.0 | 0.143 | 0.153 | 0.163 | 0.173 | 0.183 | 0.194 | 0.204 | 0.214 | 0.224 | 0.234 | 0.245 | 0.255 | 0.265 | 0.275 | 0.285 | 0.296 | 0.306 | 0.316 | 0.326 | 0.336 | 0.346 | 0.357 | 0.367 | 0.372 | 0.377 | 0.382 | 0.387 | 0.392 | 0.397 | 0.402 |
| MWS-L-8-16 | 59.20 | 1.0 | 0.190 | 0.204 | 0.217 | 0.231 | 0.245 | 0.258 | 0.272 | 0.285 | 0.299 | 0.312 | 0.326 | 0.340 | 0.353 | 0.367 | 0.380 | 0.394 | 0.408 | 0.421 | 0.435 | 0.448 | 0.462 | 0.476 | 0.489 | 0.496 | 0.503 | 0.509 | 0.516 | 0.523 | 0.530 | 0.537 |
| MWS-L-8-20 | 74.00 | 1.0 | 0.238 | 0.255 | 0.272 | 0.289 | 0.306 | 0.323 | 0.340 | 0.357 | 0.374 | 0.391 | 0.408 | 0.425 | 0.442 | 0.459 | 0.476 | 0.493 | 0.509 | 0.526 | 0.543 | 0.560 | 0.577 | 0.594 | 0.611 | 0.620 | 0.628 | 0.637 | 0.645 | 0.654 | 0.662 | 0.671 |
| MWS-L-10-20 or MWS-L-8-24 | 88.80 | 1.0 | 0.285 | 0.306 | 0.326 | 0.346 | 0.367 | 0.387 | 0.408 | 0.428 | 0.448 | 0.469 | 0.489 | 0.509 | 0.530 | 0.550 | 0.571 | 0.591 | 0.611 | 0.632 | 0.652 | 0.673 | 0.693 | 0.713 | 0.734 | 0.744 | 0.754 | 0.764 | 0.774 | 0.785 | 0.795 | 0.805 |
| 4'x'4 media cage | 14.80 | 1.0 | 0.048 | 0.051 | 0.054 | 0.058 | 0.061 | 0.065 | 0.068 | 0.071 | 0.075 | 0.078 | 0.082 | 0.085 | 0.088 | 0.092 | 0.095 | 0.099 | 0.102 | 0.105 | 0.109 | 0.112 | 0.115 | 0.119 | 0.122 | 0.124 | | | | | | |

| SITE SPECIFIC DATA | | | |
|---|---|---|---|
| PROJECT NUMBER | | ---- | |
| PROJECT NAME | | ---- | |
| PROJECT LOCATION | | ---- | |
| STRUCTURE ID | | ---- | |
| TREATMENT REQUIRED | | | |
| VOLUME BASED (CF) | | FLOW BASED (CFS) | |
| N/A | | 0.693 | |
| TREATMENT HGL AVAILABLE (FT) | | | N/K |
| PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE | | | N/A |
| PIPE DATA | I.E. | MATERIAL | DIAMETER |
| INLET PIPE 1 | ---- | PVC | 8" |
| INLET PIPE 2 | N/A | N/A | N/A |
| OUTLET PIPE | 0.00 | PVC | 8" |
| | PRETREATMENT | BIOFILTRATION | DISCHARGE |
| RIM ELEVATION | 5.08 | 5.08 | 5.08 |
| SURFACE LOAD | PEDESTRIAN | PEDESTRIAN | PEDESTRIAN |
| FRAME & COVER | 3EA ø30" | 3EA 36" X 60" | 2EA ø30" |
| WETLANDMEDIA VOLUME (CY) | | | 10.52 |
| ORIFICE SIZE (DIA. INCHES) | | | ø2.66 EA |
| NOTES: PRELIMINARY NOT FOR CONSTRUCTION. | | | |




**PLAN VIEW**



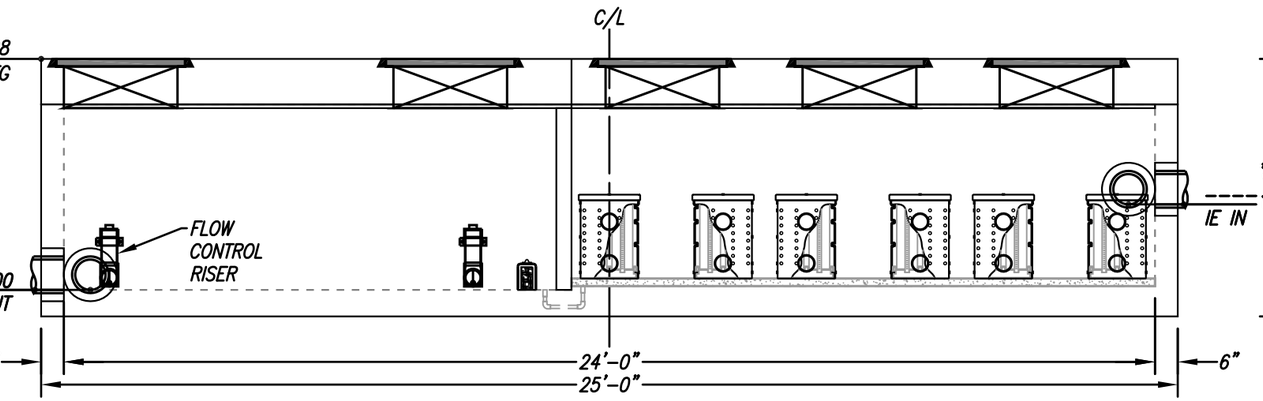

**LEFT END VIEW**

## INSTALLATION NOTES

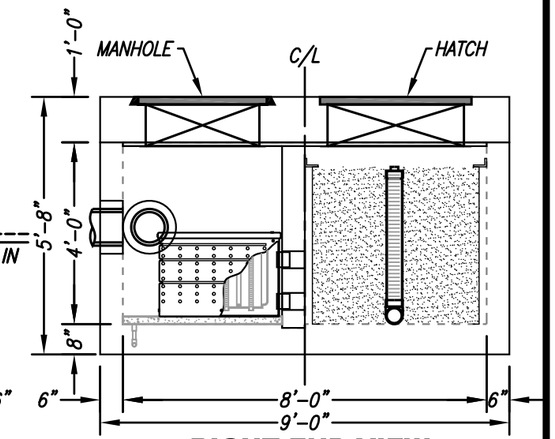
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS' SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATERTIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.

## GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.




**ELEVATION VIEW**




**RIGHT END VIEW**

| | |
|---|---|
| TREATMENT FLOW (CFS) | 0.693 |
| OPERATING HEAD (FT) | 3.4 |
| PRETREATMENT LOADING RATE (GPM/SF) | 2.0 |
| WETLAND MEDIA LOADING RATE (GPM/SF) | 1.0 |

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Bio Clean
A Forterra Company

# MWS-L-8-24-4'-0"-V-UG
## STORMWATER BIOFILTRATION SYSTEM
## STANDARD DETAIL

3/3/22 KARG

# Appendix 7: Hydromodification

*Supporting Detail Relating to compliance with the Hydromodification Performance Standards*

Examples of material to provide in Appendix 7 may include but are not limited to the following:

- Hydromodification Exemption Exhibit,
- Potential Critical Coarse Sediment Yield Area Mapping
- Hydromodification BMP sizing calculations,
- SMRHM report files,
- Site-Specific Critical Coarse Sediment Analysis,
- Design details/drawings from manufacturers for proprietary BMPs

This information should support the hydromodification exemption (if applicable) and hydrologic control BMP and Sediment Supply BMP sections of this Template. Refer to Section 2.4 and 3.6 of the SMR WQMP and Sections E of this Template.

**Figure 6 - SMR Stream Susceptibility and Exemption Coverage**

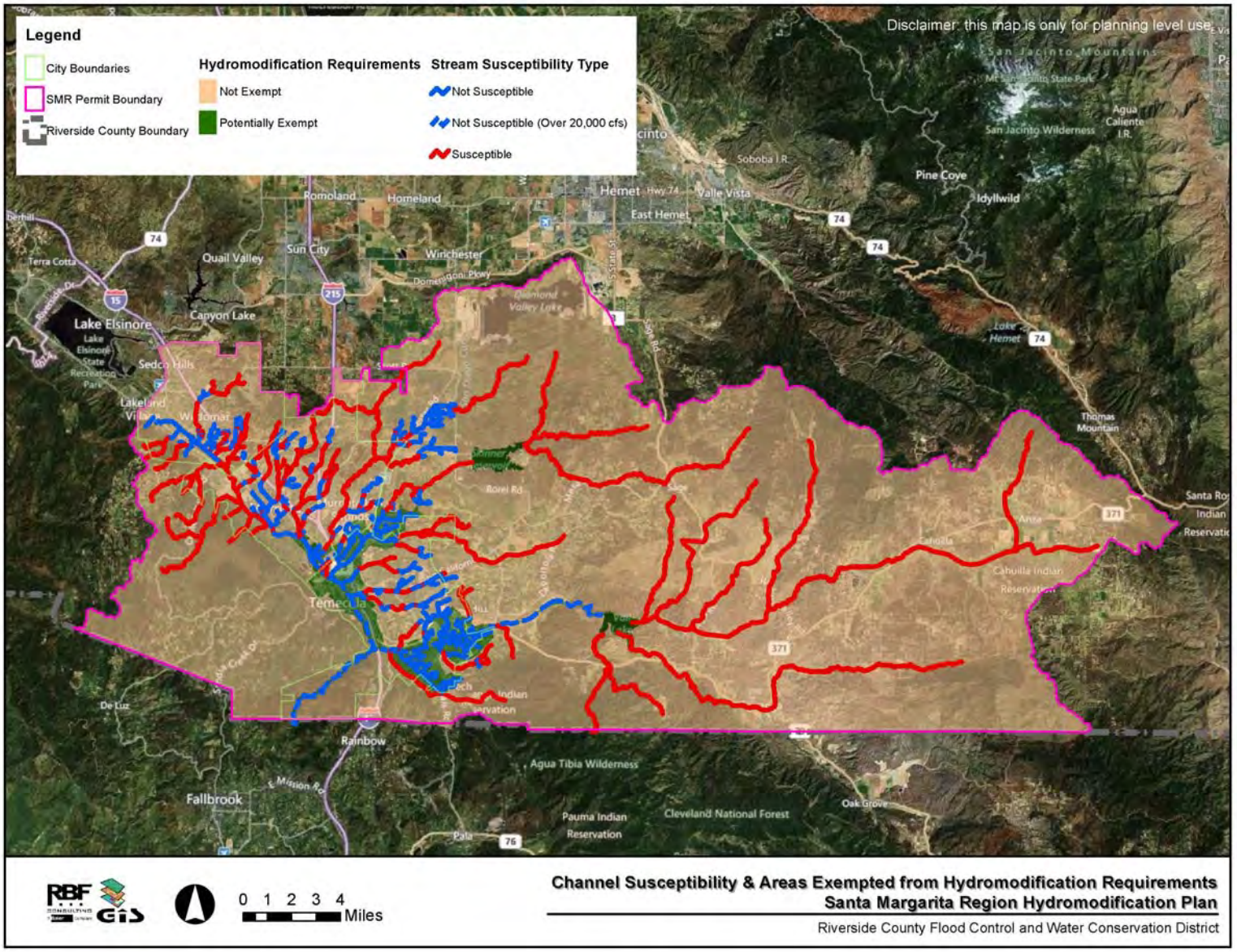


**Figure 7 - SMR Stream Susceptibility and Exemption Coverage – Temecula Area**

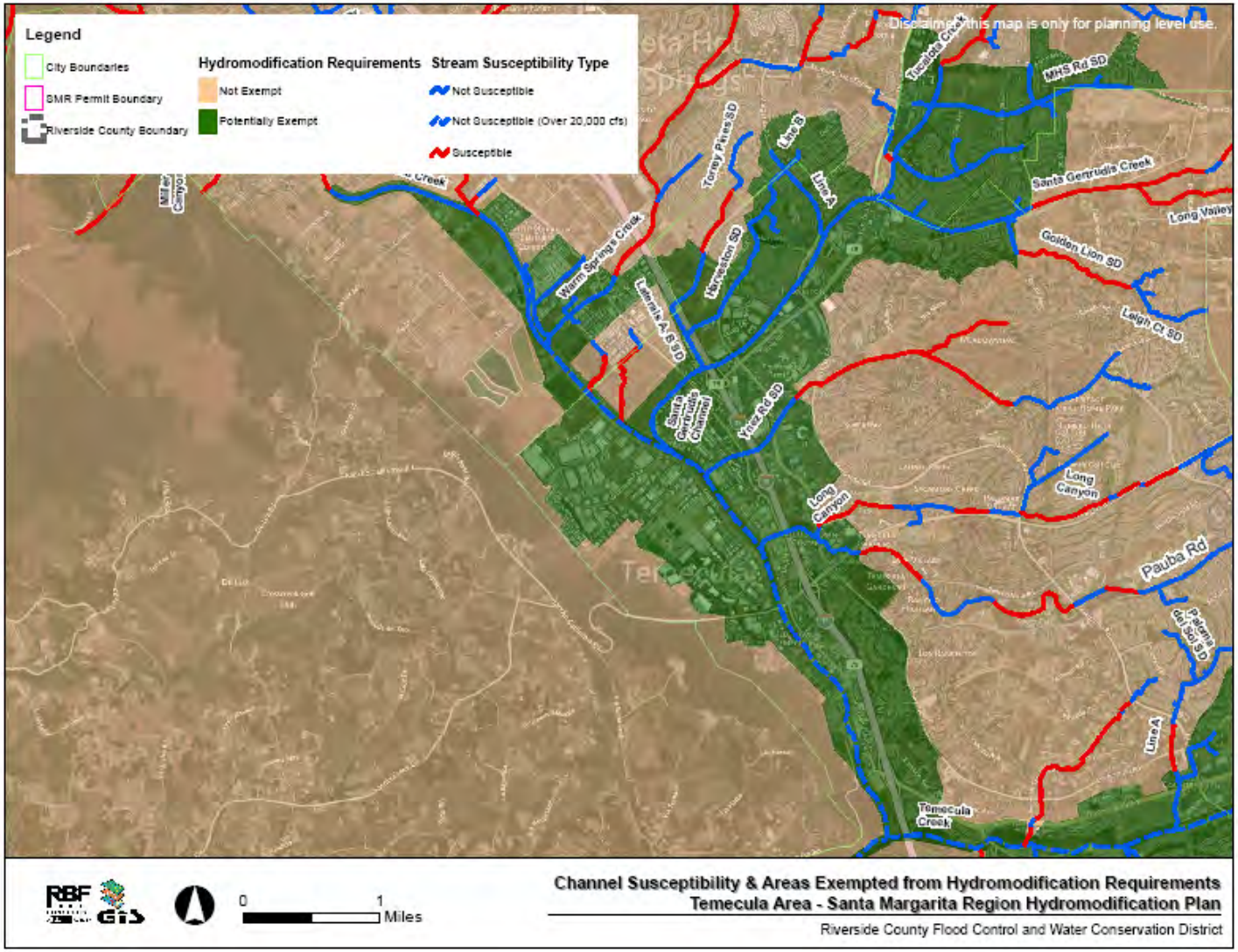
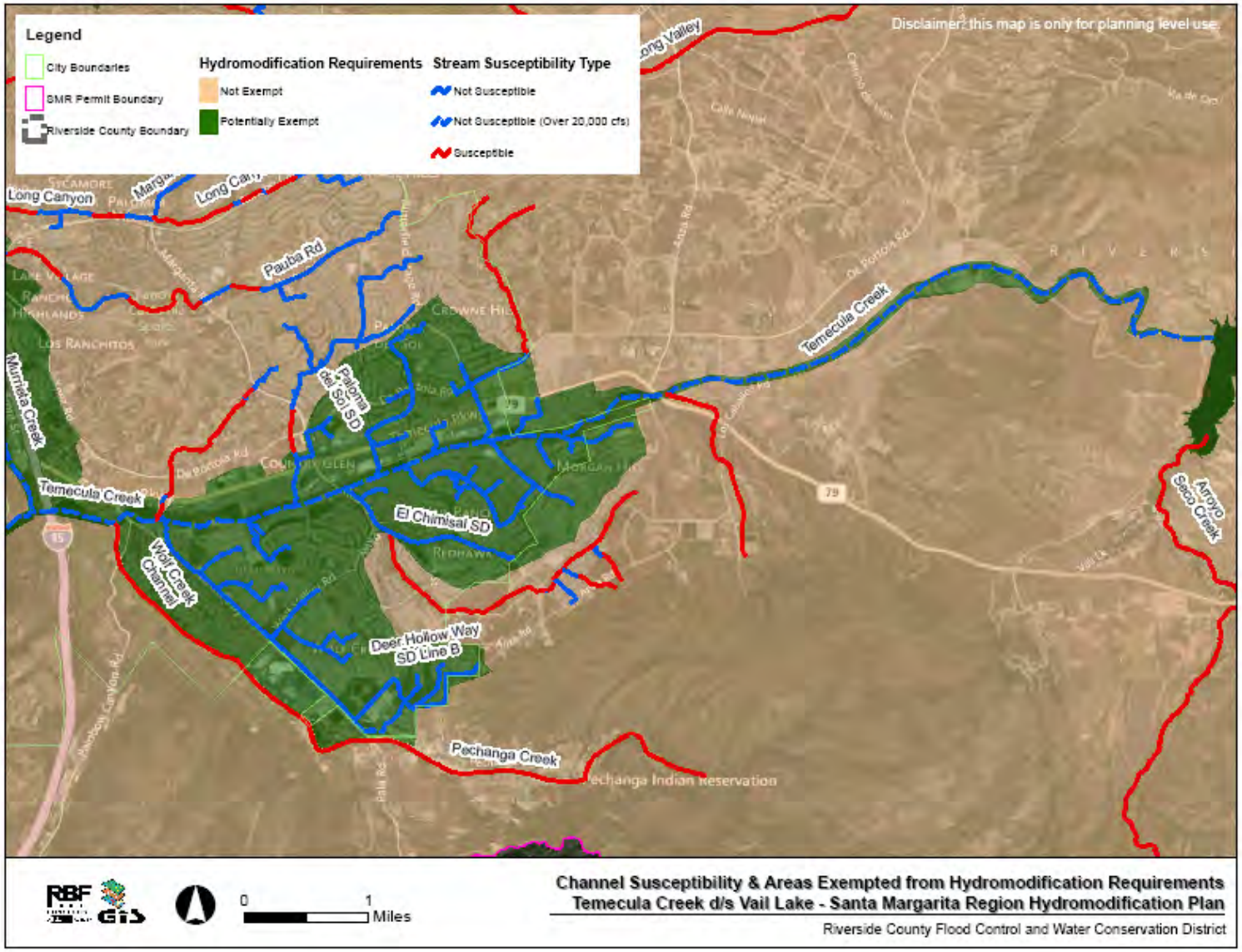


**Figure 8 - SMR Stream Susceptibility and Exemption Coverage – Temecula Creek Area**



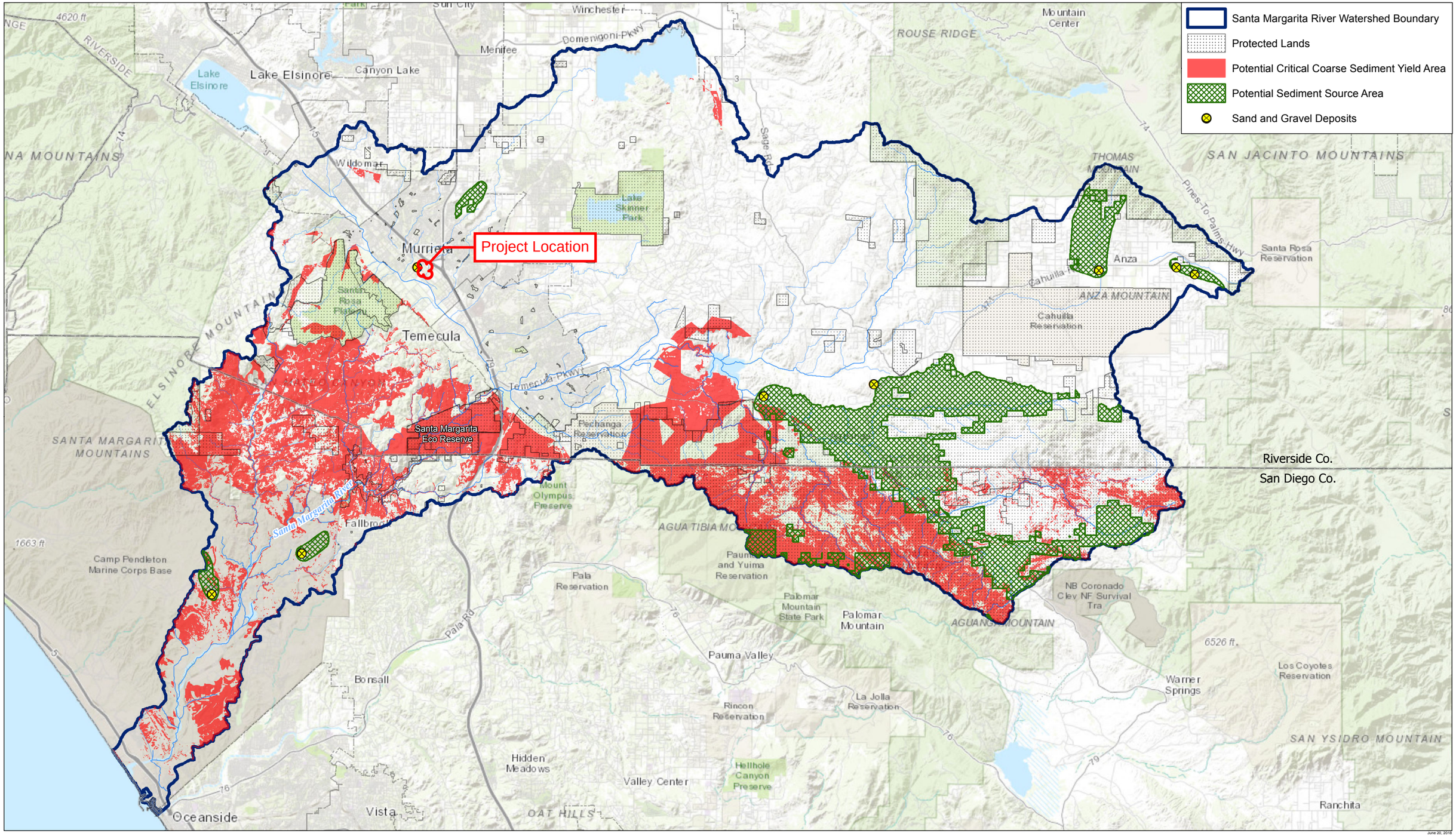



**Exhibit G-1**

**SANTA MARGARITA RIVER WATERSHED**

POTENTIAL CRITICAL COARSE SEDIMENT YIELD AREAS AND POTENTIAL SEDIMENT SOURCE AREAS

# SMRHM

# PROJECT REPORT

# General Model Information

Project Name: 2022.05.27 - LMC Murrieta
Site Name:
Site Address:
City:
Report Date: 6/15/2022
Gage: Temecula Valley
Data Start: 1974/10/01
Data End: 2011/09/30
Timestep: 15 Minute
Precip Scale: 1.000
Version Date: 2021/06/14

## POC Thresholds

| | |
|---|---|
| Low Flow Threshold for POC1: | 10 Percent of the 2 Year |
| High Flow Threshold for POC1: | 10 Year |

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# *Landuse Basin Data*

## *Predeveloped Land Use*

### DMA 1

| | |
|---|---|
| Bypass: | No |
| GroundWater: | No |
| Pervious Land Use | acre |
| C D,Grass,Flat(0-5%) | 13.35 |
| Pervious Total | 13.35 |
| Impervious Land Use | acre |
| Impervious Total | 0 |
| Basin Total | 13.35 |

Element Flows To:

| Surface | Interflow | Groundwater |
|---|---|---|

DRAFT

## *Mitigated Land Use*

### DMA 1

| | |
|---|---|
| Bypass: | No |
| GroundWater: | No |

| Pervious Land Use | acre |
|---|---|
| C D,Grass,Flat(0-5%) | 2.8749 |
| Pervious Total | 2.8749 |

| Impervious Land Use | acre |
|---|---|
| Roads,Flat(0-5%) | 4.9551 |
| Roof Area | 3.67 |
| Driveways,Mod(5-10%) | 0.54 |
| Sidewalks,Flat(0-5%) | 1.31 |
| Impervious Total | 10.4751 |
| Basin Total | 13.35 |

Element Flows To:

| Surface | Interflow | Groundwater |
|---|---|---|
| Vault 1 | Vault 1 | |

DRAFT

# Routing Elements
## Predeveloped Routing

DRAFT

## *Mitigated Routing*

### Vault 1

Width: 174.768713910266 ft.
Length: 174.768713910266 ft.
Depth: 7 ft.
Discharge Structure
Riser Height: 6 ft.
Riser Diameter: 54 in.
Notch Type: Rectangular
Notch Width: 4.418 ft.
Notch Height: 1.466 ft.
Orifice 1 Diameter: 2.29876 in Elevation:0 ft.
Element Flows To:
Outlet 1 Outlet 2

Vault Hydraulic Table

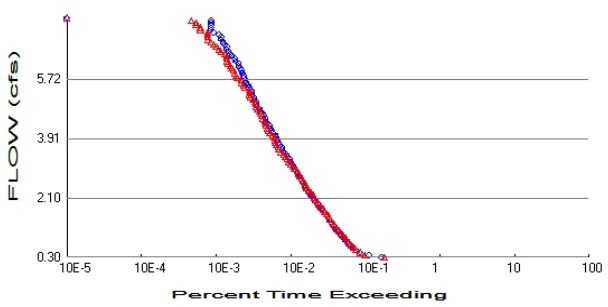
| Stage(feet) | Area(ac.) | Volume(ac-ft.) | Discharge(cfs) | Infilt(cfs) |
|---|---|---|---|---|
| 0.0000 | 0.701 | 0.000 | 0.000 | 0.000 |
| 0.0778 | 0.701 | 0.054 | 0.040 | 0.000 |
| 0.1556 | 0.701 | 0.109 | 0.056 | 0.000 |
| 0.2333 | 0.701 | 0.163 | 0.069 | 0.000 |
| 0.3111 | 0.701 | 0.218 | 0.080 | 0.000 |
| 0.3889 | 0.701 | 0.272 | 0.089 | 0.000 |
| 0.4667 | 0.701 | 0.327 | 0.098 | 0.000 |
| 0.5444 | 0.701 | 0.381 | 0.105 | 0.000 |
| 0.6222 | 0.701 | 0.436 | 0.113 | 0.000 |
| 0.7000 | 0.701 | 0.490 | 0.120 | 0.000 |
| 0.7778 | 0.701 | 0.545 | 0.126 | 0.000 |
| 0.8556 | 0.701 | 0.599 | 0.132 | 0.000 |
| 0.9333 | 0.701 | 0.654 | 0.138 | 0.000 |
| 1.0111 | 0.701 | 0.709 | 0.144 | 0.000 |
| 1.0889 | 0.701 | 0.763 | 0.149 | 0.000 |
| 1.1667 | 0.701 | 0.818 | 0.154 | 0.000 |
| 1.2444 | 0.701 | 0.872 | 0.160 | 0.000 |
| 1.3222 | 0.701 | 0.927 | 0.164 | 0.000 |
| 1.4000 | 0.701 | 0.981 | 0.169 | 0.000 |
| 1.4778 | 0.701 | 1.036 | 0.174 | 0.000 |
| 1.5556 | 0.701 | 1.090 | 0.178 | 0.000 |
| 1.6333 | 0.701 | 1.145 | 0.183 | 0.000 |
| 1.7111 | 0.701 | 1.199 | 0.187 | 0.000 |
| 1.7889 | 0.701 | 1.254 | 0.191 | 0.000 |
| 1.8667 | 0.701 | 1.308 | 0.195 | 0.000 |
| 1.9444 | 0.701 | 1.363 | 0.200 | 0.000 |
| 2.0222 | 0.701 | 1.418 | 0.203 | 0.000 |
| 2.1000 | 0.701 | 1.472 | 0.207 | 0.000 |
| 2.1778 | 0.701 | 1.527 | 0.211 | 0.000 |
| 2.2556 | 0.701 | 1.581 | 0.215 | 0.000 |
| 2.3333 | 0.701 | 1.636 | 0.219 | 0.000 |
| 2.4111 | 0.701 | 1.690 | 0.222 | 0.000 |
| 2.4889 | 0.701 | 1.745 | 0.226 | 0.000 |
| 2.5667 | 0.701 | 1.799 | 0.229 | 0.000 |
| 2.6444 | 0.701 | 1.854 | 0.233 | 0.000 |
| 2.7222 | 0.701 | 1.908 | 0.236 | 0.000 |
| 2.8000 | 0.701 | 1.963 | 0.240 | 0.000 |

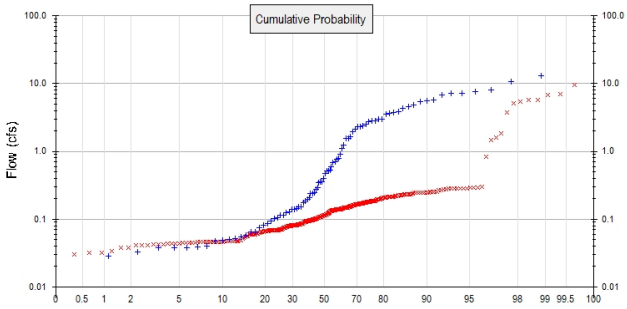
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| | | | | |
|---|---|---|---|---|
| 2.8778 | 0.701 | 2.017 | 0.243 | 0.000 |
| 2.9556 | 0.701 | 2.072 | 0.246 | 0.000 |
| 3.0333 | 0.701 | 2.127 | 0.249 | 0.000 |
| 3.1111 | 0.701 | 2.181 | 0.252 | 0.000 |
| 3.1889 | 0.701 | 2.236 | 0.256 | 0.000 |
| 3.2667 | 0.701 | 2.290 | 0.259 | 0.000 |
| 3.3444 | 0.701 | 2.345 | 0.262 | 0.000 |
| 3.4222 | 0.701 | 2.399 | 0.265 | 0.000 |
| 3.5000 | 0.701 | 2.454 | 0.268 | 0.000 |
| 3.5778 | 0.701 | 2.508 | 0.271 | 0.000 |
| 3.6556 | 0.701 | 2.563 | 0.274 | 0.000 |
| 3.7333 | 0.701 | 2.617 | 0.277 | 0.000 |
| 3.8111 | 0.701 | 2.672 | 0.279 | 0.000 |
| 3.8889 | 0.701 | 2.726 | 0.282 | 0.000 |
| 3.9667 | 0.701 | 2.781 | 0.285 | 0.000 |
| 4.0444 | 0.701 | 2.835 | 0.288 | 0.000 |
| 4.1222 | 0.701 | 2.890 | 0.291 | 0.000 |
| 4.2000 | 0.701 | 2.945 | 0.293 | 0.000 |
| 4.2778 | 0.701 | 2.999 | 0.296 | 0.000 |
| 4.3556 | 0.701 | 3.054 | 0.299 | 0.000 |
| 4.4333 | 0.701 | 3.108 | 0.301 | 0.000 |
| 4.5111 | 0.701 | 3.163 | 0.304 | 0.000 |
| 4.5889 | 0.701 | 3.217 | 0.496 | 0.000 |
| 4.6667 | 0.701 | 3.272 | 1.021 | 0.000 |
| 4.7444 | 0.701 | 3.326 | 1.733 | 0.000 |
| 4.8222 | 0.701 | 3.381 | 2.592 | 0.000 |
| 4.9000 | 0.701 | 3.435 | 3.576 | 0.000 |
| 4.9778 | 0.701 | 3.490 | 4.670 | 0.000 |
| 5.0556 | 0.701 | 3.544 | 5.865 | 0.000 |
| 5.1333 | 0.701 | 3.599 | 7.152 | 0.000 |
| 5.2111 | 0.701 | 3.654 | 8.525 | 0.000 |
| 5.2889 | 0.701 | 3.708 | 9.980 | 0.000 |
| 5.3667 | 0.701 | 3.763 | 11.51 | 0.000 |
| 5.4444 | 0.701 | 3.817 | 13.11 | 0.000 |
| 5.5222 | 0.701 | 3.872 | 14.79 | 0.000 |
| 5.6000 | 0.701 | 3.926 | 16.53 | 0.000 |
| 5.6778 | 0.701 | 3.981 | 18.33 | 0.000 |
| 5.7556 | 0.701 | 4.035 | 20.20 | 0.000 |
| 5.8333 | 0.701 | 4.090 | 22.13 | 0.000 |
| 5.9111 | 0.701 | 4.144 | 24.12 | 0.000 |
| 5.9889 | 0.701 | 4.199 | 26.17 | 0.000 |
| 6.0667 | 0.701 | 4.253 | 27.29 | 0.000 |
| 6.1444 | 0.701 | 4.308 | 29.09 | 0.000 |
| 6.2222 | 0.701 | 4.363 | 31.46 | 0.000 |
| 6.3000 | 0.701 | 4.417 | 34.30 | 0.000 |
| 6.3778 | 0.701 | 4.472 | 37.52 | 0.000 |
| 6.4556 | 0.701 | 4.526 | 41.07 | 0.000 |
| 6.5333 | 0.701 | 4.581 | 44.90 | 0.000 |
| 6.6111 | 0.701 | 4.635 | 48.97 | 0.000 |
| 6.6889 | 0.701 | 4.690 | 53.24 | 0.000 |
| 6.7667 | 0.701 | 4.744 | 57.66 | 0.000 |
| 6.8444 | 0.701 | 4.799 | 62.19 | 0.000 |
| 6.9222 | 0.701 | 4.853 | 66.80 | 0.000 |
| 7.0000 | 0.701 | 4.908 | 71.42 | 0.000 |
| 7.0778 | 0.701 | 4.962 | 76.03 | 0.000 |
| 7.1556 | 0.000 | 0.000 | 80.57 | 0.000 |

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# *Analysis Results*
## *POC 1*




\+ Predeveloped  x Mitigated

Predeveloped Landuse Totals for POC #1
Total Pervious Area: 13.35
Total Impervious Area: 0

Mitigated Landuse Totals for POC #1
Total Pervious Area: 2.8749
Total Impervious Area: 10.4751

Flow Frequency Method: Cunnane

Flow Frequency Return Periods for Predeveloped. POC #1

| **Return Period** | **Flow(cfs)** |
|---|---|
| 2 year | 2.968898 |
| 5 year | 5.855106 |
| 10 year | 7.528489 |
| 25 year | 10.771715 |

Flow Frequency Return Periods for Mitigated. POC #1

| **Return Period** | **Flow(cfs)** |
|---|---|
| 2 year | 0.283462 |
| 5 year | 3.930856 |
| 10 year | 5.758073 |
| 25 year | 7.040007 |

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## Duration Flows

The Facility PASSED

| Flow(cfs) | Predev | Mit | Percentage | Pass/Fail |
|---|---|---|---|---|
| 0.2969 | 2122 | 2333 | 109 | Pass |
| 0.3699 | 1457 | 1274 | 87 | Pass |
| 0.4430 | 1093 | 1105 | 101 | Pass |
| 0.5160 | 950 | 973 | 102 | Pass |
| 0.5891 | 874 | 893 | 102 | Pass |
| 0.6621 | 811 | 845 | 104 | Pass |
| 0.7352 | 748 | 795 | 106 | Pass |
| 0.8082 | 697 | 743 | 106 | Pass |
| 0.8813 | 657 | 704 | 107 | Pass |
| 0.9543 | 618 | 658 | 106 | Pass |
| 1.0274 | 588 | 619 | 105 | Pass |
| 1.1004 | 558 | 574 | 102 | Pass |
| 1.1734 | 518 | 541 | 104 | Pass |
| 1.2465 | 482 | 513 | 106 | Pass |
| 1.3195 | 462 | 489 | 105 | Pass |
| 1.3926 | 451 | 462 | 102 | Pass |
| 1.4656 | 425 | 436 | 102 | Pass |
| 1.5387 | 403 | 418 | 103 | Pass |
| 1.6117 | 386 | 395 | 102 | Pass |
| 1.6848 | 364 | 372 | 102 | Pass |
| 1.7578 | 337 | 352 | 104 | Pass |
| 1.8309 | 314 | 333 | 106 | Pass |
| 1.9039 | 301 | 309 | 102 | Pass |
| 1.9770 | 283 | 296 | 104 | Pass |
| 2.0500 | 269 | 281 | 104 | Pass |
| 2.1231 | 250 | 272 | 108 | Pass |
| 2.1961 | 236 | 259 | 109 | Pass |
| 2.2691 | 227 | 241 | 106 | Pass |
| 2.3422 | 218 | 226 | 103 | Pass |
| 2.4152 | 203 | 213 | 104 | Pass |
| 2.4883 | 199 | 202 | 101 | Pass |
| 2.5613 | 190 | 201 | 105 | Pass |
| 2.6344 | 183 | 190 | 103 | Pass |
| 2.7074 | 177 | 181 | 102 | Pass |
| 2.7805 | 170 | 172 | 101 | Pass |
| 2.8535 | 161 | 166 | 103 | Pass |
| 2.9266 | 153 | 157 | 102 | Pass |
| 2.9996 | 145 | 146 | 100 | Pass |
| 3.0727 | 141 | 139 | 98 | Pass |
| 3.1457 | 135 | 131 | 97 | Pass |
| 3.2187 | 128 | 123 | 96 | Pass |
| 3.2918 | 124 | 116 | 93 | Pass |
| 3.3648 | 115 | 111 | 96 | Pass |
| 3.4379 | 112 | 104 | 92 | Pass |
| 3.5109 | 106 | 95 | 89 | Pass |
| 3.5840 | 100 | 90 | 90 | Pass |
| 3.6570 | 97 | 88 | 90 | Pass |
| 3.7301 | 91 | 83 | 91 | Pass |
| 3.8031 | 89 | 81 | 91 | Pass |
| 3.8762 | 86 | 79 | 91 | Pass |
| 3.9492 | 82 | 78 | 95 | Pass |
| 4.0223 | 81 | 74 | 91 | Pass |
| 4.0953 | 75 | 68 | 90 | Pass |

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| | | | | |
|---|---|---|---|---|
| 4.1684 | 72 | 66 | 91 | Pass |
| 4.2414 | 70 | 63 | 90 | Pass |
| 4.3144 | 67 | 60 | 89 | Pass |
| 4.3875 | 63 | 59 | 93 | Pass |
| 4.4605 | 59 | 58 | 98 | Pass |
| 4.5336 | 59 | 55 | 93 | Pass |
| 4.6066 | 56 | 53 | 94 | Pass |
| 4.6797 | 54 | 51 | 94 | Pass |
| 4.7527 | 51 | 50 | 98 | Pass |
| 4.8258 | 50 | 46 | 92 | Pass |
| 4.8988 | 46 | 45 | 97 | Pass |
| 4.9719 | 45 | 44 | 97 | Pass |
| 5.0449 | 44 | 43 | 97 | Pass |
| 5.1180 | 42 | 40 | 95 | Pass |
| 5.1910 | 41 | 37 | 90 | Pass |
| 5.2640 | 39 | 36 | 92 | Pass |
| 5.3371 | 39 | 36 | 92 | Pass |
| 5.4101 | 37 | 36 | 97 | Pass |
| 5.4832 | 36 | 31 | 86 | Pass |
| 5.5562 | 35 | 30 | 85 | Pass |
| 5.6293 | 33 | 28 | 84 | Pass |
| 5.7023 | 32 | 28 | 87 | Pass |
| 5.7754 | 30 | 25 | 83 | Pass |
| 5.8484 | 30 | 24 | 80 | Pass |
| 5.9215 | 29 | 23 | 79 | Pass |
| 5.9945 | 28 | 22 | 78 | Pass |
| 6.0676 | 27 | 21 | 77 | Pass |
| 6.1406 | 26 | 20 | 76 | Pass |
| 6.2137 | 26 | 19 | 73 | Pass |
| 6.2867 | 24 | 18 | 75 | Pass |
| 6.3597 | 23 | 18 | 78 | Pass |
| 6.4328 | 21 | 18 | 85 | Pass |
| 6.5058 | 20 | 17 | 85 | Pass |
| 6.5789 | 19 | 15 | 78 | Pass |
| 6.6519 | 18 | 14 | 77 | Pass |
| 6.7250 | 18 | 13 | 72 | Pass |
| 6.7980 | 17 | 12 | 70 | Pass |
| 6.8711 | 16 | 11 | 68 | Pass |
| 6.9441 | 15 | 10 | 66 | Pass |
| 7.0172 | 15 | 10 | 66 | Pass |
| 7.0902 | 14 | 10 | 71 | Pass |
| 7.1633 | 12 | 10 | 83 | Pass |
| 7.2363 | 11 | 8 | 72 | Pass |
| 7.3093 | 11 | 8 | 72 | Pass |
| 7.3824 | 11 | 7 | 63 | Pass |
| 7.4554 | 11 | 7 | 63 | Pass |
| 7.5285 | 11 | 6 | 54 | Pass |

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## Water Quality

Drawdown Time Results

Pond: Vault 1

| Days | Stage(feet) | Percent of Total Run Time |
|---|---|---|
| 1 | 0.197 | 10.067 |
| 2 | 0.450 | 7.3365 |
| 3 | 0.786 | 5.1952 |
| 4 | 1.204 | 3.5614 |
| 5 | 1.705 | 2.3697 |

Maximum Stage: 6.000 Drawdown Time: 05 00:00:10

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## *Rational Method*

Data for Rational Method is not available.

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# Model Default Modifications

Total of 0 changes have been made.

## PERLND Changes

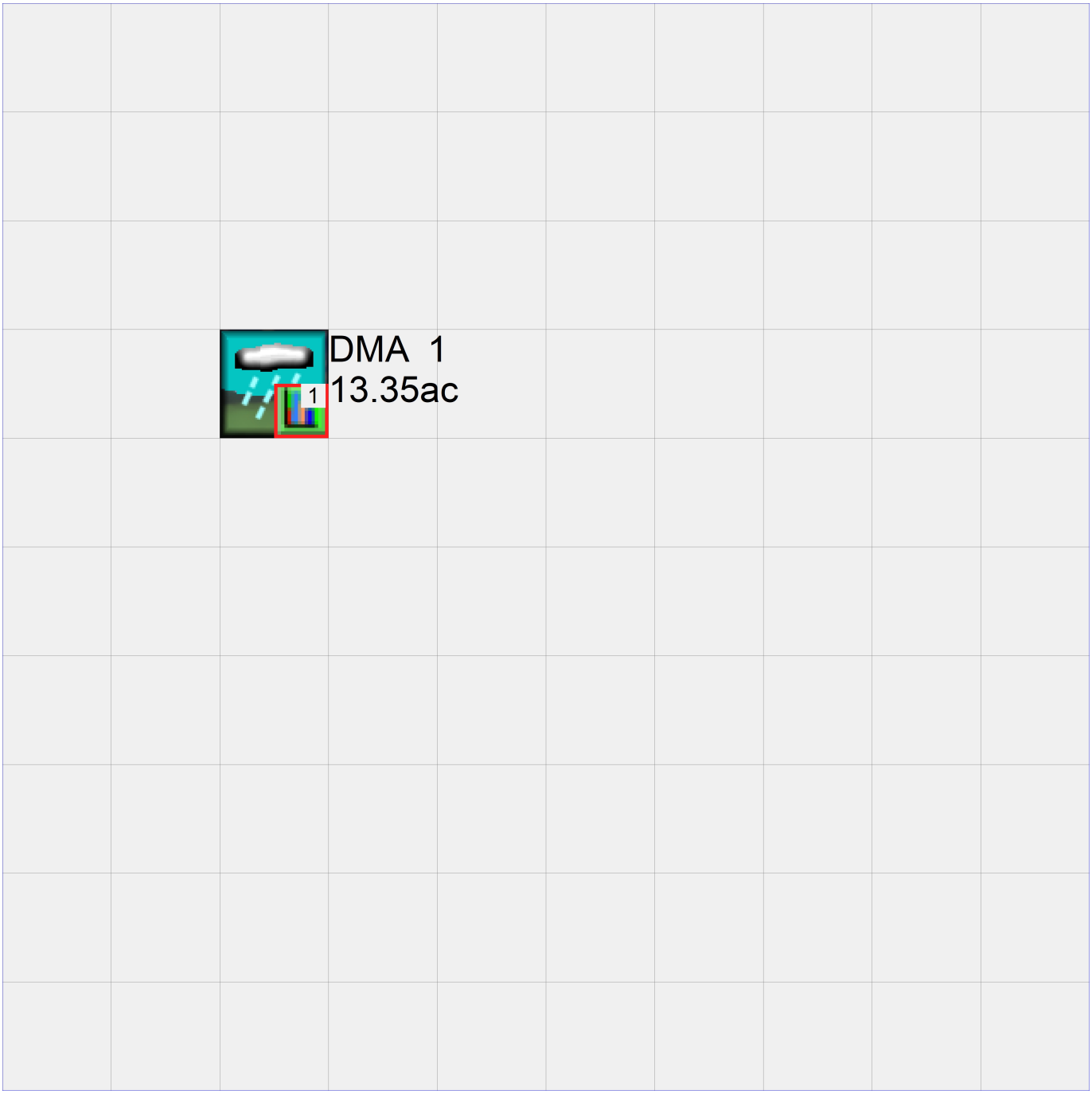
No PERLND changes have been made.

## IMPLND Changes

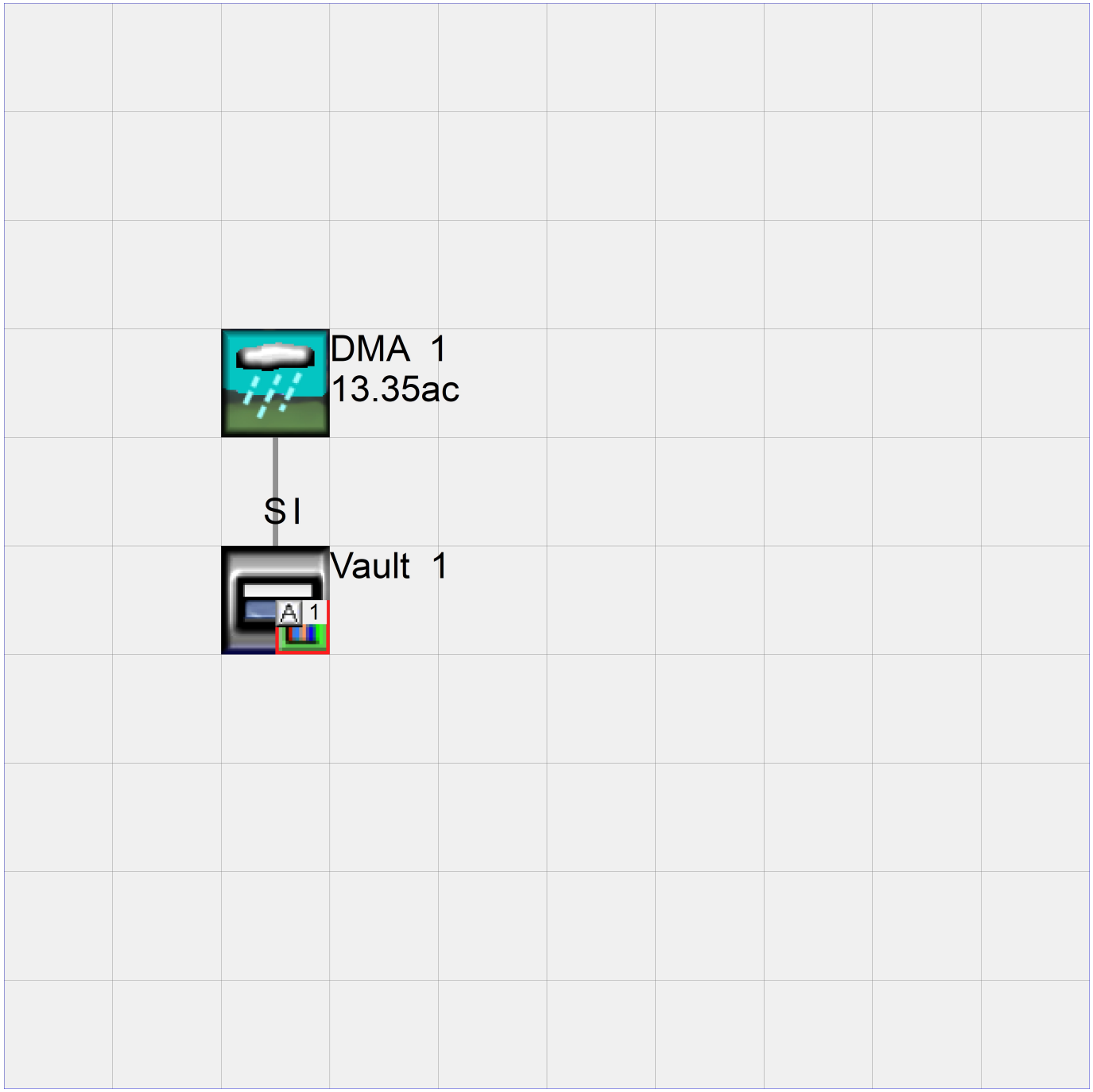
No IMPLND changes have been made.

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# *Appendix*
## *Predeveloped Schematic*



## *Mitigated Schematic*



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# Disclaimer

## Legal Notice

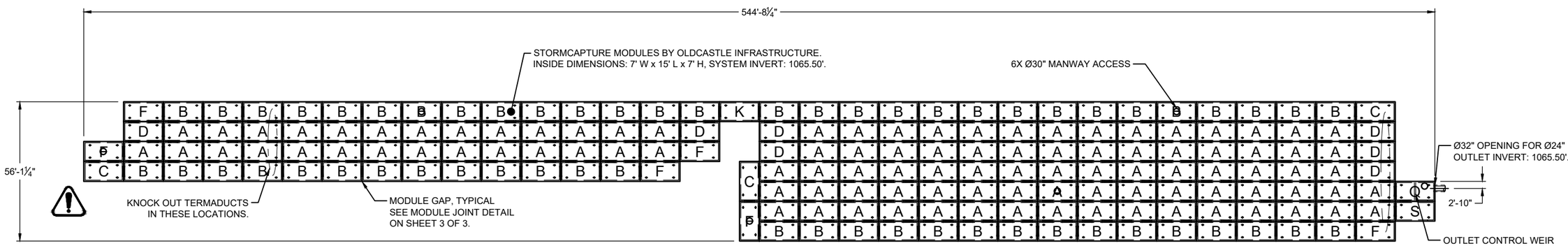
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| MODULE NOTES | | |
|---|---|---|
| TYPE | QUANTITY | HEIGHT |
| A | 102 | 7' |
| B | 57 | 7' |
| C | 3 | 7' |
| D | 7 | 7' |
| F | 6 | 7' |
| K | 1 | 7' |
| Q | 1 | 7' |
| S | 1 | 7' |
| TOTAL | 178 | |
| VOLUME = | 139,696 | CUBIC FEET |




SHIFTED INLET PIPE TO FIT PIPE OPENING WITHIN MODULE

## PLAN VIEW

SCALE: 3/128" = 1'-0"

DESIGN NOTES

1. LIVE LOADING CRITERIA:
   - A. HL-93 & OUTRIGGER LOADING (75 PSI ON 2'X2' PAD).
   - B. LATERAL LIVE LOAD SURCHARGE: 80 PSF (TO 8.00FT DEPTH)
   - C. NO LATERAL SURCHARGE(S) FROM ANY ADJACENT BUILDINGS, WALLS, FOUNDATIONS, OR ANY ADDITIONAL SITE ELEMENTS.
2. SOIL LOADING CRITERIA:
   - A. SOIL COVER DEPTH: 0.50FT (MIN.) - 5.00FT (MAX.)
   - B. SOIL UNIT WEIGHT: 120 PCF
   - C. ASSUMED WATER TABLE ELEVATION: 8.75FT ABOVE SYSTEM INVERT
   - D. REQUIRED ALLOWABLE BEARING PRESSURE: 2,500 PSF
   - E. EQUIVALENT LATERAL FLUID PRESSURE, ACTIVE: 45 PCF (DRAINED)
   - F. EQUIVALENT LATERAL FLUID PRESSURE, AT-REST: 60 PCF (DRAINED)
   - G. EQUIVALENT LATERAL FLUID PRESSURE, PASSIVE: 150 PCF (DRAINED)
   - H. ASSUMED COEFFICIENT OF FRICTION: 0.40
   - I. SEISMIC LATERAL EARTH PRESSURES: 30.6H (APPLIED AS UNIFORM PRESSURE)
3. STORMCAPTURE MODULE TYPE: DETENTION (WATERTIGHT, BY OTHERS).
4. CONCRETE (NORMALWEIGHT):
   - A. MIN. 28-DAY COMPRESSIVE STRENGTH: 6,000 PSI
   - B. CEMENT: ASTM C150
5. STEEL REINFORCEMENT: ASTM A615 / A706 (GRADE 60), ASTM A1064 (GRADE 80)
6. REFERENCE STANDARDS: ASTM C913 & C890, ACI 318-14

Detention/
Infiltration

| REV | DESCRIPTION | DATE |
|---|---|---|
| | LAYOUT CHANGE | 9/16/22 |

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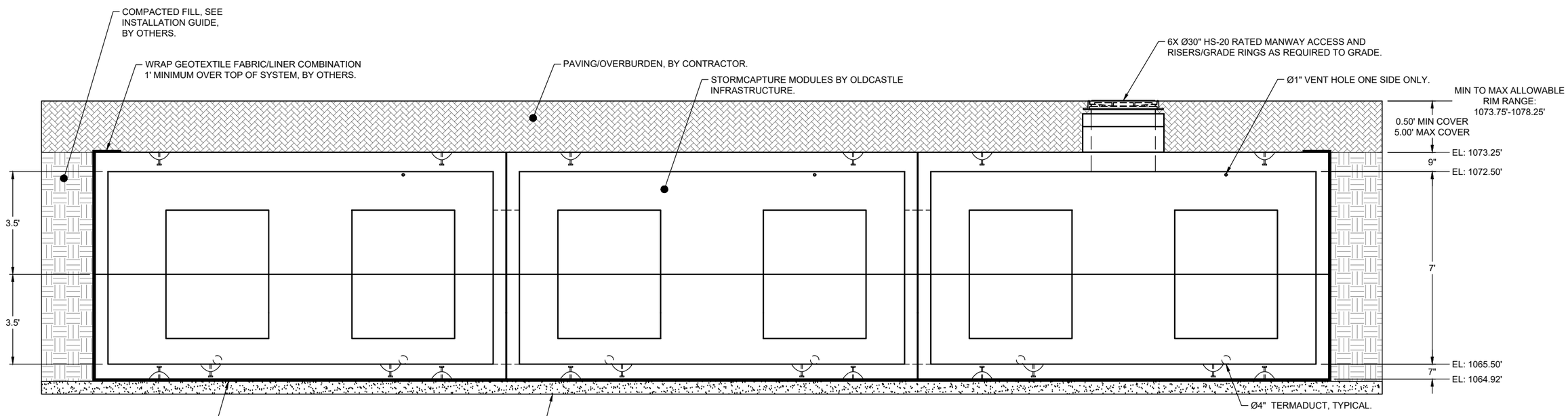
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| | | | | | | |
|---|---|---|---|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | | | | | SYSTEM ID: System 1 | PLAN-N |
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | | | | | |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | | | | | JOB NUMBER: 22-733385 |
| DATE | MFG | DRAWN | ENGINEER | CHECKED | | SALES ORDER |
| 6/13/22 | 070-FO | PPS | CDH | CDH | | - |
| DRAWING NAME: 22-733385-SC2 3.5-3.5_System 1_2022.0916 | | | | | | SHEET: 1 OF 3 |

REVIEWING NOTES

1. THIS SYSTEM HAS BEEN DESIGNED PER THE DESIGN PARAMETERS SPECIFIED IN THE DESIGN NOTES. REVIEWING ENGINEER SHALL VERIFY THAT THESE PARAMETERS MEET OR EXCEED PROJECT SPECIFIC REQUIREMENTS. IF SITE CONDITIONS DIFFER FROM NOTED DESIGN PARAMETERS, REVIEWING ENGINEER SHALL NOTIFY OLDCASTLE FOR POTENTIAL REDESIGN AND/OR PRICING ADJUSTMENTS.
2. REVIEWING ENGINEER SHALL VERIFY ALL PIPE PENETRATION LOCATIONS, SIZES, AND INVERTS.
3. REVIEWING ENGINEER SHALL VERIFY ALL MANWAY ACCESS LOCATIONS AND RIM ELEVATIONS.
4. THIS SYSTEM IS DESIGNED FOR A GROUNDWATER TABLE ELEVATION PER NOTE 2C, SHEET 1. REVIEWING ENGINEER SHALL VERIFY THAT THE DESIGN GROUNDWATER ELEVATION MEETS OR EXCEEDS SITE CONDITION REQUIREMENTS. NOTIFY OLDCASTLE IF SITE CONDITIONS VARY FROM WHAT HAS BEEN SPECIFIED FOR POTENTIAL SYSTEM DESIGN CHANGES AND/OR PRICING ADJUSTMENTS.
5. THIS SYSTEM HAS BEEN DESIGNED WITH A CONTAINMENT MEMBRANE. IF WATERTIGHT REQUIREMENTS ARE NOT NEEDED, REVIEWING ENGINEERING SHALL NOTIFY OLDCASTLE FOR POTENTIAL DESIGN CHANGES AND/OR PRICING ADJUSTMENTS.
6. DESIGN OF THE STORMCAPTURE PRECAST MODULE SYSTEM ASSUMES NO ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) WITHIN A 1:1 INFLUENCE LINE FROM THE BOTTOM EDGE OF ANY SYSTEM MODULE. ANY SITE ELEMENTS BEYOND THIS ZONE OF INFLUENCE ARE ASSUMED TO HAVE NO IMPACT ON THE SYSTEM AND EXERT ZERO LATERAL SURCHARGE ONTO THE MODULES. THE CONTRACTOR SHALL VERIFY THAT ANY ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) DO NOT LIE WITHIN THIS INFLUENCE ZONE OR DO NOT SURCHARGE THE PRECAST MODULES.
7. WRITTEN APPROVAL OF SUBMITTAL DRAWINGS ALONG WITH SIGNED PURCHASE ORDER REQUIRED FOR BEGINNING OF PRODUCT FABRICATION. ANY SYSTEM MODIFICATION POST-APPROVAL MAY RESULT IN CHANGE ORDER(S) AND/OR POTENTIAL DELIVERY DELAYS.

WATERPROOFING & LINER, BY OTHERS




TYPICAL ELEVATION

SCALE : 1/4" = 1'-0"

NOTE:
TERMADUCT INSERTS TO BE KNOCKED OUT AT SPECIFIED LOCATIONS ONLY (BY OTHERS).

Detention/
Infiltration

| REV | DESCRIPTION | DATE |
|---|---|---|
| | LAYOUT CHANGE | 9/16/22 |

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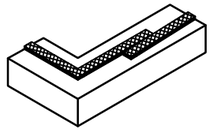
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| | | | | | | |
|---|---|---|---|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | | SYSTEM ID: System 1 | | | | |
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | | | | | JOB NUMBER: 22-733385 |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | | | | | |
| DATE | MFG | DRAWN | ENGINEER | CHECKED | | SALES ORDER |
| 6/13/22 | 070-FO | PPS | CDH | CDH | | - |
| DRAWING NAME: 22-733385-SC2 3.5-3.5_System 1_2022-0916 | | | | | | SHEET: 2 OF 3 |

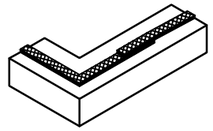
INSTALLATION NOTES

1. UNDERGROUND PRECAST CONCRETE SYSTEM INSTALLATION SHALL BE PER ASTM C891, “STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES” AND PER OLDCASTLE.
2. MODULE SUBBASE OR SUBGRADE SHALL BE LEVEL/SCREEDED AND COMPACTED ADEQUATELY FOR REQUIRED BEARING CAPACITY PER DESIGN NOTE 2D, SHEET 1. CONTRACTOR AND/OR INSTALLING SUB-CONTRACTOR SHALL VERIFY THAT SOIL BEARING CONDITIONS MEET OR EXCEED DESIGN REQUIRED MINIMUMS PRIOR TO PLACEMENT AND INSTALLATION OF MODULES.
3. ANY CONSTRUCTION EQUIPMENT EXCEEDING NOTED DESIGN LOADING IS NOT PERMITTED OVER OR ADJACENT TO ANY MODULE WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING, ELSE PRODUCT WARRANTY MAY BE VOIDED. ANY DESIGN CONSTRAINT EXCEEDING THE DESIGN PARAMETERS NOTED ABOVE MAY REQUIRE CUSTOM STRUCTURAL DESIGN, SUBGRADE REVISIONS, AND/OR PRICING ADJUSTMENTS.
4. HEAVY VIBRATORY COMPACTION EQUIPMENT SHALL NOT BE OPERATED WITHIN 10 FEET OF MODULE EXTERIOR.
5. MINIMUM OF 0.50FT OF SOIL COVER REQUIRED FOR CONSTRUCTION EQUIPMENT OPERATION ON TOP OF SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND INSTALLING SUB-CONSTRACTOR TO ENSURE THAT NO MODULES ARE DAMAGED DURING CONSTRUCTION.
6. UNLESS NOTED OTHERWISE, ALL PIPE SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR MAY MODIFY AT RISK ANY OLDCASTLE PRODUCT(S) IN THE FIELD OR AFTER DELIVERY WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ANY PRODUCT MODIFICATIONS DO NOT INVALIDATE THE PRODUCT WARRANTY.
8. MODULE PLACEMENT FIELD TOLERANCES SHALL NOT EXCEED 3/4" BETWEEN ADJACENT MODULES. IF MODULE GAP EXCEEDS 3/4", CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS AND RESET MODULE(S) TO BRING WITHIN NOTED TOLERANCES.
9. CONTRACTOR IS RESPONSIBLE FOR PRODUCTS ONCE DELIVERED TO THE SITE. OLDCASTLE IS NOT RESPONSIBLE FOR OFFLOADING PRODUCTS, MAINTENANCE, AND INSTALLATION OF PRODUCTS ONCE THEY ARRIVE TO THE SITE.
10. CONTRACTOR SHALL INSTALL SYSTEM PER PROJECT WATERPROOFING AND SOILTIGHTNESS REQUIREMENTS. WATERPROOFING AND SOILTIGHTNESS INSTALLATION IS NOT BY OLDCASTLE AND OLDCASTLE WILL PROVIDE NO GUARANTEE FOR THIS COMPONENT OF SYSTEM INSTALLATION.

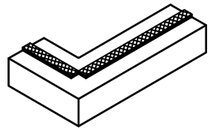
KEYWAYS MUST BE FREE OF DIRT, ROCKS, AND WATER. ROCKS AND DIRT PREVENT THE VAULT SECTIONS FROM SEATING AND SEALING PROPERLY. REMOVE ALL PROTECTIVE PAPER FROM RUBBER SEALANT MATERIAL. SPLICE RUBBER SEALANT MATERIAL WITH A "SIDE BY SIDE" JOINT, AWAY FROM CORNERS. CORNER SPLICING WILL NOT SEAL PROPERLY.



CORRECT - INSTALL RUBBER SEALANT MATERIAL AT THE OUTER EDGE OF THE KEYWAY. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.



INCORRECT - DO NOT OVERLAP THE RUBBER SEALANT MATERIAL AT SPLICE.



INCORRECT - DO NOT SPLICE RUBBER SEALANT MATERIAL AT A CORNER. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.

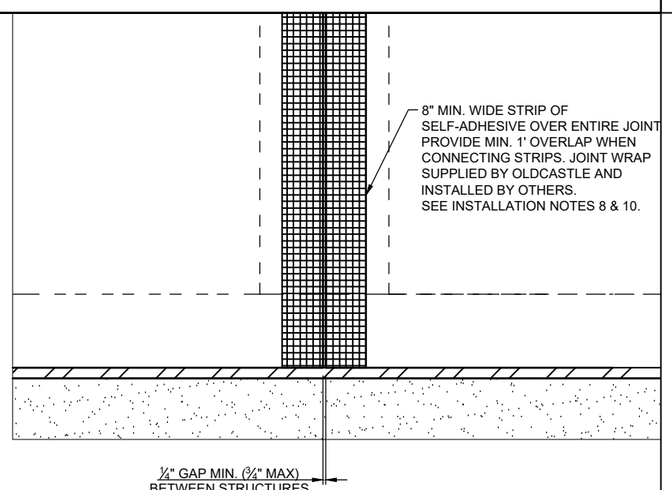
## BUTYL RUBBER SEALANT (CONSEAL CS-102 OR EQUAL) PLACEMENT DETAIL

NTS

| MAXIMUM EQUIPMENT OPERATING WEIGHT (OW) BY TRACK WIDTH | | | | |
|---|---|---|---|---|
| TRACK WIDTH | 12" | 18" | 24" | 30" |
| MIN TRACK LENGTH | 8'-0" | 10'-0" | 12'-0" | 14'-0" |
| FILL DEPTH | OW (LBS) | OW (LBS) | OW (LBS) | OW (LBS) |
| 0 | 35,000 | 45,000 | 52,500 | 54,500 |
| 1 | 35,000 | 45,000 | 56,000 | 60,500 |
| 2 | 35,000 | 45,000 | 56,000 | 64,000 |
| 3 | 76,000 | 78,500 | 83,500 | 88,000 |
| 4 | 94,000 | 100,000 | 106,000 | 113,000 |
| 5 | 100,000 | 116,000 | 132,000 | 149,000 |

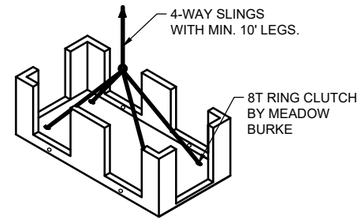
NOTES:

1. IF CONSTRUCTION EQUIPMENT EXCEEDS THE ABOVE OPERATING WEIGHT LIMITS REFER TO INSTALLATION NOTE 3.
2. FOR WHEELED CONSTRUCTION EQUIPMENT LIMITS REFER TO INSTALLATION NOTE 3.
3. MINIMUM AXLE SPACING FOR ALL TRACK WIDTHS IS 6'-0".



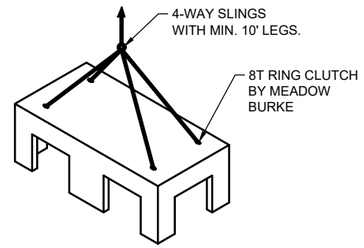

## MODULE JOINT DETAIL

SCALE: 1/2" = 1'-0"




## BOTTOM MODULE LIFTING DETAIL

N.T.S.




## TOP MODULE LIFTING DETAIL

N.T.S.

HEAVIEST PICK
WEIGHT = 25,280 LBS

Detention/ Infiltration

| REV | DESCRIPTION | DATE |
|---|---|---|
| | LAYOUT CHANGE | 9/16/22 |

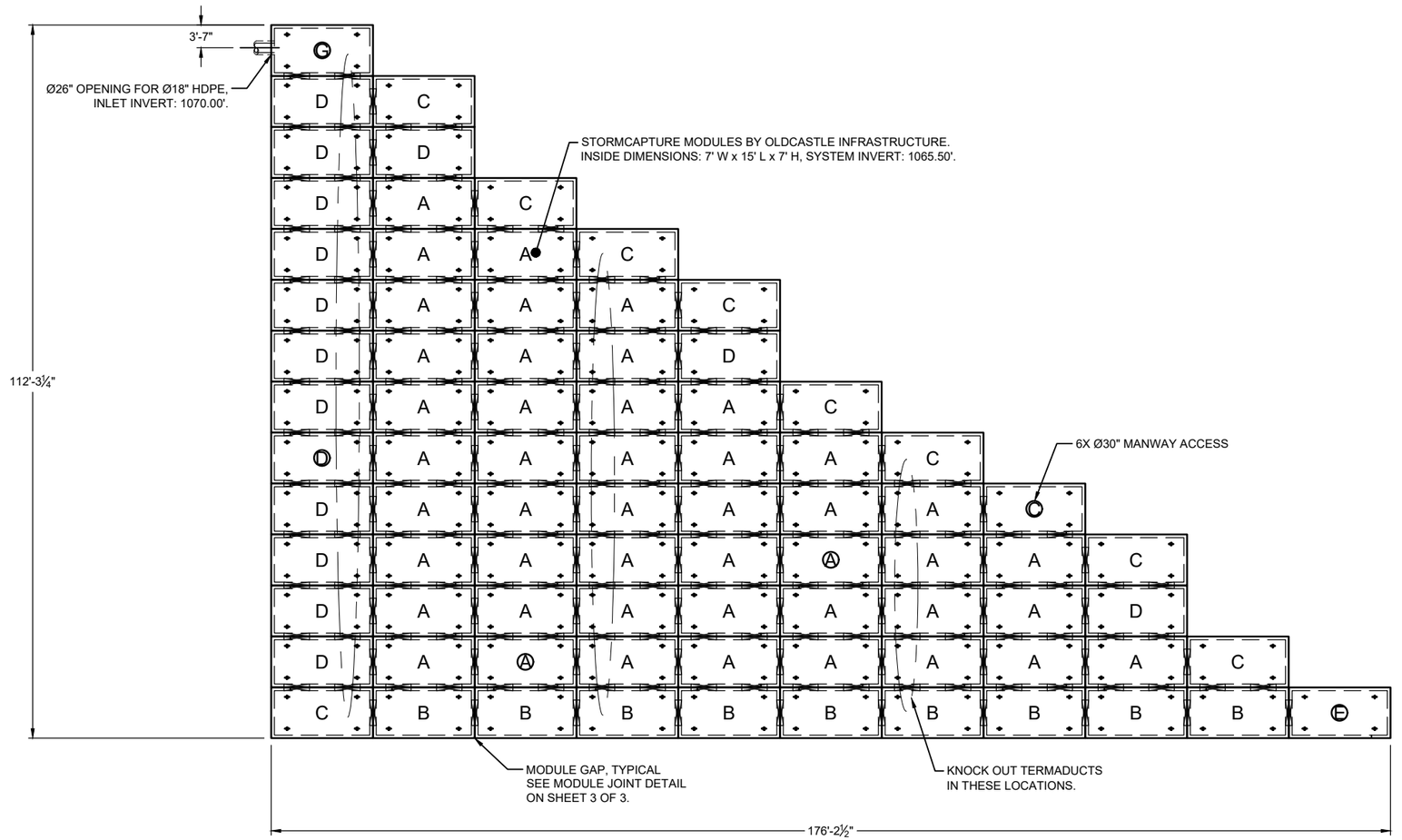
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| | | | | | | |
|---|---|---|---|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | | | | | SYSTEM ID: System 1 | |
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | | | | | |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | | | | | JOB NUMBER: 22-733385 |
| DATE: 6/13/22 | MFG: 070-FO | DRAWN: PPS | ENGINEER: CDH | CHECKED: CDH | | SALES ORDER: - |
| DRAWING NAME: 22-733385-SC2 3.5-3.5_System 1_2022-0916 | | | | | | SHEET: 3 OF 3 |

| MODULE NOTES | | |
|---|---|---|
| TYPE | QUANTITY | HEIGHT |
| A | 46 | 7' |
| B | 9 | 7' |
| C | 10 | 7' |
| D | 15 | 7' |
| G | 1 | 7' |
| E | 1 | 7' |
| TOTAL | 82 | |
| VOLUME = | 64,322 | CUBIC FEET |




DESIGN NOTES

1. LIVE LOADING CRITERIA:
   - A. HL-93 & OUTRIGGER LOADING (75 PSI ON 2'X2' PAD).
   - B. LATERAL LIVE LOAD SURCHARGE: 80 PSF (TO 8.00FT DEPTH)
   - C. NO LATERAL SURCHARGE(S) FROM ANY ADJACENT BUILDINGS, WALLS, FOUNDATIONS, OR ANY ADDITIONAL SITE ELEMENTS.
2. SOIL LOADING CRITERIA:
   - A. SOIL COVER DEPTH: 0.50FT (MIN.) - 5.00FT (MAX.)
   - B. SOIL UNIT WEIGHT: 120 PCF
   - C. ASSUMED WATER TABLE ELEVATION: 8.75FT ABOVE SYSTEM INVERT
   - D. REQUIRED ALLOWABLE BEARING PRESSURE: 2,500 PSF
   - E. EQUIVALENT LATERAL FLUID PRESSURE, ACTIVE: 45 PCF (DRAINED)
   - F. EQUIVALENT LATERAL FLUID PRESSURE, AT-REST: 60 PCF (DRAINED)
   - G. EQUIVALENT LATERAL FLUID PRESSURE, PASSIVE: 150 PCF (DRAINED)
   - H. ASSUMED COEFFICIENT OF FRICTION: 0.40
   - I. SEISMIC LATERAL EARTH PRESSURES: 30.6H (APPLIED AS UNIFORM PRESSURE)
3. STORMCAPTURE MODULE TYPE: DETENTION (WATERTIGHT).
4. CONCRETE (NORMALWEIGHT):
   - A. MIN. 28-DAY COMPRESSIVE STRENGTH: 6,000 PSI
   - B. CEMENT: ASTM C150
5. STEEL REINFORCEMENT: ASTM A615 / A706 (GRADE 60), ASTM A1064 (GRADE 80)
6. REFERENCE STANDARDS: ASTM C913 & C890, ACI 318-14

## PLAN VIEW

SCALE: 3/64" = 1'-0"

Detention/
Infiltration

| REV | DESCRIPTION | DATE |
|---|---|---|
| | - | - |

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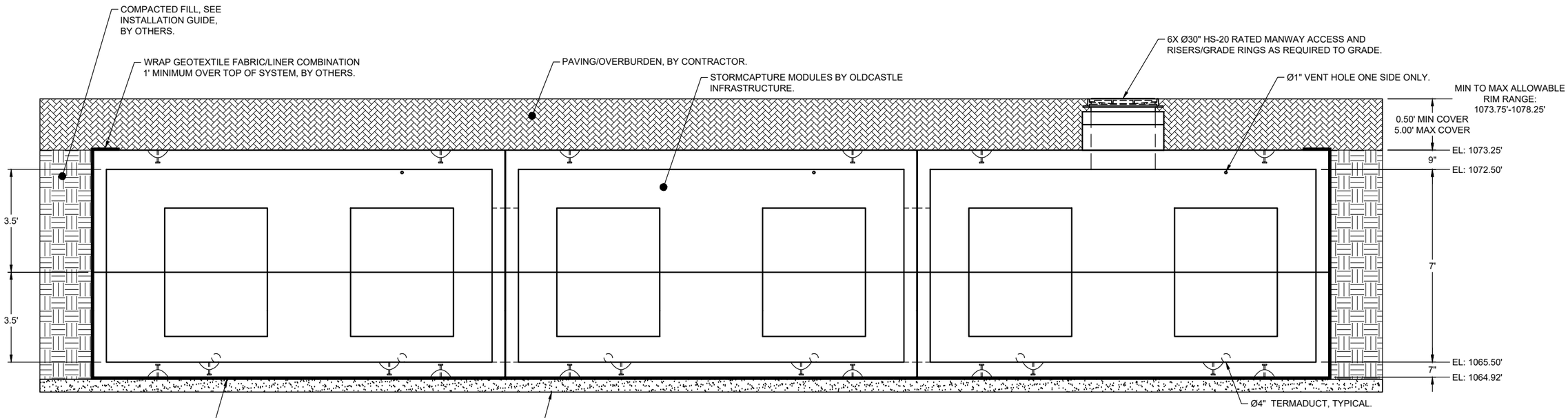
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| | | | | | | |
|---|---|---|---|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | | | | | SYSTEM ID: System 2 | PLAN-N |
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | | | | | |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | | | | JOB NUMBER: 22-733385 | |
| DATE | MFG | DRAWN | ENGINEER | CHECKED | SALES ORDER | |
| 6/13/22 | 070-FO | PPS | CDH | CDH | - | |
| DRAWING NAME: 22-733385-SC2 3.5-3.5_System 2 | | | | | SHEET: 1 OF 3 | |

REVIEWING NOTES

1. THIS SYSTEM HAS BEEN DESIGNED PER THE DESIGN PARAMETERS SPECIFIED IN THE DESIGN NOTES. REVIEWING ENGINEER SHALL VERIFY THAT THESE PARAMETERS MEET OR EXCEED PROJECT SPECIFIC REQUIREMENTS. IF SITE CONDITIONS DIFFER FROM NOTED DESIGN PARAMETERS, REVIEWING ENGINEER SHALL NOTIFY OLDCASTLE FOR POTENTIAL REDESIGN AND/OR PRICING ADJUSTMENTS.
2. REVIEWING ENGINEER SHALL VERIFY ALL PIPE PENETRATION LOCATIONS, SIZES, AND INVERTS.
3. REVIEWING ENGINEER SHALL VERIFY ALL MANWAY ACCESS LOCATIONS AND RIM ELEVATIONS.
4. THIS SYSTEM IS DESIGNED FOR A GROUNDWATER TABLE ELEVATION PER NOTE 2C, SHEET 1. REVIEWING ENGINEER SHALL VERIFY THAT THE DESIGN GROUNDWATER ELEVATION MEETS OR EXCEEDS SITE CONDITION REQUIREMENTS. NOTIFY OLDCASTLE IF SITE CONDITIONS VARY FROM WHAT HAS BEEN SPECIFIED FOR POTENTIAL SYSTEM DESIGN CHANGES AND/OR PRICING ADJUSTMENTS.
5. THIS SYSTEM HAS BEEN DESIGNED WITH A CONTAINMENT MEMBRANE. IF WATERTIGHT REQUIREMENTS ARE NOT NEEDED, REVIEWING ENGINEERING SHALL NOTIFY OLDCASTLE FOR POTENTIAL DESIGN CHANGES AND/OR PRICING ADJUSTMENTS.
6. DESIGN OF THE STORMCAPTURE PRECAST MODULE SYSTEM ASSUMES NO ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) WITHIN A 1:1 INFLUENCE LINE FROM THE BOTTOM EDGE OF ANY SYSTEM MODULE. ANY SITE ELEMENTS BEYOND THIS ZONE OF INFLUENCE ARE ASSUMED TO HAVE NO IMPACT ON THE SYSTEM AND EXERT ZERO LATERAL SURCHARGE ONTO THE MODULES. THE CONTRACTOR SHALL VERIFY THAT ANY ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) DO NOT LIE WITHIN THIS INFLUENCE ZONE OR DO NOT SURCHARGE THE PRECAST MODULES.
7. WRITTEN APPROVAL OF SUBMITTAL DRAWINGS ALONG WITH SIGNED PURCHASE ORDER REQUIRED FOR BEGINNING OF PRODUCT FABRICATION. ANY SYSTEM MODIFICATION POST-APPROVAL MAY RESULT IN CHANGE ORDER(S) AND/OR POTENTIAL DELIVERY DELAYS.

WATERPROOFING & LINER, BY OTHERS




TYPICAL ELEVATION

SCALE : 1/4" = 1'-0"

NOTE:
TERMADUCT INSERTS TO BE KNOCKED OUT AT SPECIFIED LOCATIONS ONLY (BY OTHERS).

Detention/ Infiltration

| REV | - DESCRIPTION | - DATE |
|---|---|---|

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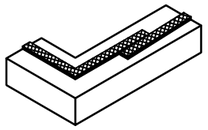
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| | | | | | | |
|---|---|---|---|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | | | | | SYSTEM ID: System 2 | |
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | | | | | |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | | | | | JOB NUMBER: 22-733385 |
| DATE | MFG | DRAWN | ENGINEER | CHECKED | | SALES ORDER |
| 6/13/22 | 070-FO | PPS | CDH | CDH | | - |
| DRAWING NAME: 22-733385-SC2 3.5-3.5_System 2 | | | | | | SHEET: 2 OF 3 |

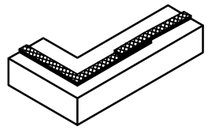
INSTALLATION NOTES

1. UNDERGROUND PRECAST CONCRETE SYSTEM INSTALLATION SHALL BE PER ASTM C891, “STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES” AND PER OLDCASTLE.
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3. ANY CONSTRUCTION EQUIPMENT EXCEEDING NOTED DESIGN LOADING IS NOT PERMITTED OVER OR ADJACENT TO ANY MODULE WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING, ELSE PRODUCT WARRANTY MAY BE VOIDED. ANY DESIGN CONSTRAINT EXCEEDING THE DESIGN PARAMETERS NOTED ABOVE MAY REQUIRE CUSTOM STRUCTURAL DESIGN, SUBGRADE REVISIONS, AND/OR PRICING ADJUSTMENTS.
4. HEAVY VIBRATORY COMPACTION EQUIPMENT SHALL NOT BE OPERATED WITHIN 10 FEET OF MODULE EXTERIOR.
5. MINIMUM OF 0.50FT OF SOIL COVER REQUIRED FOR CONSTRUCTION EQUIPMENT OPERATION ON TOP OF SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND INSTALLING SUB-CONSTRACTOR TO ENSURE THAT NO MODULES ARE DAMAGED DURING CONSTRUCTION.
6. UNLESS NOTED OTHERWISE, ALL PIPE SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR MAY MODIFY AT RISK ANY OLDCASTLE PRODUCT(S) IN THE FIELD OR AFTER DELIVERY WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ANY PRODUCT MODIFICATIONS DO NOT INVALIDATE THE PRODUCT WARRANTY.
8. MODULE PLACEMENT FIELD TOLERANCES SHALL NOT EXCEED 3/4" BETWEEN ADJACENT MODULES. IF MODULE GAP EXCEEDS 3/4", CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS AND RESET MODULE(S) TO BRING WITHIN NOTED TOLERANCES.
9. CONTRACTOR IS RESPONSIBLE FOR PRODUCTS ONCE DELIVERED TO THE SITE. OLDCASTLE IS NOT RESPONSIBLE FOR OFFLOADING PRODUCTS, MAINTENANCE, AND INSTALLATION OF PRODUCTS ONCE THEY ARRIVE TO THE SITE.
10. CONTRACTOR SHALL INSTALL SYSTEM PER PROJECT WATERPROOFING AND SOILTIGHTNESS REQUIREMENTS. WATERPROOFING AND SOILTIGHTNESS INSTALLATION IS NOT BY OLDCASTLE AND OLDCASTLE WILL PROVIDE NO GUARANTEE FOR THIS COMPONENT OF SYSTEM INSTALLATION.

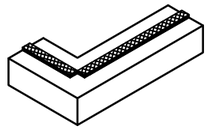
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CORRECT - INSTALL RUBBER SEALANT MATERIAL AT THE OUTER EDGE OF THE KEYWAY. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.



INCORRECT - DO NOT OVERLAP THE RUBBER SEALANT MATERIAL AT SPLICE.



INCORRECT - DO NOT SPLICE RUBBER SEALANT MATERIAL AT A CORNER. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.

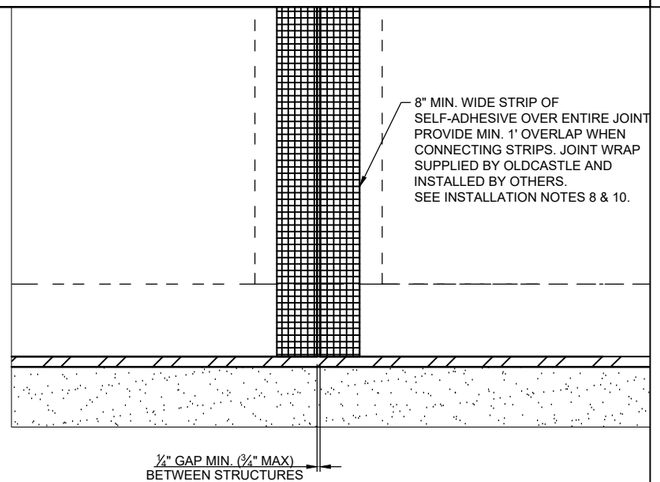
## BUTYL RUBBER SEALANT (CONSEAL CS-102 OR EQUAL) PLACEMENT DETAIL

NTS

| MAXIMUM EQUIPMENT OPERATING WEIGHT (OW) BY TRACK WIDTH | | | | |
|---|---|---|---|---|
| TRACK WIDTH | 12" | 18" | 24" | 30" |
| MIN TRACK LENGTH | 8'-0" | 10'-0" | 12'-0" | 14'-0" |
| FILL DEPTH | OW (LBS) | OW (LBS) | OW (LBS) | OW (LBS) |
| 0 | 35,000 | 45,000 | 52,500 | 54,500 |
| 1 | 35,000 | 45,000 | 56,000 | 60,500 |
| 2 | 35,000 | 45,000 | 56,000 | 64,000 |
| 3 | 76,000 | 78,500 | 83,500 | 88,000 |
| 4 | 94,000 | 100,000 | 106,000 | 113,000 |
| 5 | 100,000 | 116,000 | 132,000 | 149,000 |

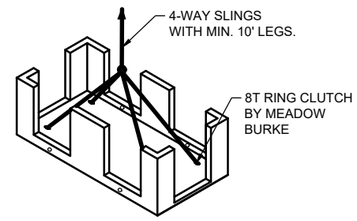
NOTES:

1. IF CONSTRUCTION EQUIPMENT EXCEEDS THE ABOVE OPERATING WEIGHT LIMITS REFER TO INSTALLATION NOTE 3.
2. FOR WHEELED CONSTRUCTION EQUIPMENT LIMITS REFER TO INSTALLATION NOTE 3.
3. MINIMUM AXLE SPACING FOR ALL TRACK WIDTHS IS 6'-0".



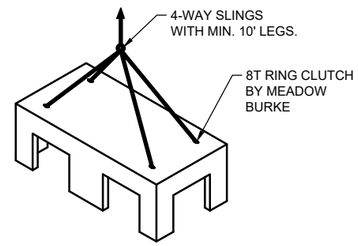

## MODULE JOINT DETAIL

SCALE: 1/2" = 1'-0"




## BOTTOM MODULE LIFTING DETAIL

N.T.S.




## TOP MODULE LIFTING DETAIL

N.T.S.

HEAVIEST PICK
WEIGHT = 25,880 LBS

Detention/
Infiltration

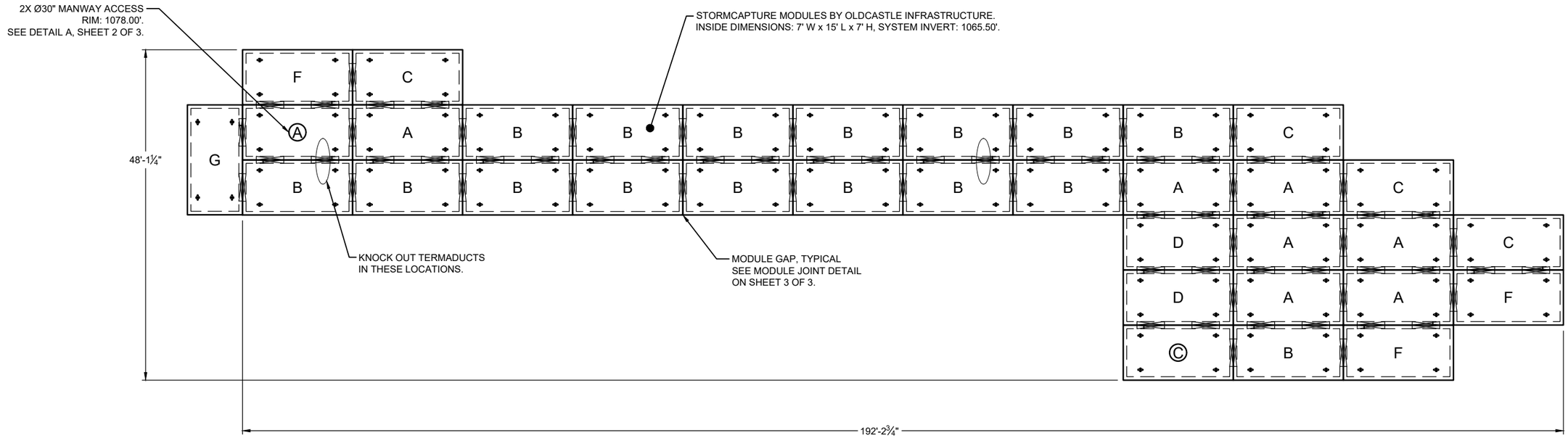
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| | | |
|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | SYSTEM ID: System 2 | |
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | JOB NUMBER: 22-733385 |
| DATE: 6/13/22 | MFG: 070-FO | DRAWN: PPS / ENGINEER: CDH / CHECKED: CDH |
| | | SALES ORDER: - |
| DRAWING NAME: 22-733385-SC2 3.5-3.5_System 2 | | SHEET: 3 OF 3 |

| MODULE NOTES | | |
|---|---|---|
| TYPE | QUANTITY | HEIGHT |
| A | 8 | 7' |
| B | 16 | 7' |
| C | 5 | 7' |
| D | 2 | 7' |
| F | 3 | 7' |
| G | 1 | 7' |
| TOTAL | 35 | |
| VOLUME = | 27,173 | CUBIC FEET |




## PLAN VIEW

SCALE: 1/16" = 1'-0"

DESIGN NOTES

1. LIVE LOADING CRITERIA:
   - A. HL-93 & OUTRIGGER LOADING (75 PSI ON 2'X2' PAD).
   - B. LATERAL LIVE LOAD SURCHARGE: 80 PSF (TO 8.00FT DEPTH)
   - C. NO LATERAL SURCHARGE(S) FROM ANY ADJACENT BUILDINGS, WALLS, FOUNDATIONS, OR ANY ADDITIONAL SITE ELEMENTS.
2. SOIL LOADING CRITERIA:
   - A. SOIL COVER DEPTH: 4.00FT (MIN.) - 6.00FT (MAX.)
   - B. SOIL UNIT WEIGHT: 120 PCF
   - C. ASSUMED WATER TABLE ELEVATION: 9.25FT ABOVE SYSTEM INVERT
   - D. REQUIRED ALLOWABLE BEARING PRESSURE: 2,500 PSF
   - E. EQUIVALENT LATERAL FLUID PRESSURE, ACTIVE: 45 PCF (DRAINED)
   - F. EQUIVALENT LATERAL FLUID PRESSURE, AT-REST: 60 PCF (DRAINED)
   - G. EQUIVALENT LATERAL FLUID PRESSURE, PASSIVE: 150 PCF (DRAINED)
   - H. ASSUMED COEFFICIENT OF FRICTION: 0.40
   - I. SEISMIC LATERAL EARTH PRESSURES: 30.6H (APPLIED AS UNIFORM PRESSURE)
3. STORMCAPTURE MODULE TYPE: DETENTION (WATERTIGHT).
4. CONCRETE (NORMALWEIGHT):
   - A. MIN. 28-DAY COMPRESSIVE STRENGTH: 6,000 PSI
   - B. CEMENT: ASTM C150
5. STEEL REINFORCEMENT: ASTM A615 / A706 (GRADE 60), ASTM A1064 (GRADE 80)
6. REFERENCE STANDARDS: ASTM C913 & C890, ACI 318-14

Detention/
Infiltration

| REV | DESCRIPTION | DATE |
|---|---|---|
| | REVISED LAYOUT | 9/16/22 |

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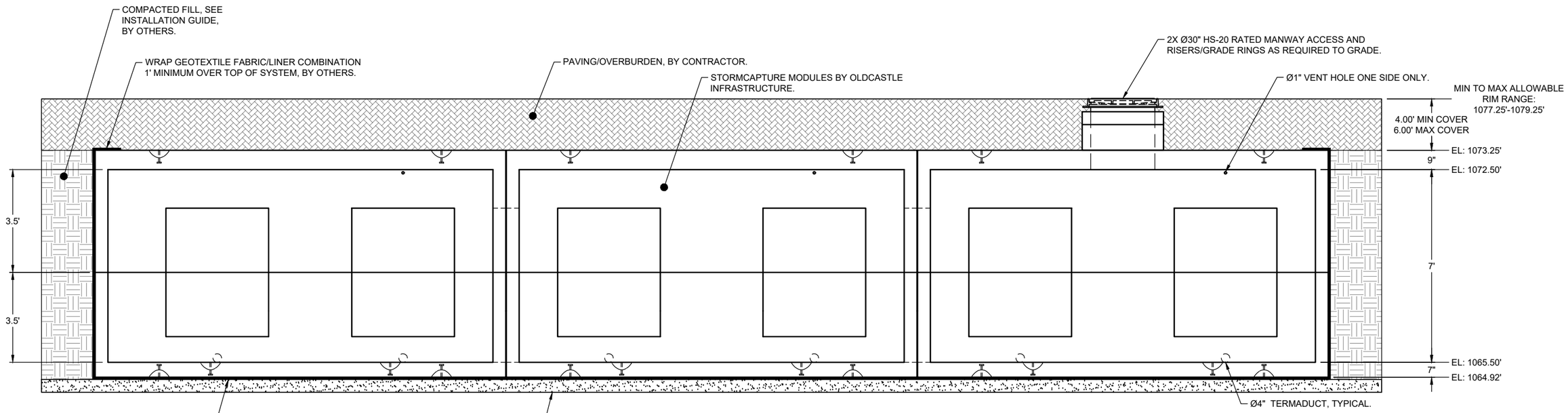
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| | | | | | | |
|---|---|---|---|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | | | | | SYSTEM ID: System 3 | PLAN-N |
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | | | | | |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | | | | | JOB NUMBER: 22-733385 |
| DATE | MFG | DRAWN | ENGINEER | CHECKED | | SALES ORDER |
| 6/22/22 | 070-FO | PPS | CDH | CDH | | - |
| DRAWING NAME: 22-733385-SC2 3.5-3.5_System 3 | | | | | | SHEET: 1 OF 3 |

REVIEWING NOTES

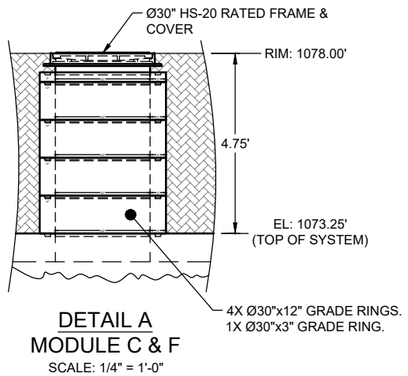
1. THIS SYSTEM HAS BEEN DESIGNED PER THE DESIGN PARAMETERS SPECIFIED IN THE DESIGN NOTES. REVIEWING ENGINEER SHALL VERIFY THAT THESE PARAMETERS MEET OR EXCEED PROJECT SPECIFIC REQUIREMENTS. IF SITE CONDITIONS DIFFER FROM NOTED DESIGN PARAMETERS, REVIEWING ENGINEER SHALL NOTIFY OLDCASTLE FOR POTENTIAL REDESIGN AND/OR PRICING ADJUSTMENTS.
2. REVIEWING ENGINEER SHALL VERIFY ALL PIPE PENETRATION LOCATIONS, SIZES, AND INVERTS.
3. REVIEWING ENGINEER SHALL VERIFY ALL MANWAY ACCESS LOCATIONS AND RIM ELEVATIONS.
4. THIS SYSTEM IS DESIGNED FOR A GROUNDWATER TABLE ELEVATION PER NOTE 2C, SHEET 1. REVIEWING ENGINEER SHALL VERIFY THAT THE DESIGN GROUNDWATER ELEVATION MEETS OR EXCEEDS SITE CONDITION REQUIREMENTS. NOTIFY OLDCASTLE IF SITE CONDITIONS VARY FROM WHAT HAS BEEN SPECIFIED FOR POTENTIAL SYSTEM DESIGN CHANGES AND/OR PRICING ADJUSTMENTS.
5. THIS SYSTEM HAS BEEN DESIGNED WITH A CONTAINMENT MEMBRANE. IF WATERTIGHT REQUIREMENTS ARE NOT NEEDED, REVIEWING ENGINEERING SHALL NOTIFY OLDCASTLE FOR POTENTIAL DESIGN CHANGES AND/OR PRICING ADJUSTMENTS.
6. DESIGN OF THE STORMCAPTURE PRECAST MODULE SYSTEM ASSUMES NO ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) WITHIN A 1:1 INFLUENCE LINE FROM THE BOTTOM EDGE OF ANY SYSTEM MODULE. ANY SITE ELEMENTS BEYOND THIS ZONE OF INFLUENCE ARE ASSUMED TO HAVE NO IMPACT ON THE SYSTEM AND EXERT ZERO LATERAL SURCHARGE ONTO THE MODULES. THE CONTRACTOR SHALL VERIFY THAT ANY ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) DO NOT LIE WITHIN THIS INFLUENCE ZONE OR DO NOT SURCHARGE THE PRECAST MODULES.
7. WRITTEN APPROVAL OF SUBMITTAL DRAWINGS ALONG WITH SIGNED PURCHASE ORDER REQUIRED FOR BEGINNING OF PRODUCT FABRICATION. ANY SYSTEM MODIFICATION POST-APPROVAL MAY RESULT IN CHANGE ORDER(S) AND/OR POTENTIAL DELIVERY DELAYS.

## WATERPROOFING & LINER, BY OTHERS




TYPICAL ELEVATION
SCALE : 1/4" = 1'-0"

NOTE:
TERMADUCT INSERTS TO BE KNOCKED OUT AT SPECIFIED LOCATIONS ONLY (BY OTHERS).




DETAIL A
MODULE C & F
SCALE: 1/4" = 1'-0"

Detention/ Infiltration

| REV | DESCRIPTION | DATE |
|---|---|---|
| | REVISED LAYOUT | 9/16/22 |

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| STORMCAPTURE ® DETENTION SYSTEM | SYSTEM ID: System 3 | |
|---|---|---|
| CUSTOMER: KIMLEY-HORN & ASSOCIATES | | |
| JOB NAME: LMC APARTMENTS - MURIETTA, CA | | JOB NUMBER: 22-733385 |

| DATE | MFG | DRAWN | ENGINEER | CHECKED | SALES ORDER |
|---|---|---|---|---|---|
| 6/22/22 | 070-FO | PPS | CDH | CDH | - |

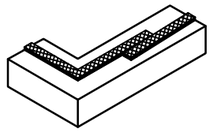
DRAWING NAME: 22-733385-SC2 3.5-3.5_System 3

SHEET: 2 OF 3

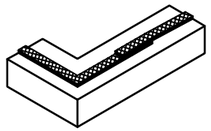
INSTALLATION NOTES

1. UNDERGROUND PRECAST CONCRETE SYSTEM INSTALLATION SHALL BE PER ASTM C891, “STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES” AND PER OLDCASTLE.
2. MODULE SUBBASE OR SUBGRADE SHALL BE LEVEL/SCREEDED AND COMPACTED ADEQUATELY FOR REQUIRED BEARING CAPACITY PER DESIGN NOTE 2D, SHEET 1. CONTRACTOR AND/OR INSTALLING SUB-CONTRACTOR SHALL VERIFY THAT SOIL BEARING CONDITIONS MEET OR EXCEED DESIGN REQUIRED MINIMUMS PRIOR TO PLACEMENT AND INSTALLATION OF MODULES.
3. ANY CONSTRUCTION EQUIPMENT EXCEEDING NOTED DESIGN LOADING IS NOT PERMITTED OVER OR ADJACENT TO ANY MODULE WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING, ELSE PRODUCT WARRANTY MAY BE VOIDED. ANY DESIGN CONSTRAINT EXCEEDING THE DESIGN PARAMETERS NOTED ABOVE MAY REQUIRE CUSTOM STRUCTURAL DESIGN, SUBGRADE REVISIONS, AND/OR PRICING ADJUSTMENTS.
4. HEAVY VIBRATORY COMPACTION EQUIPMENT SHALL NOT BE OPERATED WITHIN 10 FEET OF MODULE EXTERIOR.
5. MINIMUM OF 0.50FT OF SOIL COVER REQUIRED FOR CONSTRUCTION EQUIPMENT OPERATION ON TOP OF SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND INSTALLING SUB-CONSTRACTOR TO ENSURE THAT NO MODULES ARE DAMAGED DURING CONSTRUCTION.
6. UNLESS NOTED OTHERWISE, ALL PIPE SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR MAY MODIFY AT RISK ANY OLDCASTLE PRODUCT(S) IN THE FIELD OR AFTER DELIVERY WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ANY PRODUCT MODIFICATIONS DO NOT INVALIDATE THE PRODUCT WARRANTY.
8. MODULE PLACEMENT FIELD TOLERANCES SHALL NOT EXCEED 3/4" BETWEEN ADJACENT MODULES. IF MODULE GAP EXCEEDS 3/4", CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS AND RESET MODULE(S) TO BRING WITHIN NOTED TOLERANCES.
9. CONTRACTOR IS RESPONSIBLE FOR PRODUCTS ONCE DELIVERED TO THE SITE. OLDCASTLE IS NOT RESPONSIBLE FOR OFFLOADING PRODUCTS, MAINTENANCE, AND INSTALLATION OF PRODUCTS ONCE THEY ARRIVE TO THE SITE.
10. CONTRACTOR SHALL INSTALL SYSTEM PER PROJECT WATERPROOFING AND SOILTIGHTNESS REQUIREMENTS. WATERPROOFING AND SOILTIGHTNESS INSTALLATION IS NOT BY OLDCASTLE AND OLDCASTLE WILL PROVIDE NO GUARANTEE FOR THIS COMPONENT OF SYSTEM INSTALLATION.

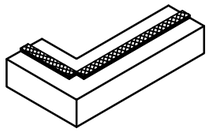
KEYWAYS MUST BE FREE OF DIRT, ROCKS, AND WATER. ROCKS AND DIRT PREVENT THE VAULT SECTIONS FROM SEATING AND SEALING PROPERLY. REMOVE ALL PROTECTIVE PAPER FROM RUBBER SEALANT MATERIAL. SPLICE RUBBER SEALANT MATERIAL WITH A "SIDE BY SIDE" JOINT, AWAY FROM CORNERS. CORNER SPLICING WILL NOT SEAL PROPERLY.



CORRECT - INSTALL RUBBER SEALANT MATERIAL AT THE OUTER EDGE OF THE KEYWAY. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.



INCORRECT - DO NOT OVERLAP THE RUBBER SEALANT MATERIAL AT SPLICE.



INCORRECT - DO NOT SPLICE RUBBER SEALANT MATERIAL AT A CORNER. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.

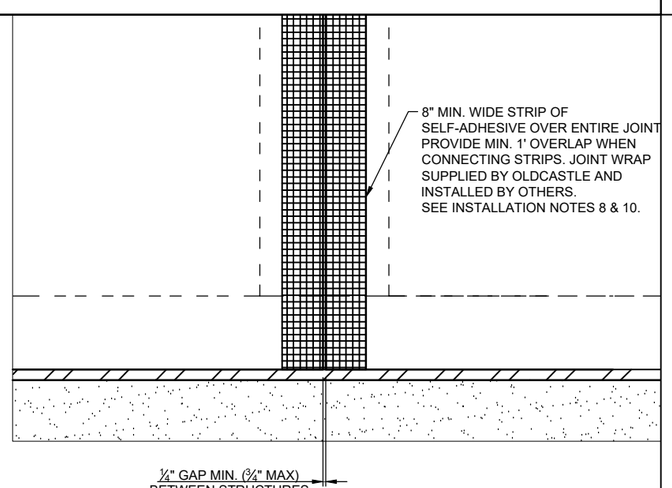
## BUTYL RUBBER SEALANT (CONSEAL CS-102 OR EQUAL) PLACEMENT DETAIL

NTS

| MAXIMUM EQUIPMENT OPERATING WEIGHT (OW) BY TRACK WIDTH | | | | |
|---|---|---|---|---|
| TRACK WIDTH | 12" | 18" | 24" | 30" |
| MIN TRACK LENGTH | 8'-0" | 10'-0" | 12'-0" | 14'-0" |
| FILL DEPTH | OW (LBS) | OW (LBS) | OW (LBS) | OW (LBS) |
| 0 | 35,000 | 45,000 | 52,500 | 54,500 |
| 1 | 35,000 | 45,000 | 56,000 | 60,500 |
| 2 | 35,000 | 45,000 | 56,000 | 64,000 |
| 3 | 76,000 | 78,500 | 83,500 | 88,000 |
| 4 | 94,000 | 100,000 | 106,000 | 113,000 |
| 5 | 100,000 | 116,000 | 132,000 | 149,000 |

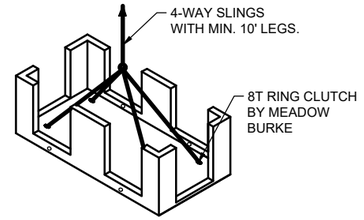
NOTES:

1. IF CONSTRUCTION EQUIPMENT EXCEEDS THE ABOVE OPERATING WEIGHT LIMITS REFER TO INSTALLATION NOTE 3.
2. FOR WHEELED CONSTRUCTION EQUIPMENT LIMITS REFER TO INSTALLATION NOTE 3.
3. MINIMUM AXLE SPACING FOR ALL TRACK WIDTHS IS 6'-0".



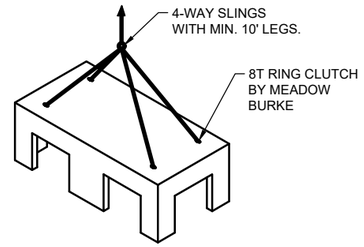

## MODULE JOINT DETAIL

SCALE: 1/2" = 1'-0"




## BOTTOM MODULE LIFTING DETAIL

N.T.S.




## TOP MODULE LIFTING DETAIL

N.T.S.

HEAVIEST PICK
WEIGHT = 25,280 LBS

Detention/ Infiltration

| REV | DESCRIPTION | DATE |
|---|---|---|
| | REVISED LAYOUT | 9/16/22 |

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| | | |
|---|---|---|
| STORMCAPTURE ® DETENTION SYSTEM | SYSTEM ID: System 3 | |
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| 6/22/22 | 070-FO | PPS | CDH | CDH | - |

DRAWING NAME: 22-733385-SC2 3.5-3.5_System 3

SHEET: 3 OF 3



# WEATHER the Storm



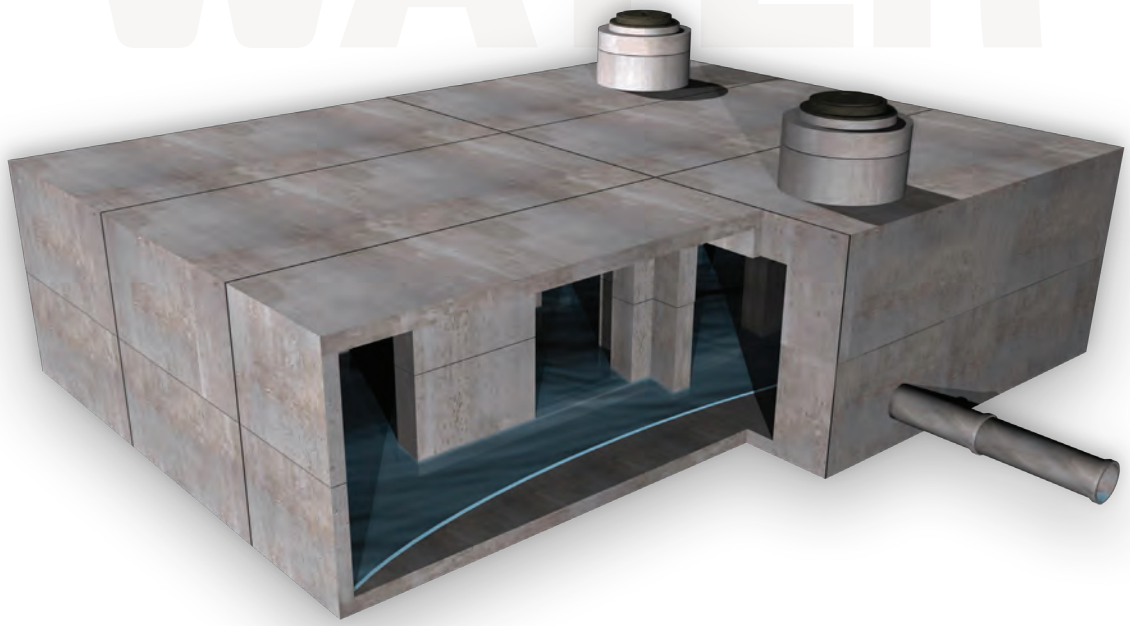
StormCapture® System

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# STORMCAPTURE®

## Modular Stormwater Management System for Infiltration, Detention, Retention, Treatment and Harvesting



## StormCapture® System

**Backfill Requirements**–Modules are typically backfilled with existing site materials.

**Custom Sizes**–Available in internal heights from 2’ to 14’ to best-fit site needs.

**Design Assistance**–Let our professionals customize for your specific needs.

**Easy to Install**–Fast installation with minimal handling.

**Large Storage Capacity**–Smaller system footprint for greater design flexibility.

**Modular Design**–Precast concrete modules measure 8’ wide by 16’ long OD, (7’ x 15’ ID), with customizable heights.

**Traffic Loading**–Only requires 6” of cover.

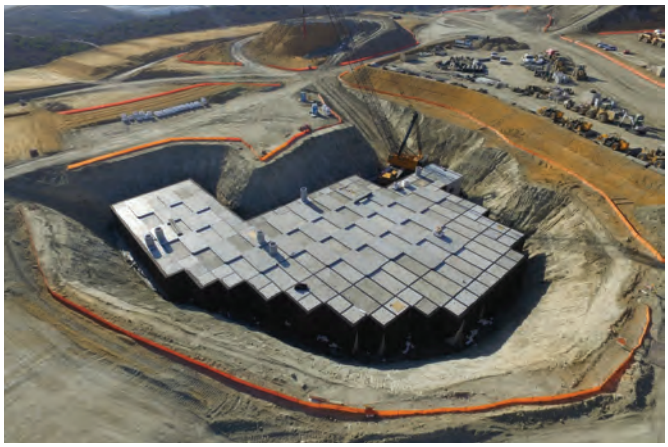
**Treatment Train**–Available with pre-treatment, post-treatment, or both.

# StormCapture Advantages

Same-day staging and installation of StormCapture project.



StormCapture offers fast installation with minimal handling.



StormCapture modules are designed for HS20 traffic loading.



StormCapture detention system installed beneath office parking lot.



**Fast Service** – Get help from our national engineering team with layouts and specifications to meet your project's requirements.

**Cost Savings** – Highly competitive installation and maintenance costs.

**Codes** – Designed to the latest codes for HS-20-44 (full truckload plus impact).

**Sustainability** – The system is maintainable for long-term sustainability.

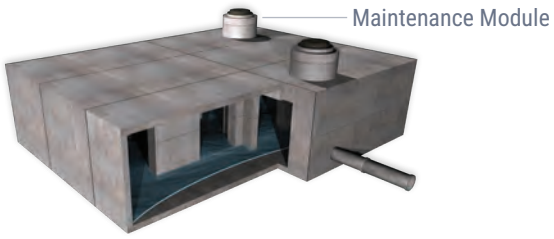
**LID** – Ideal for Low-Impact Development (LID).

**LEED** – Manufactured locally with recycled material for potential LEED credits. LEED 2009 for New Construction & Major Renovation, U.S. Green Building Council: Sustainable Sites (5.1, 5.2, 6.1, 6.2), Materials & Resources (4.1, 4.2, 5.1, 5.2), Water Efficiency (1.1, 1.2, 3.1, 3.2).

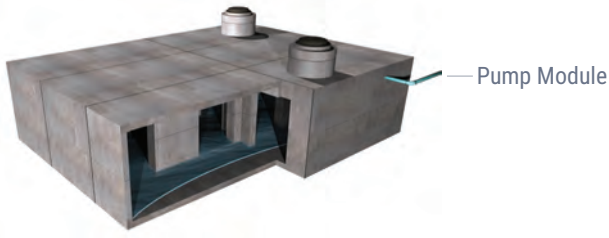
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# Applications

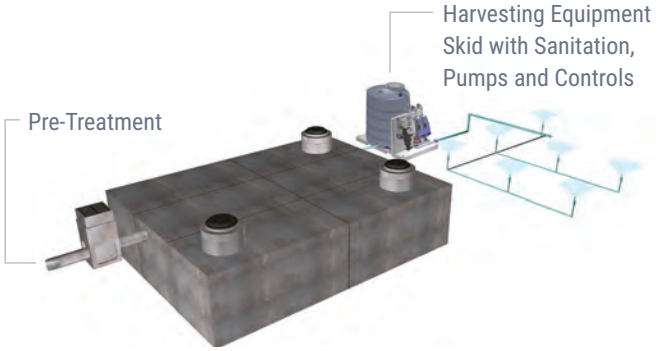
StormCapture offers numerous options for infiltration, detention, retention, treatment and harvesting to solve your stormwater management needs. Let us show you how we can design and customize a solution for you.



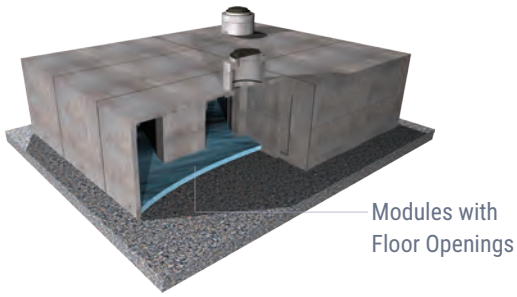

## DETENTION



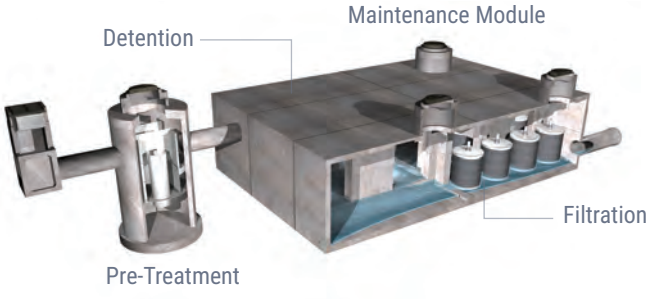

## RETENTION



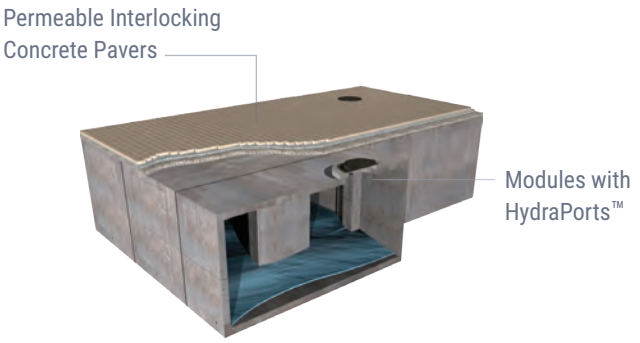

## HARVESTING



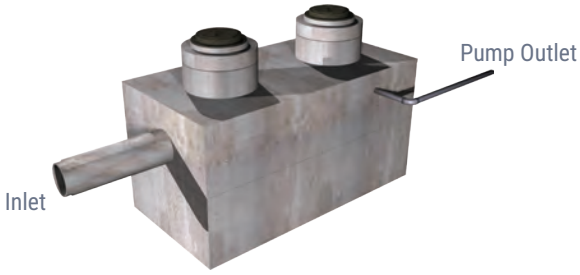

## INFILTRATION




## TREATMENT




**PERMECAPTURE**




**CISTERNS**

## INSTALLED IN JUST ONE DAY

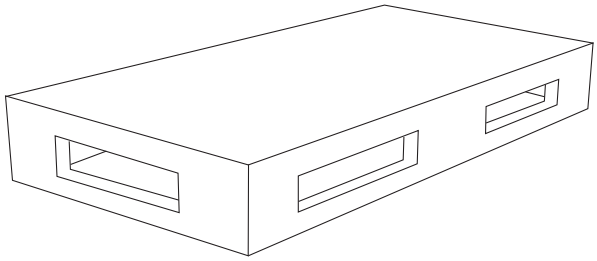




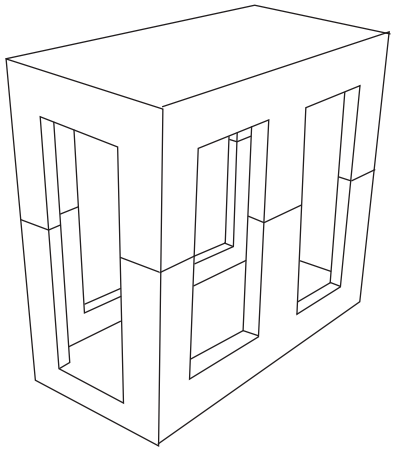




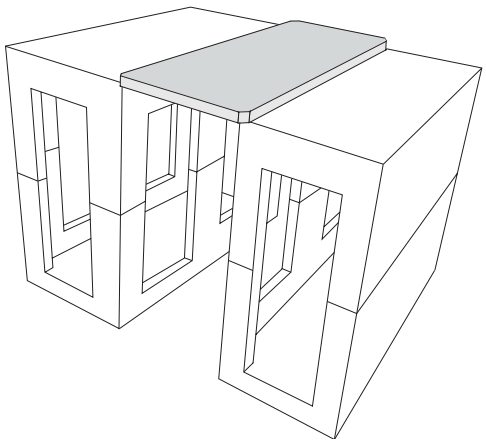
# StormCapture Modules



SC1 - Single piece modules can be used for applications from 2' to 7' tall. Appropriate for cisterns, infiltration, detention and retention systems. SC1 modules are typically installed on minimally compacted gravel base, depending on specific project requirements.



SC2 - Two piece modules can be used for applications from 7' to 14' tall for maximum storage capacity in a condensed footprint. Appropriate for cisterns, infiltration, detention and retention systems. SC2 modules are typically installed on compacted native subgrade.



Link Slab - Unique design allows for significant reduction in the quantity of modules and associated costs, while providing maximum storage capacity.



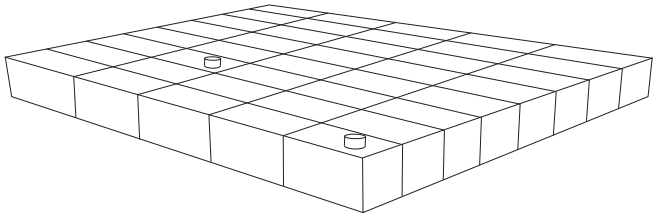
# Module Sizes & Capacities

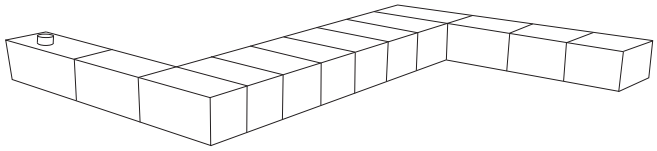
Modules are 8'x16' outside dimensions.
Capacity varies by configuration of openings.

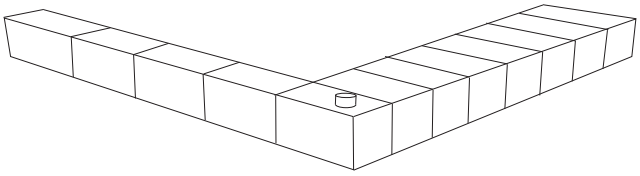
| INSIDE DIMENSIONS (FT) | CAPACITY RANGE ($FT^3$) |
|---|---|
| 7x15x2 | 210-212 |
| 7x15x3 | 315-325 |
| 7x15x4 | 420-442 |
| 7x15x5 | 525-559 |
| 7x15x6 | 630-678 |
| 7x15x7 | 735-793 |
| 7x15x8 | 840-910 |

| INSIDE DIMENSIONS (FT) | CAPACITY RANGE ($FT^3$) |
|---|---|
| 7x15x9 | 945-1,027 |
| 7x15x10 | 1,050-1,140 |
| 7x15x11 | 1,155 - 1,257 |
| 7x15x12 | 1,260 - 1,374 |
| 7x15x13 | 1,365 -1,491 |
| 7x15x14 | 1,470 - 1,608 |

# Endless Configurations







**Contact us today to start designing your system!**

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oldcastleinfrastructure.com

Water

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# Appendix 8: Source Control

*Pollutant Sources/Source Control Checklist*

Include a copy of the completed Pollutant Sources/Source Control Checklist used to document Source Control BMPs in Section H of this Template.

Appendix 8

# STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section **H** of the 20**18** SMR WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table H.1 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

| IF THESE SOURCES WILL BE ON THE PROJECT SITE … | … THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE | | |
|---|---|---|---|
| 1<br>Potential Sources of Runoff Pollutants | 2<br>Permanent Controls—Show on WQMP Drawings | 3<br>Permanent Controls—List in WQMP Table and Narrative | 4<br>Operational BMPs—Include in WQMP Table and Narrative |
| ❑ A. **On-site storm drain inlets** | ❑ **Locations of inlets.** | ❑ **Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.** | ❑ **Maintain and periodically repaint or replace inlet markings.**<br>❑ **Provide stormwater pollution prevention information to new site owners, lessees, or operators.**<br>❑ **See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**<br>❑ **Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."** |
| ❑ B. **Interior floor drains and elevator shaft sump pumps** | | ❑ **State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.** | ❑ **Inspect and maintain drains to prevent blockages and overflow.** |
| ❑ C. **Interior parking garages** | | ❑ **State that parking garage floor drains will be plumbed to the sanitary sewer.** | ❑ **Inspect and maintain drains to prevent blockages and overflow.** |

| IF THESE SOURCES WILL BE ON THE PROJECT SITE … | … THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE | | |
|---|---|---|---|
| 1<br>Potential Sources of Runoff Pollutants | 2<br>Permanent Controls—Show on WQMP Drawings | 3<br>Permanent Controls—List in WQMP Table and Narrative | 4<br>Operational BMPs—Include in WQMP Table and Narrative |
| ❑ D1. **Need for future indoor & structural pest control** | | ❑ **Note building design features that discourage entry of pests.** | ❑ **Provide Integrated Pest Management information to owners, lessees, and operators.** |
| ❑ D2. **Landscape/ Outdoor Pesticide Use** | ❑ **Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained.**<br>❑ **Show self-retaining landscape areas, if any.**<br>❑ **Show stormwater treatment and hydrograph modification management BMPs.** | **State that final landscape plans will accomplish all of the following.**<br>❑ **Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.**<br>❑ **Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.**<br>❑ **Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.**<br>❑ **Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.** | ❑ **Maintain landscaping using minimum or no pesticides.**<br>❑ **See applicable operational BMPs in "What you should know for…..Landscape and Gardening"** at: http://www.rcwatershed.org/about/materials-library/#1450469138395-bb76dd39-d810<br>❑ **Provide IPM information to new owners, lessees and operators.** |

| IF THESE SOURCES WILL BE ON THE PROJECT SITE ... | ... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE | | |
|---|---|---|---|
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| ❑ E. **Pools, spas, ponds, decorative fountains, and other water features.** | ❑ **Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)** | **If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.** | ❑ **See applicable operational BMPs in "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at:** http://www.rcwatershed.org/about/materials-library/#1450469201433-f5f358c9-6008 |
| ❑ F. **Food service** | ❑ **For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment.**<br>❑ **On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.** | ❑ **Describe the location and features of the designated cleaning area.**<br>❑ **Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.** | ❑ **See the brochure, "The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at** http://www.rcwatershed.org/about/materials-library/#1450389926766-61e8af0b-53a9<br>**Provide this brochure to new site owners, lessees, and operators.** |
| ❑ G. **Refuse areas** | ❑ **Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas.**<br>❑ **If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area.**<br>❑ **Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.** | ❑ **State how site refuse will be handled and provide supporting detail to what is shown on plans.**<br>❑ **State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.** | ❑ **State how the following will be implemented:**<br>**Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** |

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| ❑ H. **Industrial processes.** | ❑ **Show process area.** | ❑ **If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."** | ❑ **See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**<br>See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at: **http://www.rcwatershed.org/about/materials-library/#1450389926766-61e8af0b-53a9** |
| ❑ I. **Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)** | ❑ **Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area.**<br>❑ **Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults.**<br>❑ **Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.** | ❑ **Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains.**<br>**Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for:**<br>▪ **Hazardous Waste Generation**<br>▪ **Hazardous Materials Release Response and Inventory**<br>▪ **California Accidental Release (CalARP)**<br>▪ **Aboveground Storage Tank**<br>▪ **Uniform Fire Code Article 80 Section 103(b) & (c) 1991**<br>▪ **Underground Storage Tank**<br>**www.cchealth.org/groups/hazmat/** | ❑ **See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** |

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| ❑ J. **Vehicle and Equipment Cleaning** | ❑ **Show on drawings as appropriate:**<br>**(1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses.**<br>**(2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use).**<br>**(3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer.**<br>**(4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.** | ❑ **If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.** | **Describe operational measures to implement the following (if applicable):**<br>❑ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system. Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at: http://www.rcwatershed.org/about/materials-library/#1450389926766-61e8af0b-53a9**<br>❑ **Car dealerships and similar may rinse cars with water only.** |

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| ❑ K. **Vehicle/Equipment Repair and Maintenance** | ❑ **Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater.**<br>❑ **Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.**<br>❑ **Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.** | ❑ **State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area.**<br>❑ **State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.**<br>❑ **State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.** | **In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:**<br>❑ **No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains.**<br>❑ **No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately.**<br>❑ **No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.**<br>**Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations; "Outdoor Cleaning Activities;" and "Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants. Brochures can be found at: http://www.rcwatershed.org/about/materials-library/#1450389926766-61e8af0b-53a9** |

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| ❑ L. **Fuel Dispensing Areas** | ❑ **Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable.**<br>❑ **Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.** | | ❑ **The property owner shall dry sweep the fueling area routinely.**<br>❑ **See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** |

[6] **The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.**

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| ❑ M. **Loading Docks** | ❑ **Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer.**<br>❑ **Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation.**<br>❑ **Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.** | | ❑ **Move loaded and unloaded items indoors as soon as possible.**<br>❑ **See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** |

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| ❑ N. **Fire Sprinkler Test Water** | | ❑ **Provide a means to drain fire sprinkler test water to the sanitary sewer.** | ❑ **See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** |
| O. **Miscellaneous Drain or Wash Water or Other Sources**<br>❑ **Boiler drain lines**<br>❑ **Condensate drain lines**<br>❑ **Rooftop equipment**<br>❑ **Drainage sumps**<br>❑ **Roofing, gutters, and trim.**<br>❑ **Other sources** | | ❑ **Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system.**<br>❑ **Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system.**<br>❑ **Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.**<br>❑ **Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.**<br>❑ **Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.**<br>❑ **Include controls for other sources as specified by local reviewer.** | |

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| ❑ P. **Plazas, sidewalks, and parking lots.** | | | ❑ **Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.** |

# Appendix 9: O&M

*Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms*

Include the completed Operation and Maintenance Plan in this Appendix along with additional documentation of Finance and Maintenance Recording Mechanisms for the site. Refer to Sections 3.10 and 5 of the SMR WQMP and Section J of this Template. A signed agreement will be provided in final design.

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:

City of Murrieta
1 Town Square
Murrieta, CA 92562

Above Space for Recorder's Use

**DECLARATION OF WATER QUALITY MANAGEMENT PLAN RESTRICTIVE COVENANT**

This Declaration of Water Quality Management Plan Restrictive Covenant (this "Covenant") is made this ___ day of _____, 2022 by Marsca Properties ("Owner")

A. The Owner of that certain real property (the "Property") located in the City of Murrieta, California ("City"), more particularly described in Exhibit "A" attached hereto and incorporated herein by this reference and has proposed that the Property be developed by Owner in accordance with the governmental approvals issued by the City and other governmental or quasi-governmental agencies having jurisdiction over the Property.

B. In accordance with the Murrieta Municipal Code, applicable State of California statutes, and other ordinances and regulations (collectively, the "Stormwater Laws") of City and the State of California which regulate land development and urban runoff, the Owners have prepared and submitted to the City a Final Water Quality Management Plan ("WQMP"), which is on file with City's Engineering Department and a copy of which is required to be kept on the Property. The WQMP proposes that stormwater runoff from the Property be managed by the use of the stormwater management facilities, which are identified in the WQMP as "Best Management Practices" or "BMP's." The precise location(s) and extent of the BMP's are indicated within the WQMP. The WQMP specifies the manner and standards by which the BMP's must be repaired and maintained in order to retain their effectiveness.

C. The purpose of this Covenant is to assure that the BMP's are adequately maintained by creating obligations which are enforceable against the Owner and its successors in interest in the Property. The Owner intends that these obligations be enforceable notwithstanding other provisions related to BMP maintenance which are provided by law.

COVENANT TERMS, CONDITIONS, AND RESTRICTIONS

In consideration of the above recitals and the mutual covenants, terms, conditions and restrictions contained herein, and pursuant to the laws of the United States, the State of California and the City of Murrieta Municipal Code, Owner hereby declares the Property shall be held, transferred, conveyed, leased, occupied or otherwise disposed of and used subject to the

following restrictive covenants (and incorporating the above recitals herein by reference), which shall run with the land and be binding on the Owner's heirs, successors in interest, administrators, assigns, lessees or other occupiers and users (collectively "Successors") of the Property or any portion thereof.

1. Maintenance of Stormwater Management Facilities.

    1.1. Owner agrees, for themselves and their successors in interest to all or any portion of the Property, to comply in all respects with the requirements of the Stormwater Laws and the WQMP with regards to the construction and maintenance of BMP's designated in the WQMP. The Owner and its Successors, in particular agree to perform, at its sole cost, expense and liability, all inspections, cleaning, repairs, servicing, and maintenance with respect to all of the BMP's listed in Exhibit "B" attached hereto and incorporated herein by this reference (the "Maintenance Activities"). The Owner and its Successors shall initiate, perform and complete all Maintenance Activities at the required time, without request or demand from the City, or any other agency. Owner and its Successors shall keep a report of any inspections and/or maintenance of the BMP's for review at any time by City or the Water Quality Board for the region. The Owner and its Successors further agree that Maintenance Activities shall include replacement or modification of the BMP's in the event of failure. Replacement shall be with an identical type, size and model of BMP subject to applicable Stormwater Laws, except that:

        A. The City Engineer may authorize substitution of an alternative BMP if he or she determines that it will function as well as the failed BMP; or

        B. If the failure of the BMP, in the reasonable judgment of the City Engineer indicates that the BMP in use is inappropriate or inadequate to the circumstances, the BMP must be modified or replaced with an upgraded BMP to prevent future failure.

    1.2. The Owner and its Successors shall, at all times, be subject to the Stormwater Laws with respect to the City's right of entry, inspection and maintenance or abatement.

2. Covenant Binds Successors and Runs with the Property. It is understood and agreed that the terms, covenants and conditions herein contained shall constitute covenants running with the land and shall be binding upon the heirs, executors, administrators, successors and assigns of the Owner and its Successors, and shall be deemed to be for the benefit of all persons owning any interest in the Property. It is the intent of the Owner that this Covenant may be recorded and shall be binding upon all persons purchasing or otherwise acquiring all or any lot, unit or other portion of the Property who shall be deemed to have consented to and become bound by all the provisions hereof.

3. Amendment and Release. The terms of this Covenant may be modified only by a written amendment approved and signed by City and by the Owner or its Successors in interest. This Covenant may be terminated and Owner and its Successors released from the

covenants set forth herein by a written release which City may execute if it determines that another mechanism will assure the ongoing maintenance of the BMP's and transfers of ownership, or that it is no longer necessary to assure such maintenance and transfers of ownership.

4. Governing Law and Severability. This Covenant shall be governed by the laws of the State of California. Venue in any action related to this Covenant shall be in the Superior Court of the State of California, County of Riverside. In the event that any of the provisions of this Covenant are held to be unenforceable or invalid by any court of competent jurisdiction, the validity, and enforceability of the remaining provisions shall not be affected thereby.

5. Copy of Final WQMP. A copy of the Final WQMP must be kept on the Property at all times.

[SIGNATURES FOLLOW ON NEXT PAGE]

**IN WITNESS WHEREOF,** the Owner has executed this Covenant on the day and year first written above.

**"OWNER"**:

Lennar Multifamily Communities, LLC
95 Enterprise, Suite 200
Aliso Viejo, CA 92656

By:_____
Name:_____
Its:_____

EXHIBIT “A”

PROPERTY

EXHIBIT “B”

BEST MANAGEMENT PRACTICES

Bio Clean

A Forterra Company

# Modular Wetlands® Linear

## A Stormwater Biofiltration Solution

# OPERATION & MAINTENANCE MANUAL

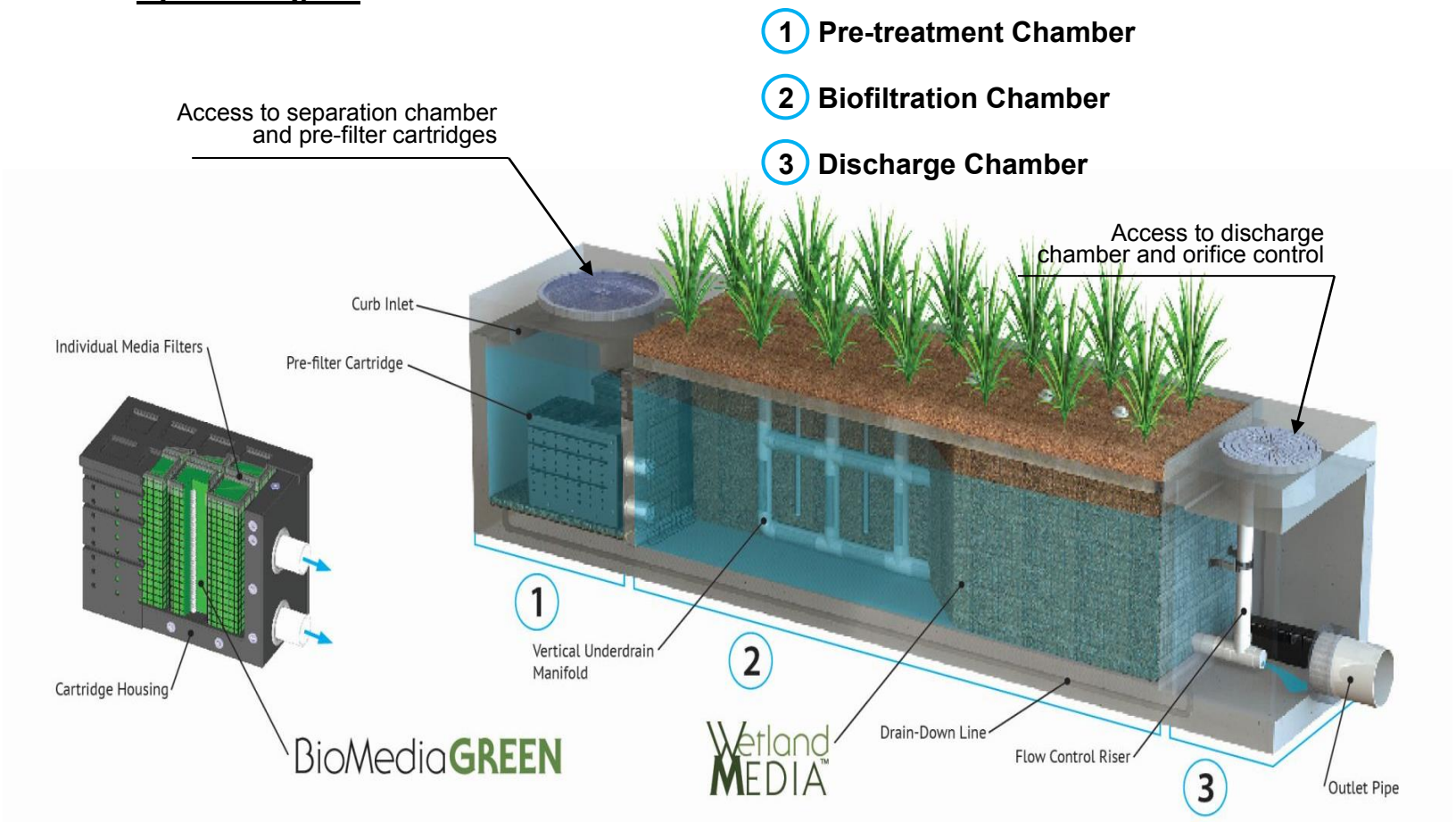


# Inspection Guidelines for Modular Wetland System - Linear

## Inspection Summary

- Inspect Pre-Treatment, Biofiltration and Discharge Chambers – average inspection interval is 6 to 12 months.
  - (1*5 minute average inspection time*).
- NOTE: Pollutant loading varies greatly from site to site and no two sites are the same. Therefore, the first year requires inspection monthly during the wet season and every other month during the dry season in order to observe and record the amount of pollutant loading the system is receiving.

## System Diagram



# Inspection Overview

As with all stormwater BMPs inspection and maintenance on the MWS Linear is necessary. Stormwater regulations require that all BMPs be inspected and maintained to ensure they are operating as designed to allow for effective pollutant removal and provide protection to receiving water bodies. It is recommended that inspections be performed multiple times during the first year to assess the site specific loading conditions. This is recommended because pollutant loading and pollutant characteristics can vary greatly from site to site. Variables such as nearby soil erosion or construction sites, winter sanding on roads, amount of daily traffic and land use can increase pollutant loading on the system. The first year of inspections can be used to set inspection and maintenance intervals for subsequent years to ensure appropriate maintenance is provided. Without appropriate maintenance a BMP will exceed its storage capacity which can negatively affect its continued performance in removing and retaining captured pollutants.

## Inspection Equipment

Following is a list of equipment to allow for simple and effective inspection of the MWS Linear:

- Modular Wetland Inspection Form
- Flashlight
- Manhole hook or appropriate tools to remove access hatches and covers
- Appropriate traffic control signage and procedures
- Measuring pole and/or tape measure.
- Protective clothing and eye protection.
- 7/16” open or closed ended wrench.
- Large permanent black marker (initial inspections only – first year)
- Note: entering a confined space requires appropriate safety and certification. It is generally not required for routine inspections of the system.



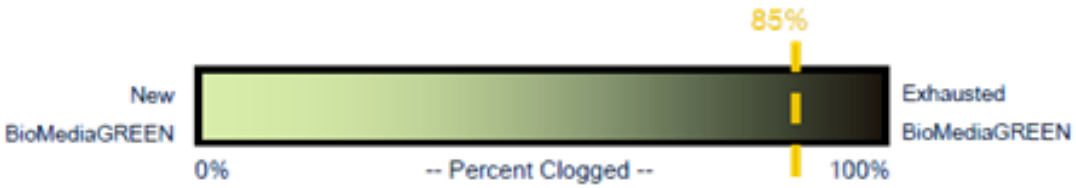
## Inspection Steps

The core to any successful stormwater BMP maintenance program is routine inspections. The inspection steps required on the MWS Linear are quick and easy. As mentioned above the first year should be seen as the maintenance interval establishment phase. During the first year more frequent inspections should occur in order to gather loading data and maintenance requirements for that specific site. This information can be used to establish a base for long term inspection and maintenance interval requirements.

The MWS Linear can be inspected though visual observation without entry into the system. All necessary pre-inspection steps must be carried out before inspection occurs, especially traffic control and other safety measures to protect the inspector and near-by pedestrians from any dangers associated with an open access hatch or manhole. Once these access covers have been safely opened the inspection process can proceed:

- Prepare the inspection form by writing in the necessary information including project name, location, date & time, unit number and other info (see inspection form).
- Observe the inside of the system through the access hatches. If minimal light is available and vision into the unit is impaired utilize a flashlight to see inside the system and all of its chambers.
- Look for any out of the ordinary obstructions in the inflow pipe, pre-treatment chamber, biofiltration chamber, discharge chamber or outflow pipe. Write down any observations on the inspection form.
- Through observation and/or digital photographs estimate the amount of trash, debris and sediment accumulated in the pre-treatment chamber. Utilizing a tape measure or measuring stick estimate the amount of trash, debris and sediment in this chamber. Record this depth on the inspection form.

- Through visual observation inspect the condition of the pre-filter cartridges. Look for excessive build-up of sediments on the cartridges, any build-up on the top of the cartridges, or clogging of the holes. Record this information on the inspection form. The pre-filter cartridges can further be inspected by removing the cartridge tops and assessing the color of the BioMediaGREEN filter cubes (requires entry into pre-treatment chamber – see notes above regarding confined space entry). Record the color of the material. New material is a light green in color. As the media becomes clogged it will turn darker in color, eventually becoming dark brown or black. Using the below color indicator record the percentage of media exhausted.




The biofiltration chamber is generally maintenance free due to the system's advanced pre-treatment chamber. For units which have open planters with vegetation it is recommended that the vegetation be inspected. Look for any plants that are dead or showing signs of disease or other negative stressors. Record the general health of the plants on the inspection and indicate through visual observation or digital photographs if trimming of the vegetation is needed.
The discharge chamber houses the orifice control structure, drain down filter and is connected to the outflow pipe. It is important to check to ensure the orifice is in proper operating conditions and free of any obstructions. It is also important to assess the condition of the drain down filter media which utilizes a block form of the BioMediaGREEN. Assess in the same manner as the cubes in the Pre-Filter Cartridge as mentioned above. Generally, the discharge chamber will be clean and free of debris. Inspect the water marks on the side walls. If possible, inspect the discharge chamber during a rain event to assess the amount of flow leaving the system while it is at 100% capacity (pre-treatment chamber water level at peak hydraulic grade lines or HGL). The water level of the flowing water should be compared to the watermark level on the side walls which is an indicator of the highest discharge rate the system achieved when initially installed. Record on the form is there is any difference in level from watermark in inches.

- NOTE: During the first few storms the water level in the outflow chamber should be observed and a 6 inch long horizontal watermark line drawn (using a large permanent marker) at the water level in the discharge chamber while the system is operating at 100% capacity. The diagram below illustrates where a line should be drawn. This line is a reference point for future inspections of the system:







Using a permanent marker draw a 6 inch long horizontal line, as shown, at the higher water level in the MWS Linear discharge chamber.

- Water level in the discharge chamber is a function of flow rate and pipe size. Observation of water level during the first few months of operation can be used as a benchmark level for future inspections. The initial mark and all future observations shall be made when system is at 100% capacity (water level at maximum level in pre-treatment chamber). If future water levels are below this mark when system is at 100% capacity this is an indicator that maintenance to the pre-filter cartridges may be needed.
- *Finalize inspection report for analysis by the maintenance manager to determine if* maintenance is required.

## Maintenance Indicators

Based upon observations made during inspection, maintenance of the system may be required based on the following indicators:

- Missing or damaged internal components or cartridges.
- Obstructions in the system or its inlet or outlet.
- Excessive accumulation of floatables in the pre-treatment chamber in which the length and width of the chamber is fully impacted more than 18”.



Excessive accumulation of sediment in the pre-treatment chamber of more than 6 inches in depth.



- Excessive accumulation of sediment on the BioMediaGREEN media housed within the pre-filter cartridges. The following chart shows photos of the condition of the BioMediaGREEN contained within the pre-filter cartridges. When media is more than 85% clogged replacement is required.




- Excessive accumulation of sediment on the BioMediaGREEN media housed within the drain down filter. The following photos show of the condition of the BioMediaGREEN contained within the drain down filter. When media is more than 85% clogged replacement is required.






- Overgrown vegetation.






- Water level in discharge chamber during 100% operating capacity (pre-treatment chamber water level at max height) is lower than the watermark by 20%.

## Inspection Notes

1. Following maintenance and/or inspection, it is recommended the maintenance operator prepare a maintenance/inspection record. The record should include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanisms.

2. The owner should keep maintenance/inspection record(s) for a minimum of five years from the date of maintenance. These records should be made available to the governing municipality for inspection upon request at any time.

3. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.

4. Entry into chambers may require confined space training based on state and local regulations.

5. No fertilizer shall be used in the Biofiltration Chamber.

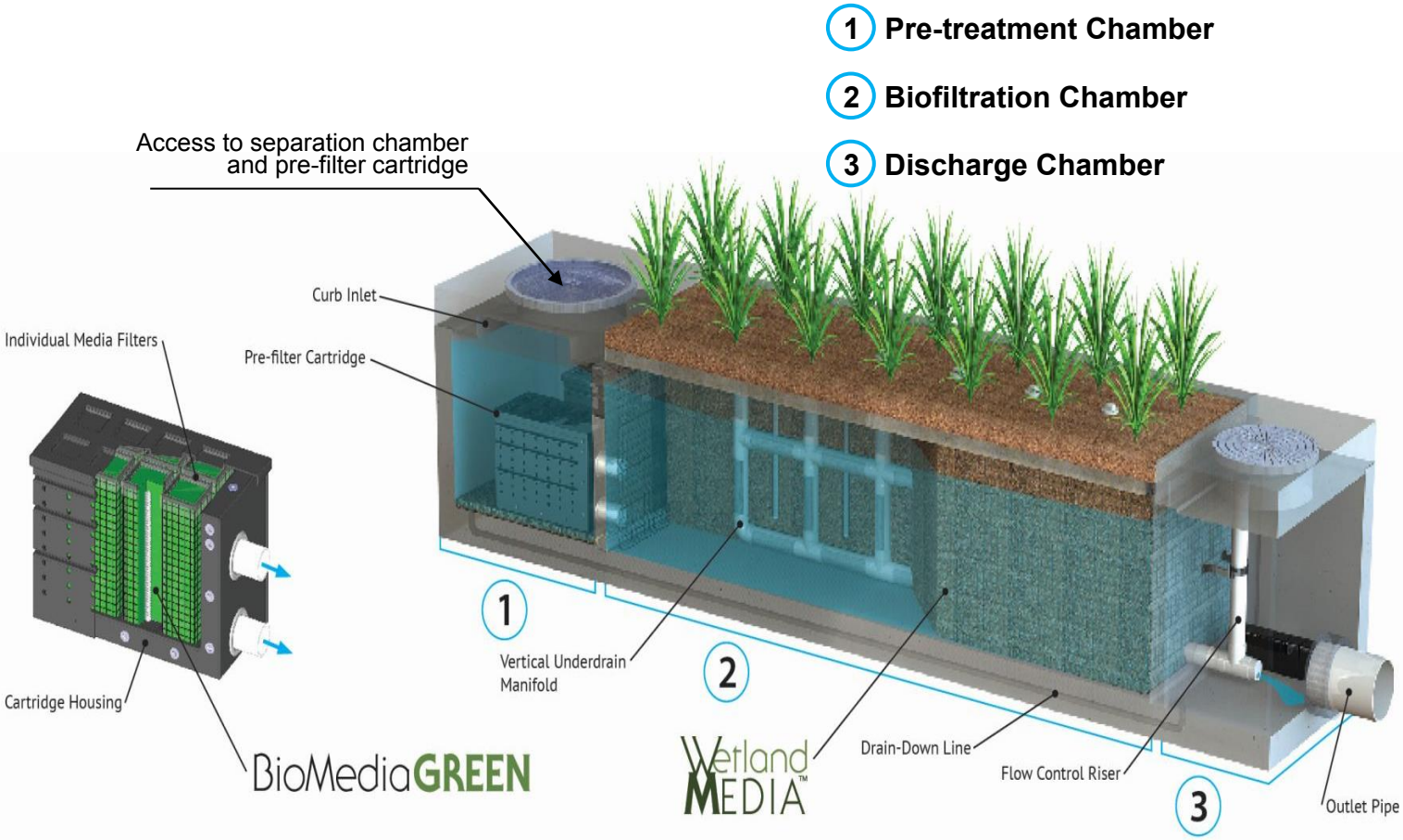
6. Irrigation should be provided as recommended by manufacturer and/or landscape architect. Amount of irrigation required is dependent on plant species. Some plants may not require irrigation after initial establishment.

# Maintenance Guidelines for Modular Wetland System - Linear

## Maintenance Summary

- Remove Sediment from Pre-Treatment Chamber – average maintenance interval is 12 to 24 months.
  - (*10 minute average service time*).
- Replace Pre-Filter Cartridge Media – average maintenance interval 12 to 24 months.
  - (*10-15 minute per cartridge average service time*).
- Trim Vegetation – average maintenance interval is 6 to 12 months.
  - (*Service time varies*).

## System Diagram



# Maintenance Overview

The time has come to maintain your Modular Wetland System Linear (MWS Linear). To ensure successful and efficient maintenance on the system we recommend the following. The MWS Linear can be maintained by removing the access hatches over the systems various chambers. All necessary pre-maintenance steps must be carried out before maintenance occurs, especially traffic control and other safety measures to protect the inspector and near-by pedestrians from any dangers associated with an open access hatch or manhole. Once traffic control has been set up per local and state regulations and access covers have been safely opened the maintenance process can begin. It should be noted that some maintenance activities require confined space entry. All confined space requirements must be strictly followed before entry into the system. In addition the following is recommended:

- Prepare the maintenance form by writing in the necessary information including project name, location, date & time, unit number and other info (see maintenance form).
- Set up all appropriate safety and cleaning equipment.
- Ensure traffic control is set up and properly positioned.
- Prepare a pre-checks (OSHA, safety, confined space entry) are performed.

## Maintenance Equipment

Following is a list of equipment required for maintenance of the MWS Linear:

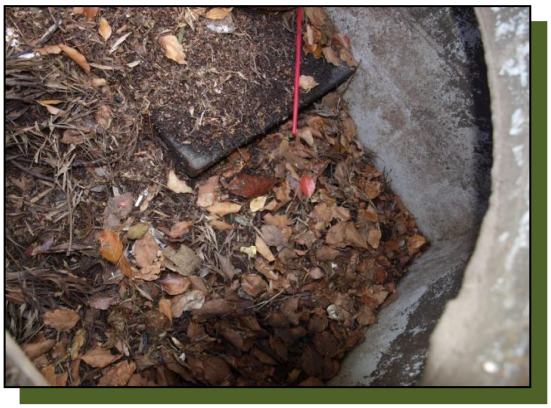
- Modular Wetland Maintenance Form
- Manhole hook or appropriate tools to access hatches and covers
- Protective clothing, flashlight and eye protection.
- 7/16” open or closed ended wrench.
- Vacuum assisted truck with pressure washer.
- Replacement BioMediaGREEN for Pre-Filter Cartridges if required (order from manufacturer).



## Maintenance Steps

1. Pre-treatment Chamber (bottom of chamber)

   A. Remove access hatch or manhole cover over pre-treatment chamber and position vacuum truck accordingly.
   B. With a pressure washer spray down pollutants accumulated on walls and pre-filter cartridges.
   C. Vacuum out Pre-Treatment Chamber and remove all accumulated pollutants including trash, debris and sediments. Be sure to vacuum the floor until pervious pavers are visible and clean.
   D. If Pre-Filter Cartridges require media replacement move onto step 2. If not, replace access hatch or manhole cover.



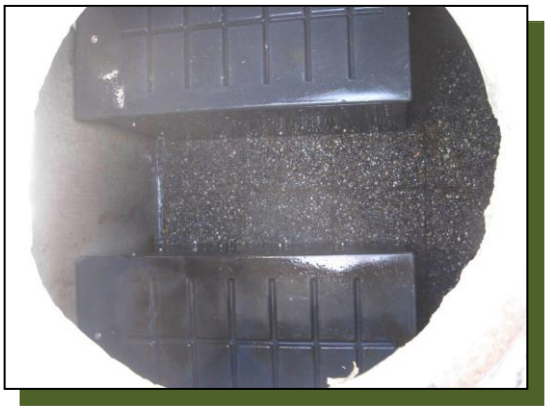
Removal of access hatch to gain access below.



Insertion of vacuum hose into separation chamber.



Removal of trash, sediment and debris.



Fully cleaned separation chamber.

2. Pre-Filter Cartridges (attached to wall of pre-treatment chamber)

A. After finishing step 1 enter pre-treatment chamber.

B. Unscrew the two bolts holding the lid on each cartridge filter and remove lid.



Pre-filter cartridges with tops on.



Inside cartridges showing media filters ready for replacement.

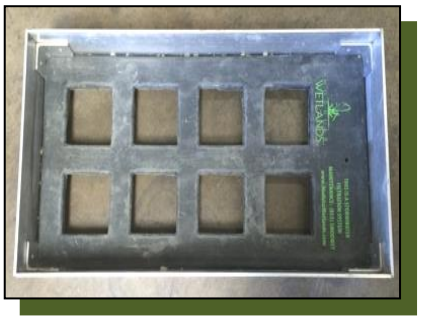
C. Place the vacuum hose over each individual media filter to suck out filter media.



Vacuuming out of media filters.

D. Once filter media has been sucked use a pressure washer to spray down inside of the cartridge and it's containing media cages. Remove cleaned media cages and place to the side. Once removed the vacuum hose can be inserted into the cartridge to vacuum out any remaining material near the bottom of the cartridge.

E. Reinstall media cages and fill with new media from manufacturer or outside supplier. Manufacturer will provide specification of media and sources to purchase. Utilize the manufacture provided refilling trey and place on top of cartridge. Fill trey with new bulk media and shake down into place. Using your hands slightly compact media into each filter cage. Once cages are full removed refilling trey and replace cartridge top ensuring bolts are properly tightened.



Refilling trey for media replacement.



Refilling trey on cartridge with bulk media.



F. Exit pre-treatment chamber. Replace access hatch or manhole cover.

3. <u>Biofiltration Chamber (middle vegetated chamber)</u>

A. In general, the biofiltration chamber is maintenance free with the exception of maintaining the vegetation. Using standard gardening tools properly trim back the vegetation to healthy levels. The MWS Linear utilizes vegetation similar to surrounding landscape areas therefore trim vegetation to match surrounding vegetation. If any plants have died replace plants with new ones:





B. Over time, sediment will accumulate in the perimeter void area and will need to be vacuumed out. The media surface may also require power washing if it becomes occluded with sediment. In addition, the wetland media will eventually need to be replaced after 10 plus years of service. A vacuum truck is recommended to fully remove all wetland media. Once old media is removed the entire chamber, media cage, and netting should be power washed. The netting may require replacement before installing new media. New wetland media should be purchased directly from the manufacture. It can be delivered either in bulk or in super sacks for easy installation.

4. Discharge Chamber (contains drain down cartridge & connected to pipe)

   A. Remove access hatch or manhole cover over discharge chamber.
   B. Enter chamber to gain access to the drain down filter. Unlock the locking mechanism and left up drain down filter housing to remove used BioMediaGREEN filter block as shown below:






   C. Insert new BioMediaGREEN filter block and lock drain down filter housing back in place. Replace access hatch or manhole cover over discharge chamber.

## Inspection Notes

1. Following maintenance and/or inspection, it is recommended the maintenance operator prepare a maintenance/inspection record. The record should include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanisms.

2. The owner should keep maintenance/inspection record(s) for a minimum of five years from the date of maintenance. These records should be made available to the governing municipality for inspection upon request at any time.

3. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.

4. Entry into chambers may require confined space training based on state and local regulations.

5. No fertilizer shall be used in the Biofiltration Chamber.

6. Irrigation should be provided as recommended by manufacturer and/or landscape architect. Amount of irrigation required is dependent on plant species. Some plants may not require irrigation after initial establishment.

# Inspection Form



Modular Wetland System, Inc.
P. 760.433-7640
F. 760-433-3176
E. Info@modularwetlands.com

www.modularwetlands.com

# Maintenance Report




**Modular Wetland System, Inc.**
**P. 760.433-7640**
**F. 760-433-3176**
**E. Info@modularwetlands.com**

**www.modularwetlands.com**

Oldcastle Infrastructure™
A CRH COMPANY

# PUT A STOP to TSS

## Removes Pollutants from Runoff Prior to Entering Waterways

**Efficient System**
Catches pollutants where they are easiest to catch, at the inlet.

**Variable Design**
Able to be retrofitted or used in new projects.

**Treatment Train**
Can be incorporated as part of a "Treatment Train".

**No Standing Water**
Helps to minimize bacteria and odor problems.

**Focused Treatment**
Removes petroleum hydrocarbons, trash and Total Suspended Solids (TSS).

**Maximum Flexibility**
Available in a variety of standard sizes to fit round and square inlets.

**Economical**
Earn a higher return on system investment.

Two-part stainless-steel insert to filter solids and oils/grease.



Easy to install, inspect and maintain, even on small and confined sites.

**By the Numbers*:**
Filter will remove up to 80% of Total Suspended Solids (TSS), at least 70% of oils and grease, and up to 40% of Total Phosphorus (TP) associated with organic debris as well as Polycyclic Aromatic Hydrocarbons (PAH) from oil leaks and spills.

*Approximate for urban street application.

| CATCH BASIN FILTER TEST RESULTS SUMMARY | | | |
|---|---|---|---|
| Testing Agency | % TSS Removal | % Oil & Grease Removal | % PAH Removal |
| UCLA | 80 | 70 to 80 | |
| U of Auckland Tonking & Taylor, Ltd (for City of Auckland) | 78 to 95 | | |
| U of Hawaii (for City of Honolulu) | 80 | | 20 to 40 |

Oldcastle Infrastructure™
A CRH COMPANY

**PUT A STOP**
to TSS

# Multi-Purpose Catch Basin Insert Retains Sediment, Debris, Trash and Oils/Grease

FloGard® catch basin insert filters are recommended for areas subject to silt and debris as well as low-to-moderate levels of petroleum hydrocarbons (oils and grease). Examples of such areas include vehicle parking lots, aircraft ramps, truck and bus storage yards, business parks, residential and public streets.

| CATCH BASIN FILTER COMPETITIVE FEATURE COMPARISON | | |
|---|---|---|
| Evaluation of Catch Basin Filters (Based on flow-comparable units) (Scale 1-10) | Oldcastle | Other Insert Filter Types** |
| Flow Rate | 10 | 7 |
| Removal Efficiency* | 80% | 45% |
| Capacity - Sludge & Oil | 7 | 7 |
| Service Life | 10 | 3 |
| Installation - Ease of Handling / Installation | 8 | 6 |
| Ease of Inspections & Maintenance | 7 | 7 |
| Value | 10 | 2 |

*Approximate, based on field sediment removal testing in urban street application **Average

| Long-Term Value Comparison (Based on flow-comparable units) (Scale 1-10) | Oldcastle | Other Insert Filter Types** |
|---|---|---|
| Unit Value - Initial ($/cfs treated) | 10 | 4 |
| Installation Value ($/cfs treated) | 10 | 7 |
| Absorbent Replacement (annual avg ($/cfs treated) | 10 | 2 |
| Materials Replacement Value (annual avg ($/cfs treated) | 10 | 10 |
| Maintenance Value (annual avg ($/cfs treated) | 10 | 7 |
| Total First Year ROI ($/cfs treated) | 10 | 5 |
| Total Annual Avg Value ($/cfs treated, avg over 20 yrs)* | 10 | 5 |



Captured debris from FloGard catch basin insert filter in Dana Point, California.



Combination Inlet



Flat-Grated Inlet



Circular Frame Inlet

(800) 579-8819
oldcastleinfrastructure.com

Oldcastle Infrastructure™
A CRH COMPANY

# FLOGARD+PLUS®
# CATCH BASIN INSERT FILTER

## Inspection and Maintenance Guide



DRAINAGE PROTECTION SYSTEMS
DPS
*A division of*
*Oldcastle Infrastructure*

Water

## SCOPE:

Federal, State and Local Clean Water Act regulations and those of insurance carriers require that stormwater filtration systems be maintained and serviced on a recurring basis. The intent of the regulations is to ensure that the systems, on a continuing basis, efficiently remove pollutants from stormwater runoff thereby preventing pollution of the nation's water resources. These specifications apply to the FloGard+Plus® Catch Basin Insert Filter.

## RECOMMENDED FREQUENCY OF SERVICE:

Drainage Protection Systems (DPS) recommends that installed FloGard+Plus Catch Basin Insert Filters be serviced on a recurring basis. Ultimately, the frequency depends on the amount of runoff, pollutant loading and interference from debris (leaves, vegetation, cans, paper, etc.); however, it is recommended that each installation be serviced a minimum of three times per year, with a change of filter medium once per year. DPS technicians are available to do an on-site evaluation, upon request.

## RECOMMENDED TIMING OF SERVICE:

DPS guidelines for the timing of service are as follows:

1. For areas with a definite rainy season: Prior to, during and following the rainy season.
2. For areas subject to year-round rainfall: On a recurring basis (at least three times per year).
3. For areas with winter snow and summer rain: Prior to and just after the snow season and during the summer rain season.
4. For installed devices not subject to the elements (wash racks, parking garages, etc.): On a recurring basis (no less than three times per year).

## SERVICE PROCEDURES:

1. The catch basin grate shall be removed and set to one side. The catch basin shall be visually inspected for defects and possible illegal dumping. If illegal dumping has occurred, the proper authorities and property owner representative shall be notified as soon as practicable.
2. Using an industrial vacuum, the collected materials shall be removed from the liner. (Note: DPS uses a truck-mounted vacuum for servicing FloGard+Plus catch basin inserts).
3. When all of the collected materials have been removed, the filter medium pouches shall be removed by unsnapping the tether from the D-ring and set to one side. The filter liner, gaskets, stainless steel frame and mounting brackets, etc., shall be inspected for continued serviceability. Minor damage or defects found shall be corrected on-the-spot and a notation made on the Maintenance Record. More extensive deficiencies that affect the efficiency of the filter (torn liner, etc.), if approved by the customer representative, will be corrected and an invoice submitted to the representative along with the Maintenance Record.
4. The filter medium pouches shall be inspected for defects and continued serviceability and replaced as necessary, and the pouch tethers re-attached to the liner's D-ring.
5. The grate shall be replaced.

## REPLACEMENT AND DISPOSAL OF EXPOSED FILTER MEDIUM AND COLLECTED DEBRIS

The frequency of filter medium exchange will be in accordance with the existing DPS-Customer Maintenance Contract. DPS recommends that the medium be changed at least once per year. During the appropriate service, or if so determined by the service technician during a non-scheduled service, the filter medium will be replaced with new material. Once the exposed pouches and debris have been removed, DPS has possession and must dispose of it in accordance with local, state and federal agency requirements.

**DPS also has the capability of servicing all manner of storm drain filters, catch basin inserts and catch basins without inserts, underground oil/water separators, stormwater interceptors and other such devices. All DPS personnel are highly qualified technicians and are confined-space trained and certified. Call us at (888) 950-8826 for further information and assistance.**

# FLOGARD+PLUS®
# CATCH BASIN INSERT FILTER

**OUR MARKETS**



**BUILDING STRUCTURES**



**COMMUNICATIONS**



**WATER**



**ENERGY**

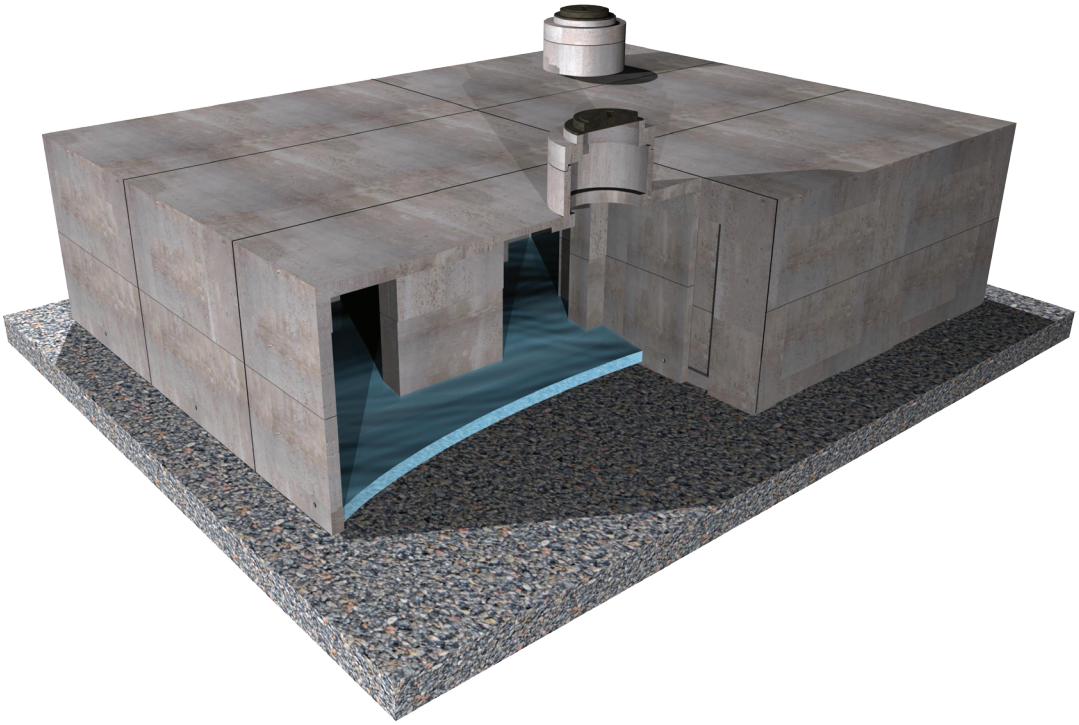


**TRANSPORTATION**

Oldcastle Infrastructure™
A CRH COMPANY

# STORMCAPTURE®

## Inspection and Maintenance Guide



Water

## Description

The StormCapture® system is an underground, modular, structural precast concrete storage system for stormwater detention, retention, infiltration, harvesting and reuse, and water quality volume storage. The system's modular design utilizes multiple standard precast concrete units with inside dimensions of 7 feet by 15 feet (outside dimensions of 8 feet by 16 feet) to form an underground storage system. The inside height of the StormCapture system can range from 2 feet to 14 feet. This modular design provides limitless configuration options for site-specific layouts.

StormCapture components can be provided as either open-bottom modules to promote infiltration or closed-bottom modules for detention. In some cases, StormCapture modules can be placed in a checkerboard configuration for an even more efficient design. A Link Slab, with a footprint of 9 feet by 17 feet, is then used to bridge each space without a module.

The standard StormCapture design incorporates lateral and longitudinal passageways between modules to accommodate internal stormwater conveyance throughout the system. These passageways may be classified as either a "window configuration" with standard 12-inch tall sediment baffles extending up from the floor of the module to the bottom of the window, or a "doorway configuration" without the sediment baffles. The function and drainage rate of a StormCapture system depends on site-specific conditions and requirements.

Stormwater typically enters the StormCapture system through an inlet pipe. Grated inlets can also be used for direct discharge into the system. The StormCapture system is rated for H-20 traffic loading with limited cover. Higher load requirements can also be accommodated. In addition, StormCapture systems are typically equipped with a limited number of maintenance modules that provide access to the system for ongoing inspection and maintenance.

## Function

The StormCapture system is primarily used to manage water quantity by temporarily storing stormwater runoff from impervious surfaces to prevent flooding, slow down the rate at which stormwater leaves the site, and reduce receiving stream erosion. In addition, the StormCapture system can be used to capture stormwater runoff for water quality treatment. Regardless of how the StormCapture system is used, some sedimentation may occur in the modules during the time water is stored.

## Configurations

The configuration of the StormCapture systems may vary, depending on the water quality and/or quantity requirements of the site. StormCapture configurations for detention, retention/infiltration, and retention/harvesting are described below.

## Detention

StormCapture Detention systems are designed with a closed bottom to detain stormwater runoff for controlled discharge from the site. This design may incorporate a dead storage sump and a permanent pool of water if the outlet pipe is higher than the floor elevation. Discharge from the system is typically controlled by an outlet orifice and/or outlet weir to regulate the rate of stormwater leaving the system. StormCapture Detention systems are typically designed with silt-tight joints, however when conditions exist that require a StormCapture system to be watertight, the system may be wrapped in a continuous, impermeable geomembrane liner. If the StormCapture Detention system includes Link Slabs, a liner must be used to detain water since the chambers under each Link Slab have no floor slab. In this case, care must be taken by maintenance personnel not to damage the exposed liner beneath each Link Slab.

## Retention/Infiltration

StormCapture Retention/Infiltration systems are designed with an open bottom to allow for the retention of stormwater onsite through infiltration into the base rock and surrounding soils. For infiltration systems, the configuration of the base of the StormCapture system may vary, depending on the needs of the site and the height of the system. Some systems may use modules that have fully open bottoms with no concrete floor, while other systems may use modules that incorporate floor openings in the base of each module. These are typically 24-inch by 24-inch openings. For open-bottom systems, concrete splash pads may be installed below inlet grate openings and pipe inlets to prevent erosion of base rock. A StormCapture Infiltration system may have an elevated discharge pipe for peak overflow.

## Retention/Harvesting

StormCapture Retention/Harvesting systems are similar to detention systems using closed-bottom modules, but stormwater is typically retained onsite for an extended period of time and later reused for non-potable applications or irrigation. For rainwater harvesting systems, an impermeable geomembrane liner is typically installed around the modules to provide a water-tight system.

## Inspection and Maintenance Overview

State and local regulations typically require all stormwater management systems to be inspected on a regular basis and maintained as necessary to ensure performance and protect downstream receiving waters. Inspections should be used to evaluate the conditions of the system. Based on these inspections, maintenance needs can be determined. Maintenance needs vary by site and system. Using this Inspection & Maintenance Guide, qualified maintenance personnel should be able to provide a recommendation for maintenance needs. Requirements may range from minor activities such as removing trash, debris or pipe blockages to more substantial activities such as vacuuming and removal of sediment and/or non-draining water. Long-term maintenance is important to the operation of the system since it prevents excessive pollutant buildup that may limit system performance by reducing the operating capacity and increasing the potential for scouring of pollutants during periods of high flow.

Only authorized personnel shall inspect and/or enter a StormCapture system. Personnel must be properly trained and equipped before entering any underground or confined space structure. Training includes familiarity with and adherence to any and all local, state and federal regulations governing confined space access and the operation, inspection, and maintenance of underground structures.

## Inspection and Maintenance Frequency

The StormCapture system should be inspected on a regular basis, typically twice per year, and maintained as required. The maintenance frequency will be driven by the amount of runoff and pollutant loading encountered by a given system. Local jurisdictions may also dictate inspection and maintenance frequencies.

## Inspection Equipment

The following equipment is helpful when conducting StormCapture inspections:

- Recording device (pen and paper form, voice recorder, iPad, etc.)
- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Confined space entry equipment, if needed
- Flashlight
- Tape measure
- Measuring stick or sludge sampler
- Long-handled net (optional)

## Inspection Procedures

A typical StormCapture system provides strategically placed access points that may be used for inspection. StormCapture inspections are usually conducted visually from the ground surface, without entering the unit. This typically limits inspection to the assessment of sediment depth, water drain down, and general condition of the modules and components, but a more detailed assessment of structural condition may be conducted during a maintenance event.

To complete an inspection, safety measures including traffic control should be deployed before the access covers are removed. Once the covers have been removed, the following items should be inspected and recorded (see form provided at the end of this document) to determine whether maintenance is required:

- Observe inlet and outlet pipe penetrations for blockage or obstruction.
- If possible, observe internal components like baffles, flow control weirs or orifices, and steps or ladders to determine whether they are broken, missing, or possibly obstructed.
- Observe, quantify, and record the sediment depths within the modules.
- Retrieve as much floating trash as possible with a long-handled net. If a significant amount of trash remains, make a note in the Inspection & Maintenance Log.
- For infiltration systems, local regulations may require monitoring of the system to ensure drain down is occurring within the required permit time period (typically 24 to 72 hours). If this is the case, refer to local regulations for proper inspection procedure.

## Maintenance Indicators

Maintenance should be scheduled if any of the following conditions are identified during the inspection:

- Inlet or outlet piping is blocked or obstructed.
- Internal components are broken, missing, or obstructed.
- Accumulation of more than six inches of sediment on the system floor or in the sump, if applicable.
- Significant accumulation of floating trash and debris that cannot be retrieved with a net.
- The system has not drained completely after it hasn't rained for one to three days, or the drain down does not meet permit requirements.
- Any hazardous material is observed or reported.

## Maintenance Equipment

The following equipment is helpful when conducting StormCapture maintenance:

- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Confined space entry equipment, if needed
- Flashlight
- Tape measure
- Vacuum truck

## Maintenance Procedures

Maintenance should be conducted during dry weather when no flow is entering the system. Confined space entry is usually required to maintain the StormCapture. Only personnel that are OSHA Confined Space Entry trained and certified may enter underground structures. Once safety measures such as traffic control have been deployed, the access covers may be removed and the following activities may be conducted to complete maintenance:

- Remove trash and debris using an extension on the end of the boom hose of the vacuum truck. Continue using the vacuum truck to completely remove accumulated sediment. Some jetting may be necessary to fully evacuate sediment from the system floor or sump. Jetting is acceptable in systems with solid concrete floors or base slabs (referred to as closed-bottom systems). However, jetting is not recommended for open-bottom systems with a gravel foundation since it may cause bedding displacement, undermining of the foundation, or internal disturbance.
- All material removed from the system during maintenance must be disposed of in accordance with local regulations. In most cases, the material may be handled in the same manner as disposal of material removed from sumped catch basins or manholes.
- Inspect inlet and outlet pipe penetrations for cracking and other signs of movement that may cause leakage.
- Inspect the concrete splash pads (applicable for open-bottom systems only) for proper function and placement.
- Inspect the system for movement of modules. There should be less than 3/4-inch spacing between modules.
- Inspect the general interior condition of modules for concrete cracking or deterioration. If the system consists of horizontal joints as part of the modules, inspect those joints for leakage, displacement or deterioration.

Be sure to securely replace all access covers, as appropriate, following inspection and/or maintenance. If the StormCapture modules or any of the system components show significant signs of cracking, spalling, or deterioration or if there is evidence of excessive differential settlement between modules, contact Oldcastle Infrastructure at **800-579-8819.**

# StormCapture
# Inspection & Maintenance Log

Refer to as-built records for details about system size and location onsite

Location _____

**System Configuration:**

Inspection Date _____

☐ Detention ☐ Infiltration ☐ Retention/Harvesting

***Inlet or Outlet Blockage or Obstruction***

**Notes:**

☐ Yes ☐ No

***Condition of Internal Components***

**Notes:**

☐ Good ☐ Damaged ☐ Missing

***Sediment Depth Observed***

**Notes:**

☐ Inches of Sediment: _____

***Trash and Debris Accumulation***

**Notes:**

☐ Significant ☐ Not Significant

***Drain Down Observations***

**Notes:**

☐ Appropriate Time Frame ☐ Inappropriate Time Frame

***Maintenance Requirements***

☐ **Yes - Schedule Maintenance** ☐ **No - Inspect Again in _____ Months**

# STORMCAPTURE®

**OUR MARKETS**



**BUILDING STRUCTURES**



**COMMUNICATIONS**



**WATER**



**ENERGY**



**TRANSPORTATION**

rcwatershed.org

RIVERSIDE COUNTY

WATERSHED PROTECTION

# 27 Cities + One County + Two Districts = A Team Effort.

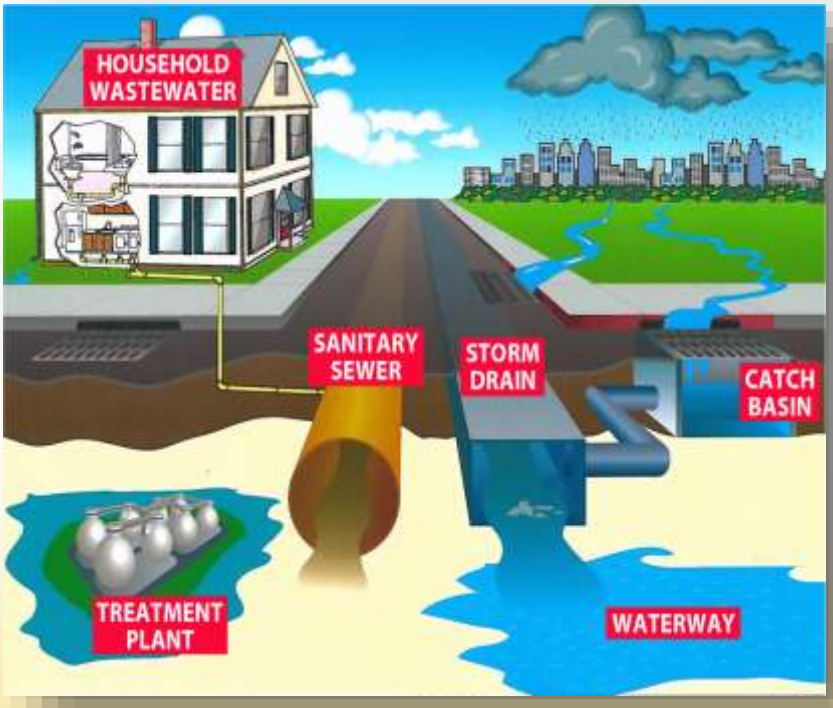
Water pollution degrades surface waters which can cause them to be unsafe for drinking, fishing, swimming, and other activities. The Riverside County Watershed Protection program was established to reduce the pollution carried by stormwater into local creeks and waterways that lead to the ocean. The program is managed by the Riverside County Flood Control & Water Conservation District in partnership with 27 Cities, the County of Riverside and the Coachella Valley Water District.

## What is a watershed and how do I affect it?

A watershed is an area of land that catches and drains water into a creek, stream or tributary and eventually ends up in a large body of water such as our lakes, rivers or the ocean. As stormwater flows over land and across the watershed into a waterway, it carries urban runoff such as used motor oil and grease, pesticides, trash and other harmful debris. This is where the public comes in. The more we can prevent polluting the watershed, the healthier our waterways will be and the habitat it supports.

## What is stormwater?

Stormwater runoff is any water, either through rain, sprinklers, or irrigation of yards/gardens, that falls and is transported over land and pavement into local waterbodies through the storm drain system. All water that flows into a storm drain is deposited into creeks, rivers or the ocean without treatment.




## Is there a difference between the storm drain and sewer system?

Yes, an important difference. Stormwater and all the pollutants that flow from our homes, parking lots and streets to the gutter into the storm drains flow directly into our creeks and other water bodies untreated. Water and pollutants that flow into the sanitary sewer, such as water from our sinks, bathtubs and toilets, are sent to a wastewater treatment facility before the water is discharged to the Bay or Ocean.

# Doo Good

## Pick up dog doo. Protect streams



*Dog doo can pollute our waterways. Rain flows across yards and trails, collecting in storm drains that lead directly to streams without being treated!*

## Bacteria Problems

A single gram of dog doo can contain 23 million fecal coliform bacteria and can spread diseases like Giardia and Salmonella.

Bacteria from dog doo accounts for up to **20%** of the bacteria in urban waterways.

## Nutrient Problems

Nutrients like nitrogen and phosphorus that are found in dog doo act like a fertilizer in streams. They cause algae to grow which reduces the available oxygen for fish. The more poop, the bigger the potential problem. Locally there are over **90,000** dogs that make **11,700 tons** of poop a year.

## Be a "Doo Gooder"

You can make a difference by being a responsible pet owner. Being a "Doo Gooder" means being a model for others and picking up your dog doo. Here are **5 tips** every dog owner should know:

- Be prepared: carry poop bags with you.
- Take extra bags so you don't run out and you can help someone else in need.
- Make sure the bag ends up in a trash can.
- When you hike, never leave a bag on the trail – take it with you.
- Scoop your poop at home or hire someone to keep your yard healthy and to protect streams.


rcwatershed.org

RIVERSIDE COUNTY
WATERSHED PROTECTION


OUR MISSION

"To protect, preserve and enhance the quality of Riverside County Watersheds by fostering a community-wide commitment to clean water."

@RivCoWatershed



Landscaping and garden maintenance activities can be major contributors to water pollution. Soils, yard wastes, over-watering and garden chemicals become part of the urban runoff mix that winds its way through streets, gutters and storm drains before entering lakes, rivers, streams, etc. Urban runoff pollution contaminates water and harms aquatic life!

In Riverside County, report illegal discharges into the storm drain, call
1-800-506-2555
"Only Rain Down the Storm Drain"

**Important Links:**

Riverside County Household Hazardous Waste Collection Information
1-800-304-2226 or www.rivcowm.org

Riverside County Backyard Composting Program
1-800-366-SAVE

Integrated Pest Management (IPM) Solutions
www.ipm.ucdavis.edu

California Master Gardener Programs
www.mastergardeners.org
www.camastergardeners.ucdavis.edu

California Native Plant Society
www.cnps.org

The Riverside County "Only Rain Down the Storm Drain" Pollution Prevention Program gratefully acknowledges Orange County's Storm Water Program for their contribution to this brochure.

# ...Only Rain Down ...the Storm Drain

## *What you should know for... Landscape and Gardening*

Best Management tips for:

- Professionals
- Novices
- Landscapers
- Gardeners
- Cultivators



# Tips for Landscape & Gardening

This brochure will help you to get the most of your lawn and gardening efforts and keep our waterways clean. Clean waterways provide recreation, establish thriving fish habitats, secure safe sanctuaries for wildlife, and add beauty to our communities. NEVER allow gardening products or waste water to enter the street, gutter or storm drain.

## *General Landscaping Tips*

- Protect stockpiles and materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Prevent erosion of slopes by planting fast-growing, dense ground covering plants. These will shield and bind the soil.



- Plant native vegetation to reduce the amount of water, fertilizers and pesticides applied to the landscape.
- Never apply pesticides or fertilizers when rain is predicted within the next 48 hours.

## *Garden & Lawn Maintenance*

- Do not overwater. Use irrigation practices such as drip irrigation, soaker hoses or micro-spray systems. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of green waste by composting, hauling it to a permitted landfill, or recycling it through your city's program.



- Consider recycling your green waste and adding "nature's own fertilizer" to your lawn or garden.
- Read labels and use only as directed. Do not over-apply pesticides or fertilizers. Apply to spots as needed, rather than blanketing an entire area.
- Store pesticides, fertilizers and other chemicals in a dry covered area to prevent exposure that may result in the deterioration of containers and packaging.
- Rinse empty pesticide containers and re-use rinse water as you would use the product. Do not dump rinse water down storm drains or sewers. Dispose of empty containers in the trash.
- When available, use non-toxic alternatives to traditional pesticides, and use pesticides specifically designed to control the pest you are targeting.
- Try natural long-term common sense solutions first. Integrated Pest Management (IPM) can provide landscaping guidance and solutions, such as:
  - **Physical Controls** - Try hand picking, barriers, traps or caulking holes to control weeds and pests.
  - **Biological Controls** - Use predatory insects to control harmful pests.
  - **Chemical Controls** - Check out www.ipm.ucdavis.edu before using chemicals. Remember, all chemicals should be used cautiously and in moderation.
- If fertilizer is spilled, sweep up the spill before irrigating. If the spill is liquid, apply an absorbent material such as cat litter, and then sweep it up and dispose of it in the trash.
- Take unwanted pesticides to a Household Waste Collection Center to be recycled.
- *Dumping toxics into the street, gutter or storm drain is illegal!*

www.bewaterwise.com Great water conservation tips and drought tolerant garden designs.

www.ourwaterourworld.com Learn how to safely manage home and garden pests.

Additional information can also be found on the back of this brochure.

# IRRIGATION RUNOFF

STORMWATER FACT SHEET

**Report Irrigation Runoff or Stormwater Pollution:**
**800.506.2555**

RIVERSIDE COUNTY
WATERSHED PROTECTION

## OVERWATERING

Overwatering causes irrigation runoff that may contain pollutants such as pesticides, herbicides, fertilizers, pet waste, yard waste, and sediments which can be hazardous to residents and harmful to our environment. Runoff can also serve as a transport mechanism for other pollutants already on the ground or in the curb gutter. Irrigation runoff entering the storm drain system is an illicit discharge.

## BEST PRACTICES

Urban runoff begins when yards and landscaped areas are over-irrigated. Irrigation systems require regular maintenance and visual inspection of the system should be performed to prevent over-spray, leaks, and other problems that result in runoff to storm drains, curbs and gutters.

You can **prevent pollution** by conserving water on your property. Water during cooler times of the day (before 10am and after 6pm).

- Adjust sprinklers to stop overspray and runoff.
- Make needed repairs immediately.
- Use drip irrigation, soaker hoses, or micro-spray systems.
- Use an irrigation timer to pre-set watering times.
- Use a control nozzle or similar mechanism when watering by hand.
- Switch to a water-wise landscape - native plants need less fertilizers, herbicides, pesticides and water.








## PROTECT OUR WATERSHED

Many people think that when water flows into a storm drain it is treated, but the storm drain system and the sanitary sewer system are not connected. Everything that enters storm drains flows untreated directly into our creeks, rivers, lakes, beaches and ultimately the ocean. Storm water often contains pollutants, including chemicals, trash, and automobile fluids, all of which pollute our watershed and harm fish and wildlife.

Whether at home or work, you can help reduce pollution and improve water quality by using the above Best Management Practices (BMP's) as part of your daily clean up and maintenance routine.

# Appendix 10: Educational Materials

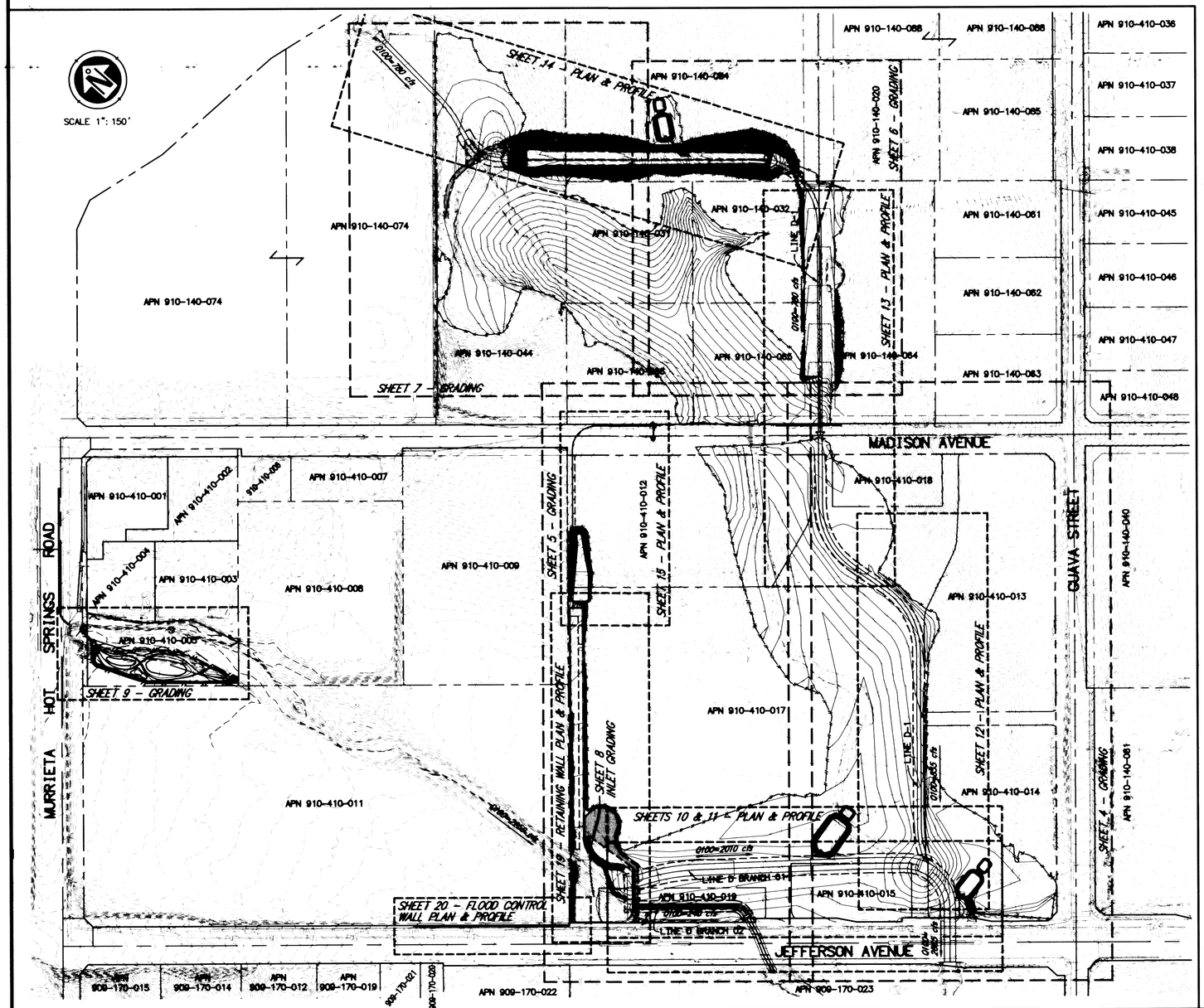
*BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information*

Examples of material to provide in Appendix 10 may include but are not limited to the following:

- BMP Fact Sheets for proposed BMPs form Exhibit C: LID BMP Design Handbook of the SMR WQMP,
- Source control information and training material for site owners and operators,
- O&M training material,
- Other educational/training material related to site drainage and BMPs.

# MASTER DRAINAGE FACILITY IMPROVEMENT PLANS FOR LINE D & D-1

# CITY OF MURRIETA CIP No. 8157




## ASSESSOR'S PARCEL NUMBERS IMPACTED BY LINE D & D1 IMPROVEMENTS

910-410-12, 13, 14, 15, 17, 18 & 19
910-140-20, 31, 32, 44, 57, 64, 65 & 66

## SOURCE OF TOPOGRAPHY

THE AERIAL TOPOGRAPHY FOR THIS PROJECT WAS PROVIDED BY ADVANTAGE CONSULTANTS INCORPORATED. AERIAL PHOTO WAS TAKEN LAST JANUARY 14, 2003. SUPPLEMENTAL FIELD DATA SURVEYS WERE CONDUCTED BY EXCEL ENGINEERING.

## BASIS OF BEARING

THE BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN CAL-COORD TIES DESIGNATED ELM AND ROSA PER NGS SURVEY CONTROL DATA OBTAINED FROM THE NATIONAL GEODEDITC SERVICE WEBSITE. (is N 15° 31' 18" E)

## BENCHMARK NOTE

THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

## UTILITIES

| | |
|---|---|
| SOUTHERN CALIFORNIA EDISON | 951-928-8272 |
| VERIZON | 951-929-9493 |
| WESTERN MUNICIPAL WATER DISTRICT | 951-677-7667 |
| EASTERN MUNICIPAL WATER DISTRICT | 951-928-3777 |
| SOUTHERN CALIFORNIA GAS | 951-304-0093 |

## SOILS ENGINEER

T.H.E. SOILS CO., INC.
41548 EASTMAN DRIVE, UNIT G
MURRIETA, CA 92562
(951) 894-2121

## OWNER

THE CITY OF MURRIETA
ONE TOWN SQUARE
24601 JEFFERSON AVE
MURRIETA, CA 92562
(951) 304-CITY (2489)

## CIVIL ENGINEER

EXCEL ENGINEERING
440 STATE PLACE
ESCONDIDO, CALIFORNIA 92029
(760) 745-8118

## DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF MURRIETA IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

EXCEL ENGINEERING
440 STATE PLACE
ESCONDIDO CA 92029
760-745-8118
760-745-1890

ROBERT D. DENTINO R.C.E. DATE: 9/28/11 EXP. DATE: 12-31-12

## REFERENCE PLANS

CITY OF MURRIETA
- JEFFERSON AVE ST IMPROVEMENT PLANS
  PROJECT No.-96-136 DRAWING No.-01-483

RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
- MURRIETA CREEK MDP LINE D1
  PROJECT No.-7-0-01136 DRAWING No. 7-322

## INDEX SHEET


| | |
|---|---|
| SHEET 1 & 2 | TITLE & NOTES |
| SHEET 3 | DEMOLITION PLAN |
| SHEET 4 TO 9 | GRADING PLANS |
| SHEET 10 | LINE D BRANCH 01 |
| SHEET 11 | LINE D BRANCH 02 |
| SHEET 12 TO 14 | LINE D-1 |
| SHEET 15 | STORM DRAIN LINE ST-01 |
| SHEET 16 | STORM DRAIN LATERALS |
| SHEET 17 & 18 | DETAILS |
| SHEET 19 | RETAINING WALL 01 & 02 PLAN & PROFILE |
| SHEET 20 | TEMPORARY FLOOD CONTROL WALL PLAN & PROFILE |
| SHEET 21 & 22 | EROSION CONTROL PLAN & DETAILS |
| SHEET 23 | FENCING PLAN |
| SHEET 24 | WATER SERVICE PLAN |
| SHEET 25 | JUNCTION STRUCTURAL DETAILS FOR LINE D BRANCH 01 |
| SHEET 26 | JUNCTION STRUCTURAL DETAILS FOR LINE D BRANCH 02 |
| SHEET 27 | FREE STANDING WALL STRUCTURAL DETAIL |


## RCFC & WCD STANDARD DRAWINGS

| | |
|---|---|
| BX401 | 11.5'X28' SINGLE REINFORCED CONCRETE BOX |
| JS226 | JUNCTION STRUCTURE #1 |
| JS227 | JUNCTION STRUCTURE #2 |
| JS228 | JUNCTION STRUCTURE #3 |
| JS229 | JUNCTION STRUCTURE #4 |
| MH254 | MANHOLE #4 |
| M816 | CONCRETE BULKHEAD |
| M827 | VEHICULAR TURN AROUND AREA |

## CALTRANS STANDARD DRAWINGS

| | |
|---|---|
| D80 | SINGLE 7'X10' REINFORCED CONCRETE BOX |
| D81 | DOUBLE 7'X14' REINFORCED CONCRETE BOX |
| D86A | WARPED WINGWALL |
| D86B | WARPED WINGWALL |
| B3-1 | RETAINING WALL |

## OTHER DRAWINGS

| | |
|---|---|
| SHEET 8 | RIPRAP BERM |
| SHEET 17 | RIPRAP ENERGY DISSIPATOR |
| SHEET 25 | 7'X28' TO 11.5'X28' TRANSISTION STRUCTURE |
| SHEET 26 | STORM DRAIN MANHOLE |

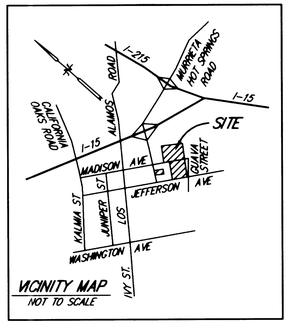
## BMP HANDBOOK BY CALIFORNIA STORM WTER QUALITY ASSOCIATION

| | |
|---|---|
| EC-1 SCHEDULING | NS-2 DEWATERING OPERATIONS |
| EC-2 PRESERVATION OF EXISTING VEGETATION | NS-3 PAVING AND GRINDING OPERATIONS |
| EC-4 HYDROSEEDING | NS-4 TEMPORARY STREAM CROSSING |
| EC-7 GEOTEXTILES AND MATS | NS-8 VEHICLE AND EQUIPMENT CLEANING |
| EC-8 WOOD MULCHING | NS-9 VEHICLE AND EQUIPMENT FUELING |
| EC-9 EARTH DIKES AND DRAINAGE SWALES | NS-10 VEHICLE AND EQUIPMENT MAINTENANCE |
| EC-10 VELOCITY DISSIPATION DEVICES | NS-12 CONCRETE CURING |
| EC-11 SLOPE DRAIN | NS-13 CONCRETE FINISHING |
| SC-1 SILT FENCE | NS-14 MATERIAL AND EQUIPMENT USE |
| SC-2 SEDIMENT BASIN | WM-1 MATERIAL DELIVERY AND STORAGE |
| SC-3 SEDIMENT TRAP | WM-2 MATERIAL USE |
| SC-4 CHECK DAM | WM-3 STOCKPILE MANAGEMENT |
| SC-5 FIBER ROLLS | WM-4 SPILL PREVENTION AND CONTROL |
| SC-7 STREET SWEEPING AND VACUUMING | WM-5 SOLID WASTE MANAGEMENT |
| SC-8 GRAVEL BAG BARRIER | WM-6 HAZARDOUS WASTE MANAGEMENT |
| SC-9 STRAW BALE BARRIER | WM-7 CONTAMINATED SOIL MANAGEMENT |
| SC-10 STORM DRAIN INLET PROTECTION | WM-8 CONCRETE WASTE MANAGEMENT |
| WE-1 WIND EROSION CONTROL | WM-9 SANITARY/SEPTIC WASTE MANAGEMENT |
| TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT | WM-10 LIQUID WASTE MANAGEMENT |
| TC-2 STABILIZED CONSTRUCTION ROADWAY | |

## LEGEND & ABBREVIATION

FL=FLOW LINE
RIM=RIM MANHOLE ELEVATION
IE=INVERT ELEVATION
STA=STATION
BC=BEGIN CURB
EC=END CURB
POC=POINT OF CURVATURE
TW=TOP OF WALL
BW=BOTTOM OF WALL
TF=TOP OF FOOTING
TB=TOP OF BERM
TD=TOP OF DIKE

BOUNDARY
PROPERTY LINE — PL —
RIGHT OF WAY — RW —
DAYLIGHT LINE
SLOPE 2:1
RETAINING WALL
SHEET PILE WALL
FREE STANDING WALL




VICINITY MAP
NOT TO SCALE

WDID # 9 33C358396

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 1 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING & IMPROVEMENT PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-103

DRAWING NUMBER

DRAWING NUMBER 11-103

## GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING OF THE PROPOSED WORK AREA, AND RELOCATION COST OF ALL EXISTING UTILITIES. PERMITTEE MUST INFORM THE CITY OF CONSTRUCTION SCHEDULE AT LEAST 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION PHONE: (951) 304-2489

2. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF MURRIETA PUBLIC WORKS DEPARTMENT IMPROVEMENT STANDARDS AND THE LATEST EDITION OF STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK).

3. THE DEVELOPER WILL INSTALL STREET NAME SIGNS CONFIRMING TO CITY STANDARD NO. 601.

4. CURB DEPRESSIONS AND DRIVEWAY APPROACHES WILL BE INSTALLED AND CONSTRUCTED ACCORDING TO CITY STANDARD NO. 308, 309, OR 310, AS DIRECTED IN THE FIELD.

5. BLUE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED TO MARK FIRE HYDRANT AND/OR WATER SUPPLY LOCATIONS AT THE DIRECTION OF THE CITY INSPECTOR FOLLOWING FINAL SEALANT AND STRIPING.

6. WORK MAY NOT START UNTIL PERMITS HAVE BEEN OBTAINED.

7. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS WITH UNDERGROUND SERVICE ALERT AT 1-800-422-4133 AT LEAST TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION.

8. ALL PAVEMENT SECTIONS ARE AT MINIMUM REQUIREMENTS. ADDITIONAL SOIL TEST SHALL BE TAKEN AFTER ROUGH GRADING TO DETERMINE THE EXACT STRUCTURAL SECTION REQUIREMENTS. USE STANDARD NO. 320 IF EXPANSIVE SOIL ARE ENCOUNTERED.

9. DUST CONTROL SHALL BE MAINTAINED AT ALL TIMES BY WATER OR OTHER APPROVED METHODS.

10. EQUIPMENT AND MATERIALS SHALL BE STORED IN A NEAT AND PROTECTED MANNER.

11. THE CONTRACTOR WILL CONDUCT HIS OPERATIONS AS TO OFFER THE LEAST POSSIBLE OBSTRUCTION AND INCONVENIENCE TO PUBLIC TRAFFIC, AND HE SHALL HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAN HE CAN EXECUTE PROPERLY. ON EXISTING ROADS, TRAFFIC SHALL BE PERMITTED TO PASS THROUGH THE WORK AREA WITH AS LITTLE INCONVENIENCE AND DELAY AS POSSIBLE.

12. EXISTING TRAFFIC SIGNALS AND LIGHTING SYSTEMS SHALL BE KEPT IN OPERATION FOR THE BENEFIT OF THE TRAVELING PUBLIC, AND TO MINIMIZE ANY INTERFERENCE WITH ROUTINE MAINTENANCE OF EXISTING SYSTEMS DURING WORK PROGRESS.

13. WHENEVER THE CONTRACTOR'S OPERATION CREATES A HAZARDOUS CONDITION TO TRAFFIC OR TO THE PUBLIC, HE SHALL FURNISH AT HIS OWN EXPENSE, SUCH FLAGMEN AND GUARDS AS ARE NECESSARY TO GIVE ADEQUATE WARNING TO THE PUBLIC OF ANY DANGEROUS CONDITIONS. HE SHALL ALSO FURNISH, ERECT AND MAINTAIN SUCH FENCES BARRICADES, LIGHTS, SIGNS, AND OTHER DEVICES NECESSARY TO PREVENT ACCIDENTS AND INJURY TO THE PUBLIC.

14. WHERE SURVEY MONUMENTS EXIST, SUCH MONUMENTS WILL BE PROTECTED OR SHALL BE REFERENCED AND RESET, PURSUANT TO BUSINESS AND PROFESSIONS CODE, SECTION 8700 TO 8805 (LAND SURVEYOR'S ACT).

15. WHERE NEW A.C. PAVEMENT JOIN EXISTING PAVEMENT, SAWCUT TO A NEAT EDGE. THE SAWCUTS MUST BE PERPENDICULAR, PARALLEL OR RADIAL TO THE ROADWAY CENTERLINE. OVERLAY AND FEATHER NEW A.C. PAVEMENT TO PROVIDE SMOOTH TRANSITION.

16. ALL EXISTING STREET SIGNS, ROADSIDE MARKERS ETC., SHALL BE PROTECTED AND/OR REPLACED IN KIND TO THE CURRENT CITY STANDARD PLANS AND CURRENT TRAFFIC MANUAL, AT NO COST TO THE CITY.

17. ASPHALTIC EMULSION (FOG SEAL)SHALL BE APPLIED NOT LESS THAN FOURTEEN (14) DAYS FOLLOWING PLACEMENT OF THE ASPHALT SURFACING AND SHALL BE APPLIED AT A MIN. RATE OF 0.05 GALLON PER SQUARE YARD. ASPHALTIC EMULSION SHALL CONFORM TO SECTION 37, 39, AND 94 OF THE STATE STANDARD SPECIFICATIONS.

18. ALL UNDERGROUND FACILITIES, WITH LATERALS SHALL BE IN PLACE PRIOR TO PAVING THE STREET SECTION INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: WATER, SEWER, GAS, ELECTRIC, CABLE T.V., TELEPHONE, AND DRAINAGE.

19. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITY LINES, INCLUDING ANY OTHER LINES NOT SHOWN ON THESE PLANS OR NOT OF RECORD.

20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY TO THE CITY OF MURRIETA ENGINEERING DEPARTMENT, FOR AN ENCROACHMENT PERMIT FOR ALL WORK ON EXISTING CITY MAINTAINED ROADS, AND FOR UTILITY WORK WITHIN OFFERS OF DEDICATION FOR PUBLIC USE.

21. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER TO INSTALL STREET CENTERLINE MONUMENTS AS REQUIRED BY CITY STANDARD DRAWINGS NO. 616, 617, AND 618.

22. STREET LIGHTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF MURRIETA STANDARD NO. 619 OR 620.

23. APPROVAL OF THESE PLANS BY THE CITY OR ITS AGENTS DOES NOT RELIEVE THE APPLICANT AND HIS ENGINEER FROM THE RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE APPROPRIATE PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL.

24. ALL GTE, SCE AND SCG FACILITIES WILL BE RELOCATED OR MODIFIED BY THE RESPECTIVE UTILITIES OR THEIR APPOINTED REPRESENTATIVES.

25. ALL WATER RELATED WORK SHALL BE DONE IN ACCORDANCE WITH THE SERVICING WATER DISTRICT STANDARDS AND SPECIFICATIONS.

26. ALL SEWER RELATED WORK SHALL BE DONE IN ACCORDANCE WITH THE SERVICING WATER DISTRICT STANDARDS AND SPECIFICATIONS.

27. ANY SERVICE SHUT DOWN SHALL BE DONE AT NIGHT, PRIOR TO ANY SHUT DOWN, THE CONTRACTOR SHALL NOTIFY THE DIRECTOR, ENGINEER, CUSTOMER, FIRE DEPARTMENT, SERVICING WATER DISTRICT, AND ALL OTHERS AFFECTED BY THE SHUT DOWN A MINIMUM OF THREE (3) WEEKS IN ADVANCE.

28. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR CONTRACTOR TO APPLY TO CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) FOR AN ENCROACHMENT PERMIT FOR ALL WORK PERFORMED WITHIN THE STATE RIGHT-OF-WAY.

29. IN CASE OF EMERGENCY, 24 HOUR CONTACT IS KEN BURRIS AT (951) 453-3181

## SPECIAL NOTES

1. STANDARD DRAWINGS CALLED FOR ON THE PLAN AND PROFILE SHALL CONFORM TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, CALTRANS AND THE CITY OF MURRIETA STANDARD DRAWINGS LISTED ON THIS SHEET.

2. ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE NOTED.

3. STATIONING FOR LATERALS AND CONNECTOR PIPE REFER TO THE CENTERLINE INTERSECTION STATION.

4. ALL ELEVATIONS SHOWN ARE IN FEET AND DECIMALS THEREOF BASED ON U.S.C. & G.S. DATUM

5. ELEVATIONS OF UTILITIES ARE APPROXIMATE UNLESS OTHERWISE NOTED.

6. THE APPLICANT IS HEREBY NOTICED THAT THEY MUST COMPLY WITH ALL STATE & FEDERAL ENDANGERED SPECIES LAW. THE CITY OF MURRIETA IS NOT RESPONSIBLE FOR ANY SUCH VIOLATION OF STATE OR FEDERAL ENDANGERED SPECIES LAW DUE TO THE APPLICANT'S NON-COMPLIANCE.

7. ALL WORK SHALL BE DONE ACCORDING TO THE APPROVED PLANS AND SPECIFICATIONS, THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK), STANDARD DRAWINGS, AND ALL APPLICABLE CITY OF MURRIETA ORDINANCES.

8. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

9. THE CONTRACTOR SHALL CONFORM TO LABOR CODE SECTION 6705 BY SUBMITTING A DETAIL PLAN TO THE CITY ENGINEER AND/OR CONCERNED AGENCY SHOWING THE DESIGN OF SHORING, BRACING, SLOPING OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH OR TRENCHES OR DURING THE PIPE INSTALLATION THEREIN. THIS PLAN MUST BE PREPARED FOR ALL TRENCHES FIVE FEET (5') OR MORE IN DEPTH AND APPROVED BY THE CITY ENGINEER AND/OR CONCERNED AGENCY PRIOR TO EXCAVATION. IF THE PLAN VARIES FROM THE SHORING SYSTEM STANDARDS ESTABLISHED BY THE CONSTRUCTION SAFETY ORDERS, THE PLAN SHALL BE PREPARED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER AT THE CONTRACTOR'S EXPENSE.

10. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES (ABOVEGROUND AND UNDERGROUND) WITHIN THE PROJECT SITE SUFFICIENTLY AHEAD OF THE CONSTRUCTION TO PERMIT THE REVISION OF THE CONSTRUCTION PLANS IF IT IS FOUND THE ACTUAL LOCATIONS ARE IN CONFLICT WITH THE PROPOSED WORK.

11. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48-HOURS PRIOR TO STARTING CONSTRUCTION NEAR THEIR FACILITIES AND SHALL COORDINATE THE WORK WITH COMPANY REPRESENTATIVE. (NOTE: CURRENT PHONE NUMBERS OF ALL AFFECTED UTILITIES SHALL BE SHOWN ON THE PLANS.)

12. NO WORK SHALL BE COMMENCED UNTIL ALL PERMITS HAVE BEEN OBTAINED FROM THE CITY AND OTHER APPROPRIATE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE CITY OF MURRIETA AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING CONSTRUCTION SO THAT INSPECTION MAY BE PROVIDED. PHONE (909) 698-1040

13. WHERE TRENCHES ARE WITHIN CITY EASEMENTS, A SOILS REPORT PERFORMED BY A QUALIFIED SOILS ENGINEER IS REQUIRED. COMPACTION REPORTS SHALL BE SUBMITTED TO THE PUBLIC WORKS INSPECTOR UPON COMPLETION OF THE WORK.

14. NO REVISIONS WILL BE MADE TO THE CONSTRUCTION PLANS WITHOUT THE WRITTEN APPROVAL OF THE CITY ENGINEER NOTED WITHIN THE REVISION BLOCK ON THE APPROPRIATE SHEET OF THE PLANS.

15. ACCESS FOR FIRE AND OTHER EMERGENCY VEHICLES SHALL BE MAINTAINED TO THE PROJECT SITE AT ALL TIMES DURING THE CONSTRUCTION.

16. REVISIONS OF THESE PLANS MAY BE REQUIRED IF THE PROPOSED IMPROVEMENTS ARE NOT CONSTRUCTED PRIOR TO THE EXPIRATION OF THE IMPROVEMENT AGREEMENT.

## CAST-IN-PLACE CONCRETE PIPE (C.I.P.P.) REQUIREMENTS

1. THE SUPPLYING BATCH PLANT MAY BE INSPECTED BY THE CITY OF MURRIETA INSPECTOR AT THE START OF CONSTRUCTION AND THEREAFTER TO OBSERVE PLANT OPERATIONS, BATCH WEIGHTS AND OTHER CONCRETE CONTROL MEASURES.

2. CONCRETE MIXES SHALL NOT HAVE LESS THAN SIX (6) SACKS OF PORTLAND CEMENT PER C.Y. - 4000 PSI MINIMUM. FOR COVER GREATER THAN 12' & OR ULTIMATE HEAD ABOVE PIPE GREATER THAN 2 FEET. USE 5000 PSI MINIMUM.

3. CONCRETE MIX DESIGN SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL PRIOR TO START OF CONSTRUCTION.

4. A 140° SEGMENT OF THE C.I.P.P. INVERT SHALL BE THICKENED 2 INCHES IN WALL THICKNESS AS "SACRIFICIAL CONCRETE" TO RESIST ABRASION. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE AT LEAST F'c=5000 psi.

5. THE CONTRACTOR SHALL ALLOW THE CITY INSPECTOR INTO PIPE WHILE UNDER CONSTRUCTION & ROD FOR ALL THICKNESS AT A MINIMUM.

6. AT THE END OF ALL POURS & THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL INSTALL #4 DOWELS 24" LONG 12" INTO THE LAST POUR AT 12" CENTERS AROUND THE CIRCUMFERENCE OF THE C.I.P.P.

## GRADING NOTES

1. ALL GRADING SHALL CONFORM TO THE CITY OF MURRIETA GRADING CODE AND MANUAL.

2. MINIMUM BUILDING PAD AND DRAINAGE SWALE SLOPE SHALL BE 1%. DRAINAGE SWALES SHALL BE A MINIMUM OF 0.2' DEEP AND BE CONSTRUCTED A MINIMUM OF 2' FROM THE TOP OF CUT OR FILL SLOPES.

3. MAXIMUM CUT AND FILL SLOPE = 2:1

4. PROVIDE 4' WIDE BY 1' HIGH BERM OR EQUIVALENT ALONG THE TOP OF ALL FILL SLOPES OVER 5' HIGH.

## GRADING VOLUME

EARTHWORK VOLUME IS CALCULATED USING PRISMOIDAL OR SLICE METHOD BETWEEN THE EXISTING & PROPOSED SURFACES, BASED ON THE SOILS REPORT, A SHRINKAGE FACTOR OF 15% IS APPLIED. VOLUME OF THE PROPOSED INFRASTRUCTURES WERE ALSO CONSIDERED. THESE VALUES ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR HIS BID EARTHWORK VOLUMES AND OTHER REMEDIAL GRADING RECOMMENDED BY THE SOILS ENGINEER.

VOLUME OF STORMDRAIN=17,100 CY
RAW CUT=62,430 CY
TOTAL CUT=79,530 CY
AVAILABLE ONSITE MATERIALS FOR FILLING AFTER 15% SHRINKAGE FACTOR IS APPLIED=67,600 CY
RAW FILL=67,600 CY
EXPORT / IMPORT = 0 CY
REMEDIAL GRADING = LUMP SUMP

## GRADING NOTES

5. ALL GRADING SHALL BE DONE UNDER THE SUPERVISION OF A COMPETENT SOILS ENGINEER WHO SHALL CERTIFY THAT ALL FILL HAS BEEN PROPERLY PLACED AND WHO SHALL SUBMIT A FINAL COMPACTION REPORT FOR ALL FILLS OVER 1' DEEP.

6. A REGISTERED CIVIL ENGINEER SHALL SUBMIT TO THE CITY ENGINEERING DEPARTMENT WRITTEN CERTIFICATION OF COMPLETION OF ROUGH GRADING IN ACCORDANCE WITH THE APPROVED GRADING PLAN PRIOR TO ISSUANCE OF THE BUILDING PERMIT. CERTIFICATION SHALL BE TO LINE, GRADE, ELEVATION AND LOCATION OF CUT FILL SLOPES.

7. PROVIDE A BROW DITCH, DESIGNED TO HANDLE 100 YR. Q STORM FLOWS, ALONG TOP CUT OF SLOPE.

8. ALL GRADING SHALL BE DONE IN CONFORMANCE WITH RECOMMENDATIONS OF THE PRELIMINARY SOILS INVESTIGATION BY T.H.E. SOILS CO., INC, DATED APRIL 27, 2007; NOVEMBER 25, 2008; SEPTEMBER 7, 2011 AND ANY FUTURE UPDATES. TWO SETS OF THE FINAL COMPACTION REPORT SHALL BE SUBMITTED TO THE ENGINEERING DEPARTMENT WHICH SHALL INCLUDE FOUNDATION DESIGN RECOMMENDATION AND CERTIFICATION THAT GRADING HAS BEEN DONE IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PRELIMINARY SOILS REPORT.

9. THE CONTRACTOR SHALL NOTIFY THE CITY OF MURRIETA ENGINEERING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF REQUESTING FINISH LOT GRADE AND DRAINAGE INSPECTION. THIS INSPECTION MUST BE APPROVED PRIOR TO BUILDING PERMIT FINAL INSPECTION FOR EACH LOT.

10. CUT SLOPES EQUAL TO OR GREATER THAN 5' IN VERTICAL HEIGHT AND FILL SLOPES EQUAL TO OR GREATER THAN 3' IN VERTICAL HEIGHT SHALL BE PLANTED WITH GROUND COVER TO PROTECT THE SLOPE FROM EROSION AND INSTABILITY IN ACCORDANCE WITH THE CITY GRADING CODE PRIOR TO THE APPROVAL OF FINAL INSPECTION.

11. NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAD BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL, AND OTHER DELETERIOUS MATERIAL.

12. IF STEEP SLOPING TERRAIN OCCURS UPON WHICH FILL IS TO BE PLACED, IT MUST BE CLEARED, KEYED, AND BENCHED INTO FIRM NATURAL SOIL FOR FULL SUPPORT. PREPARATION SHALL BE APPROVED BY A REGISTERED ENGINEER PRIOR TO PLACEMENT OF FILL MATERIAL.

13. DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES TEMPORARY DRAINAGE CONTROL SHOULD BE PROVIDED TO PREVENT PONDING WATER AND DAMAGE TO ADJACENT PROPERTIES.

14. DUST SHALL BE CONTROLLED BY WATER AND OTHER APPROVED METHODS.

15. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING OPERATIONS.

16. STABILITY CALCULATIONS WITH A FACTOR OF AT LEAST ONE AND FIVE TENTHS (1.5) SHALL BE SUBMITTED BY A SOILS ENGINEER TO THE CITY ENGINEERING DEPARTMENT FOR CUT AND FILL SLOPES OVER 30' IN VERTICAL HEIGHT.

17. A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR SHALL SUBMIT CERTIFICATION OF BUILDING PAD ELEVATION. WHERE SPECIFIC ELEVATIONS ARE REQUIRED, THE ELEVATION (WITH RESPECT TO MEAN SEA LEVEL) SHALL BE GIVEN. IF AN ELEVATION WITH RESPECT TO ADJACENT GROUND SURFACE IS REQUIRED, THE ACTUAL DISTANCE ABOVE THE ADJACENT GROUND SHALL BE GIVEN.

18. EROSION CONTROL: ALL GRADED SLOPES SHALL BE PLANTED WITH AN APPROVED GROUND COVER. SLOPES OVER 15' IN VERTICAL HEIGHT, IN ADDITION TO GROUND COVER, SHALL BE PLANTED WITH APPROVED TREES, SHRUBS, OR COMBINATION, 15' ON CENTER. SLOPES OF 4' IN VERTICAL HEIGHT SHALL HAVE PERMANENT IRRIGATION SYSTEMS WITH BACKFLOW PREVENTION DEVICES PER U.P.C., CHAPTER 10.R.

19. FINISH GRADE SHALL BE SLOPED AWAY FROM ALL EXTERIOR WALLS AT NO LESS THAN 2% PER FOOT FOR A MINIMUM OF 3 FEET.

20. NO OBSTRUCTION OF FLOOD PLAINS OR NATURAL WATER COURSES SHALL BE PERMITTED.

21. ALL PROPERTY CORNERS SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION / GRADING.

22. WORK MAY NOT START UNTIL PERMITS HAVE BEEN OBTAINED.

23. PURSUANT TO THE CITY OF MURRIETA MUNICIPAL CODE 15.52.150, GRADING AND EQUIPMENT OPERATION WITHIN ONE-HALF (1/2) MILE OF A STRUCTURE FOR HUMAN OCCUPANCY SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM, NOR ON SUNDAY AND FEDERAL HOLIDAYS WITHOUT THE APPROVAL OF THE CITY ENGINEER.

24. APPROVAL OF THESE PLANS BY THE CITY OR ITS AGENT DOES NOT RELIEVE THE APPLICANT AND HIS ENGINEER FROM THE RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE APPROPRIATE PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR REVIEW APPROVAL.

25. SOURCE OF TOPOGRAPHY: A PHOTOGRAMMETRIC AERIAL SURVEY CONDUCTED BY VERTICAL MAPPING RESOURCES, INC. LAST JANUARY 14, 2003 & SUPPLEMENTED BY FIELD SURVEY BY EXCEL ENGINEERING USING CONVENTIONAL METHODS.

26. SEPARATE HAUL PERMIT IS REQUIRED FOR ANY IMPORT/EXPORT MATERIAL TO/FROM THE PROJECT SITE.

27. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY LANDSCAPE ARCHITECT AT LEAST 48 HOURS PRIOR TO BEGINNING OF ANY CONSTRUCTION. ALSO, THE CITY LANDSCAPE ARCHITECT SHALL BE NOTIFIED AT LEAST 48 HOURS BEFORE ANY CONCRETE CURB POURS ARE MADE. THE CITY LANDSCAPE ARCHITECT'S PHONE NUMBER IS (951) 698-0122.

28. THE APPLICANT IS HEREBY NOTICED THAT THEY MUST COMPLY WITH ALL STATE AND FEDERAL ENDANGERED SPECIES LAW. THE CITY OF MURRIETA IS NOT RESPONSIBLE FOR ANY SUCH VIOLATION OF STATE OR FEDERAL ENDANGERED SPECIES LAW DUE TO THE APPLICANT'S NON-COMPLIANCE.

29. IN CASE OF EMERGENCY, 24 HOUR CONTACT: KEN BURRIS 951-453-3181

## CONSTRUCTION ITEMS*

| ITEM | STANDARD DRAWINGS | QUANTITY |
|---|---|---|
| (1) DOUBLE 7'X14' REINFORCED CONCRETE BOX CIPB | CALTRANS D81 | 895 LF |
| (2) 12.5'X28' SINGLE REINFORCED CONCRETE BOX CIPB | RCFC&WCD BX401 | 30 LF |
| (3) 7'X28' TO 12.5'X28' TRANSITION STRUCTURE CIPB | RCFC&WCD TS304 | 2 EA |
| (4) 36" RCP CLASS IV OR 2000D | RINKER OR EQUIVALENT | 925 LF |
| (5) JUNCTION STRUCTURE #1 | RCFC&WCD JS226 | 3 EA |
| (6) JUNCTION STRUCTURE #2 | RCFC&WCD JS227 | 1 EA |
| (7) MANHOLE FOR THE TRIPLE 36" RCP | RCFC&WCD MH253 | 1 EA |
| (8) 18" RCP CLASS IV OR 2000D | RINKER OR EQUIVALENT | 80 LF |
| (9) INSTALL CLEARWATER DRAIN INSERTS INTO EXISTING CATCH BASIN | CLEARWATER OR EQUIVALENT | 4 EA |
| (10) 36" RCP CLASS IV OR 2000D (FOR INTERIM WATER QUALITY BASINS) | RINKER OR EQUIVALENT | 55 LF |
| (11) 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA | RCFC&WCD W827 | 1 EA |
| (12) CONCRETE APRON W/ CUTOFF WALL | SEE SHEET 8 / CALTRANS D86 | 1,600 SF |
| (13) NOT USED | | |
| (14) UTILITY TRENCH SURFACE RESTORATION | C.O.M. STD DWG 212a | 990 SF |
| (15) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS | RCP TEK 11-3 | 1,690 SF |
| (16) CONCRETE DITCH PER COM DWG 415B | C.O.M. STD DWG 415B | 150 LF |
| (17) RIPRAP GROUTED BERM<br>T=4.3' ROCK CLASS=1 TON<br>2.15' FILTER<br>BLANKET UPPER LAYER=TYPE B<br>LOWER LAYER=SAND | | 380 CY |
| (18) RIPRAP SLOPE PROTECTION<br>T=4.3' ROCK CLASS=1 TON<br>2.15' FILTER<br>BLANKET UPPER LAYER=TYPE B<br>LOWER LAYER=SAND | | 1,080 CY |
| (19) RETAINING WALL (TYPE 1) | CALTRANS B3-1 | 12,300 SF |
| (20) SHEET PILE RETAINING WALL WITH MATCHING CAP | SEE SHEETS 19 & 26 | 6,170 SF |
| (21) TEMPORARY FLOOD CONTROL WALL | SEE SHEETS 20 & 27 | 110 SF |
| (22) 6" AC BERM, TYPE A | CALTRANS A87B | 35 LF |
| (23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT | GREENFIX AMERICA CFS072R | 17,500 SF |
| (24) NOT USED | | |
| (25) 24" RCP CLASS IV OR 2000D (FOR TEMP. INLET ON MADISON AVE) | RINKER OR EQUIVALENT | 490 LF |
| (26) TEMPORARY STEEL INLET PIPE WITH KRISTAR INSERT | CALTRANS D75A | 2 EA |
| (27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS | | 9 EA |
| (28) 108" CAST IN PLACE PIPE | DESIGN BUILD | 1,970 LF |
| (29) MANHOLE #4 | RCFC&WCD MH254 | 1 EA |
| (30) WARPED WINGWALL | CALTRANS D86A | 1 EA |
| (31) WARPED WINGWALL | CALTRANS D86B | 1 EA |
| (32) SINGLE 7'X10' REINFORCED CONCRETE BOX CIPB | RCFC&WCD BX401 | 115 LF |
| (33) CONCRETE BULKHEAD | RCFC&WCD M816 | 2 EA |
| (34) EARTHEN CHANNEL | SEE SHEET 14 & 17 | 680 LF |
| (35) 30" RCP CLASS IV OR 2000D | RINKER OR EQUIVALENT | 60 LF |
| (36) 36" RCP CLASS IV OR 2000D (STUBS FOR ST. INLETS) | RINKER OR EQUIVALENT | 16 LF |
| (37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE | | 3,400 SF |
| (38) PIPE ENTRANCE TO EARTH CHANNEL | C.O.M. STD DWG 422A | 2 EA |
| (39) RIPRAP ENERGY DISSIPATOR<br>T=5.4' ROCK CLASS=2 TON<br>2.7' FILTER BLANKET<br>UPPER LAYER=TYPE B<br>LOWER LAYER=SAND | C.O.M. STD DWG 446A | 750 CY |
| (40) RIPRAP ENERGY DISSIPATOR<br>T=2.0' ROCK CLASS=LIGHT<br>1.00' 1/2" GRAVEL FILTER BLANKET | C.O.M. STD DWG 446A | 60 CY |
| (41) BLACK VINYL COATED FABRIC CHAINLINK FENCE | RCFC&WCD M801/ SEE SHEET 23 | 2,760 LF |
| (42) BLACK VINYL COATED FABRIC CHAINLINK GATE | RCFC&WCD M801/ SEE SHEET 23 | 3 EA |
| (43) INTERIM WATER QUALITY BASIN | SEE SHEET 18 | 3 EA |
| (44) 36" CMP RISER | SEE SHEET 18 | 3 EA |
| (45) 4-WIRE BARBED WIRE FENCE | RCFC&WCD M818/ SEE SHEET 23 | 820 LF |
| (46) TYPE A METAL HAND RAILING | APWA 606-1/ SEE SHEET 23 | 100 LF |
| (47) REMOVE AND REPLACE EXISTING FENCE AS NECESSARY * SEE DEMOLITION ITEMS ON SHEET 3. | | |
| (48) TEMPORARY FLOOD EARTHEN BERM | SEE SHEET 20 | 400 LF |
| (49) RIPRAP BOTTOM OF WALL PROTECTION<br>T=2.7" ROCK CLASS=1/4 TON<br>1.35" FILTER<br>BLANKET UPPER LAYER=3/4"<br>LOWER LAYER=SAND | | 60 CY |
| (50) STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS. | | 1 L.S. |

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
140 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1850

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629 EXP. DATE: 12/31/12
2/28/11 DATE

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 33 FEET EAST OF POWER POLE #18307, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 2 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

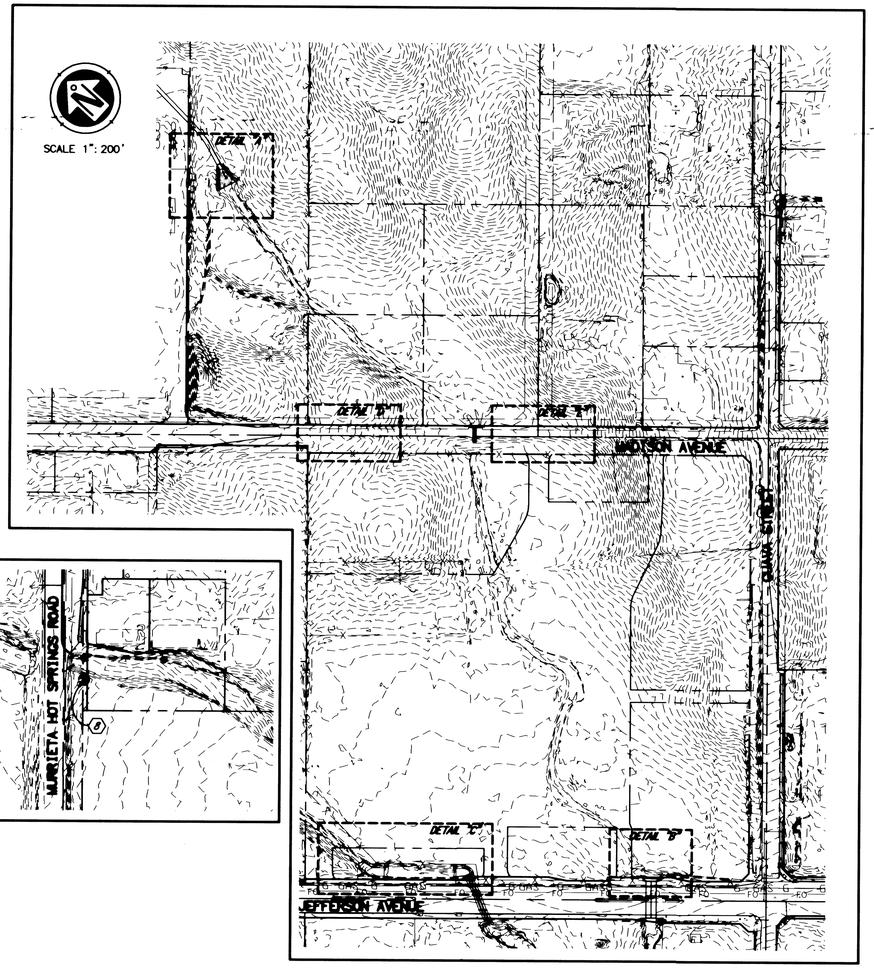
IMPROVEMENT PLAN FOR LINE D & D-1

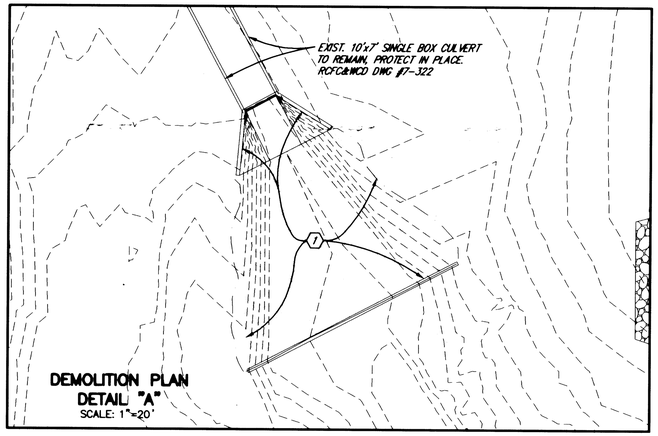
APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

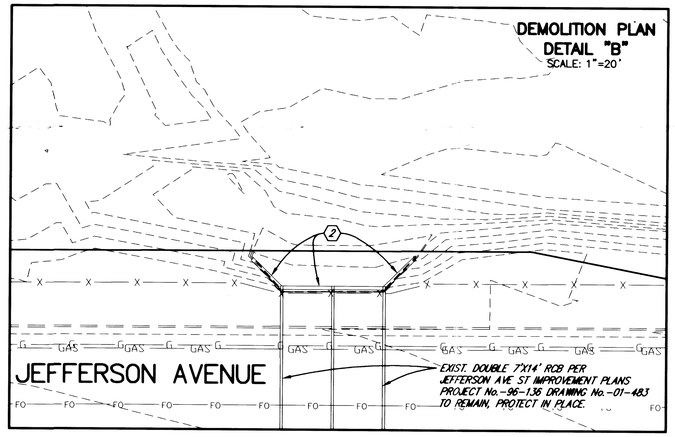
DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-104

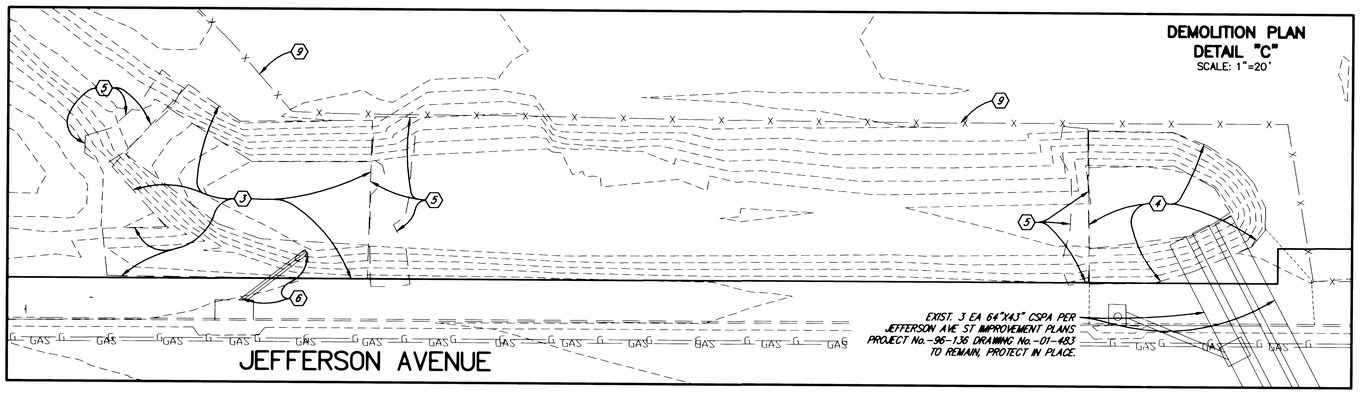
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 05550

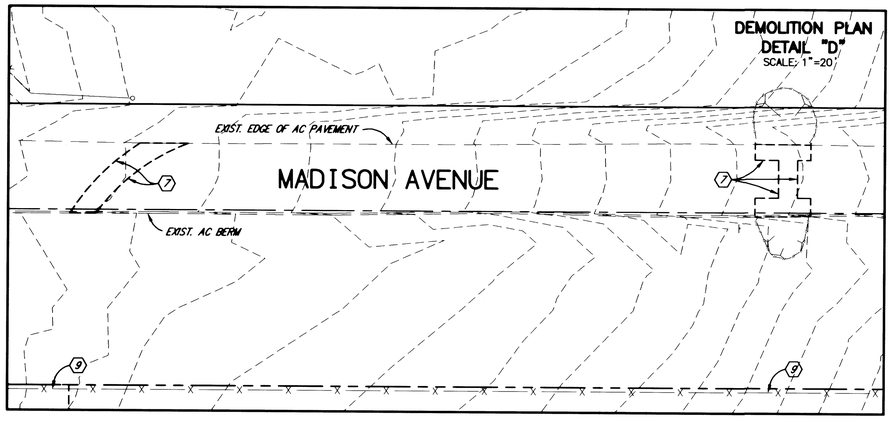
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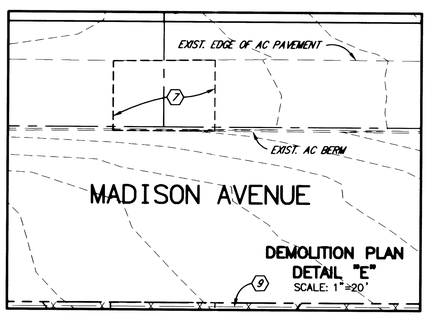



| DEMOLITION ITEMS | QUANTITY |
|---|---|
| (1) REMOVE EXISTING HEADWALL, SILL AND RIPRAP. RIPRAP TO BE REUSED ELSEWHERE ON SITE AS POSSIBLE. | 1 LS |
| (2) REMOVE EXISTING HEADWALL. | 1 EA |
| (3) REMOVE EXISTING CONCRETE SPILLWAY. | 1 EA |
| (4) REMOVE EXISTING CONCRETE FOR INLET STRUCTURE. | 1 EA |
| (5) REMOVE EXISTING RIPRAP. RIPRAP TO BE REUSED ELSEWHERE ON SITE AS POSSIBLE. | 1 LS |
| (6) REMOVE EXISTING 18" RCP PIPE. | 23 LF |
| (7) SAWCUT AND REMOVE AC PAVEMENT PER C.O.M. STD DWG 212a. | 990 SF |
| (8) REMOVE EXISTING Casuarinas equisetifolia – HORSETAIL TREE AND STUMP. SEE SHEET 9 FOR CLARITY. | 1 EA |
| (9) REMOVE EXISTING FENCE AS NECESSARY FOR CONSTRUCTION. TO BE REPLACED UPON COMPLETION. | 1 LS |

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

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PREPARED BY
ROBERT D. DENTINO 9/22/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

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SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 3 | | 27 |

DEMOLITION PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-105

DRAWING NUMBER 11-105

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SAFETY PARTS • NEW HOPE, MINNESOTA

MATCHLINE SEE SHEET 5 FOR CONTINUATION

MATCHLINE SEE SHEET 6 FOR CONTINUATION

JEFFERSON AVE

MADISON AVE

GUAVA STREET

LINE D BRANCH 01 SEE SHEET 9

LINE D BRANCH 01 SEE SHEET 10

LINE D-1 SEE SHEET 12

LINE D-1 SEE SHEETS 12 & 13

LINE D JUNCTION 02 SEE SHEET 16 FOR PLAN AND PROFILE

LINE D JUNCTION 01 SEE SHEET 16 FOR PLAN AND PROFILE

BASIN 1

BASIN 2

APN 909-170-023

APN 910-410-015

APN 910-410-017

APN 910-410-014

APN 910-410-013

APN 910-410-018

APN 910-140-064

APN 910-140-063

APN 910-140-081

APN 910-140-040

APN 909-060-022

APN 910-410-017

APN 910-140-08

LIMITS OF GRADING

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

50' WIDE LINE D EASEMENT

30' WIDE LINE D1 EASEMENT

EXIST. GASLINE PROTECT IN PLACE

EXIST. WATER AIR VAC PROTECT IN PLACE

EXIST. CAUTION HIGH PRESSURE GAS LINE SIGN

EXIST. TELEPHONE LINE

EXIST. SEWERMAN

EXIST. WATERMAN

EXIST. FIBER OPTIC

EDGE OF EXISTING 20' WIDE AC PAVEMENT

FUTURE R/W

R/W

55.00' 55.00' 110.00'

50.00' 30.00' 80.00'

30.00' 30.00' 60.00'

## CONSTRUCTION NOTES

(14) UTILITY TRENCH SURFACE RESTORATION PER C.O.M. STD DWG 212a

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS072R

(43) INTERIM WATER QUALITY BASIN, SEE SHEET 18.

(47) REMOVE AND REPLACE EXISTING FENCE AS NECESSARY.

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

GRADING NOTE: NO REMEDIAL GRADING IS REQUIRED IN THE FILL AREAS. REMEDIAL GRADING WILL BE REQUIRED BY THE SOIL ENGINEER TO STABILIZED THE PROPOSED LINE D & D1 STRUCTURES ONLY.

SCALE 1": 50'

0 50 100 150 200

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1050

PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629 EXP. DATE: 12/31/12
9/28/11 DATE

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183307, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 6 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1118.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

SHEET 4 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

GRADING PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS Patrick A Thomas DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-106

DRAWING NUMBER 11-106

DRAWING NUMBER

SARCO PRODUCTS • NEW HOPE, MINNESOTA

APN 909-170-022

APN 909-170-023

JEFFERSON AVE

MADISON AVE

APN 910-410-011
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

APN 910-410-009
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

APN 910-140-044

APN 910-410-019

APN 910-410-017

APN 910-410-012

APN 910-140-065

TEMPORARY FLOOD CONTROL WALL AND BERM. SEE SHEET 20

EXIST. SEWER MAN 84+00

EXIST. WATERMAIN

EXIST. FIBER OPTIC

EXIST. GAS LINE

10.25' WIDE MITIGATION EASEMENT

23.50' WIDE MITIGATION EASEMENT

20.50' WIDE MITIGATION EASEMENT

50' WIDE LINE D EASEMENT

LIMITS OF GRADING

SEE SHEET 15

SEE SECTION AT BOTTOM LEFT OF THIS SHEET

LINE ST-01
SEE SHEET 15

20' WIDE LINE ST-01 EASEMENT

LINE ST-01 EASEMENT

LIMITS OF GRADING. SEE BERM DETAIL THIS SHEET.

55.00' 55.00'

110.00'

RETAINING WALL 02 SEE SHEET 19

TURF BLOCK ACCESS ROAD

LINE D EASEMENT

10' WIDE LINE D EASEMENT

RETAINING WALL 01 - SEE SHEET 19
SEE SHEET 23 FOR FENCE PLANS

LIMITS OF GRADING

DG ACCESS ROAD VEHICULAR TURN AROUND

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

MAINTENANCE ACCESS EASEMENT

70.00 FL

12' WIDE DG ACCESS ROAD

FOR GRADING DETAILS IN THIS AREA, SEE SHEET 8.

LINE D JUNCTION 03
SEE SHEET 16 FOR PLAN AND PROFILE

LINE D
BRANCH 02
SEE SHEET 11

LINE D
BRANCH D1
SEE SHEET 10

30' WIDE LINE D EASEMENT

50' WIDE LINE D EASEMENT

LIMITS OF GRADING

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

EXIST. FIRE HYDRANT PROTECT IN PLACE

LIMITS OF VEGETATION PRESERVATION & PROPOSED LIMIT OF CONSTRUCTION ACTIVITIES

EDGE OF EXISTING 20' WIDE AC PAVEMENT

EXIST. 3 EA 36" CMP DRAINS TO REMAIN, PROTECT IN PLACE

30.00' 30.00'

60.00'

50.00' 30.00'

80.00'

20'±

MATCHLINE SEE SHEET 6 FOR CONTINUATION

MATCHLINE SEE SHEET 4 FOR CONTINUATION

3'
APN 910-410-009
APN 910-410-012
1' HIGH BERM PER C.O.M. STD DWG 413A, SECTION B-B
2:1 SLOPE
PROPERTY LINE
SECTION 1-1
NOT TO SCALE

DAYLIGHT/LIMITS OF GRADING
EXIST. GROUND
1'
2:1
2:1
BERM DETAIL
NOT TO SCALE

SCALE 1": 50'
0 50 100 150 200

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

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## CONSTRUCTION NOTES

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFSD72R

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(37) 6" D.C. ACCESS ROAD OVER 90% COMPACTED NATIVE

(38) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER ROP TEK 17-3

(47) REMOVE AND REPLACE EXISTING FENCE AS NECESSARY.

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
40 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1080

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/3/11
BUREAU VERITAS
R.C.E. NO. 48819

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

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TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
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ELEVATION = 1119.00 NAVD

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 5 | | 27 |

GRADING PLAN FOR
LINE D & D-1

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: ____
CHKD BY: ____
FIELD BK: ____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-107

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

11-107

MATCHLINE SEE SHEET 7 FOR CONTINUATION

MATCHLINE SEE SHEET 5 FOR CONTINUATION

MATCHLINE SEE SHEET 4 FOR CONTINUATION

APN 910-140-066

APN 910-140-031

APN 910-140-065

APN 910-140-032

APN 910-140-057

APN 910-140-064

APN 910-140-020
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

APN 910-140-058

APN 910-140-062

APN 910-140-061

APN 910-140-060

APN 910-140-059

LINE D-1
SEE SHEET 14

LINE D-1
SEE SHEET 13

BASIN 3
89.00
87.00

LINE D1 EASEMENT

CHANNEL LATERAL D1
SEE SHEET 16 FOR
PLAN AND PROFILE

LIMITS OF VEGETATION
PRESERVATION &
PROPOSED LIMIT OF
CONSTRUCTION ACTIVITIES

LIMITS OF GRADING

20' WIDE MITIGATION EASEMENT

STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS.

LIMITS OF GRADING.
SEE BERM DETAIL THIS SHEET

12' WIDE TURF BLOCK ACCESS ROAD

FUTURE R/W

78' ULTIMATE NONAME
ST RIGHT OF WAY

39.00'

2:1 SLOPE

GRADING NOTE: NO REMEDIAL GRADING IS REQUIRED IN THE FILL AREAS. REMEDIAL GRADING WILL BE REQUIRED BY THE SOIL ENGINEER TO STABILIZED THE PROPOSED LINE D & D1 STRUCTURES ONLY.

DAYLIGHT/LIMITS OF GRADING

EXIST. GROUND

1' / 2:1

BERM DETAIL
NOT TO SCALE

SCALE 1": 50'

0 50 100 150 200

## CONSTRUCTION NOTES

(12) CONCRETE APRON/RAMP W/ CUTOFF WALL PER CALTRANS D86

(17) RIPRAP GROUTED BERM
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND

(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS072R

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(28) 108" CAST IN PLACE PIPE, DESIGN BUILD

(31) WARPED WINGWALL PER CALTRANS D86B

(34) EARTHEN CHANNEL, SEE SHEET 17.

(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

(38) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER RCP TEK 11-3

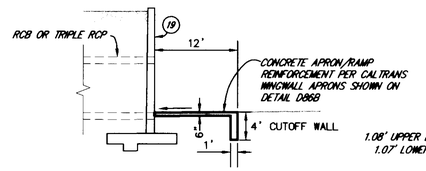
(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A
T=1.0' ROCK CLASS=#2 BACKING
0.50' DG FILTER BLANKET

(41) BLACK VINYL COATED FABRIC CHAINLINK FENCE PER RCFC&WCD M801/ SEE SHEET 23

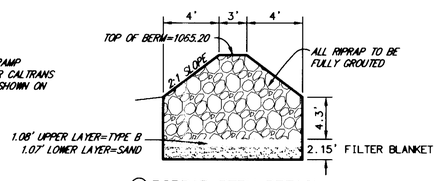
(42) BLACK VINYL COATED FABRIC CHAINLINK GATE PER RCFC&WCD M801/ SEE SHEET 23

(43) INTERIM WATER QUALITY BASIN, SEE SHEET 18.

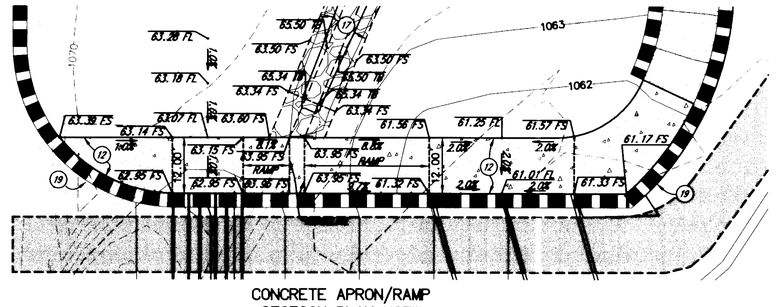
(50) STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS.




(12) CONCRETE APRON/RAMP SECTION DETAIL
NOT TO SCALE




(17) RIPRAP BERM DETAIL
NOT TO SCALE




CONCRETE APRON/RAMP
SECTION PLAN VIEW
SCALE 1":15'

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work — Date

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1050

PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629 — DATE 9/22/11 — EXP. DATE: 12/31/12

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 6 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING PLAN FOR
LINE D & D-1

APPROVED
PATRICK THOMAS — DIRECTOR OF PUBLIC WORKS/CITY ENGINEER — R.C.E. 44223 — DATE: 10/12/2011 — EXP. DATE: 08/30/13

DWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

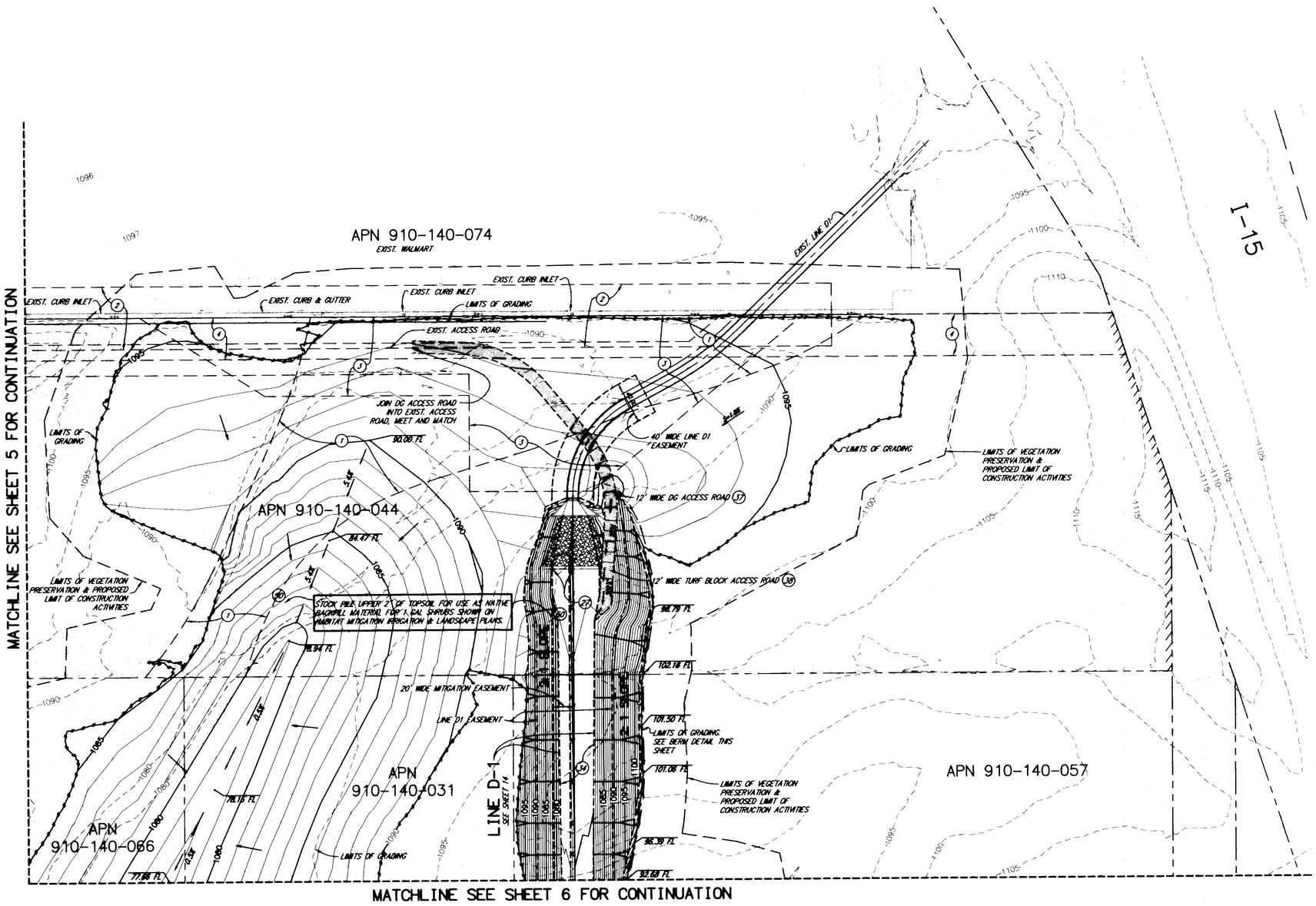
DRAWING NO. 11-108

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10362

DRAWING NUMBER 11-108

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10362




## EASEMENTS

(1) AN EASEMENT FOR FLOOD PLAIN AND RIGHTS INCIDENTAL THERETO AS SHOWN ON PARCEL MAP 11019.

(2) A NO BUILD EASEMENT BY AND BETWEEN WAL-MART STORES, INC. AND RALPH AND JEAN SOHN IN ORDER TO MEET THE YARD REQUIREMENTS OF THE UBC, APPLICABLE TO AN UNLIMITED AREA CODE BUILDING, IN THE DOCUMENT ENTITLED "DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS AND GRANTS OF EASEMENTS", RECORDED NOVEMBER 30, 1999 AS INSTRUMENT NO. 1999-522878 OF OFFICIAL RECORDS.

(3) AN IRREVOCABLE OFFER TO DEDICATE A PORTION OF SAID LAND FOR MURRIETA CREEK MDP LINE D-1 AND INCLUDING INGRESS AND EGRESS THERETO, IN FAVOR OF THE CITY OF MURRIETA, ON BEHALF OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, IN THE DOCUMENT RECORDED NOVEMBER 22, 2000 AS INSTRUMENT NO. 2000-468397 AND RE-RECORDED MAY 17, 2001 AS INSTRUMENT NO. 2001-217626, BOTH OF OFFICIAL RECORDS.

(4) AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO, GRANTED TO EASTERN MUNICIPAL WATER DISTRICT, AS SET FORTH IN THE DOCUMENT RECORDED OCTOBER 25, 2005 AS INSTRUMENT NO. 2005-0878652 OF OFFICIAL RECORDS.

## CONSTRUCTION NOTES

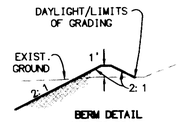
(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(34) EARTHEN CHANNEL, SEE SHEET 17.

(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

(38) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER RCP TEK 11-3

(50) STOCK PILE UPPER 2" OF TOPSOIL FOR USE AS NATIVE BACKFILL MATERIAL FOR 1 GAL SHRUBS SHOWN ON HABITAT MITIGATION IRRIGATION & LANDSCAPE PLANS.




BERM DETAIL
NOT TO SCALE

SCALE 1": 50'

0 50 100 150 200

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO 9/28/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

ENGINEER OF WORK

| DATE | INITIAL | REVISION DESCRIPTION |
|---|---|---|

SHT. NO. | DATE | INITIAL | CITY APPROVAL

**UNDERGROUND SERVICE ALERT**
CALL TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

**BENCH MARK**
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

SHEET 7 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

GRADING PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-109

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

DRAWING NUMBER
11-109
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

JEFFERSON AVE

LINE D JUNCTION 03 SEE SHEET 16 FOR PLAN AND PROFILE

WATER SERVICE LATERAL BY OTHERS, SEE SHEET 24 FOR DETAILS.

EXIST. WATERMAIN

EXIST. FIBER OPTIC

EXIST. GAS LINE

SEE SHEET 20 FOR TEMPORARY FLOOD CONTROL BERM AND WALL PLAN AND PROFILE. SEE SHEET 27 FOR STRUCTURAL SECTIONS.

JOIN EX. FG

EXIST. RW

ULTIMATE RW

LINE D BRANCH 02 SEE SHEET 11

LINE D BRANCH 02 CENTERLINE

LINE D BRANCH 01 SEE SHEET 10

LINE D BRANCH 01 CENTERLINE

SEE SHEET 5

2:1 SLOPE

LIMITS OF GRADING

MAINTENANCE ROAD

MAINTENANCE ACCESS EASEMENT

APN 910-410-017

(14) DG ACCESS ROAD VEHICULAR TURN AROUND

APN 910-410-011
PRIVATE PROPERTY
NO CONSTRUCTION ACCESS

PROPERTY LINE

SCALE: 1": 20'

0 20 40 60 80

## SECTION C-C
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

EXIST. GROUND
PROPOSED GROUND
PROPERTY LINE
1065.30 FS
1065.08 FS
(18) RIPRAP T=4.3' ROCK CLASS=1 TON 2.15' FILTER BLANKET UPPER LAYER=TYPE B LOWER LAYER=SAND

## SECTION D-D
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

EXIST. GROUND
PROPERTY LINE
1064.71
1064.93
1027.28
PROPOSED GROUND

## (17) RIPRAP BERM DETAIL
NOT TO SCALE

TOP OF BERM=1065.20
4' 3' 4'
2:1 SLOPE
ALL RIPRAP TO BE FULLY GROUTED
4.3'
2.15' FILTER BLANKET
1.08' UPPER LAYER=TYPE B
1.07' LOWER LAYER=SAND

## (12) CONCRETE APRON/RAMP DETAIL
NOT TO SCALE

RCB OR TRIPLE RCP
12'
CONCRETE APRON REINFORCEMENT PER CALTRANS WINGWALL APRONS SHOWN ON DETAIL D86B
4' CUTOFF WALL
6"
1'

## SECTION A-A
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

SEE SHEET 23 FOR FENCING PLAN
TOP OF WALL=1075.00
Q100 WATER EL=1072.493
2:1 SLOPE
DOUBLE 7'X14' RCB
3 EA 36"RCP
(17) RIPRAP BERM. SEE DETAIL ON THIS SHEET.
BOTTOM OF WALL
FOOTING EL
PROPOSED GROUND

SEE SHEET 23 FOR FENCING PLAN
FRONT OF WALL
TOP OF WALL=1074.00
5' MAX EXPOSED WALL
JEFFERSON AVE
CENTERLINE
BOTTOM OF WALL
FOOTING EL

## SECTION B-B
SCALE HORIZONTAL 1":20'
VERTICAL 1":5'

SEE SHEET 23 FOR FENCING PLAN
0+20.69
FS=1075.11
TOP OF WALL=1075.00
12' TURF BLOCK ACCESS ROAD
PROPERTY LINE
2:1 SLOPE
1%
1+47.38
FS=1071.38
EXIST. GROUND
BOTTOM OF WALL
PROPOSED GROUND
FOOTING EL
FL=1064.81
1+23.13
FS=1064.96
(49)

TOP OF BERM=1073.00
ULTIMATE RW
EXIST. RW
50.00'
7.00'
CENTERLINE
JEFFERSON AVE
2'
6" MIN

## CONSTRUCTION NOTES

(11) 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA PER ROFC&WCD W827

(12) CONCRETE APRON/RAMP W/ CUTOFF WALL PER CALTRANS D86. SEE SHEET 6 FOR DETAILED SPOT ELEVATION CALLOUTS.

(37) 6" D.G. ACCESS PAVEMENT OVER 90% COMPACTED NATIVE

(15) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER ROP TEK 11-3

(16) CONCRETE DITCH PER COM DWG 415B

(17) RIPRAP GROUTED BERM
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND

(18) RIPRAP SLOPE PROTECTION
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND

(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

(49) RIPRAP BOTTOM OF WALL PROTECTION
T=2.7' ROCK CLASS=1/4 TON
1..35' FILTER
BLANKET UPPER LAYER=3/4"
LOWER LAYER=SAND
WIDTH FROM FACE OF WALL=5'

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1290

PREPARED BY
ROBERT D. DENTINO 9/20/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

SHEET 8 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING PLAN
DETAIL FOR LINE D

APPROVED
PATRICK THOMAS _____ DATE: 10/19/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 08/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-110

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

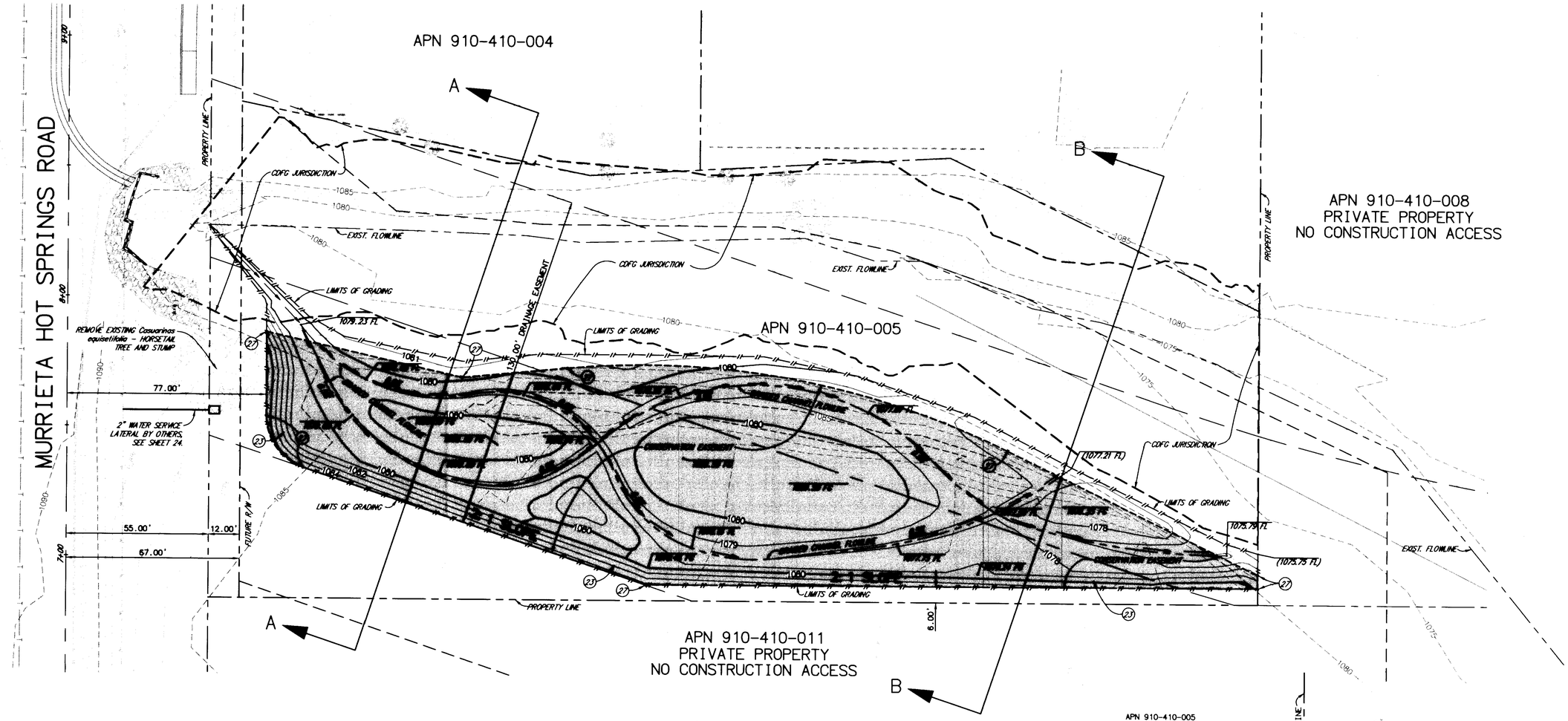
BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 3.3 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1118.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/12/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

DRAWING NUMBER 11-110

SAFCO PRODUCTS • NEW HOPE, MINNESOTA




## LEGEND

MITIGATION AREA
= 0.500 ACRES

## CONSTRUCTION NOTES

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFSO72R. INSTALL PER MANUFACTURER'S STANDARD / GUIDELINES.

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS

SCALE 1": 20'

0 20 40 60 80

## SECTION A-A

SCALE HORIZONTAL 1": 20'
VERICAL 1": 4'

## SECTION B-B

SCALE HORIZONTAL 1": 20'
VERICAL 1": 4'

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
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BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

SHEET 9 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

GRADING PLAN FOR APN 910-410-005 (MITIGATION PARCEL)

APPROVED
PATRICK THOMAS — DATE: 10/13/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: | CHKD BY: | FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-111

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

DRAWING NUMBER

11-111

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

# LINE D BRANCH 01
HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'

JEFFERSON AVENUE

REFERENCE: JEFFERSON AVE ST IMPROVEMENT PLANS PROJECT No.-96-1.16 DRAWING No.-01-483 CITY OF MURRIETA

NOTE: POTENTIAL ENCOUNTER OF GROUNDWATER PER SOILS REPORT BY T.H.E. SOILS CO. INC., DATED NOVEMBER 25, 2008. CONTRACTOR TO REFER TO THE DEWATERING SPECIFICATIONS.

EXISTING DOUBLE 7'X14' RCB PER JEFFERSON AVE ST IMPROVEMENT PLANS PROJECT No. 96-1.16 DRAWING No. 01-483 PROJECTED TO REMAIN, PROTECT IN PLACE

# JEFFERSON AVE

# LINE D BRANCH 02
SEE SHEET 11

# LINE D BRANCH 01
SEE ABOVE FOR PROFILE

BASIN 1

BASIN 2

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 1 | N48°16'34"E | -- | 37.49' | DOUBLE 14'WX7'H' RCB |
| 2 | Δ=52°16'08" | 115.00' | 104.91' | DOUBLE 14'WX7'H' RCB |
| 3 | Δ=02°51'58" | 115.00' | 5.75' | TRANSITION STRUCTURE* |
| 4 | Δ=14°30'55" | 115.00' | 29.13' | SINGLE 28'Wx11.50'H RCB* |
| 5 | Δ=02°51'58" | 115.00' | 5.75' | TRANSITION STRUCTURE* |

*SEE SHEET 25 FOR DETAILS

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 6 | Δ=17°31'07" | 115.00' | 35.16' | DOUBLE 14'WX7'H' RCB |
| 7 | N41°45'32"W | -- | 67.57' | DOUBLE 14'WX7'H' RCB |
| 8 | Δ=01°35'20" | 2000.00' | 67.10' | DOUBLE 14'WX7'H' RCB |
| 9 | N43°40'53"W | -- | 413.14' | DOUBLE 14'WX7'H' RCB |
| 10 | Δ=13°51'53" | 500.00' | 120.99' | DOUBLE 14'WX7'H' RCB |

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 11 | N57°32'45"W | -- | 47.90' | DOUBLE 14'WX7'H' RCB |
| 12 | N41°43'26"W | -- | 4.00' | 24" RCP |
| 13 | N68°10'22"W | -- | 23.01' | 36" RCP |
| 14 | N01°19'07"E | -- | 27.35' | 36" RCP |

## CONSTRUCTION NOTES

1. DOUBLE 7'X14' REINFORCED CONCRETE BOX CIPB PER CALTRANS D81
2. 12.5'X28' SINGLE REINFORCED CONCRETE BOX CIPB PER ROFC&WCD BIX401
3. 7'X28' TO 11.5'X28' TRANSISTION STRUCTURE CIPB PER ROFC&WCD TS304
5. JUNCTION STRUCTURE #1 PER ROFC&WCD JS226
10. 36" RCP CLASS IV OR 2000D - RAMKER OR EQUIVALENT
11. 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA PER ROFC&WCD M827
13. CONCRETE BULKHEAD PER ROFC&WCD M816
15. TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER ROP TEK 11-3
17. RIPRAP GROUTED BERM
    T=4.3' ROCK CLASS=1 TON
    2:1S FILTER
    BLANKET UPPER LAYER=TYPE B
    LOWER LAYER=SAND
18. RETAINING WALL (TYPE 1) PER CALTRANS B3-1
37. 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE
44. 36" CMP RISER, SEE SHEET 18

JOIN DETAIL
NOT TO SCALE

SCALE 1": 40'

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
10/13/11 DATE

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/Developer of any responsibility for their accuracy.
Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629
9/28/11 DATE
EXP. DATE: 12/31/12

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
740 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1880

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

SHEET 10 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

PLAN & PROFILE FOR LINE D BRANCH 01
STA 8+94.17 TO 21+18.52

APPROVED
PATRICK THOMAS
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE: 10/12/2011 EXP. DATE: 06/30/13

DWN. BY: ____ CHKD BY: ____ FIELD BK: ____

PROJECT NO. 10-335 CIP 8157 (ISD 8832)

DRAWING NO. 11-112

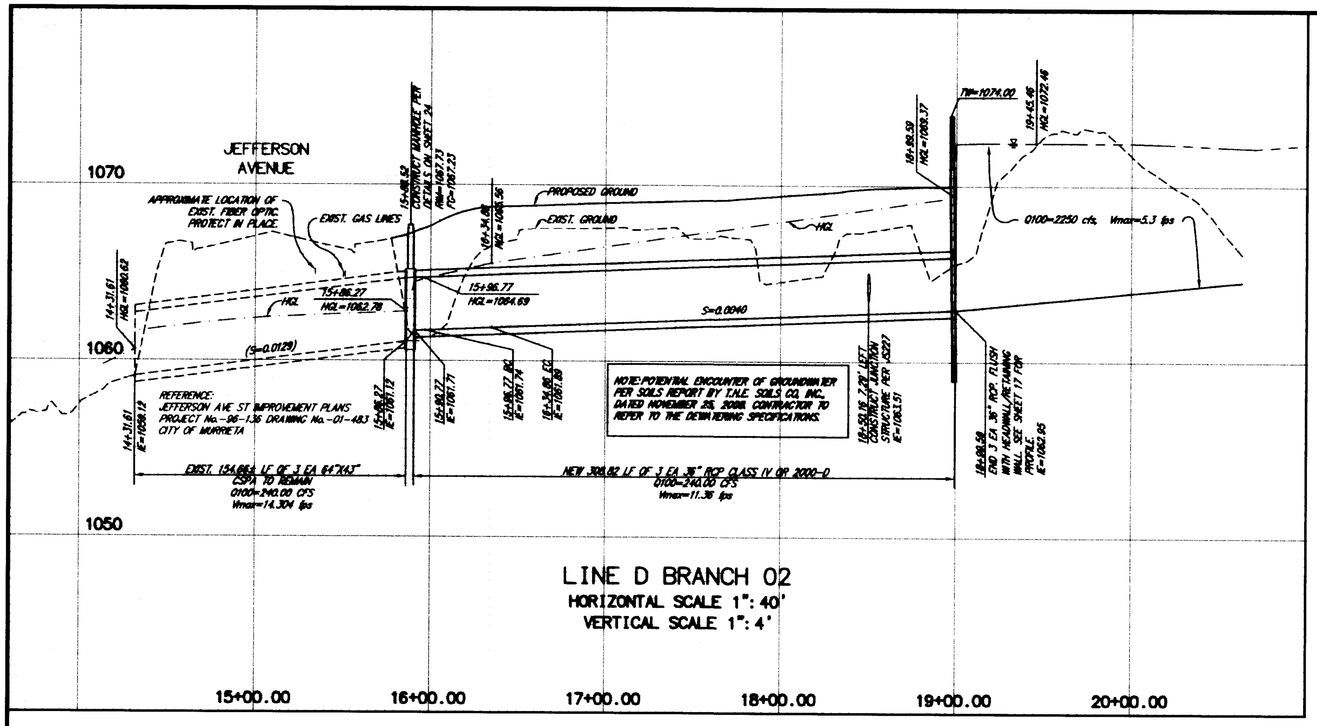
DRAWING NUMBER 11-112

DRAWING NUMBER

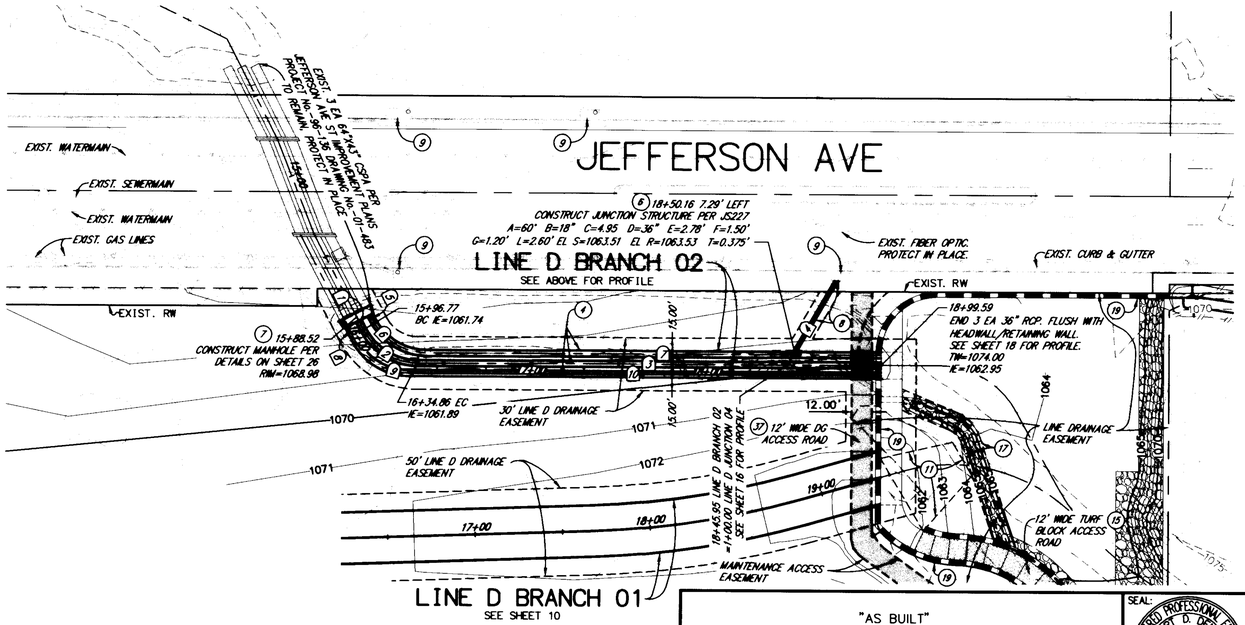
DRAWING NUMBER

SHEET INDEX NUMBERS • NEW OR REVISED

REVISED BY PART NUMBER 0355




## LINE D BRANCH 02
HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'




SCALE 1": 40'

0 40 80 120 160

## CONSTRUCTION NOTES

(4) 36" RCP CLASS IV OR 2000D BRANCH 02 - RINKER OR EQUIVALENT
(6) JUNCTION STRUCTURE #2 PER RCFC&WCD JS227
(7) MANHOLE FOR THE TRIPLE 36" RCP PER RCFC&WCD MH253
(8) 18" RCP CLASS IV OR 2000D - RINKER OR EQUIVALENT. CONNECT NEW 18" RCP TO EXISTING CURB INLET.
(9) INSTALL CLEARWATER OR EQUIVALENT DRAIN INSERTS INTO EXISTING CATCH BASIN
(11) 6" D.G. OVER 90% COMPACTED NATIVE VEHICULAR TURN AROUND AREA PER RCFC&WCD W827
(15) TURF-BLOCK CASTELLATED CONCRETE GRID PAVERS PER RCP TEK 11-3
(17) RIPRAP GROUTED BERM
T=4.3' ROCK CLASS=1 TON
2.15' FILTER
BLANKET UPPER LAYER=TYPE B
LOWER LAYER=SAND
(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1
(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

## STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 1 | N20°36'03"E | -- | 6.00' | 36" RCP * |
| 2 | Δ=62°21'35" | 35.00' | 38.09' | 36" RCP * |
| 3 | N41°45'32"W | -- | 264.73' | 36" RCP * |
| 4 | N78°14'28"E | -- | 44.59' | 18" RCP * |
| 5 | N20°36'03"E | -- | 3.28' | 36" RCP * |
| 6 | Δ=62°21'35" | 35.00' | 38.09' | 36" RCP * |
| 7 | N41°45'32"W | -- | 259.52' | 36" RCP * |
| 8 | N20°36'03"E | -- | 8.87' | 36" RCP * |
| 9 | Δ=62°21'35" | 35.00' | 38.09' | 36" RCP * |
| 10 | N41°45'32"W | -- | 269.60' | 36" RCP * |

* CLASS IV OR 2000D

LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.

**UNDERGROUND SERVICE ALERT**
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

**BENCH MARK**
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
10/3/11 DATE

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/Developer of any responsibility for their accuracy.
Engineer of work ____ Date ____
RCE ____ EXP. ____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

| SCALE HORIZONTAL |
|---|
| AS NOTED |
| SCALE VERTICAL |
| AS NOTED |

PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629
9/28/11 DATE
EXP. DATE: 12/31/12

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | ENGINEER OF WORK | | | CITY APPROVAL |

SHEET 11 | SHEETS 27

**CITY OF MURRIETA**
ENGINEERING DEPARTMENT

**PLAN & PROFILE FOR LINE D BRANCH 02**
STA 14+31.61 TO 18+99.59

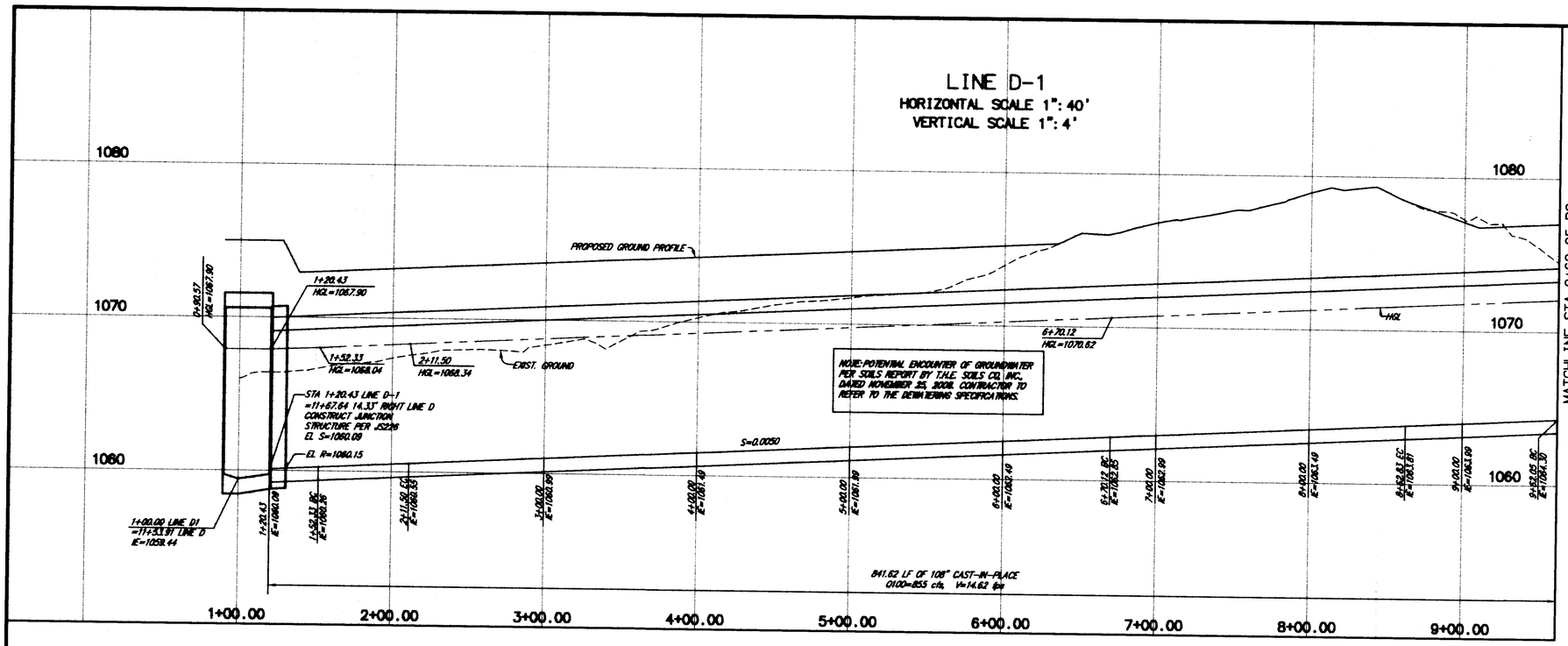
APPROVED
PATRICK THOMAS
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13
DATE: 10/12/2011

DWN BY: ____
CHKD BY: ____
FIELD BK: ____

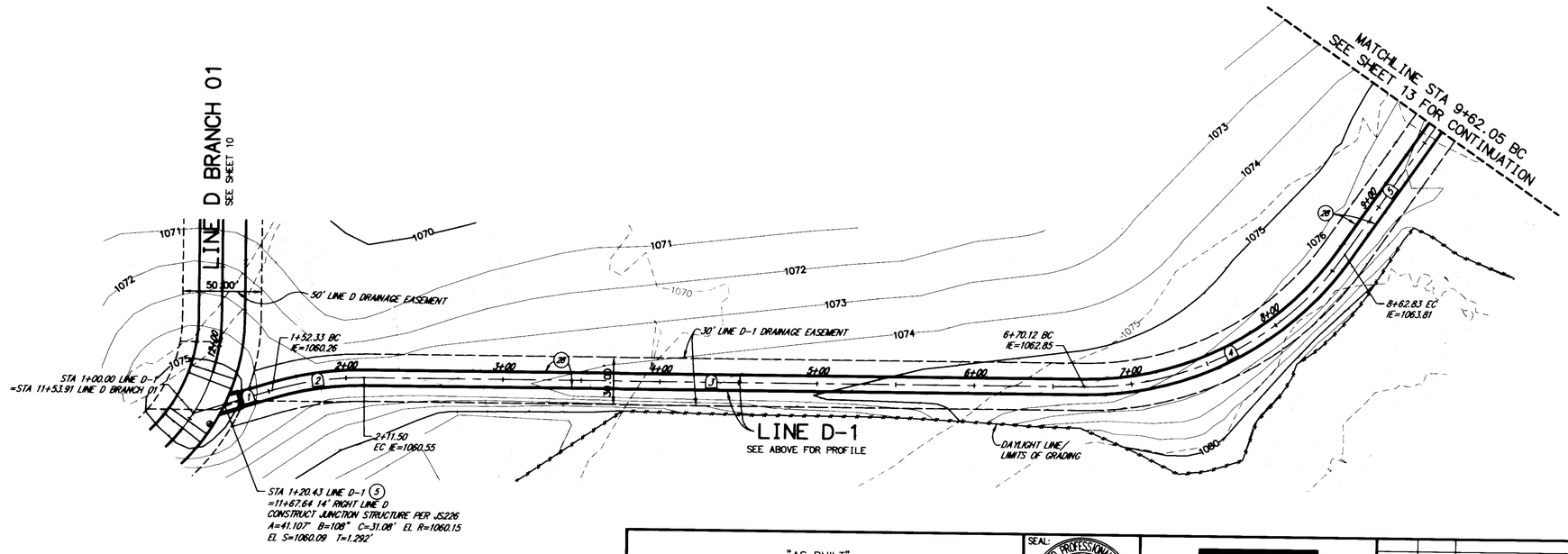
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-113

DRAWING NUMBER 11-113
SAFCO PRODUCTS • NEW HOPE, MINNESOTA

# LINE D-1
HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'




NOTE: POTENTIAL ENCOUNTER OF GROUNDWATER PER SOILS REPORT BY T.H.E. SOILS CO., INC. DATED NOVEMBER 25, 2008. CONTRACTOR TO REFER TO THE DEWATERING SPECIFICATIONS.




## CONSTRUCTION NOTES
(5) JUNCTION STRUCTURE #1 PER RCFC&WCD JS226
(28) 108" CAST IN PLACE PIPE, DESIGN BUILD

| STORM DRAIN DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| (1) | N31°17'31"E | -- | 21.92' | 108" CIPP * |
| (2) | Δ=16°56'57" | 200.00' | 59.16' | 108" CIPP * |
| (3) | N48°14'28"E | -- | 458.63' | 108" CIPP * |
| (4) | Δ=55°12'29" | 200.00' | 192.71' | 108" CIPP * |
| (5) | N06°58'01"W | -- | 99.21' | 108" CIPP * |

* CAST-IN-PLACE PIPE

SCALE 1": 40'
0 40 80 120 160

"AS BUILT"
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Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
740 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO 9/28/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 12 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

PLAN & PROFILE FOR
LINE D-1
STA 1+00.00 TO 9+62.05

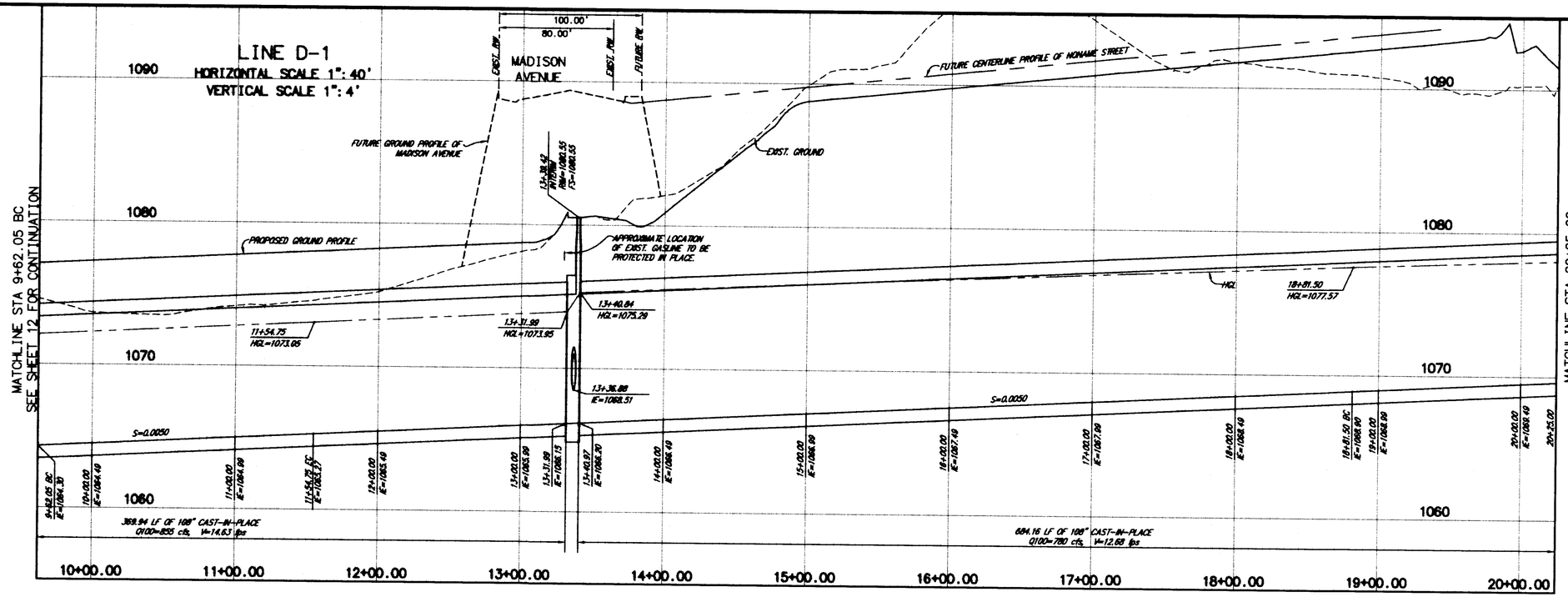
APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-114

DRAWING NUMBER
REORDER BY PART NUMBER 6350

DRAWING NUMBER
11-114
REORDER BY PART NUMBER 6350

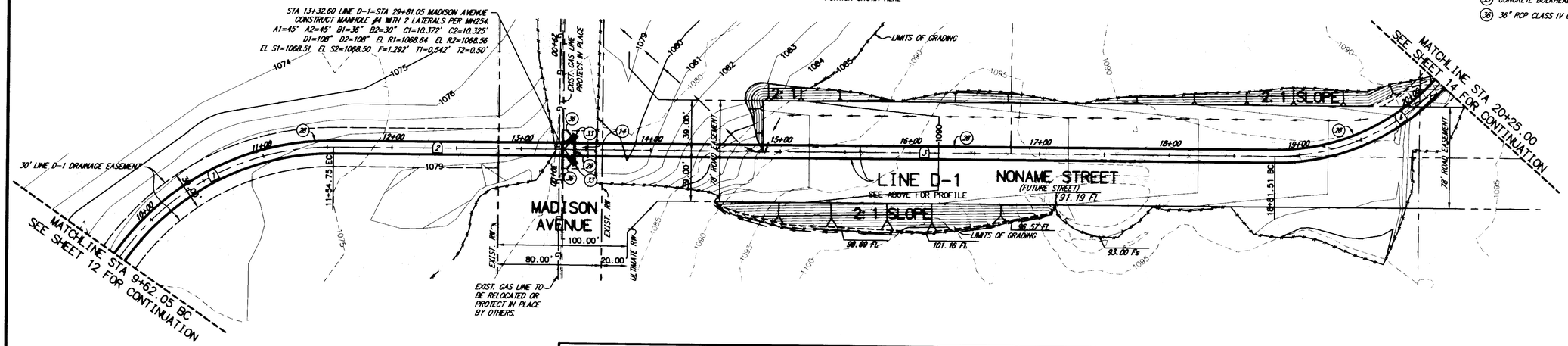



| STORM DRAIN DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| 1 | Δ=55°12'21" | 200.00' | 192.70' | 108" CIPP |
| 2 | N48°14'20"E | -- | 177.24' | 108" CIPP |
| 3 | N48°14'20"E | -- | 540.53' | 108" CIPP |
| 4 | Δ=69°43'34" | 170.00' | 206.88' | 108" CIPP* |

* PORTION SHOWN HERE

## CONSTRUCTION NOTES

(14) UTILITY TRENCH SURFACE RESTORATION PER C.O.M. STD DWG 2120
(28) 108" CAST IN PLACE PIPE, DESIGN BUILD
(29) MANHOLE #4 PER RCFC&WCD MH254
(33) CONCRETE BULKHEAD PER RCFC&WCD M816
(36) 36" RCP CLASS IV OR 2000D - RINKER OR EQUIVALENT




SCALE 1": 40'

0 40 80 120 160

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
740 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629 EXP. DATE: 12/31/12
DATE 9/26/11

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
DATE 10/3/11

**UNDERGROUND SERVICE ALERT**
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TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183107, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

| SHEET 13 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

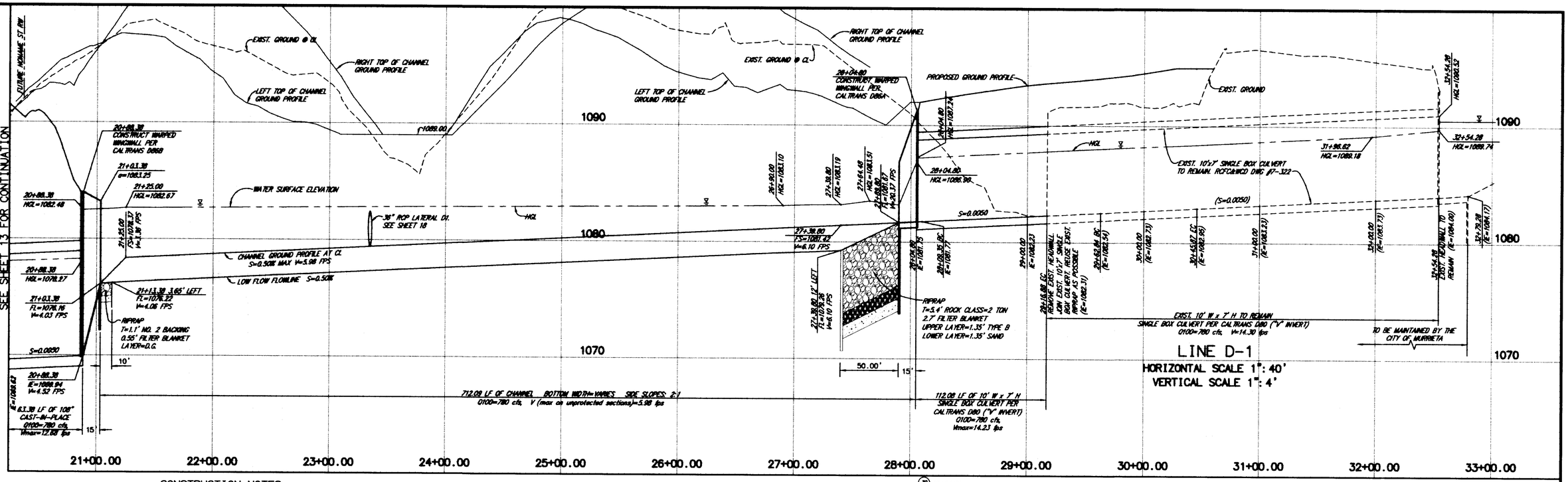
**PLAN & PROFILE FOR LINE D-1**
STA 9+62.05 TO ST 20+25.00

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE: 10/12/2011 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-115

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA




## CONSTRUCTION NOTES

(15) TURF-BLOCK CASTELLATED CONC. GRID PAVERS PER RCP TEK 11-3

(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS072R

(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS.

(28) 108" CAST IN PLACE PIPE, DESIGN BUILD

(30) WARPED WINGWALL PER CALTRANS D86A, SEE DETAIL ON SHEET 17.

(31) WARPED WINGWALL PER CALTRANS D86B, SEE DETAIL ON SHEET 17.

(32) SINGLE 7'X10' REINFORCED CONCRETE BOX CIP8 PER RCFC&WCD BX401

(34) EARTHEN CHANNEL. SEE SHEET 14 & 17 FOR DETAILS.

(35) 30" RCP, CLASS IV OR 2000D – RINKER OR EQUIVALENT TO BE MAINTAINED BY CITY, SEE SHEET 17 FOR PROFILE.

(37) 6" D.G. ACCESS ROAD OVER 90% COMPACTED NATIVE

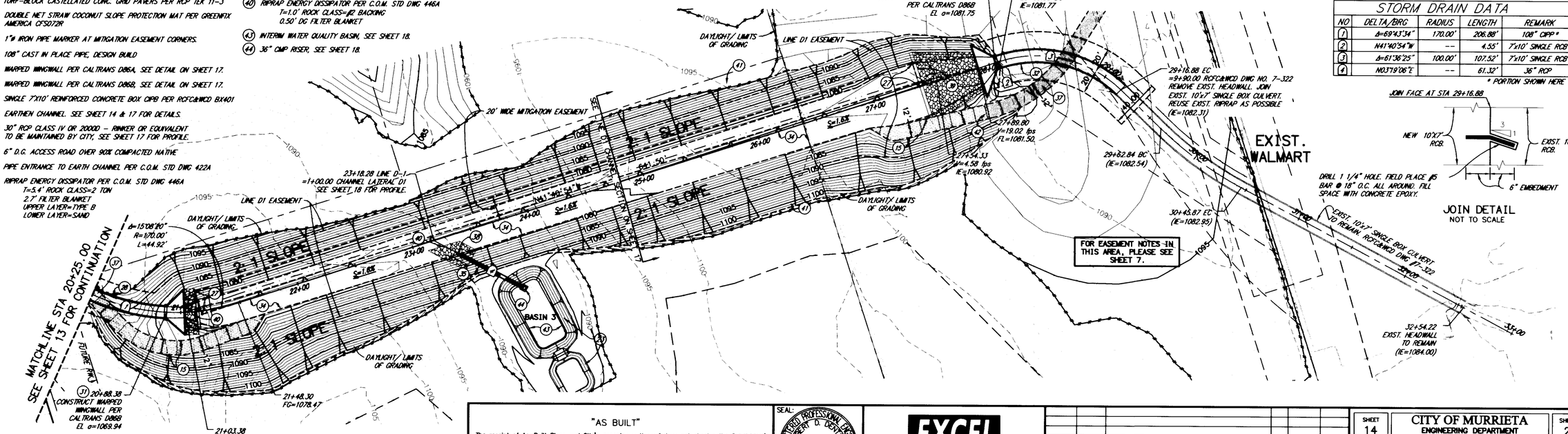
(38) PIPE ENTRANCE TO EARTH CHANNEL PER C.O.M. STD DWG 422A

(39) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=5.4' ROCK CLASS=2 TON 2.7' FILTER BLANKET UPPER LAYER=TYPE B LOWER LAYER=SAND

(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=1.0' ROCK CLASS=#2 BACKING 0.50' DG FILTER BLANKET

(43) INTERIM WATER QUALITY BASIN, SEE SHEET 18.

(44) 36" CMP RISER, SEE SHEET 18.




### STORM DRAIN DATA

| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| (1) | Δ=69°43'34" | 170.00' | 206.88' | 108" CIPP * |
| (2) | N41°40'54"W | -- | 4.55' | 7'x10' SINGLE RCB |
| (3) | Δ=61°36'25" | 100.00' | 107.52' | 7'x10' SINGLE RCB |
| (4) | N03°19'06"E | -- | 61.32' | 36" RCP |

* PORTION SHOWN HERE

JOIN FACE AT STA 29+16.88




JOIN DETAIL
NOT TO SCALE

DRILL 1 1/4" HOLE. FIELD PLACE #5 BAR @ 18" O.C. ALL AROUND. FILL SPACE WITH CONCRETE EPOXY.

SCALE 1": 40'

0 40 80 120 160

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/13/11
BUREAU VERITAS
R.C.E. NO. 46819

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work — Date
RCE ____ EXP. ____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
140 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1880

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

SHEET 14 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

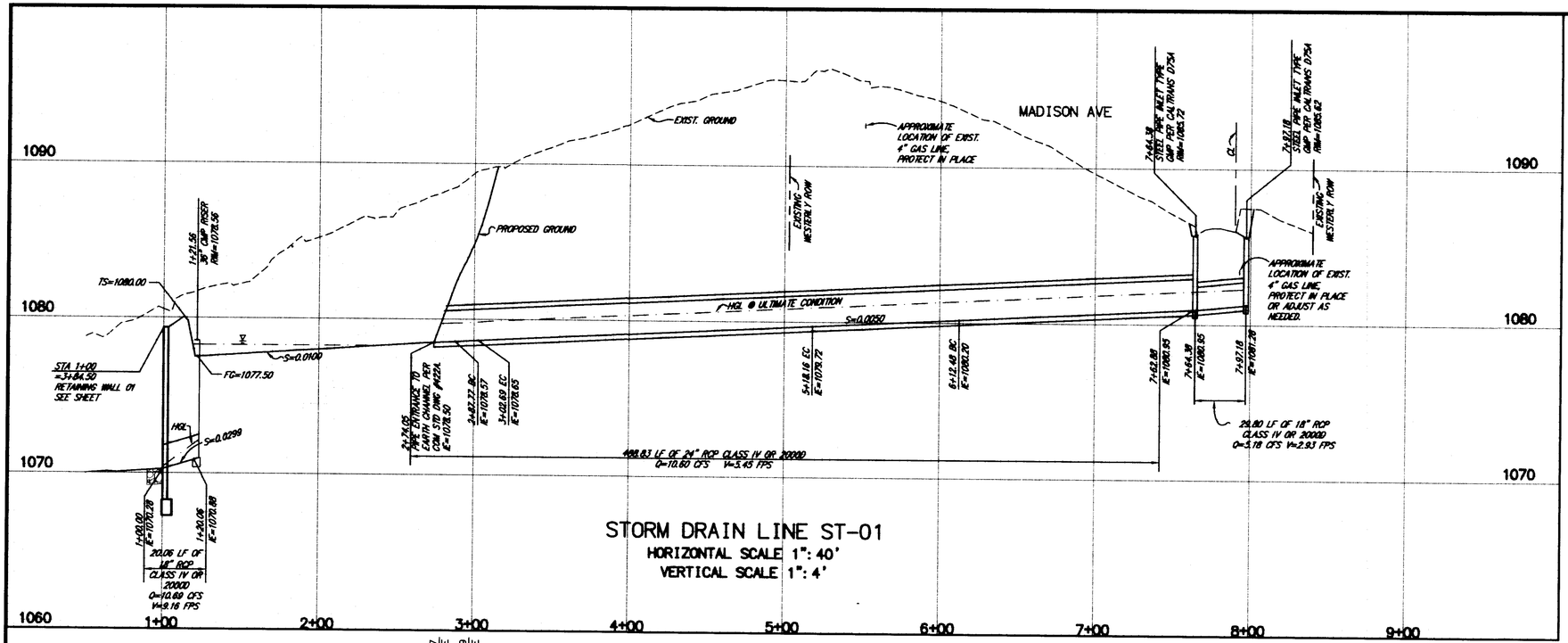
PLAN & PROFILE FOR LINE D-1
STA ST 20+25.00 TO STA 33+04.95

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 08/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-116

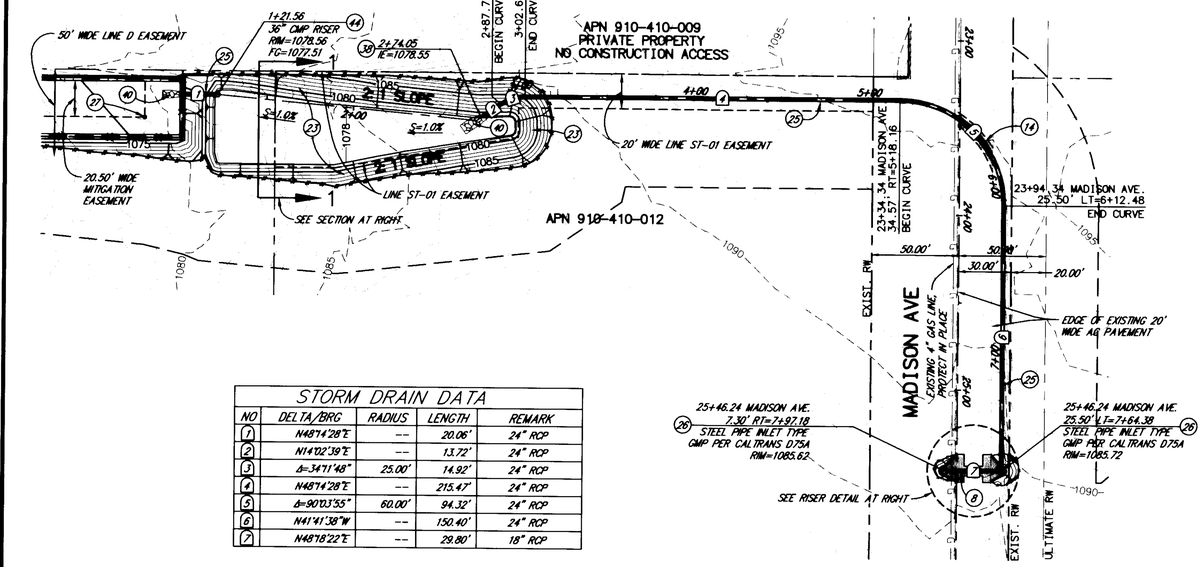
DRAWING NUMBER 11-116

REORDER BY PART NUMBER 65552

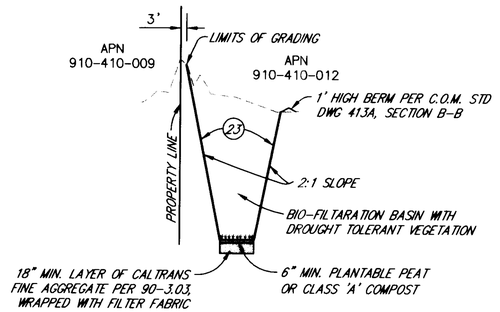



## STORM DRAIN LINE ST-01

HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'



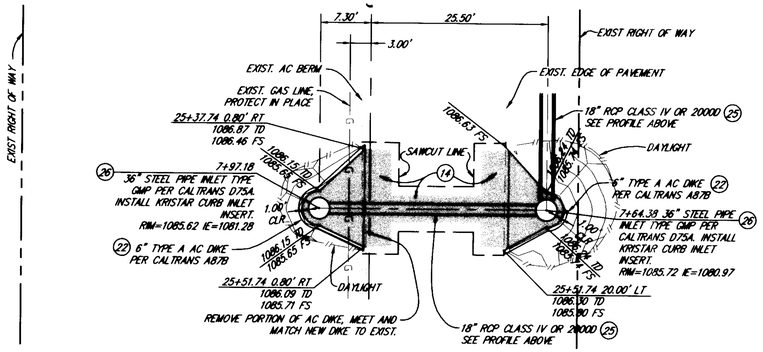

| STORM DRAIN DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| 1 | N48°14'28"E | --- | 20.06' | 24" RCP |
| 2 | N14°02'39"E | --- | 13.72' | 24" RCP |
| 3 | Δ=34°11'48" | 25.00' | 14.92' | 24" RCP |
| 4 | N48°14'28"E | --- | 215.47' | 24" RCP |
| 5 | Δ=90°03'55" | 60.00' | 94.32' | 24" RCP |
| 6 | N41°41'38"W | --- | 150.40' | 24" RCP |
| 7 | N48°18'22"E | --- | 29.80' | 18" RCP |




SECTION 1-1
NOT TO SCALE

### CONSTRUCTION NOTES

(8) 18" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT.
(14) UTILITY TRENCH SURFACE RESTORATION PER C.O.M. STD DWG 212a
(22) 6" AC BERM, TYPE A PER CALTRANS A87B
(23) DOUBLE NET STRAW COCONUT SLOPE PROTECTION MAT PER GREENFIX AMERICA CFS072R
(25) 24" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT
(26) TEMPORARY STEEL INLET PIPE WITH KRISTAR INSERT, TYPE GMP PER CALTRANS D75A
(27) 1"ø IRON PIPE MARKER AT MITIGATION EASEMENT CORNERS
(38) PIPE ENTRANCE TO EARTH CHANNEL PER C.O.M. STD DWG 422A
(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=2.0' ROCK CLASS=LIGHT 1.00' 1/2" GRAVEL FILTER BLANKET
(44) 36" CMP RISER, SEE SHEET 18.




RISER DETAIL
SCALE: 1"=10'

SCALE 1": 40'
0 40 80 120 160

"AS BUILT"
The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.
Engineer of work _____ Date _____
RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
740 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1080

PREPARED BY
ROBERT D. DENTINO 9/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
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ELEVATION = 1118.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| SHEET 15 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

STORM DRAIN LINE ST-01

APPROVED
PATRICK THOMAS 10/12/2011 DATE:
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

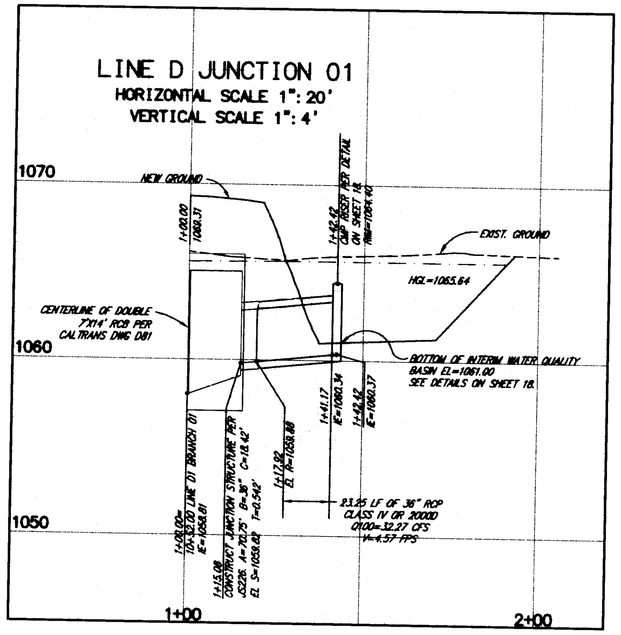
DRAWING NO. 11-117

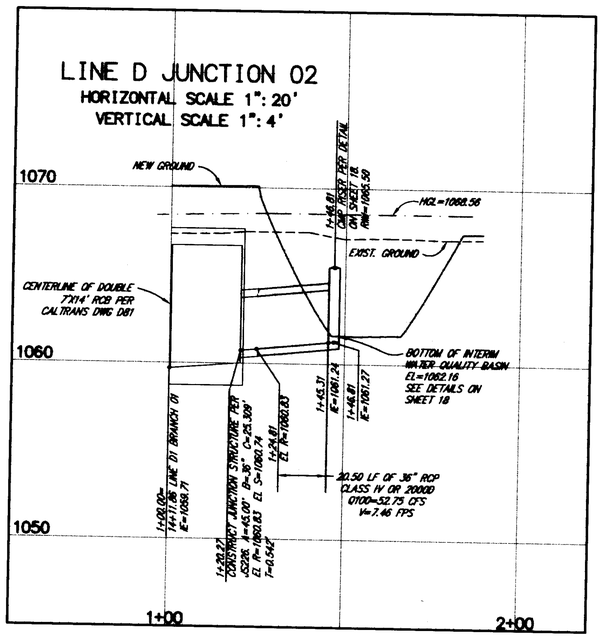
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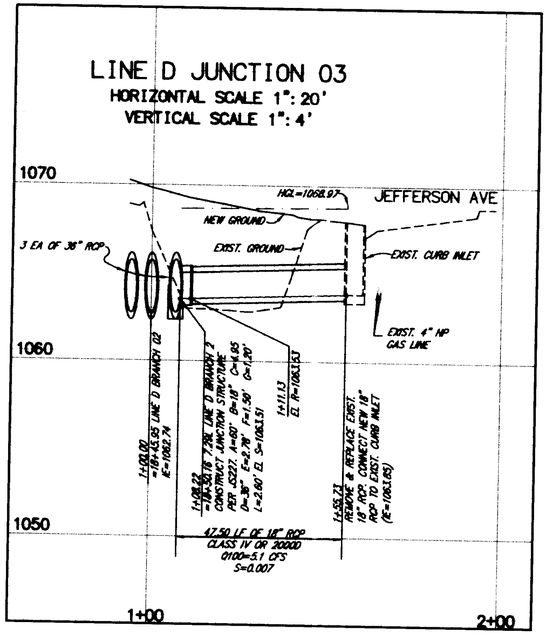
DRAWING NUMBER

DRAWING NUMBER

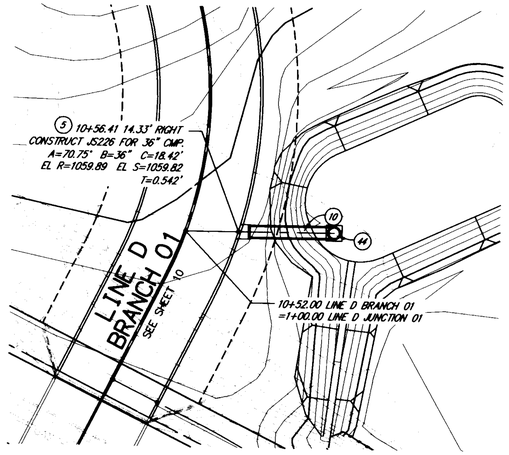
SHOULD PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 51510




LOCATION OF EXIST. UTILITIES SHOWN HERE ARE APPROXIMATE BASED ON RECORD PLANS & FIELD SURVEY. CONTRACTOR TO VERIFY/POTHOLE LOCATION AS NECESSARY BEFORE CONSTRUCTION & INFORM ENGINEER OF WORK OF ANY CONFLICTS.




## CONSTRUCTION NOTES

(5) JUNCTION STRUCTURE #1 PER RCFC&WCD JS226

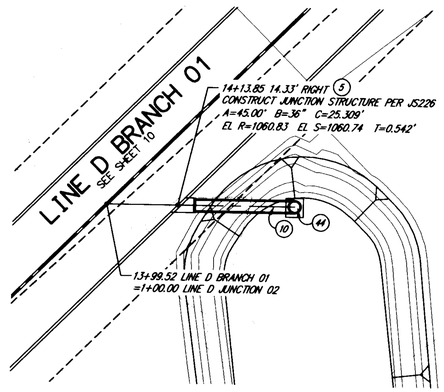
(6) JUNCTION STRUCTURE #2 PER RCFC&WCD JS227

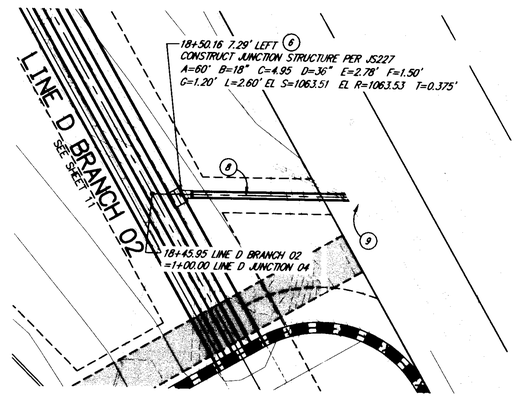
(8) 18" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT. CONNECT NEW 18" RCP TO EXISTING CURB INLET.

(9) INSTALL CLEARWATER OR EQUIVALENT DRAIN INSERTS INTO EXISTING CATCH BASIN.

(10) 36" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT

(44) 36" CMP RISER, SEE SHEET 18




"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

PREPARED BY
ROBERT D. DENTINO 9/18/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 16 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

LATERAL PROFILES FOR LINE D

APPROVED
PATRICK THOMAS DATE: 10/13/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

OWN BY: _____
CHKD BY: _____
FIELD BK: _____

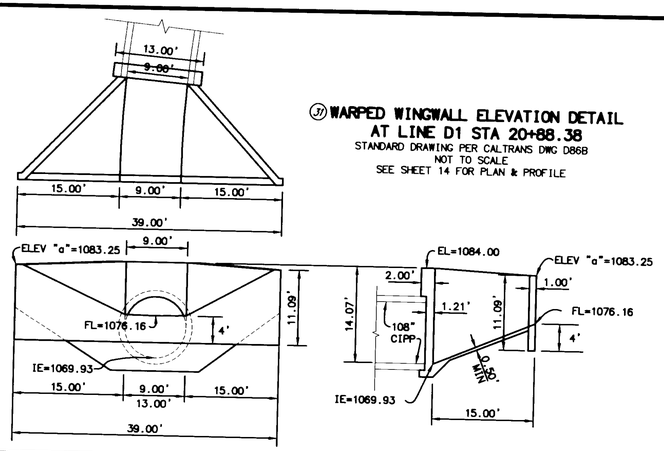
PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-118

DRAWING NUMBER

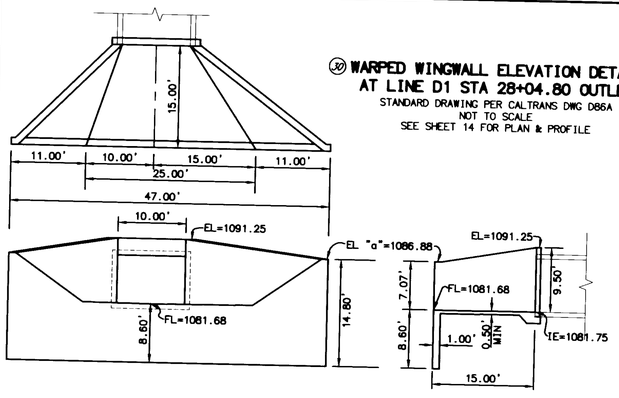
DRAWING NUMBER 11-11-8

REORDER BY PART NUMBER 82550



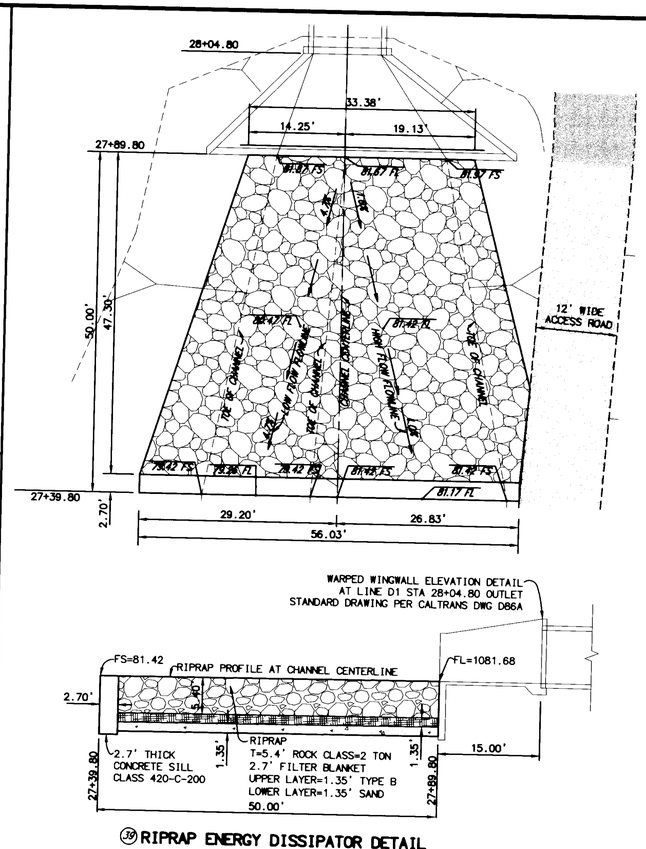

## (31) WARPED WINGWALL ELEVATION DETAIL AT LINE D1 STA 20+88.38

STANDARD DRAWING PER CALTRANS DWG D86B
NOT TO SCALE
SEE SHEET 14 FOR PLAN & PROFILE




## (32) WARPED WINGWALL ELEVATION DETAIL AT LINE D1 STA 28+04.80 OUTLET

STANDARD DRAWING PER CALTRANS DWG D86A
NOT TO SCALE
SEE SHEET 14 FOR PLAN & PROFILE



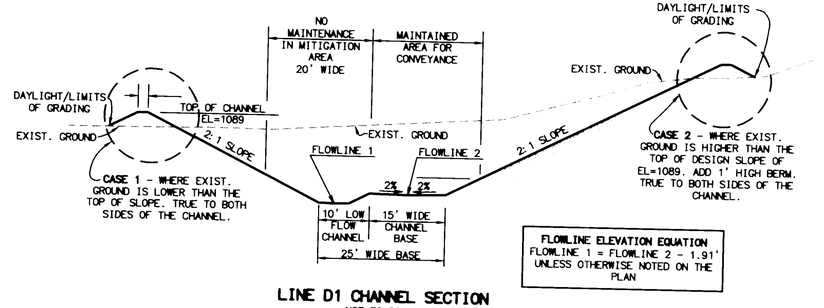

## (39) RIPRAP ENERGY DISSIPATOR DETAIL

FROM STA 27+39.80 TO 27+89.80




## (39) RIPRAP ENERGY DISSIPATOR DETAIL

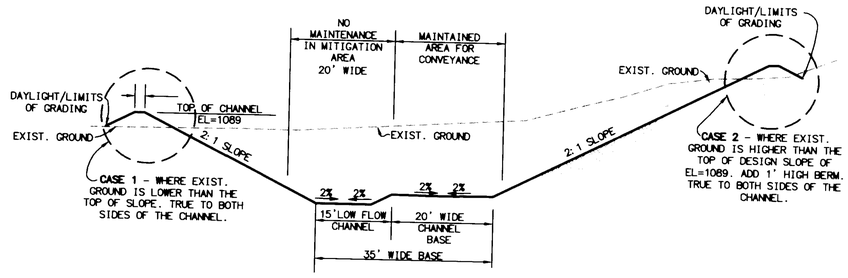
FROM STA 27+39.80 TO 27+89.80




**FLOWLINE ELEVATION EQUATION**
FLOWLINE 1 = FLOWLINE 2 - 1.91'
UNLESS OTHERWISE NOTED ON THE PLAN

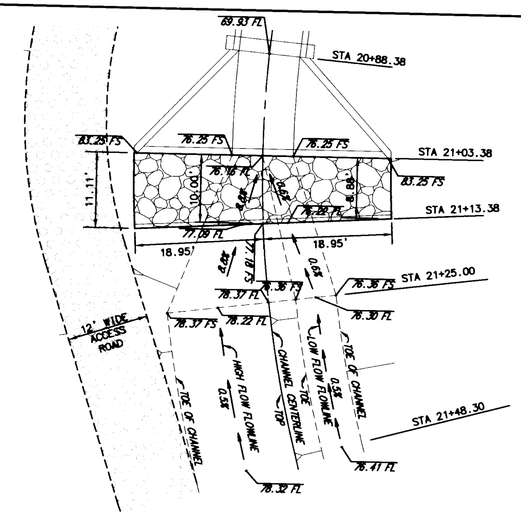
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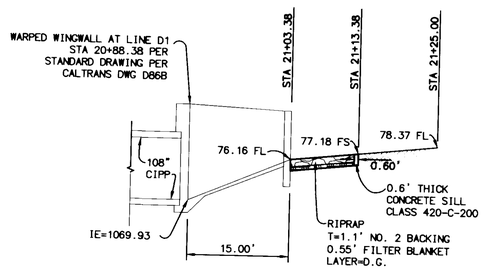
NOT TO SCALE
SEE SHEET 14 FOR PLAN VIEW
FROM STA 21+25.00 TO SAT 21+48.30




## LINE D1 CHANNEL SECTION

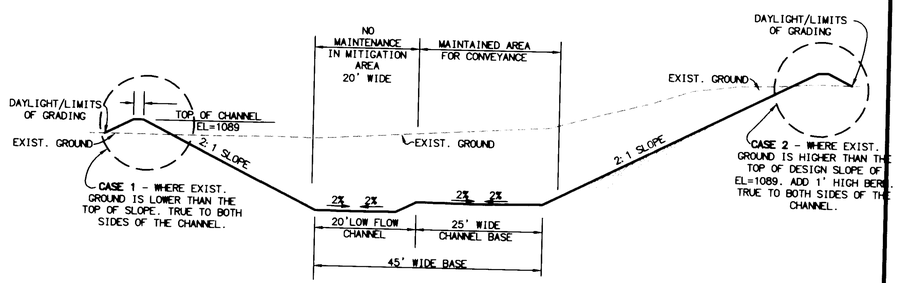
NOT TO SCALE
SEE SHEET 14 FOR PLAN VIEW
SECTION AT STA 26+90.00
SECTION VARIES FROM 25' TO 35' BASE FROM
STA 21+48.30 TO STA 26+90.00




## (40) RIPRAP ENERGY DISSIPATOR DETAIL

FROM STA 21+03.38 TO 21+13.38




## LINE D1 CHANNEL SECTION

NOT TO SCALE
SEE SHEET 14 FOR PLAN VIEW
SECTION AT STA 27+14.80 TO 27+39.80
SECTION VARIES FROM 35' TO 45' BASE FROM
STA 26+90.00 TO STA 27+14.80

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
40 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1050

PREPARED BY
ROBERT D. DENTINO 9/28/11
R.C.E NO. 45629 DATE
EXP. DATE: 12/31/12

| DATE | INITIAL | ENGINEER OF WORK |
|---|---|---|
| | | |

| SHT. NO. | DATE | INITIAL | REVISION DESCRIPTION |
|---|---|---|---|
| | | | |

CITY APPROVAL

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/13/11
BUREAU VERITAS DATE
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 17 | | 27 |

**LINE D & D-1 MISCELLANEOUS DETAILS**

APPROVED
PATRICK THOMAS 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE EXP. DATE: 06/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

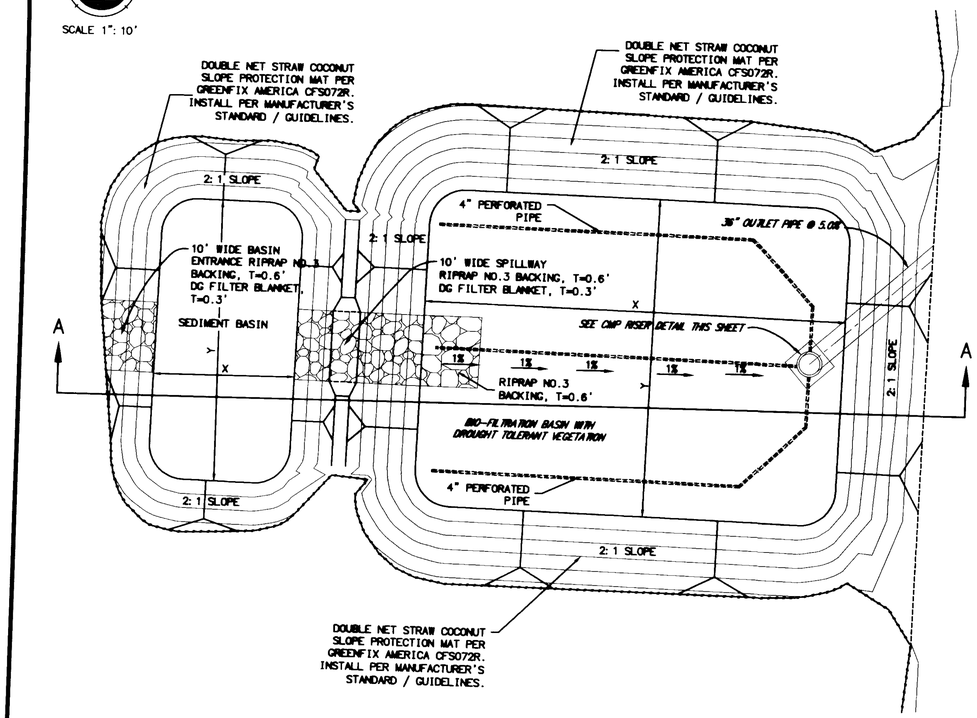
DRAWING NO. 11-119

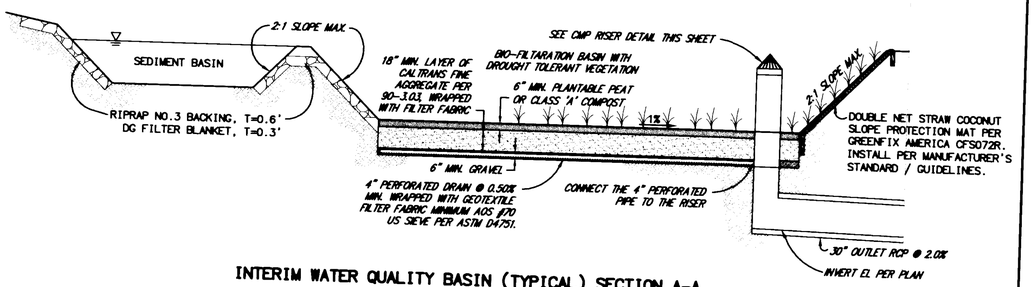
DRAWING NUMBER

11-119

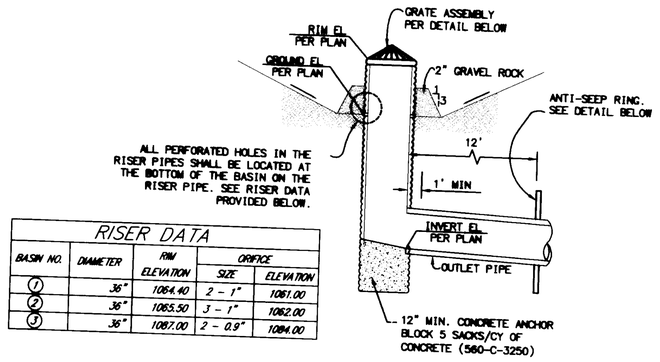
SARCO PRODUCTS • 1-800-328-8402 • MINNEAPOLIS, MINNESOTA
REORDER BY PART NUMBER 10502

SCALE 1": 10'




INTERIM WATER QUALITY BASIN (TYPICAL) SECTION A-A
NOT TO SCALE

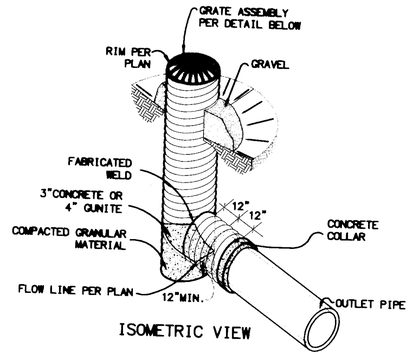



ALL PERFORATED HOLES IN THE RISER PIPES SHALL BE LOCATED AT THE BOTTOM OF THE BASIN ON THE RISER PIPE. SEE RISER DATA PROVIDED BELOW.

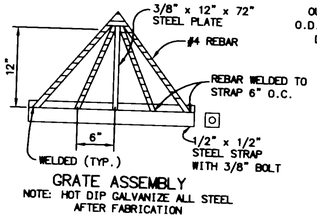
RISER DATA

| BASIN NO. | DIAMETER | RIM ELEVATION | ORIFICE SIZE | ORIFICE ELEVATION |
|---|---|---|---|---|
| ① | 36" | 1084.40 | 2 - 1" | 1081.00 |
| ② | 36" | 1085.50 | 3 - 1" | 1082.00 |
| ③ | 36" | 1087.00 | 2 - 0.9" | 1084.00 |

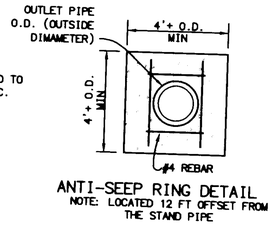
SIDE VIEW




ISOMETRIC VIEW




GRATE ASSEMBLY
NOTE: HOT DIP GALVANIZE ALL STEEL AFTER FABRICATION

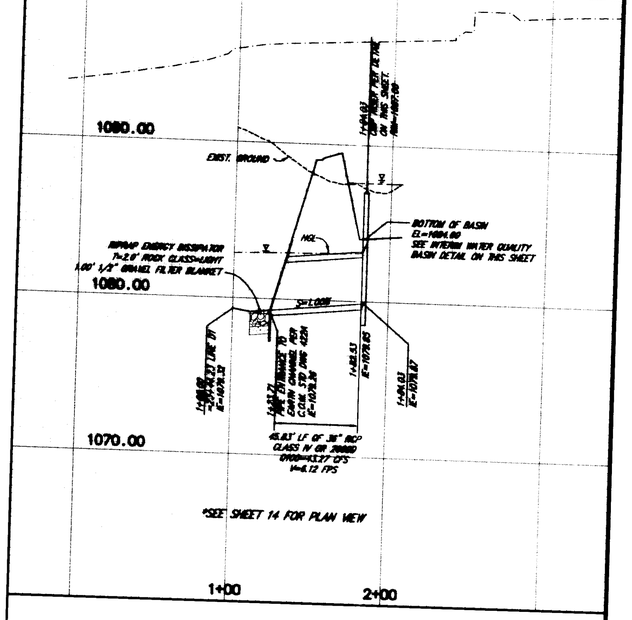



ANTI-SEEP RING DETAIL
NOTE: LOCATED 12 FT OFFSET FROM THE STAND PIPE

(#) CMP RISER DETAIL
NOT TO SCALE

## CHANNEL LATERAL D1

HORIZONTAL SCALE 1": 40'
VERTICAL SCALE 1": 4'




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Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

EXCEL ENGINEERING
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1880

PREPARED BY
ROBERT D. DENTINO 9/28/11 DATE
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

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BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

SHEET 18 — CITY OF MURRIETA ENGINEERING DEPARTMENT — SHEETS 27

LINE D & D-1
MISCELLANEOUS DETAILS

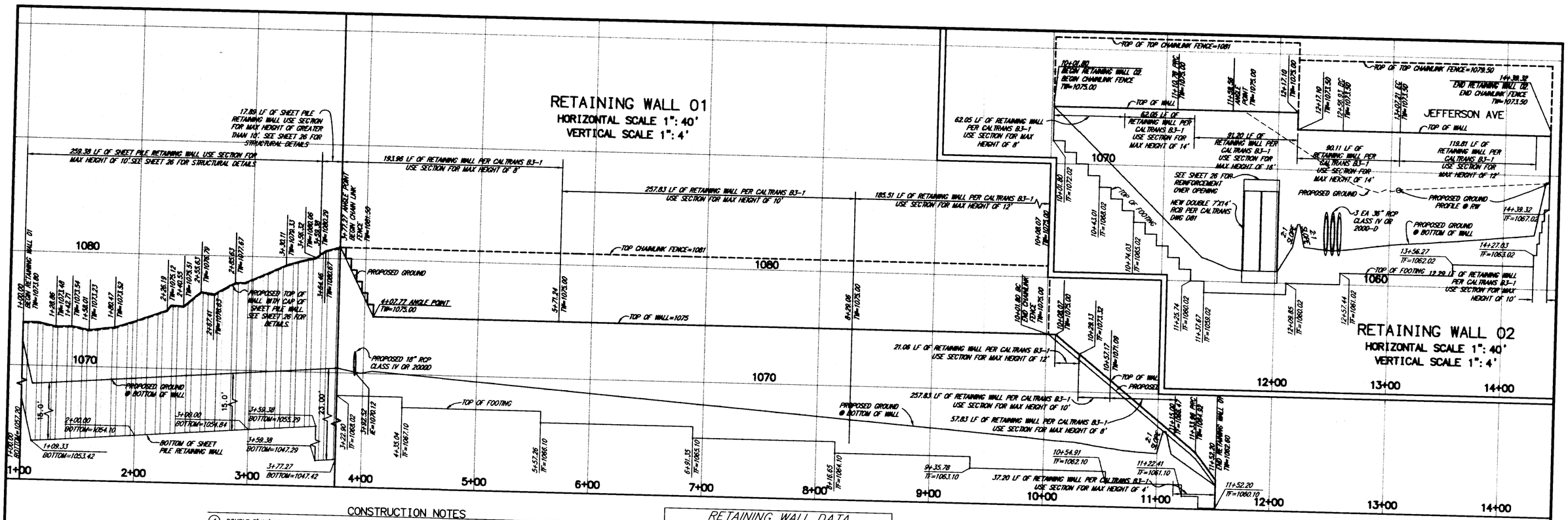
APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-120

DRAWING NUMBER
SYCO PRODUCTS • NEW HOPE, MINNESOTA
11-120




## CONSTRUCTION NOTES

(1) DOUBLE 7'X14' REINFORCED CONCRETE BOX DIPB PER CALTRANS D81

(4) 36" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT

(19) RETAINING WALL (TYPE 1) PER CALTRANS B3-1

(20) SHEET PILE RETAINING WALL WITH MATCHING CAP. SEE SHEET 26 FOR STRUCTURAL DETAILS.

(25) 18" RCP CLASS IV OR 2000D – RINKER OR EQUIVALENT, SEE PLAN AND PROFILE ON SHEET 15.

(40) RIPRAP ENERGY DISSIPATOR PER C.O.M. STD DWG 446A T=1.0' ROCK CLASS=#2 BACKING 0.50' DG FILTER BLANKET

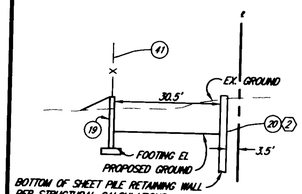
(41) BLACK VINYL COATED FABRIC CHAINLINK FENCE, SEE FENCING PLAN ON SHEET 23.

(42) BLACK VINYL COATED FABRIC CHAINLINK GATE, SEE FENCING PLAN ON SHEET 23.

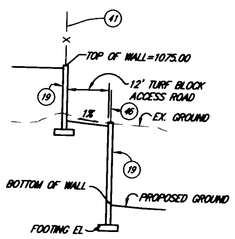
(46) TYPE A METAL HAND RAILING PER APWA 606-1, SEE FENCING PLAN ON SHEET 23.

## RETAINING WALL DATA

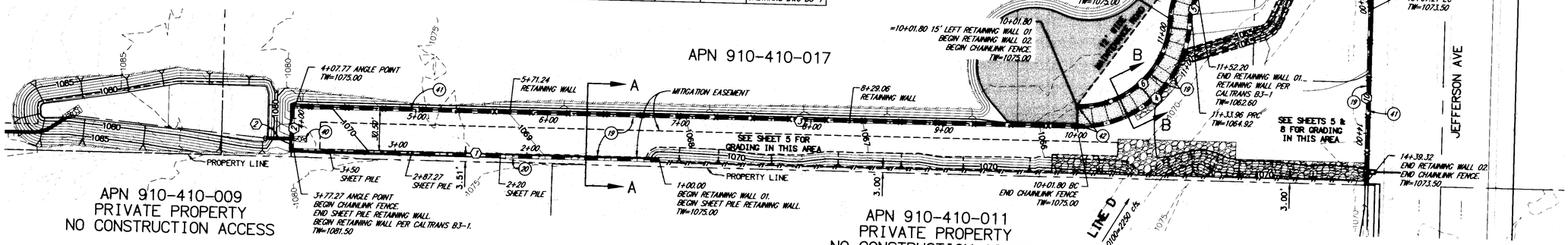
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
|---|---|---|---|---|
| 1 | N48°14'28"E | -- | 277.27' | CALTRANS DWG B3-1 |
| 2 | N41°45'32"W | -- | 30.50' | CALTRANS DWG B3-1 |
| 3 | N48°14'28"E | -- | 420.25' | CALTRANS DWG B3-1 |
| 4 | Δ= 88°34'02" | 85.50' | 132.16' | CALTRANS DWG B3-1 |
| 5 | Δ= 23°29'17" | 44.50' | 18.24' | CALTRANS DWG B3-1 |
| 6 | Δ= 88°34'02" | 70.50' | 108.98' | CALTRANS DWG B3-1 |
| 7 | Δ= 46°58'33" | 59.50' | 48.78' | CALTRANS DWG B3-1 |
| 8 | N48°14'28"E | -- | 57.87' | CALTRANS DWG B3-1 |
| 9 | Δ= 90°02'06" | 32.00' | 50.29' | CALTRANS DWG B3-1 |
| 10 | N41°43'26"W | -- | 132.10' | CALTRANS DWG B3-1 |




SECTION A–A
SCALE 1":20'




SECTION B–B
SCALE 1":20'










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Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

SCALE HORIZONTAL: AS NOTED

SCALE VERTICAL: AS NOTED

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PH (760)745-8118 FX (760)745-1050

PREPARED BY
ROBERT D. DENTINO — DATE 9/28/11
R.C.E. NO. 45629 — EXP. DATE: 12/31/12

| DATE | INITIAL | ENGINEER OF WORK |
|---|---|---|
| | | |

REVISION DESCRIPTION

| SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|
| | | | |

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — DATE 10/3/11
BUREAU VERITAS
R.C.E. NO. 48819

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 19 | | 27 |

LINE D RETAINING WALL 01 & 02
PLAN & PROFILE

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER — R.C.E. 44223 — EXP. DATE: 08/30/13

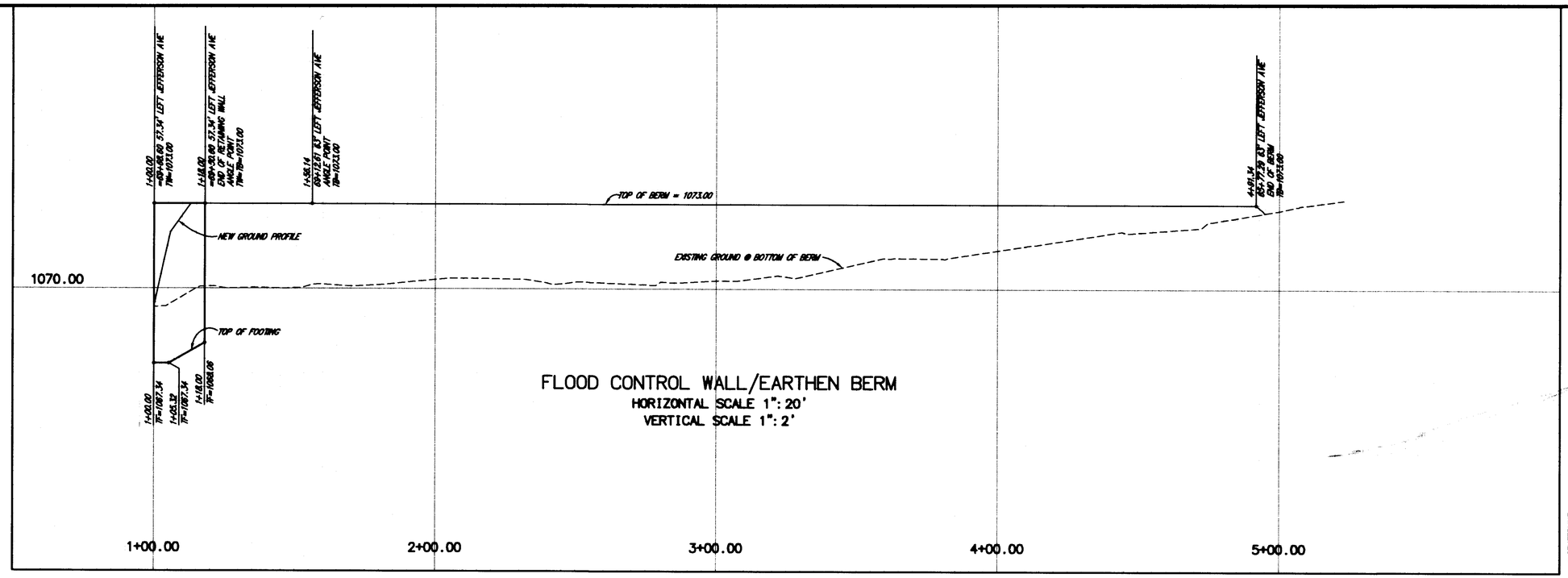
DWN BY: _____
CHKD BY: _____
FIELD BK: _____

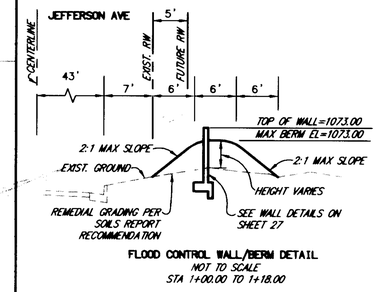
PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-121

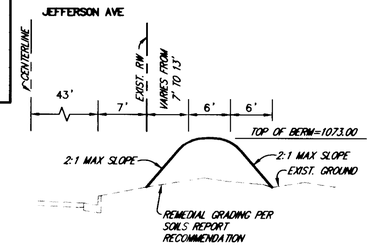
DRAWING NUMBER
11-121

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6582

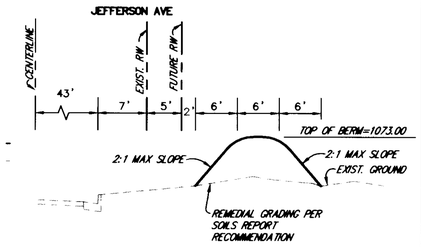



FLOOD CONTROL WALL/BERM DETAIL
NOT TO SCALE
STA 1+00.00 TO 1+18.00




FLOOD CONTROL BERM DETAIL
NOT TO SCALE
STA 1+18.00 TO 1+56.14

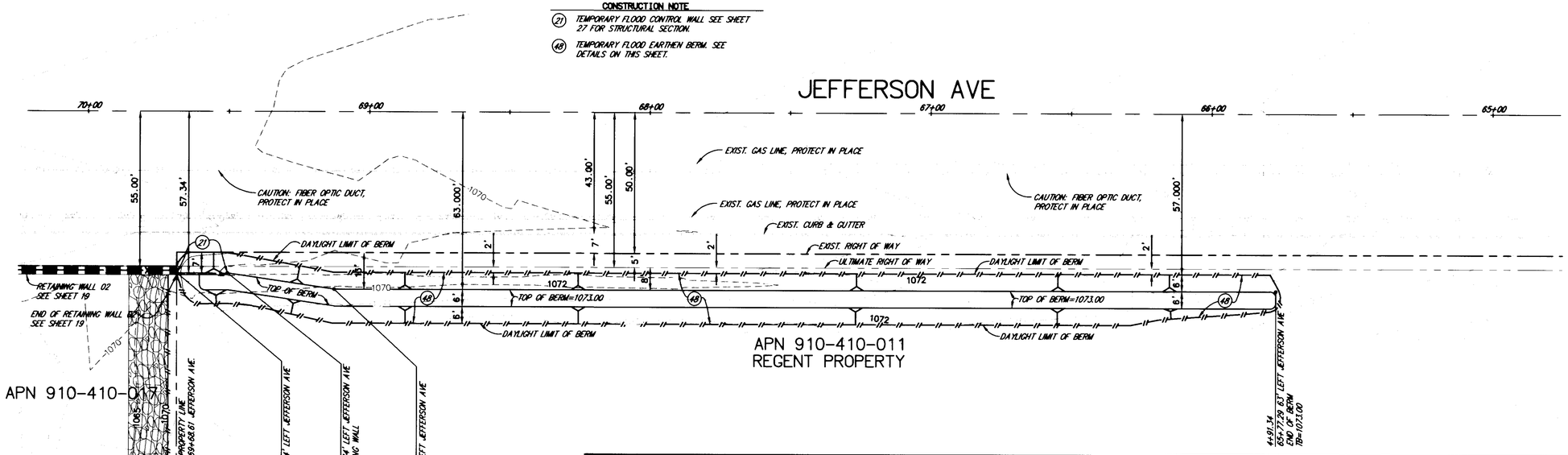



FLOOD CONTROL BERM DETAIL
NOT TO SCALE
STA 1+56.14 TO 4+91.34

**CONSTRUCTION NOTE**

(21) TEMPORARY FLOOD CONTROL WALL SEE SHEET 27 FOR STRUCTURAL SECTION.

(48) TEMPORARY FLOOD EARTHEN BERM. SEE DETAILS ON THIS SHEET.




SCALE 1": 20'

0 20 40 60 80

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

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**EXCEL ENGINEERING**
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440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO
R.C.E NO. 45629 EXP. DATE: 12/31/12
9/28/11 DATE

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | ENGINEER OF WORK | | | CITY APPROVAL |

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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY
BUREAU VERITAS
R.C.E. NO. 48819
10/3/11 DATE

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| SHEET 20 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

**TEMPORARY FLOOD CONTROL WALL PLAN & PROFILE**

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 DATE: 10/12/2011 EXP. DATE: 06/30/13

DRWN BY: _____
CHKD BY: _____
FIELD BK: _____

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-122

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502

DRAWING NUMBER 11-122

## LEGEND

| ITEM | | QUANTITY | SYMBOL |
|---|---|---|---|
| BONDED FIBER MATRIX AREA (TYP) | (EC-4) | 1,763,116 SF | |
| STABILIZED CONSTRUCTION ENTRANCE | (TC-1, TYPE 2) | 6,000 SF | |
| FIBER ROLLS | (SE-5) | 5,500 LF | |
| SILT FENCE | (SE-1) | 9,000 LF | |
| GRAVEL BAGS (TYP) | (SE-8) | 6,600 EA | |

## EROSION CONTROL NOTES

1. IN CASE EMERGENCY WORK IS REQUIRED, CONTACT JEFF CADIEN AT PHONE NO. (951) 757-0045.

2. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

3. EROSION CONTROL DEVICES SHOWN ON PLANS SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE PUBLIC WORKS INSPECTOR.

4. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER, INCLUDING SILT AND OTHER DEBRIS REMOVAL, TO THE SATISFACTION OF THE PUBLIC WORKS INSPECTOR AFTER EACH RUN-OFF PRODUCING RAINFALL.

5. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE PUBLIC WORKS INSPECTOR DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.

7. ALL EROSION CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON.

8. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.

9. ALL REMOVABLE PROTECTIVE EROSION CONTROL DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.

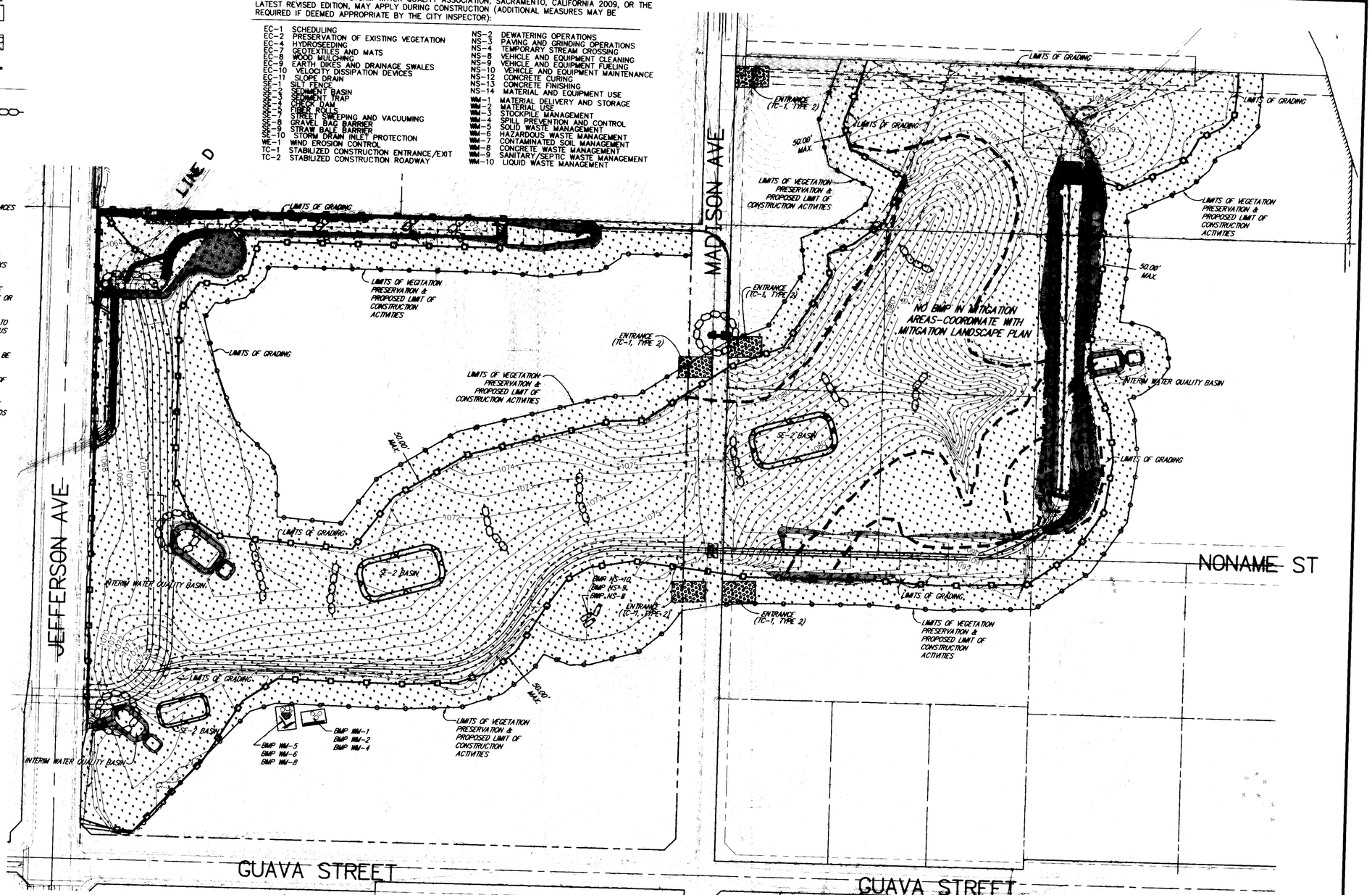
10. ALL GRAVEL BAGS SHALL BE BURLAP TYPE WITH 3/4" MINIMUM AGGREGATE.

11. SHOULD GERMINATION OF HYDROSEEDED SLOPES FAIL TO PROVIDE EFFECTIVE COVERAGE (90%) OF GRADED SLOPES PRIOR TO NOVEMBER 15, THE SLOPES SHALL BE STABILIZED BY PUNCH STRAW.

THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY ASSOCIATION, SACRAMENTO, CALIFORNIA 2009, OR THE LATEST REVISED EDITION, MAY APPLY DURING CONSTRUCTION (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE CITY INSPECTOR):

EC-1 SCHEDULING
EC-2 PRESERVATION OF EXISTING VEGETATION
EC-4 HYDROSEEDING
EC-7 GEOTEXTILES AND MATS
EC-8 WOOD MULCHING
EC-9 EARTH DIKES AND DRAINAGE SWALES
EC-10 VELOCITY DISSIPATION DEVICES
EC-11 SLOPE DRAIN
SE-1 SILT FENCE
SE-2 SEDIMENT BASIN
SE-3 SEDIMENT TRAP
SE-4 CHECK DAM
SE-5 FIBER ROLLS
SE-7 STREET SWEEPING AND VACUUMING
SE-8 GRAVEL BAG BARRIER
SE-9 STRAW BALE BARRIER
SE-10 STORM DRAIN INLET PROTECTION
WE-1 WIND EROSION CONTROL
TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT
TC-2 STABILIZED CONSTRUCTION ROADWAY

NS-2 DEWATERING OPERATIONS
NS-3 PAVING AND GRINDING OPERATIONS
NS-4 TEMPORARY STREAM CROSSING
NS-8 VEHICLE AND EQUIPMENT CLEANING
NS-9 VEHICLE AND EQUIPMENT FUELING
NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
NS-12 CONCRETE CURING
NS-13 CONCRETE FINISHING
NS-14 MATERIAL AND EQUIPMENT USE
WM-1 MATERIAL DELIVERY AND STORAGE
WM-2 MATERIAL USE
WM-3 STOCKPILE MANAGEMENT
WM-4 SPILL PREVENTION AND CONTROL
WM-5 SOLID WASTE MANAGEMENT
WM-6 HAZARDOUS WASTE MANAGEMENT
WM-7 CONTAMINATED SOIL MANAGEMENT
WM-8 CONCRETE WASTE MANAGEMENT
WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
WM-10 LIQUID WASTE MANAGEMENT




**NOTE ON SE-2:**
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE SEDIMENTATION POND SIZED PER SE-2. THESE PONDS ARE NOT THE SAME AS THE INTERIM WATER QUALITY BASINS SHOWN ON THE GRADING PLAN.

SCALE 1": 100'

0 100 200 300 400

"AS BUILT"
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Engineer of work _____ Date _____
RCE _____ EXP. _____

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PREPARED BY
ROBERT D. DENTINO 9/29/11
R.C.E. NO. 45629 DATE
EXP. DATE: 12/31/12

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RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11
BUREAU VERITAS DATE
R.C.E. NO. 45819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

SHEET 21 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

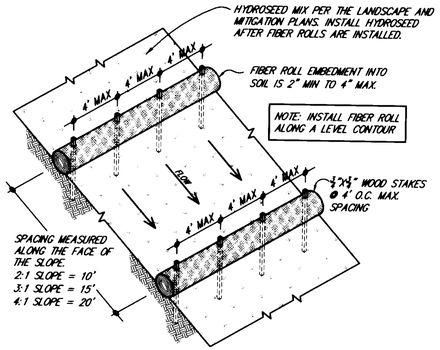
EROSION CONTROL PLAN FOR LINE D & D-1

APPROVED
PATRICK THOMAS DATE:
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

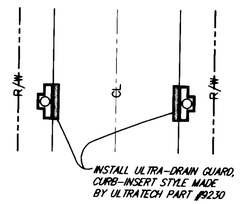
DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP #157 (ISD 6832)
DRAWING NO. 11-123

DRAWING NUMBER

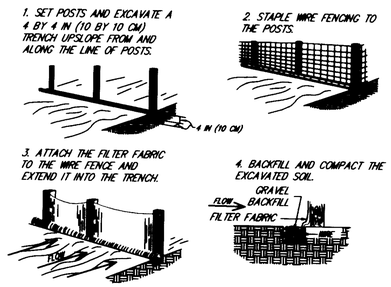
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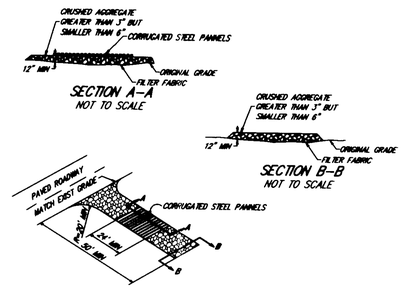

FIBER ROLL INSTALLATION
NOT TO SCALE



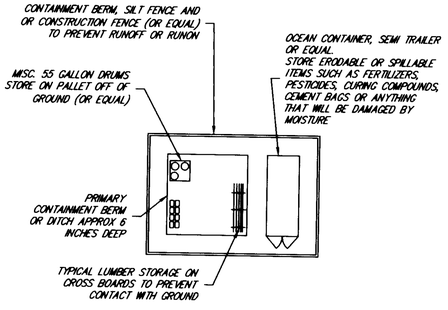

INLET PROTECTION @ SUMP & GRADE INLET
NOT TO SCALE



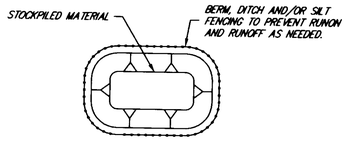

SILT FENCE DETAIL
NOT TO SCALE




STABILIZED CONSTRUCTION ENTRANCE
(TC-1/TYPE 2)
NOT TO SCALE



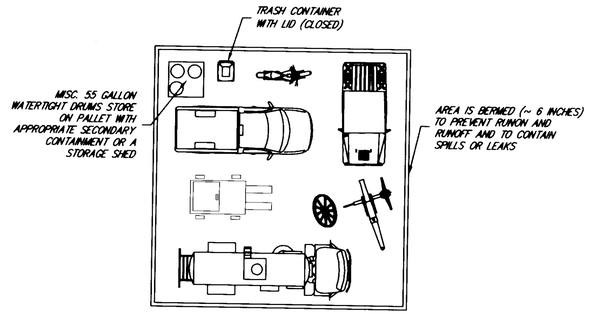

WM-1 MATERIALS DELIVERY AND STORAGE
NOT TO SCALE




COVER STOCKPILED MATERIALS FROM CONTACT WITH RAINFALL OR WIND EROSION PER WE-1, WE-7 AND OTHERS.

STOCKPILES ARE TO BE LOCATED 50 FEET MINIMUM FROM CONCENTRATED DRAINAGE COURSES AND STORM DRAIN INLETS

WM-3 STOCKPILE MANAGEMENT
NOT TO SCALE




NS-8 VEHICLE AND EQUIPMENT CLEANING
NS-9 VEHICLE AND EQUIPMENT FUELING
NS-10 VEHICLE AND EQUIPMENT MAINTENANCES
NOT TO SCALE

"AS BUILT"

The receipt of As-Built Plans and City's acceptance thereof does not absolve the Subdivider/ Developer of any responsibility for their accuracy.

Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1890

PREPARED BY
ROBERT D. DENTINO — DATE 2/28/11
R.C.E NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | ENGINEER OF WORK |
|---|---|---|

| SHT. NO. | REVISION DESCRIPTION | DATE | INITIAL |
|---|---|---|---|
| | | | |

CITY APPROVAL

SHEET 22 — CITY OF MURRIETA, ENGINEERING DEPARTMENT — SHEETS 27

EROSION CONTROL DETAILS FOR LINE D & D-1

APPROVED
PATRICK THOMAS — DATE: 10/[illegible] 2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-124

**UNDERGROUND SERVICE ALERT**
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1979" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #183307, 28 FEET SOUTH OF THE CENTERLINE OF ELM STREET AT THE TOP OF AN 8 FOOT HIGH CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY — 10/13/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL |
|---|
| AS NOTED |
| SCALE VERTICAL |
| AS NOTED |

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

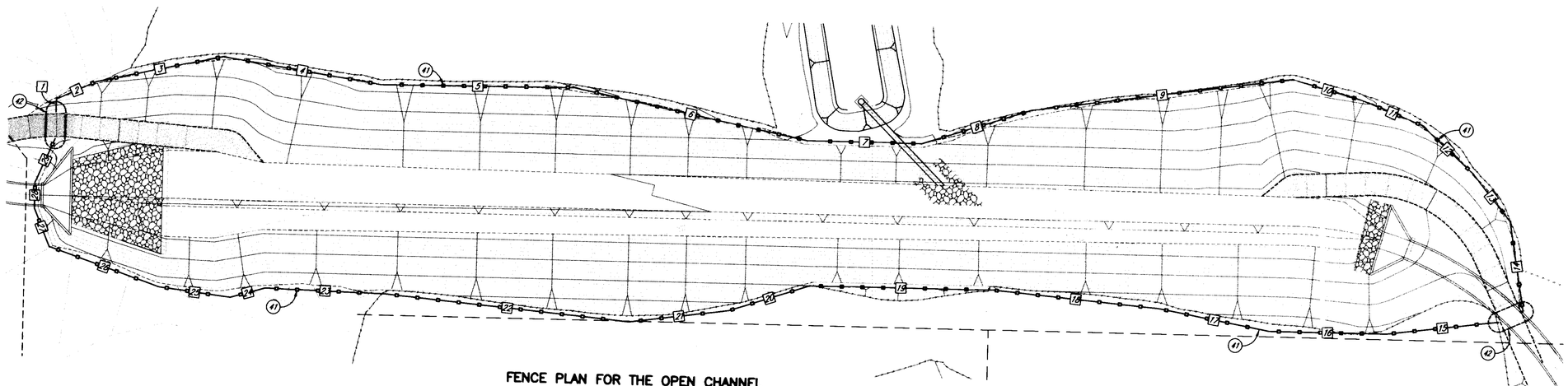
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

11-124

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

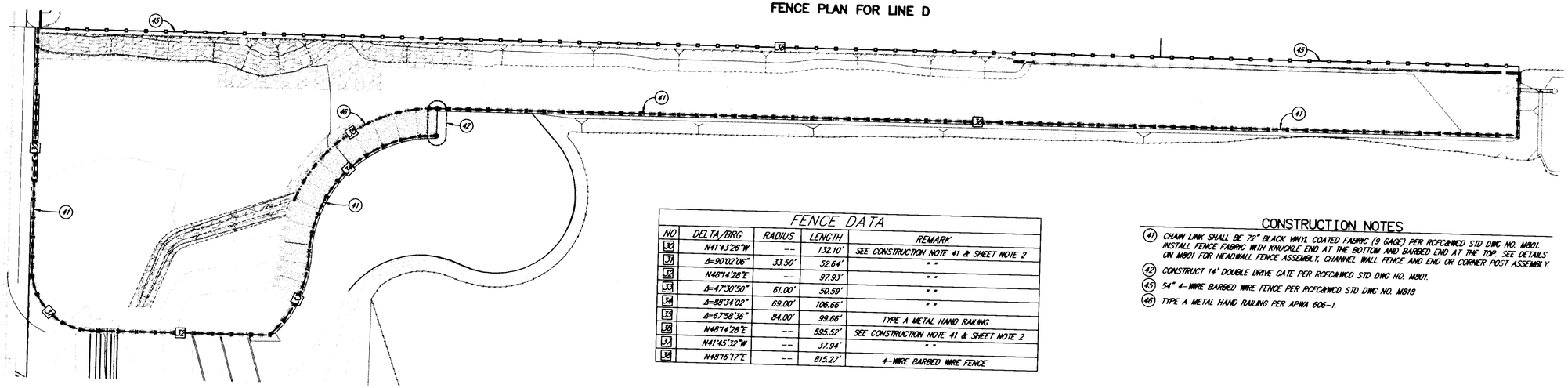
SCALE 1": 30'

| FENCE DATA | | | |
|---|---|---|---|
| NO | DELTA/BRG | LENGTH | REMARK |
| 1 | N48°54'18"E | 6.74' | SEE CONSTRUCTION NOTE #1 |
| 2 | N66°22'59"W | 22.91' | " " |
| 3 | N54°11'45"W | 67.82' | " " |
| 4 | N33°05'15"W | 83.75' | " " |
| 5 | N42°09'11"W | 101.38' | " " |
| 6 | N30°16'09"W | 124.99' | " " |
| 7 | N41°36'34"W | 58.94' | " " |
| 8 | N59°55'00"W | 58.79' | " " |
| 9 | N49°46'54"W | 138.45' | " " |
| 10 | N26°27'06"W | 37.93' | " " |
| 11 | N20°24'03"W | 33.96' | " " |
| 12 | N00°14'43"E | 36.14' | " " |
| 13 | N09°04'26"E | 32.18' | " " |
| 14 | N38°41'29"E | 47.42' | " " |
| 15 | N49°07'30"W | 58.95' | " " |
| 16 | N41°46'42"W | 61.64' | " " |
| 17 | N31°29'16"W | 58.82' | " " |
| 18 | N36°42'49"W | 88.30' | " " |
| 19 | N41°46'42"W | 95.42' | " " |
| 20 | N60°08'45"W | 44.29' | " " |
| 21 | N49°29'17"W | 52.50' | " " |
| 22 | N36°32'31"W | 128.54' | " " |
| 23 | N40°18'07"W | 62.94' | " " |
| 24 | N57°52'44"W | 18.93' | " " |
| 25 | N34°56'15"W | 37.84' | " " |
| 26 | N22°57'49"W | 61.32' | " " |
| 27 | N25°53'34"E | 21.33' | " " |
| 28 | N48°19'06"E | 13.75' | " " |
| 29 | N71°46'59"E | 24.92' | " " |




FENCE PLAN FOR THE OPEN CHANNEL
SECTION OF LINE D-1

FENCE PLAN FOR LINE D




| FENCE DATA | | | | |
|---|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH | REMARK |
| J6 | N41°43'26"W | -- | 132.10' | SEE CONSTRUCTION NOTE 41 & SHEET NOTE 2 |
| J7 | Δ=90°02'06" | 33.50' | 52.64' | " " |
| J8 | N48°14'28"E | -- | 97.93' | " " |
| J9 | Δ=47°30'50" | 61.00' | 50.59' | " " |
| J10 | Δ=88°34'02" | 69.00' | 106.66' | " " |
| J11 | Δ=67°58'36" | 84.00' | 99.66' | TYPE A METAL HAND RAILING |
| J12 | N48°14'28"E | -- | 595.52' | SEE CONSTRUCTION NOTE 41 & SHEET NOTE 2 |
| J13 | N41°45'32"W | -- | 37.94' | " " |
| J14 | N48°16'17"E | -- | 815.27' | 4-WIRE BARBED WIRE FENCE |

## CONSTRUCTION NOTES

(41) CHAIN LINK SHALL BE 72" BLACK VINYL COATED FABRIC (9 GAGE) PER RCFC&WCD STD DWG NO. M801. INSTALL FENCE FABRIC WITH KNUCKLE END AT THE BOTTOM AND BARBED END AT THE TOP. SEE DETAILS ON M801 FOR HEADWALL FENCE ASSEMBLY, CHANNEL WALL FENCE AND END OR CORNER POST ASSEMBLY.

(42) CONSTRUCT 14' DOUBLE DRIVE GATE PER RCFC&WCD STD DWG NO. M801.

(45) 54" 4-WIRE BARBED WIRE FENCE PER RCFC&WCD STD DWG NO. M818

(46) TYPE A METAL HAND RAILING PER APWA 606-1.

SCALE 1": 30'

0 30 60 90 120

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
440 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1090

PREPARED BY
ROBERT D. DENTINO 7/28/11 DATE
R.C.E. NO. 45629 EXP. DATE: 12/31/12

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| | | | | | |

ENGINEER OF WORK — CITY APPROVAL

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
THE BENCHMARK FOR THIS SITE IS A CALIFORNIA DIVISION OF HIGHWAYS DISK STAMPED "ELM 1975" IN THE TOP OF AN OCTAGON SHAPED CONCRETE MONUMENT AND IS LOCATED 0.1 MILE EAST ON ELM STREET FROM THE INTERSECTION OF JEFFERSON AVENUE AND ELM STREET, 53 FEET EAST OF POWER POLE #18307, 26 FEET SOUTH OF CUT SLOPE, 4 FEET NORTH OF A METAL WITNESS POST AND PROJECTS 0.3 FOOT ABOVE FINISH GRADE.
ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY 10/3/11 DATE
BUREAU VERITAS
R.C.E. NO. 48819

SCALE HORIZONTAL: AS NOTED
SCALE VERTICAL: AS NOTED

| SHEET | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS |
|---|---|---|
| 23 | | 27 |

FENCE PLAN
FOR LINE D & D-1

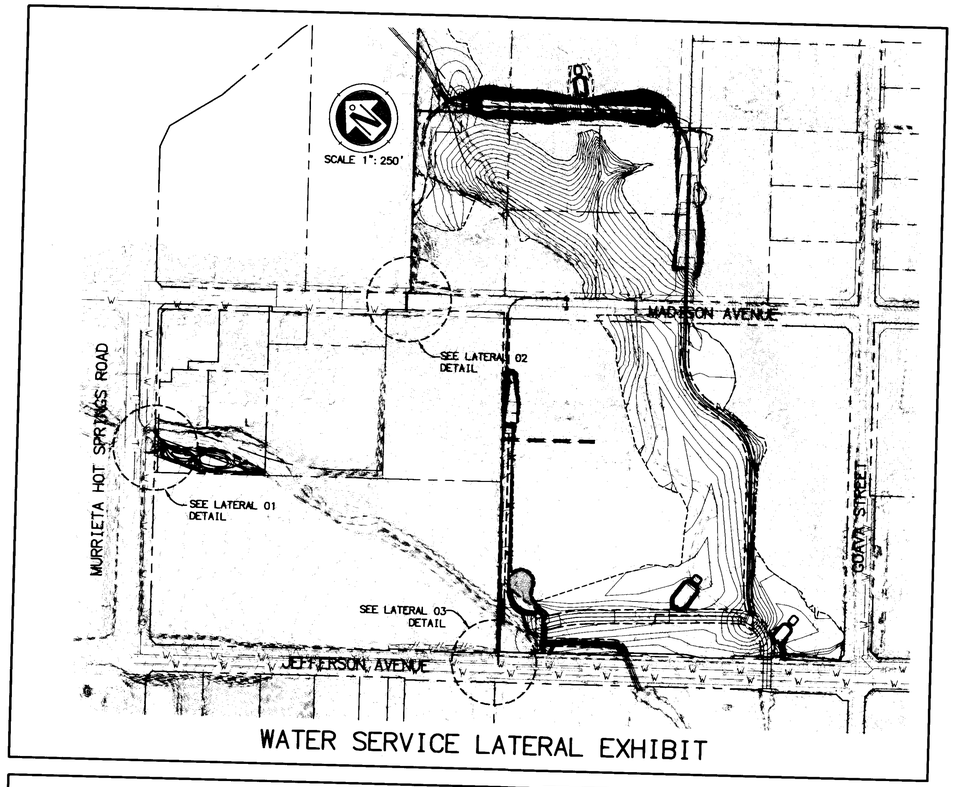
APPROVED
PATRICK THOMAS DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:
PROJECT NO. 10-335 CIP 8157 (ISD 6832)
DRAWING NO. 11-125

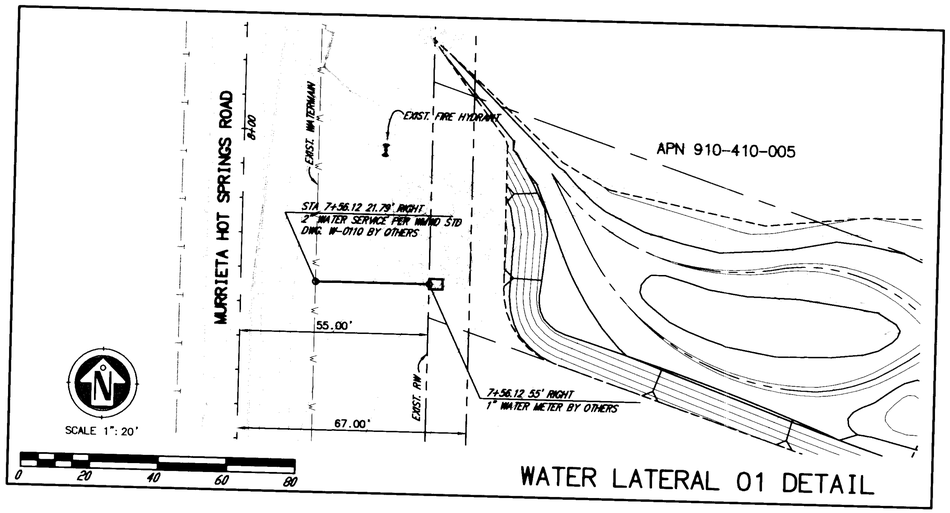
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6592

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6592

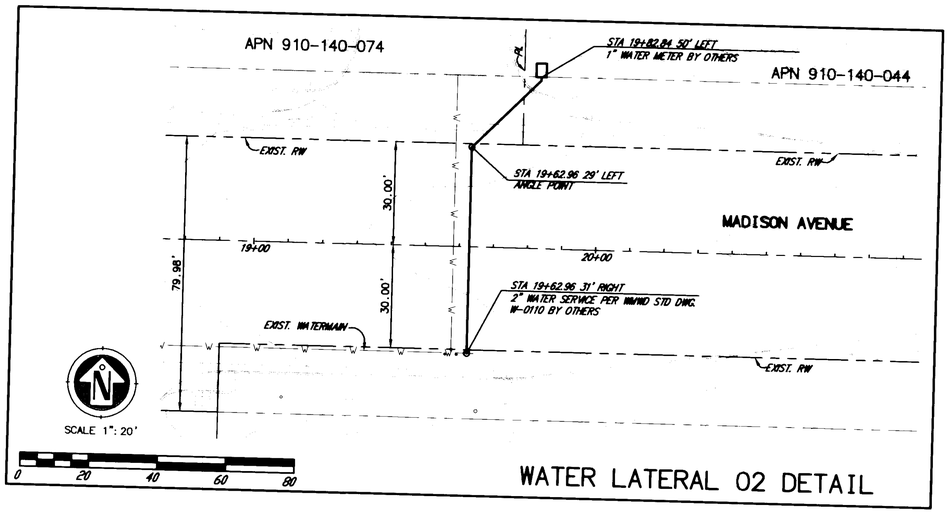
11-125



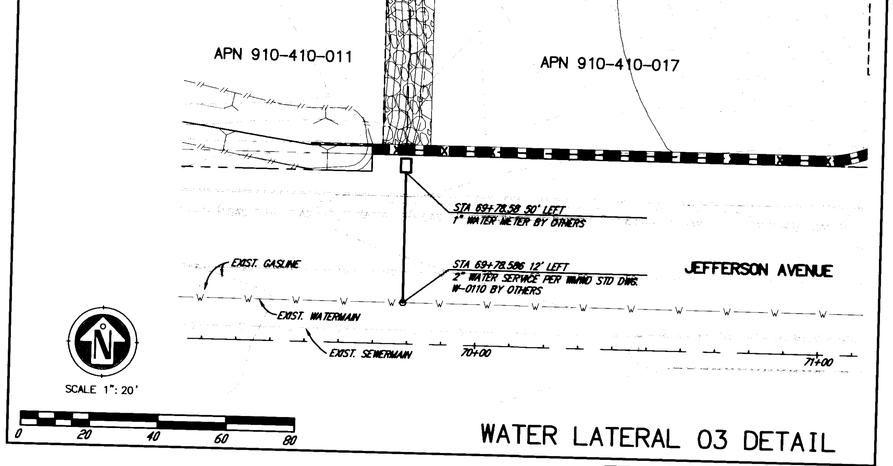

WATER SERVICE LATERAL EXHIBIT




WATER LATERAL 01 DETAIL




WATER LATERAL 02 DETAIL




WATER LATERAL 03 DETAIL

WATER LATERAL & METER INSTALLATIONS SHOWN ON THIS SHEET ARE SHOWN FOR REFERNCE ONLY & NOT PART OF THIS PLAN

"AS BUILT"

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Engineer of work _____ Date _____

RCE _____ EXP. _____

SEAL: REGISTERED PROFESSIONAL ENGINEER ROBERT D. DENTINO No. 45629 Exp.12-31-12 CIVIL STATE OF CALIFORNIA

**EXCEL ENGINEERING**
LAND PLANNING • ENGINEERING • SURVEYING
940 STATE PLACE, ESCONDIDO, CA 92029
PH (760)745-8118 FX (760)745-1090

PREPARED BY
ROBERT D. DENTINO
R.C.E. NO. 45629 EXP. DATE: 12/31/12
2/28/11 DATE

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL | CITY APPROVAL |
|---|---|---|---|---|---|---|---|

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
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ELEVATION = 1119.00 NAVD

RECOMMEND APPROVAL
WILLIAM G. BIXBY DATE
BUREAU VERITAS
R.C.E. NO. 48819

| SCALE HORIZONTAL | SCALE VERTICAL |
|---|---|
| AS NOTED | AS NOTED |

| SHEET 24 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27 |
|---|---|---|

WATER SERVICE LATERAL EXHIBIT

APPROVED:
PATRICK THOMAS DATE:
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44223 EXP. DATE: 06/30/13

DWN BY: CHKD BY: FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

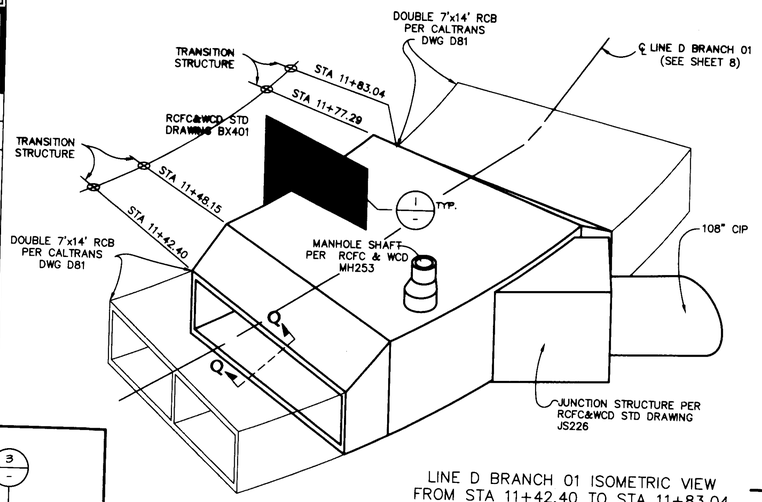
DRAWING NO. 11-126

DRAWING NUMBER 11-126

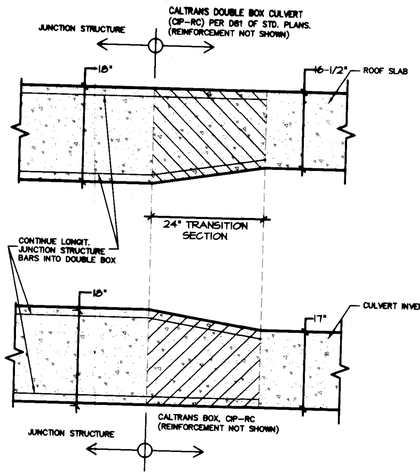
SAFCO PRODUCTS • 1-800-FOR-PETE, MINNESOTA
REORDER BY PART NUMBER 10336

## DESIGN SCHEDULE

| | | | | | |
|---|---|---|---|---|---|
| CONC. | ROOF | $T_1$ = 18" | SEE SHEET FOR ADD'L DESIGN NOTES & SPECIFICATIONS | | |
| | WALLS | $T_2$ = 16" | | | |
| | INVERT | $T_3$ = 16" | | | |
| REINFORCEMENT | | | | SPACING | NUMBER |
| | "a" | SIZE BAR | #6 | 4" | – |
| | "b" | SIZE BAR | #9 | 8" | – |
| | | DIMENSION "B" (Feet-inches) | 13'-0" | | |
| | | DIMENSION "$B_w$" (Feet-inches) | 4'-7" | | |
| | "c" | SIZE BAR | #8 | 8" | – |
| | | DIMENSION "C" (Feet-inches) | 6'-0" | | |
| | "d" | SIZE BAR | #5 | – | 50 |
| | "e" | SIZE BAR | #6 | 9" | – |
| QUANTITIES | CONCRETE CF/LF | 124 | | | |
| | REINF. #/LF | 600 | | | |



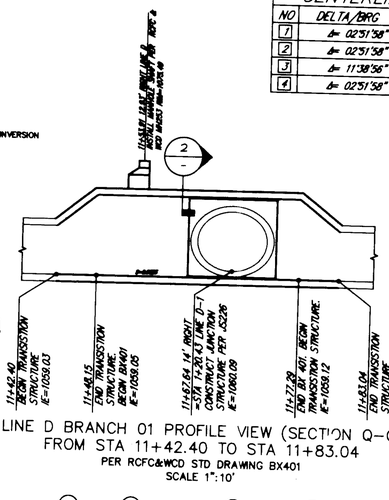

LINE D BRANCH 01 ISOMETRIC VIEW
FROM STA 11+42.40 TO STA 11+83.04
PER RCFC&WCD STD DRAWING BX401
ISOMETRIC NOT TO SCALE



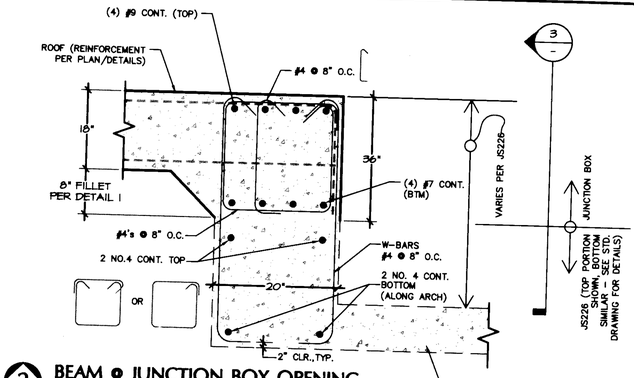

**JUNCTION STRUCT. TO CAL TRANS DOUBLE BOX TRANSITION**
SCALE: N.T.S.

**NOTE:**
FOR REFERENCES TO SITE LOCATIONS FOR THIS JUNCTION BOX, PLEASE CONSULT SHEET OF EXCEL ENGINEERING'S CIVIL PLANS.

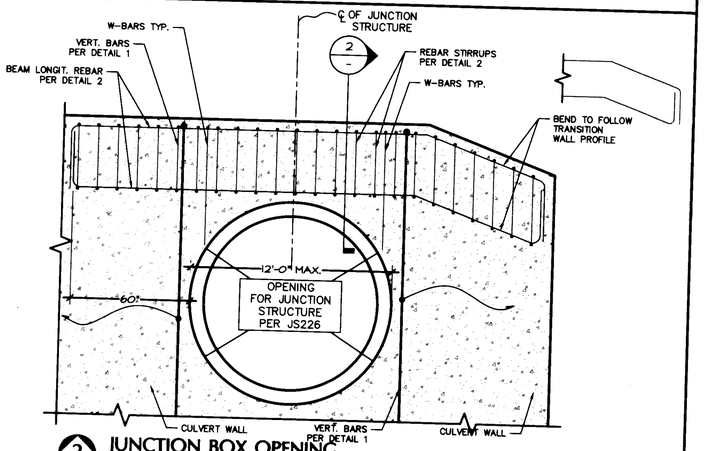
| CENTERLINE DATA | | | |
|---|---|---|---|
| NO | DELTA/BRG | RADIUS | LENGTH |
| 1 | Δ= 02°51'58" | 115.00' | 5.75' |
| 2 | Δ= 02°51'58" | 115.00' | 5.75' |
| 3 | Δ= 11°38'56" | 115.00' | 23.38' |
| 4 | Δ= 02°51'58" | 115.00' | 5.75' |



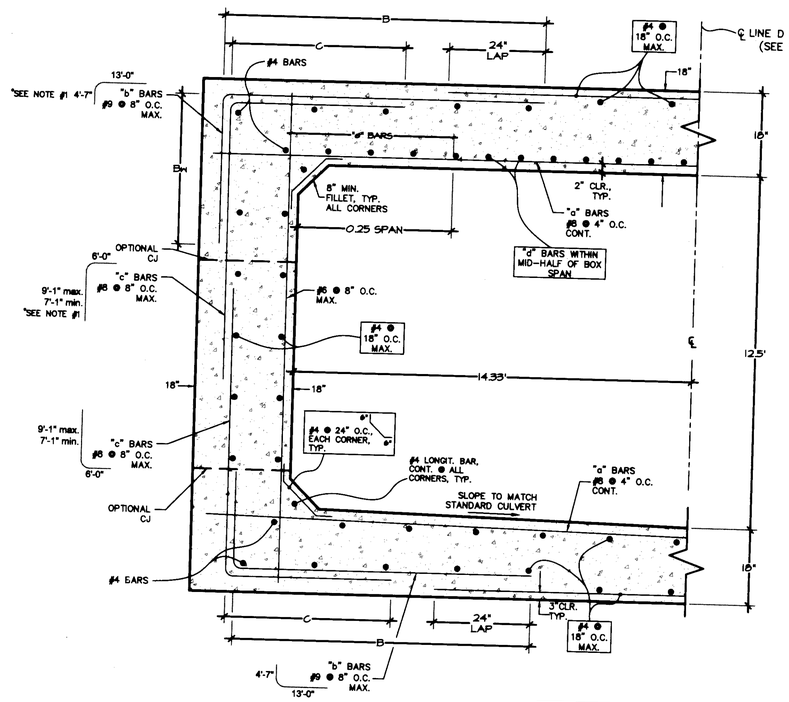

LINE D BRANCH 01 PROFILE VIEW (SECTION Q–Q)
FROM STA 11+42.40 TO STA 11+83.04
PER RCFC&WCD STD DRAWING BX401
SCALE 1":10'




**2 BEAM @ JUNCTION BOX OPENING**
SCALE: N.T.S.

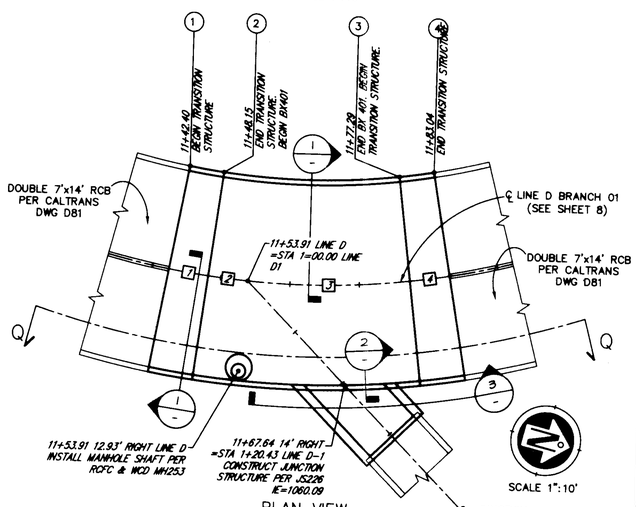



**3 JUNCTION BOX OPENING**
SCALE: N.T.S.




**1 TYPICAL SECTION @ JUNCTION BOX**
SCALE: N.T.S.

**NOTE:**
1. THIS DIMENSION TO BE 2'-8" @ BEAM OF JUNCTION STRUCTURE




PLAN VIEW
LINE D BRANCH 01 PLAN VIEW
FROM STA 11+42.40 TO STA 11+83.04
PER RCFC&WCD STD DRAWING BX401
SCALE 1":10'

SEE SHEET # FOR PLAN & PROFILE

**Underground Service Alert**
Call: TOLL FREE 1-800 422-4133
TWO WORKING DAYS BEFORE YOU DIG

GENERAL STATEMENTS ARE:
It is unlawful for any person that is a contractor with a currently unrevoked contractor's license, unrevocable contractor, or to respond to contract bid for construction of the work specified on the permit issued by the city for the construction activity to exercise all responsibility of the control, including safety of all persons and property during the performance of work, to the project, excepting liability arising from the sole negligence of design professional.

The private engineer signing these plans is responsible for assuring the accuracy and acceptability of the design hereon. In the event of discrepancies arising after city approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the city.

ENGINEER OF WORK:
**SKS Engineering, Inc.**
15008 ESPOLA ROAD
POWAY, CA 92064
No. C-62241 EXP. 12-31-2012

Plans Prepared Under Supervision Of
SAMSON J. ENGEDA 09/28/11
R.C.E. No. 52241 Expires 12-31-12
Date 04-11-2010

RECOMMEND FOR APPROVAL:
William G. Bird 10/13/11
RCE 48819
Bureau Veritas, NA

| DATE | INITIAL | ENGINEER OF WORK | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL CITY APPROVAL |
|---|---|---|---|---|---|---|

SHEET 25 | **CITY OF MURRIETA** ENGINEERING DEPARTMENT | SHEETS 27

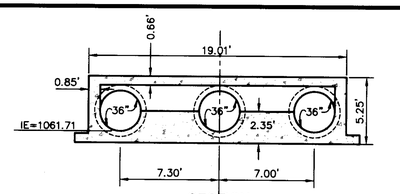
PUBLIC IMPROVEMENT PLAN FOR:
LINE D BRANCH 01 JUNCTION BOX
FROM STA 11+42.40 TO STA 11+83.04

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44233 DATE: 10/12/2011 EXP. DATE: 06/30/13

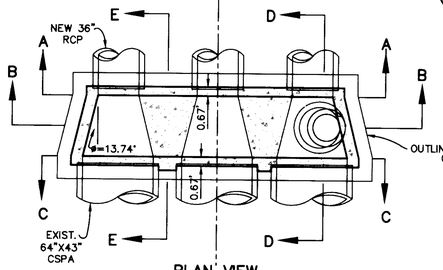
DRN BY: CHKD BY: FIELD BK: PROJECT NO. 10-335 CIP 8157 (ISD 6832) DRAWING NO. 11-127

DRAWING NUMBER 11-127

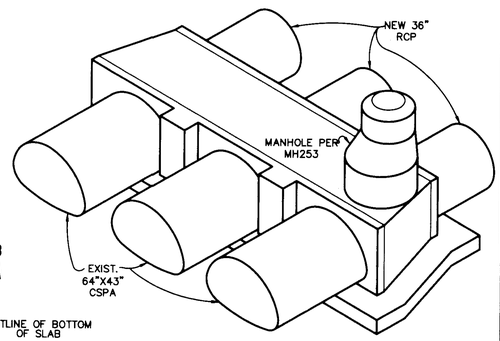
SAFCO PRODUCTS • 1-800-328-2665 MINNESOTA
REORDER BY PART NUMBER 8563



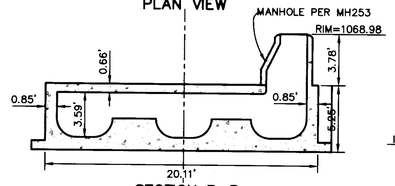

SECTION A–A



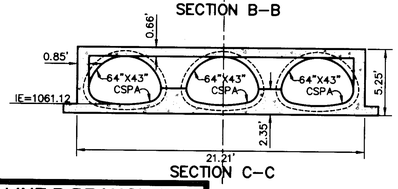

PLAN VIEW



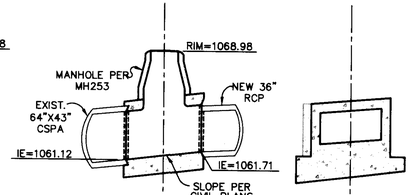

ISOMETRIC VIEW




SECTION B–B




SECTION C–C




SECTION D–D

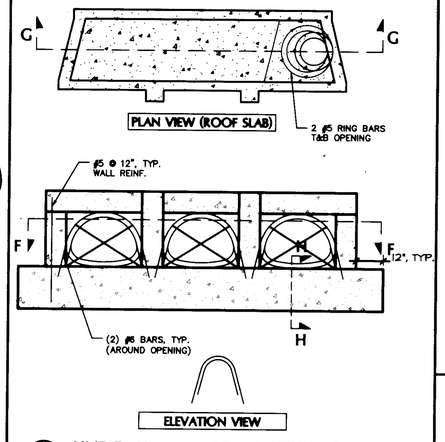


SECTION E–E

SEE SHEET # FOR PLAN & PROFILE

**LINE D BRANCH 02 JUNCTION STRUCTURE DIMENSIONS**

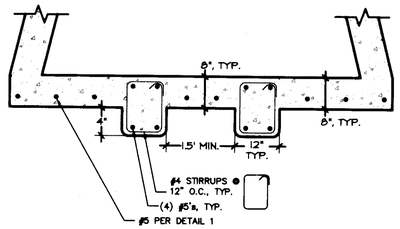
STORM DRAIN JUNCTION STRUCTURE
@ STA 15+88.52 LINE D BRANCH 02
SCALE 1":5'




PLAN VIEW (ROOF SLAB)

ELEVATION VIEW

## 1 LINE D BRANCH 02 JUNCTION STRUCTURE
SCALE: N.T.S.




## F SECTION F-F (PARTIAL SECTION)
SCALE: N.T.S.

# GENERAL NOTES

**LOAD FACTOR DESIGN (LFD)**

DESIGN:
- CALTRANS BRIDGE DESIGN SPECIFICATIONS - APRIL 2000 (LFD), (1996 AASHTO w/ INTERIMS & REVISIONS BY CALTRANS)
- CALTRANS BRIDGE DESIGN PRACTICE SECTION 6 - UNDERGROUND STRUCTURES

DEAD LOAD:
- 2' FILL HEIGHT
- 10' FILL HEIGHT

} $F_{SOIL}$ = 140 PCF

LIVE LOADING:
H520-44 TRUCK LOADING

REINFORCED CONCRETE:
$F_Y$ = 60,000 PSI

$F'_C$ = 4,000 PSI (ALL CULVERTS) UNLESS OTHERWISE NOTED

$F'_C$ = 3600 PSI (ALL RETAINING WALLS & OTHER STRUCTURES)

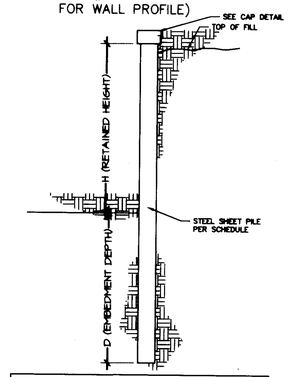
* ENGINEER TO DO A STRUCTURAL OBSERVATION AT THE FOLLOWING BENCHMARK STAGES:
- I) AFTER FOUNDATION EXCAVATION,
- II) AFTER STEEL PLACEMENT FOR CULVERT INVERT SLAB,
- III) AFTER STEEL PLACEMENT FOR CULVERT WALLS & ROOF

**FOUNDATION NOTES:**

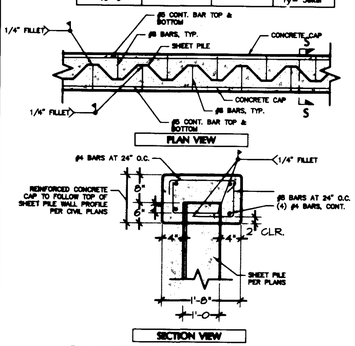
1. CULVERT AND ALL OTHER JUNCTION STRUCTURES TO BE PLACED ON SUITABLE FOUNDATION MATERIAL PER THE SOILS REPORT (DATED NOVEMBER 25, 2008, W.O. No. 1003501.00AA1)

**SPECIFICATIONS:**
- ALL WORK TO BE CONDUCTED PER RIVERSIDE COUNTY FLOOD CONTROL STANDARD DRAWINGS AND CALTRANS STANDARD SPECIFICATIONS, DATED MAY 2006
- REFER TO CALTRANS STANDARD PLANS DATED MAY 2006 FOR ALL STANDARD DETAILS NOT COVERED IN RCFC&WCD STANDARD DRAWINGS

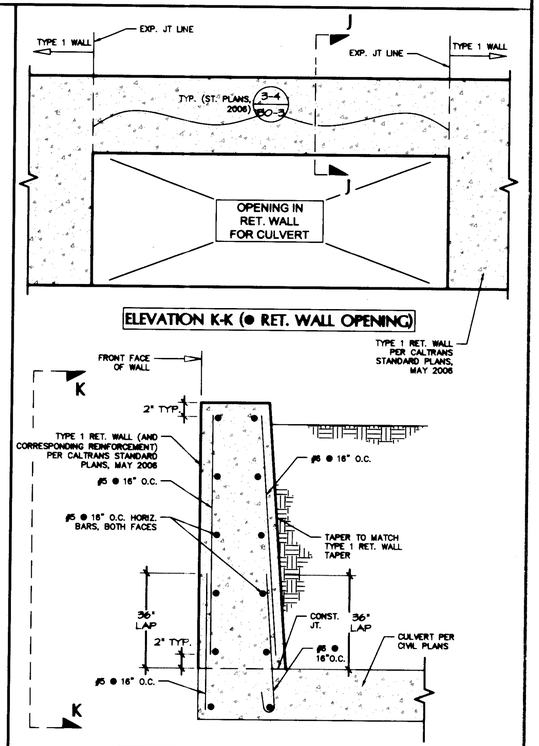
STEEL SHEET PILE RETAINING WALL
(SEE SHEET # ON CIVIL PLANS FOR WALL PROFILE)




| SHEET PILE SCHEDULE | | | |
|---|---|---|---|
| RETAINED SOIL HEIGHT, H | EMBEDMENT DEPTH OF PILE, D | STEEL PILE PROFILE TYPE | STEEL GRADE |
| 10'-0" & GREATER | 23'-0" | PZ-27 | A328 W/ $F_y$= 38ksi |
| LESS THEN 10'-0" | 15'-0" | PZ-27 | A328 W/ $F_y$= 38ksi |



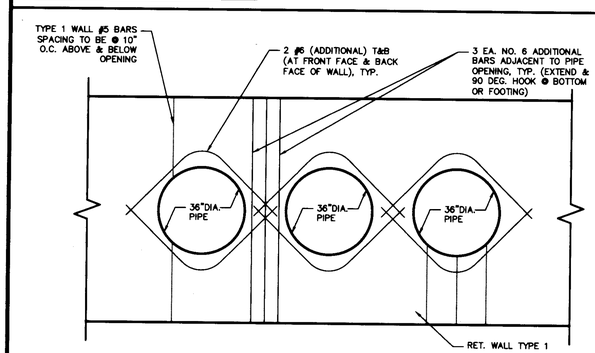

## S-5 SHEET PILE WALL - CONCRETE CAP DETAIL
SCALE: N.T.S.




ELEVATION K-K (@ RET. WALL OPENING)

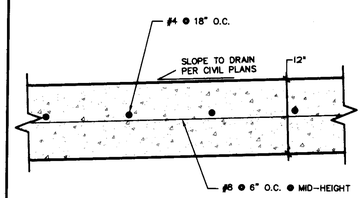
SECTION J-J (@ RET. WALL OPENING)

## 2 CULVERT OPENINGS @ NORTH RET. WALL
SCALE: N.T.S.



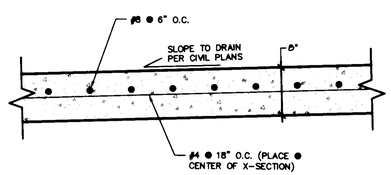

## 5 36" PIPE PENETRATION DETAIL @ RETAINING WALL TYPE 1
SCALE: N.T.S.

(SEE SHEET # )




NOTE: MAIN BARS TO TERMINATE WITH A 90° HOOK.

## H FOUNDATION MAT SECTION H-H
SCALE: N.T.S.




NOTE: MAIN BARS TO TERMINATE WITH A 90° HOOK.

## G ROOF SLAB SECTION G-G
SCALE: N.T.S.

**Underground Service Alert**

Call: TOLL FREE 1-800 422-4133

TWO WORKING DAYS BEFORE YOU DIG

The private engineer signing these plans is responsible for ensuring the accuracy and acceptability of the design herein. In the event of discrepancies arising after city approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the city.

ENGINEER OF WORK:
**SKS Engineering, Inc.**
15008 ESPOLA ROAD
POWAY, CA 92064

Plans Prepared Under Supervision Of
SAMSON L. ENGEDA 09/28/11
R.C.E. No. 52241 Date 04-11-2010 Expires 12-31-12

RECOMMEND FOR APPROVAL:
William G. Bixby 10/18/11
RCE 48819
Bureau Veritas, NA

| DATE | INITIAL | REVISION DESCRIPTION | SHT. NO. | DATE | INITIAL |
|---|---|---|---|---|---|
| ENGINEER OF WORK | | | | CITY APPROVAL | |

SHEET 26 | CITY OF MURRIETA ENGINEERING DEPARTMENT | SHEETS 27

PUBLIC IMPROVEMENT PLAN FOR:
GENERAL NOTES, RET. WALL OPENINGS, & LINE D BRANCH 02 JUNCTION STRUCTURE

APPROVED
PATRICK THOMAS DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44833 DATE: 10/18/11 EXP. DATE: 08/30/13

DRWN BY: CHKD BY: FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

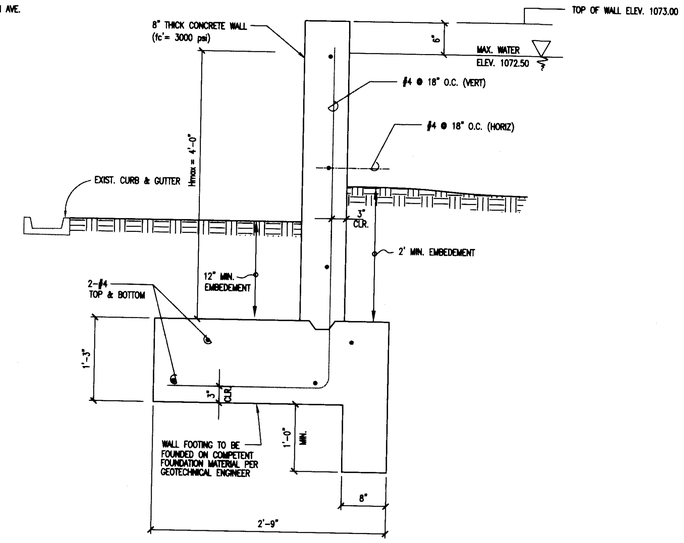
DRAWING NO. 11-128

DRAWING NUMBER

SAKCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 55302
PRINTED IMAGE OF PRINT ON THIS LINE

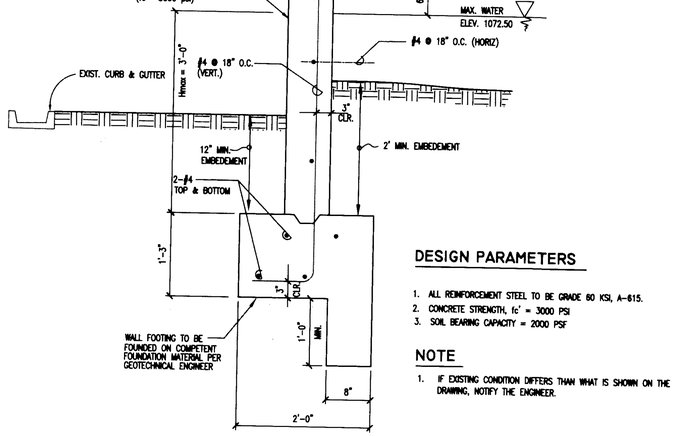
DRAWING NUMBER 11-128

SAKCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 55302
PRINTED IMAGE OF PRINT ON THIS LINE




## (A) FLOOD CONTROLWALL, REINFORCED CONCRETE
HMAX = 4'-0"

SCALE: 1"=1'-0"




## (B) FLOOD CONTROLWALL, REINFORCED CONCRETE
HMAX = 3'-0"

SCALE: 1"=1'-0"

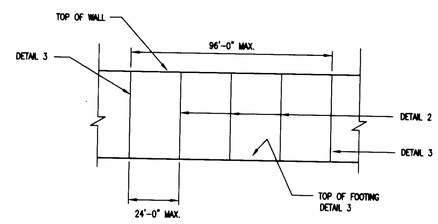
### DESIGN PARAMETERS

1. ALL REINFORCEMENT STEEL TO BE GRADE 60 KSI, A-615.
2. CONCRETE STRENGTH, fc' = 3000 PSI
3. SOIL BEARING CAPACITY = 2000 PSF

### NOTE

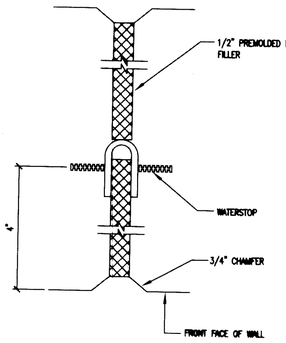
1. IF EXISTING CONDITION DIFFERS THAN WHAT IS SHOWN ON THE DRAWING, NOTIFY THE ENGINEER.

**ALL WORK SHOWN IN THE DRAWING SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS DATED MAY 2006.**



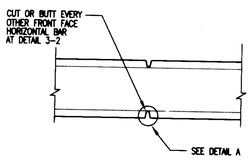

## DETAIL 1
SCALE: N.T.S.

**WALL EXPANSION JOINTS AND WEAKENED PLANES**

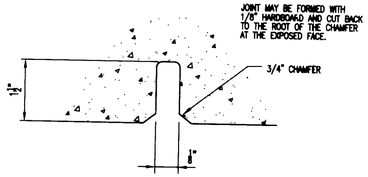



## DETAIL 3
SCALE: N.T.S.

**WALL EXPANSION JOINT**



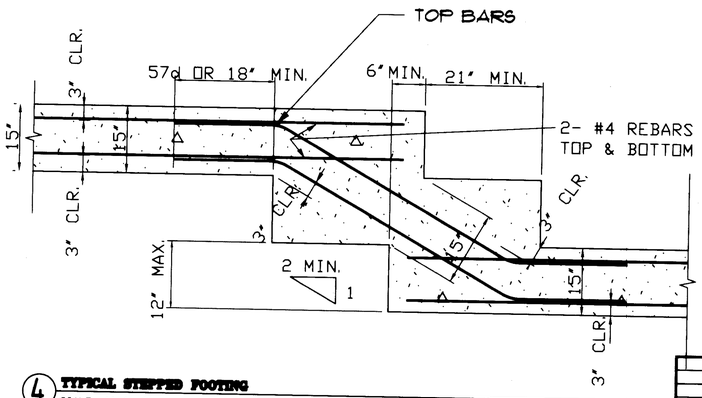

## SECTION




## DETAIL A

## DETAIL 2
SCALE: N.T.S.

**WEAKENED PLANES**




## (4) TYPICAL STEPPED FOOTING
SCALE: 1"=1'-0"

### SPECIAL INSPECTION:

THE FOLLOWING REQUIREMENT SHALL BE MET FOR SPECIAL INSPECTION:

1. SPECIAL INSPECTIONS, STRUCTURAL TESTS AND STRUCTURAL OBSERVATIONS SHALL COMPLY WITH THESE NOTES AND SPECIFICATIONS.
2. THE SPECIAL INSPECTOR MUST BE APPROVED BY THE CITY OF MURRIETA, IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION.
3. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE CITY OF MURRIETA FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS, AND EQUIPMENT.
4. FABRICATOR MUST BE REGISTERED AND APPROVED BY THE CITY OF MURRIETA FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP.
5. THE SPECIAL INSPECTIONS IDENTIFIED ON THE PLANS ARE, IN ADDITION TO THOSE INSPECTIONS REQUIRED BY CITY OF MURRIETA, AND ARE NOT A SUBSTITUTE FOR INSPECTION BY A CITY INSPECTOR.
6. A PROPERTY OWNER'S FINAL REPORT OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED BY THE PROPERTY OWNER, PROPERTY OWNER'S AGENT OF RECORD, ARCHITECT OF RECORD, OR ENGINEER OF RECORD AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.
7. AN APPLICATION TO PERFORM OFF-SITE FABRICATION MUST BE SUBMITTED TO THE INSPECTION SERVICES DIVISION FOR APPROVAL PRIOR TO FABRICATION.
8. A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION MUST BE COMPLETED AND SUBMITTED TO THE INSPECTION SERVICES DIVISION PRIOR TO ERECTION OF PREFABRICATED COMPONENTS.
9. OFF SITE FABRICATOR MUST BE REGISTERED AND APPROVED BY THE CITY OF MURRIETA FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP.

### REQUIRED VERIFICATION AND INSPECTION OF SOILS

| No. | VERIFICATION AND INSPECTION TASK | CONTINUOUS | PERIODICALLY |
|---|---|---|---|
| 1. | SOIL COMPLIANCE PRIOR TO FOUNDATION PLACEMENT | —— | X |
| 2. | VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY. | —— | X |
| 3. | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. | —— | X |
| 4. | PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS. | —— | X |
| 5. | VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL. | X | —— |
| 6. | PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY. | —— | X |

### REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION:

| No. | VERIFICATION AND INSPECTION TASK | CONTINUOUS DURING TASK LISTED | PERIODICALLY DURING TASK LISTED |
|---|---|---|---|
| 1. | INSPECTION OF REINFORCING STEEL | —— | X |
| 2. | VERIFYING USE OF REQUIRED CONCRETE MIX DESIGN | —— | X |
| 3. | AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. | X | —— |
| 4. | INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES. | X | —— |
| 5. | INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. | —— | X |

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Plans approved are for permitting purposes only and shall not be construed as authority to violate, cancel or set aside any provisions of the codes or ordinances governing the work covered by these plans nor shall it be construed as authority to violate, cancel or set aside any of the provisions of the contract documents. Approval of these plans does not relieve the owner or his agents of the responsibility to comply with all codes and ordinances applicable to the work. Nor does it relieve the owner or his agents of the responsibility for the performance of work by the project, excepting liability arising from the sole negligence of design professional.

The private engineer signing these plans is responsible for assuring the accuracy and acceptability of the design hereon. In the event of discrepancies arising after city approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the city.

ENGINEER OF WORK

**SKS Engineering, Inc.**
15008 ESPOLA ROAD
POWAY, CA 92064

SAMSON J. ENGEDA — 04/28/11
R.C.E. No. 52241

Plans Prepared Under Supervision Of
SAMSON J. ENGEDA — 04/28/11
Date 04-11-2010
R.C.E. No. 52241 — Expires 12-31-12

RECOMMEND FOR APPROVAL:
William G. Burby — 10/3/11
William G. Burby
RCE 48919
Bureau Veritas, NA

| DATE | INITIAL | ENGINEER OF WORK |
|---|---|---|

| SHT. NO. | REVISION DESCRIPTION | DATE | INITIAL CITY APPROVAL |
|---|---|---|---|

SHEET 27 — **CITY OF MURRIETA** ENGINEERING DEPARTMENT — SHEETS 27

PUBLIC IMPROVEMENT PLAN FOR:
GENERAL NOTES, RET. WALL OPENINGS, & LINE D BRANCH 02 JUNCTION STRUCTURE

APPROVED
PATRICK THOMAS — DATE: 10/12/2011
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER R.C.E. 44253 EXP. DATE: 06/30/13

DRWN BY:
CHKD BY:
FIELD BK:

PROJECT NO. 10-335 CIP 8157 (ISD 6832)

DRAWING NO. 11-129

DRAWING NUMBER

SAVCO PRODUCTS • NEW ULM, MINNESOTA
REORDER BY PART NUMBER 01302

DRAWING NUMBER
11-129