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ADMINISTRATION & HUMAN RESOURCES
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KERN COUNTY
PUBLIC WORKS

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ADDENDUM NO. 2 TO THE ADOPTED MITIGATED NEGATIVE DECLARATION FOR THE SOUTH SHAFTER SEWER, TRUNK LINE AND LIFT STATION PROJECT (SCH# 2007101148)

ORIGINAL MITIGATED NEGATIVE DECLARATION ADOPTED 11/8/16
ADDENDUM NO.1 ADOPTED 10/22/19

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  Mitigated Negative Declaration for South Shafter Sewer, Trunk Line Sewer and Lift Station (SCH No. 2007101148)

ADDENDUM NO. 2
TO THE SOUTH SHAFTER SEWER,
TRUNK LINE SEWER & LIFT STATION PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
(SCH No. 2007101148)

I. Project Information

i) **Project Title:** South Shafter Sewer, Trunk Line Sewer & Lift Station Project (Project)

ii) **Lead Agency Name/Address:** Kern County Public Works Department
2700 M Street, Suite 400, Bakersfield, CA 93301

iii) **Contact:** Alexa Kolosky, Supervising Planner
(661) 862-5002 / akolosky@kerncounty.com

iv) **Project Location:** Road right-of-way and water line easements in the unincorporated community of South Shafter (West Shafter, Southwest Shafter, Thomas Lane, Smiths Corner, Burbank, and Cherokee Strip) and along Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, within Sections 16, 17, 20, 21, 22, 23, 26, 27 of Township 28 South, Range 25 East, Mount Diablo Base & Meridian, County of Kern, State of California, and the Rio Bravo U.S. Geological Survey 7.5 minute topographical quadrangle. The project is located approximately 0.25 miles south of the City of Shafter. Refer to Figure 1 for project location map.

II. Project Description

a. Introduction

This Project document is Addendum No. 2 to the 2016 Initial Study/Mitigated Negative Declaration (IS/MND) for the South Shafter Sewer Trunk Line Sewer & Lift Station Project (SCH No. 2007101148). The Kern County Public Works Department (County), serving as the Lead Agency under the California Environmental Quality Act of 1970 (CEQA), certified the South Shafter Sewer Trunk Line Sewer & Lift Station Project Mitigated Negative Declaration (MND) on November 8. 2016, and its Addendum No. 1 on October 22, 2019, which evaluated the potential environmental effects of the construction of wastewater collection system improvements in the South Shafter area, including sewer, trunk lines, and lift stations, described below and in these documents incorporated by reference and provided in the Appendix.

The proposed amendment analyzed in this Addendum No. 2 includes a minor sewer line length clarification to appropriately reflect the final design plans for the project. The proposed Project corrections evaluated under this Addendum would not cause any new significant impacts not originally analyzed or identified in the previously adopted IS/MND or Addendum No. 1.

b. Project Overview

1. Original Project (2016)

The 2016 IS/MND evaluated the previous wastewater collection system for South Shafter Sewer, Trunk Line Sewer & Lift Station Project. The Kern County Public Works Department (County) originally proposed to construct approximately 34,500 linear feet of sewer trunk line with associated manholes for access within existing road rights-of-way (ROW) and water line

easements. For additional information, refer to the Appendix for the original document (SCH# 2007101148).

2. Addendum No. 1 (2019)

The focus of Addendum No. 1 consisted of comparing the original project to a modified project that reflected modifications to design elements and change in management structure that had evolved since the original approval in November 2016. Several changes in the original project scope were approved with Addendum No. 1 in 2019:

(1) First, some of the sewer pipeline alignments were shifted to different road alignments after consultation with the City of Shafter's Public Works Department;
(2) Instead of creating a new County Service Area Zone to oversee the wastewater collection system in the future, the City of Shafter indicated that it proposed to assume responsibility for the collection system, with approval from the Kern County Local Agency Formation Commission of an out-of-area service contract;
(3) As part of the project, the individual laterals to existing parcels will be installed to replace existing subsurface septic tanks;
(4) Instead of five lift stations, only two lift stations will be installed;
(5) Instead of 386 residential parcel connections, the number of residential lots served will be 398, with the non-residential connections remaining at 10 (total of 408 parcel connections to the proposed sewer system);
(6) Potential daily flows will be increased to an average of 152,601 gpd and a peak daily flow of 223,344 gpd; and
(7) The original total length of pipeline proposed for South Shafter was estimated at 34,500 linear feet, proposed pipeline under the modified project is estimated to be about 16,500 linear feet with the same pipeline sizes.

For additional information, refer to the Appendix for the Addendum No. 1 document (SCH# 2007101148).

3. Addendum No. 2 (Current Proposal)

The focus of this Addendum No. 2 is to clarify and correct a technical error described in the previous Addendum No. 1, which stated that there was to be a reduction in the linear feet (LF) of the proposed sewer line from approximately 34,500 LF to 16,500 LF.

The project limits and alignment footprint will remain the same as originally analyzed in the adopted IS/MND (See Figure 1 and Appendix for further details). However, the scope of this Addendum No. 2 is to clarify the linear footage of the Project to reflect the final design plans that are now completed, which includes approximately 38,000 LF and 5,700 LF of gravity sewer and force main sewer, respectively. There would be no new impacts that were not previously analyzed in the prior two documents: the IS/MND (2016) and Addendum No. 1 (2019) (SCH#2007101148).

The County has determined that this is not a substantial change to the Project which would require major revisions of the previous IS/MND. Pursuant to CEQA Section 15164, a lead agency may prepare an addendum to a previously approved MND if only minor technical changes or additions are necessary and none of the conditions described in CEQA guidelines Section 15162 have occurred. No further review of this project's environmental effects is necessary pursuant to Section 15162 of the State CEQA Guidelines.

Staff further notes that this Addendum does not require public review; however, the State Water Resources Control Board providing funding for this project requested public review be made available for Addendum No. 1 to ensure that any interested parties were afforded an opportunity to review the project. For consistency purposes, a similar review period for this Addendum No. 2 has also been provided.

III. CEQA Requirements for an Addendum

Addendum No. 2 has been prepared in accordance with the current CEQA Statutes and Guidelines for implementing CEQA. CEQA Section 15164 includes the following procedures for the preparation and use of an Addendum:

(b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.
(c) An addendum need not be circulated for public review but can be included in or attached to the Final EIR or adopted negative declaration.
(d) The decision-making body shall consider the addendum with the Final EIR or adopted negative declaration prior to making a decision on the project.
(e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's required findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

If changes to a project or its circumstances occur or new information becomes available after certification of an EIR or MND, the Lead Agency may:

(1) prepare a subsequent EIR if the criteria of CEQA Guidelines Section 15162(a) are met;
(2) prepare a subsequent negative declaration;
(3) prepare an addendum; or
(4) prepare no further documentation. (State CEQA Guidelines Section 15162(b))

When only minor technical changes or additions to the approved Negative Declaration are necessary and none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred, CEQA allows the lead agency to prepare and adopt an addendum. (State CEQA Guidelines, Section 15164(b))

Under Section 15162, a subsequent EIR or negative declaration is required only when:

(1) Substantial changes are proposed in the project which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the negative declaration due to the involvement of any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the negative declaration was adopted, shows any of the following:
    (a) The project will have one or more significant effects not discussed in the previous negative declaration;
    (b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    (c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternative; or
    (d) Mitigation measures or alternatives which are considerably different from those

analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Based on a review of the general data compiled to consider the South Shafter Sewer, Trunk Line & Lift Station Project installation, the County finds that an addendum remains the appropriate environmental determination to address the proposed Project's modifications to the previously adopted IS/MND and Addendum No. 1.

IV. Environmental Analysis of the Proposed Modification

As previously indicated, the County prepared a comprehensive review of the South Shafter Sewer, Trunk Line & Lift Station Project with an IS/MND that was adopted by the Kern County Board of Supervisors in 2016, along with the technical studies to substantiate findings for site specific environmental issues, such as air quality, biology, cultural resources, that were updated in 2019 with Addendum No. 1 (refer to Appendix for these documents).

County Staff considered the options for CEQA compliance under the adopted IS/MND and Addendum No. 1. Based on the scope of the proposed project modifications (refer to Section II(b) of this document), a decision was made to prepare an Addendum No. 2 for the project modifications. After considering the available compliance alternatives, a decision was made by the Staff to recommend that the Kern County Board of Supervisors consider Addendum No. 2 to the adopted IS/MND as the appropriate CEQA environmental determination for the modified project.

Based on the status of information available for this evaluation, an addendum, supported by the adopted IS/MND provided in Appendix 1, was concluded to provide the appropriate level of evaluation of the modified project for compliance with CEQA. Thus, the purpose of this Addendum No. 2 is to assess the related potential environmental impacts that would result from implementing the modified project, in comparison to the impact forecast contained in the IS/MND and Addendum No. 1.

The following evaluation provides an analysis of potential environmental impacts in relation to the facts and findings contained in the IS/MND incorporated by reference in this document. The following conclusions were developed regarding potential impacts from approval and implementation of the modified project.

A review of changes in environmental circumstances over the past few years since the IS/MND was adopted (2016) and Addendum No. 1 (2019) indicates that the no major changes have occurred for any environmental issue in the intervening two years and no modifications have been made to the project area since 2016. No changes in general land use have occurred in the vicinity of the project site. Ambient air quality is slightly better now than in the 2016 timeframe due to fewer vehicle miles traveled and better controlled mobile and stationary source emissions. Also, overall demand for public services and utilities has generally not grown substantially since the IS/MND was prepared as the population of area has also not increased substantially since 2016.

V. Conclusion

The earlier analyses presented in the 2016 IS/MND and Addendum No. 1 (refer to Appendix) were used as a basis for analysis in this Addendum No. 2. Upon review of the original IS/MND, the updated information contained in Addendum No. 1 and all of the supporting evidence, it is the conclusion of Addendum No. 2 that any potential adverse environmental impacts from implementing this modified Project (described in Section II(b)(3)) will not be significantly greater than that which was identified within the originally adopted IS/MND (2016) and Addendum No 1 (2019). There are no new significant impacts that may result from implementing this modified project, based on implementing the previous mitigation commitments in the IS/MND.

VI. Review Authority

Kern County serves as the CEQA lead agency for the South Shafter Sewer, Trunk Line & Lift Station Project. It is recommended that Addendum No. 2 be adopted as the appropriate CEQA environmental determination for this modified project.

VII. Certification



Alexa Kolosky, Supervising Planner
Kern County Public Works Department

Figure 1

Location of Project Alignment

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
19/20	1	58

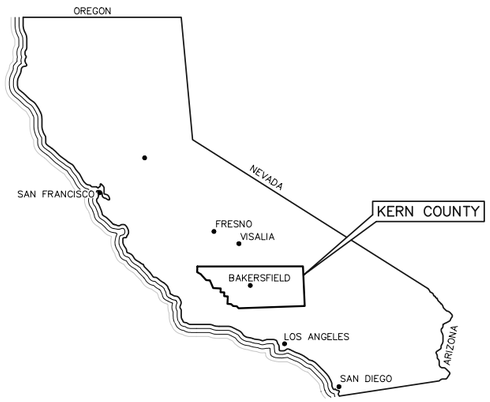
COUNTY OF KERN
PUBLIC WORKS DEPARTMENT

PLANS FOR CONSTRUCTION OF
SOUTH SHAFTER SEWER PROJECT

CONTRACT No. R190117

INDEX OF SHEETS

SHEET G-1	TITLE SHEET
SHEET G-2	GENERAL NOTES
SHEET SI-1 TO SI-2	SHEET INDEX PLAN
SHEET PP-1 TO PP-37	PLAN AND PROFILE
SHEET LS-1 TO LS-2	SEWER LIFT STATION PLAN
SHEET CD-1 TO CD-6	CIVIL DETAILS
SHEET E-1 TO E-9	ELECTRICAL SHEETS



STATE OF CALIFORNIA

CONVENTIONAL SYMBOLS

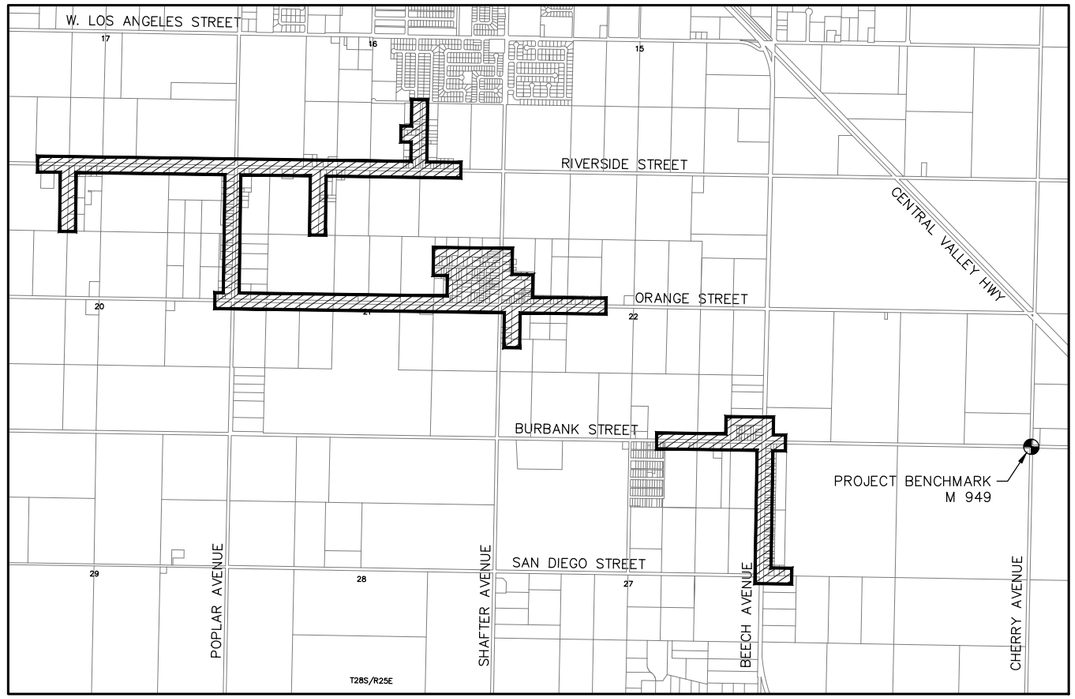
- STA / OFFSET — # — Width or Width X Length; Key Note Number
- Township Line
- Section Line
- Property Line
- Right of Way Line
- ℄ Survey or Construction (10+00 / 11+00)
- Dirt Flow Line
- Permanent Easement Line
- Construction Easement Line
- Existing Edge of Pavement
- New Edge of Pavement
- Centerline
- New Sewer Line
- Connecting Sewer Line
- Forcemain
- Tree (All types)
- Shrub (All types)
- Sprinkler
- Cut / Fill — Daylight
- Hinge
- Fence & Gate
- Guard Railing
- Railroad
- Culvert
- Hedge
- MB — Mail Box
- Signal Controller
- Pullbox
- CATV — Cable Television Box
- Ex. Sign\New Sign
- Survey Monument
- Aerial Target
- Riser
- Ex. Marker Sign\New Marker Sign

UTILITY SYMBOLS

- SD — Storm Drain Line
- OIL — Oil Line
- W — Water Line
- G — Gas Line
- S — Sewer Line
- FO — Buried Fiber Optic
- T — Buried Telephone Cable
- E — Buried Power Cable
- CTV — Buried Television Cable
- Aerial Wire/ Cable
- Aerial Cable
- AG-W — Irrigation Line
- SWID — Shafter-Wasco Irrigation District
- WM — Water Meter
- WV — Water Valve
- FH — Fire Hydrant
- GM — Gas Meter
- GV — Gas Valve
- SMH — Sewer Manhole
- SDMH — Storm Drain Manhole
- TMH — Telephone Manhole
- MH — Manhole – Field Verify
- Guy wire
- Septic Tank
- Light Standard
- Street Light
- Telephone Pole
- Power Pole
- Service Pole

UNDERGROUND MARKER SYMBOLS

- UMBP – Buried Power
- UMFO – Fiber Optic
- UMG – Gas
- UMHG – High Pressure Gas
- UMO – Oil Line
- UMTV – Television Cable



PROJECT LOCATION

PROJECT BENCHMARK:

DESIGNATION	–	M 949
PID	–	FU2124
STATE/COUNTY	–	CA/KERN
COUNTRY	–	US
USGS QUAD	–	ROSEDALE (1973)
ORTHOMETRIC HEIGHT	–	341.4'

BASIS OF BEARINGS:

CALIFORNIA NAD83 STATE PLANE, ZONE 5 WAS USED AS THE BASIS OF BEARINGS AS SHOWN HEREON.

EPOCH: 2010.00

BASE STATIONS USED

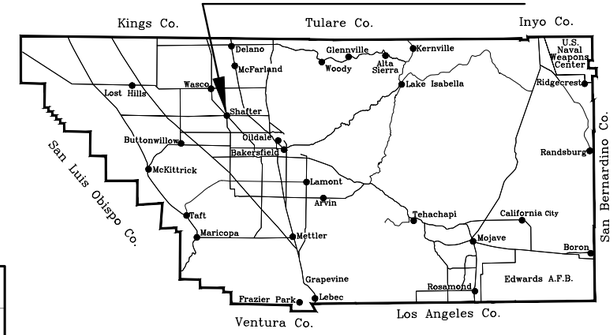
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DN7422	N352515.393	W1184512.825	72469.4
DM7560	N345318.829	W1194855.228	72159.7
DH4506	N354209.612	W1201055.330	61874.8
DK6387	N353944.161	W1182827.433	98799.1
DM6180	N350818.966	W1183641.906	93964.6
DN7410	N350622.310	W1202300.159	87803.3
DK7589	N353238.582	W1202051.329	72878.5
DM6186	N363507.843	W1185716.493	131729.4

NOTE:

COUNTY ACKNOWLEDGEMENT OF PLANS FOR CONSTRUCTION AND APPROVAL OF PLANS BY SIGNATURE DOES NOT ABROGATE COUNTY WRITTEN SPECIFICATIONS BY OMISSION OR MISINTERPRETATION. AUTHORIZED COUNTY INSPECTIONS OR AGENTS MAY REQUIRE CHANGES IN PLANS BEFORE CERTIFICATION AND ACCEPTANCE IN ORDER TO COMPLY WITH STANDARD SPECIFICATIONS.

ACAD FILE NAME
S:\KERN COUNTY\60587162 – SOUTH SHAFTER SEWER PROJECT\900_CAD_GIS\02-SHEETS\G-01

PROJECT LOCATION



COUNTY OF KERN

SCALE: N.T.S.

NOTE:

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA STANDARD PLANS DATED MAY, 2018.

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS" ON PAGE 1 OF THE SPECIAL PROVISIONS.

CALL UNDERGROUND SERVICE ALERT, 1-800-227-2600, 48 HOURS PRIOR TO ANY EXCAVATION.

Approval Recommended:

REGISTERED PROFESSIONAL ENGINEER – ERIC H. GARIBAY – No. 72121 – Exp. 6-30-22 – CIVIL – STATE OF CALIFORNIA

Eric Garibay

Design Engineer
AECOM
RCE No. 72121

REGISTERED PROFESSIONAL ENGINEER – CHIMING QU – No. 86347 – Exp. 3-31-21 – CIVIL – STATE OF CALIFORNIA

Engineering Manager, Design
Public Works Department
RCE No. 86347

REGISTERED PROFESSIONAL ENGINEER – SAMUEL DAVID LUX – No. 77460 – Exp. 6-30-21 – CIVIL – STATE OF CALIFORNIA

Assistant Director, Public Works Department
RCE No. 77460

REGISTERED PROFESSIONAL ENGINEER – CRAIG M. POPE – No. 37035 – Exp. 6-30-21 – CIVIL – STATE OF CALIFORNIA

Director, Public Works Department
RCE No. 37035

APPROVED:
Chairman, Board of Supervisors

Date:

CONTRACT #	PROJECT #	SHEET NO.	TOTAL SHEETS
R190117	8954-000021	3	58

Eric Garibay
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
ERIC H. GARIBAY
No. 72121
Exp. 6-30-22
CIVIL
STATE OF CALIFORNIA

SEPTEMBER 11, 2020
APPROVAL DATE

THE COUNTY OF KERN OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

AECOM
5001 E. COMMERCENTER DRIVE, SUITE 100
BAKERSFIELD, CA 93309
661.283.2323 TEL 661.395.0359 FAX
WWW.AECOM.COM

NORTH

SCARONI AVE.
POPLAR AVE.
SCHNAIDT STREET
SHAFTER AVE.
SIERRA AVE.
OAKMONT ST.
BRITTANY ST.
ALBERT ST.
CAROLINE LN.
MARION ST.
CLARENCE ST.
KATTENHORN DR.
KATHLEEN CT.
VINA DR.
JEFFERIES ST.
KELSEY CT.
NEW CASTLE CT.
HARTLEY ST.
HEARTNUT ST.
PLANADA DR.
ELIZABETH STREET
THOMAS LN.
ALLEY K
RIVERSIDE ST.
ALLEY J
RATZLAF LN.
ABERNATHY ALLEY
ALLEY A
RICHLAND AVE.
ALLEY G
ALLEY F
ALLEY E
ALLEY C
SMITH LN.
GOUSPER LN.
ALLEY B
ALLEY L
ORANGE ST.
20
21
22

PP-1 PP-2 PP-3 PP-4 PP-5 PP-6 PP-7 PP-8 PP-9 PP-10 PP-11 PP-12 PP-13 PP-14 PP-15 PP-16 PP-17 PP-18 PP-19 PP-20 PP-21 PP-22 PP-23 PP-24 PP-25 PP-26 PP-27 PP-28 PP-37

LS-1
LIFT STATION 1

SCALE: 1"=500'

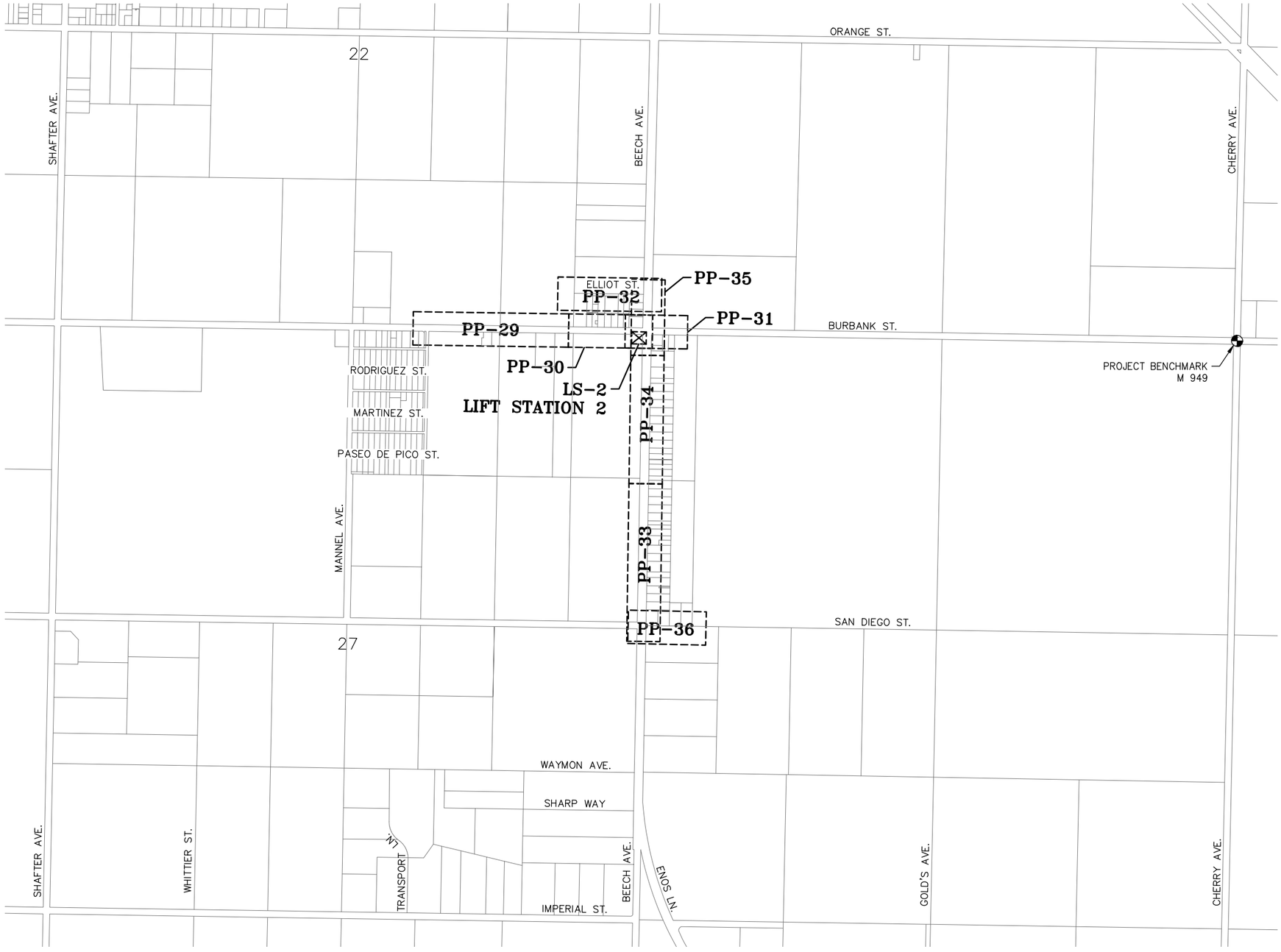
SHEET INDEX
SI-1

REVISION DATE/ REVISION #							
REVISED BY							
D. GHILARDUCCI							
6/24/2020							
DRAFTED BY	E. GARIBAY						
DATE DRAFTED	W. BLACK						
CALCULATED-DESIGNED BY							
CHECKED BY							

COUNTY OF KERN — PUBLIC WORKS DEPARTMENT
SOUTH SHAFTER SEWER PROJECT

DWG FILE: S:\KERN COUNTY\60587162 - SOUTH SHAFTER SEWER PROJECT\900_CAD_GIS\02-SHEETS\SI-01
USERNAME: GABRIEL.ROSALES

BORDER LAST REVISED:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3



NORTH

CONTRACT #	PROJECT #	SHEET NO.	TOTAL SHEETS
R190117	8954-000021	4	58

Eric Garibay
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
ERIC H. GARIBAY
No. 72121
Exp. 6-30-22
CIVIL
STATE OF CALIFORNIA

SEPTEMBER 11, 2020
APPROVAL DATE

THE COUNTY OF KERN OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

AECOM
5001 E. COMMERCENTER DRIVE, SUITE 100
BAKERSFIELD, CA 93309
661.283.2323 TEL 661.395.0359 FAX
WWW.AECOM.COM

SHEET INDEX

SCALE: 1"=500'

SI-2

REVISION DATE/ REVISION #	D. GHILARDUCCI	DRAFTED BY	E. GARIBAY	CALCULATED-DESIGNED BY
REVISED BY	6/24/2020	DATE DRAFTED	W. BLACK	CHECKED BY

COUNTY OF KERN – PUBLIC WORKS DEPARTMENT

SOUTH SHAFTER SEWER PROJECT

BORDER LAST REVISED:

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

USERNAME: GABRIEL.ROSALES DWG FILE: S:\KERN COUNTY\60587162 – SOUTH SHAFTER SEWER PROJECT\900_CAD_GIS\02-SHEETS\SI-02

Appendix

Addendum No. 1 to the South Shafter Sewer IS/MND (2019)

South Shafter Sewer IS/MND (2016)

ADDENDUM NO. 1
TO THE ADOPTED
MITIGATED NEGATIVE DECLARATION
FOR THE
SOUTH SHAFTER SEWER,
TRUNK LINE SEWER & LIFT STATION PROJECT
(SCH#2007101148)

Prepared for:

Kern County Public Works Department
2700 M Street, Suite 400
Bakersfield, CA 93301

Prepared by:

Tom Dodson & Associates
2150 North Arrowhead Avenue
San Bernardino, California 92405

Original Mitigated Negative Declaration Adopted: 11/8/16
Addendum 1 Compilation Completed: June 2019

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Figure 2 Project Area Location
Figure 3 Aerial Photo
Figure 4 Project Area Location Relative to City of Shafter
Figure 5a&b Proposed Location of the New Sewer Pipeline Alignments

APPENDICES

Appendix 1 – Mitigated Negative Declaration for South Shafter Sewer, Trunk line Sewer and Lift Station (SCH No. 2007101148)

Appendix 2 – Updated Biological Resources Assessment

Appendix 3 – Updated Cultural Resources

Appendix 4 – Air Quality Summary

ADDENDUM NO. 1
TO THE ADOPTED MITIGATED NEGATIVE DECLARATION
FOR THE
SOUTH SHAFTER SEWER, TRUNK LINE SEWER
& LIFT STATION PROJECT
(SCH#2007101148)

I. PROJECT INFORMATION

i) Project Title: South Shafter Sewer, Trunk Line Sewer & Lift Station Project

ii) Lead Agency Name and Address: Kern County Public Works Department (Department)
2700 M Street, Suite 400
Bakersfield, CA 93301

iii) Contact: Shawn Beyeler, Supervising Planner
Phone / E-Mail: (661) 862-8614 / BeyelerS@kerncounty.com

iv) Project Location: Original location: Road rights-of-way (ROW) and water line easements in the unincorporated community of South Shafter along Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, within Sections 16, 17, 29, 21, 22, 26 and 27 of Township 28 South, Range 25 East, Mount Diablo Base and Meridian, County of Kern, Sate of California, and the Rio Bravo U.S. Geological Survey 7.5' (minute) topographical quadrangle. The project is located 0.25 miles south of the City of Shafter's incorporated boundary. Figure 1 is the vicinity map for the project area; Figure 2 the project area location; Figure 3 is an aerial photo of the project area location; and Figure 4 shows the relationship of the project area location relative to the City of Shafter.

II. ORIGINAL PROJECT DESCRIPTION

A. Introduction

This document is prepared as an Addendum to the Mitigated Negative Declaration (MND) adopted by Kern County Board of Supervisors (Board) in November 2016 (SCH No. 2007101148). In 2016, the Department prepared an Initial Study the resulted in the County adopting a MND. This document evaluated the proposed wastewater collection system described in text below and shown on Figures 1-4. The Kern County Board approved the original Project as outlined in the following project description. A copy of this Initial Study/Mitigated Negative Declaration (IS/MND) is provided as Appendix 1 of this document.

The Kern County Public Works Department (County) proposed to construct approximately 34,500 linear feet of sewer trunk line (consisting of 4-, 8- and 12-inch polyvinyl chloride [PVC] pipes) with associated manholes for access within existing road rights-of-way (ROW) and water line easements. Where possible the sewer lines and manholes will be located in the road shoulders, but due to some existing utilities within the ROW, some lines may be placed under the paved road

surface. However, this document analyzes impacts based upon the assumption that all lines and manholes will be installed with the disturbed road shoulders. These sewer lines will connect to the Shafter/North of the River Wastewater Treatment Facilities (S/NOR WWTF), located approximately 4 miles southwest of the project sites, at the northeast corner of 7th Standard Road and Palm Avenue, 5 1/2 miles west of Highway 43 (Enos Lane). The S/NOR WWTF has the ability and capacity to handle the increased wastewater generated by the project. Up to five sewer lift stations to serve the lines will be installed on vacant lots outside of the ROW. Three lift stations operating in series are included; one at Southwest Shafter; one near Thomas Lane; and one at Smith Corner. Two independent lift stations connecting to the lift station at Smith Corner are also included; one at Smith Corner and one at Burbank Street. Refer to Figures 2 and 3 which show the location of these proposed facilities.

System requirements call for an average daily flow of 124,080 gallons per day (gpd), with a peak flow of 223,344 gpd. After construction of the force main system, all aboveground facilities and disturbances will be restored to their previously existing condition or better. The system will be sized to provide sewer service to 386 residential units, 66 of which are vacant, and 10 which are nonresidential units. The identified units may then connect to the newly installed sewer systems and the individual septic systems abandoned. The system is being proposed to remedy a high rate of septic system failures and to prevent potential degradation of groundwater in the above-mentioned communities. The project is proposed for funding by the U.S. Department of Agriculture Rural Utilities Service Financing Program and other sources. United States Department of Housing and Community Development Block Grants Funds may also be provided for the project. The formation of an assessment district and County Service Area Zone of Benefit will also be required.

The focus of this Addendum consists of comparing the original project to a modified project that reflects modifications to design elements and change in management structure that has evolved since the original approval in November 2016. Several major changes in the original project are being considered by the County, City and State Water Resources Control Board.

- First, some of the sewer pipeline alignments have been shifted to different road alignments after consultation with the City of Shafter's Public Works Department;
- second, instead of creating a new County Service Area Zone to oversee the wastewater collection system in the future, the City of Shafter has indicated that it proposes to assume responsibility for the collection system, with approval from the Kern County Local Agency Formation Commission of an out-of-area service contract;
- third, as part of the project, the individual laterals to existing parcels will be installed to replace existing subsurface septic tanks;
- fourth, instead of five lift stations only two lift stations will be installed;
- fifth, instead of 386 residential parcel connections, the number of residential lots served will be 398, with the non-residential connections remaining at ten (10, total 408 parcel connections to the proposed sewer system);
- sixth, potential daily flows will be increased to an average of 152,601 gpd and a peak daily flow of 223,344 gpd; and
- seventh, the original total length of pipeline proposed for South Shafter was estimated at 34,500 linear feet, proposed pipeline under the modified project is estimated to be about 16,500 linear feet with the same pipeline sizes.

Figure 5a&b shows the proposed location of the new sewer pipeline alignments to serve the project area which encompasses about 182.7 acres. The new and upsized pipelines will range

from 8-12 inches in size (gravity flow) and a 4-inch force main and the total linear feet of pipeline in the modified project is estimated to be approximately 16,500 linear feet. After considering the available options for complying with the California Environmental Quality Act (CEQA) regarding these project modifications, which are considered minor, and after conferring with the State Water Resources Control Board Staff, the County concluded that compiling an Addendum to the adopted 2016 MND would be the most appropriate way to comply with CEQA for the proposed project modifications. This approach justified the preparation of this Addendum to comply with CEQA for the proposed new pipeline alignments shown on Figure 5a&b. No other changes to the project evaluated in the 2016 MND are envisioned at this time under this Addendum.

Pursuant to the provisions of CEQA and State and local CEQA Guidelines, Kern County will serve as the Lead Agency for the proposed project installation and integration of the sewer collection system into the City's existing system. Kern County is the Lead Agency because it is the local public agency that compiled and reviewed the original IS/MND for this community (South Shafter) wastewater collection system. As part of its decision-making process, the County is required to review and consider all potential environmental effects that could result from modifying the original project. Kern County has compiled this Addendum as the basis for making a new CEQA environmental determination for the modifications to the originally approved project.

B. Background

Pursuant to CEQA and the State CEQA Guidelines, this Addendum has been prepared in order to determine whether the modified wastewater collection project will have different or greater impacts from being installed and operated or would result in any other conditions that would require a subsequent environmental document to be prepared because of changes in circumstances or new or additional adverse environmental impacts. This Addendum also reviews any new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the MND was adopted in 2016. This examination includes an analysis in accordance with the provisions of Sections 15164 and 15162 of the State CEQA Guidelines, which outline the criteria and procedures for preparing an Addendum and conducting a second-tier environmental evaluation based on a previous environmental document, in this case the 2016 MND.

Also pursuant to CEQA and the State CEQA Guidelines, the County's environmental review of the proposed project modifications is limited to examining the environmental effects associated with the physical changes in the environment from implementing the modified project in comparison to the approved project. This narrow focus is due to the fact that the previously adopted MND has already addressed all of the environmental impacts of implementing the South Shafter Sewer, Trunk Line & Lift Station Project original improvements. As permitted by CEQA Section 15150 of the State CEQA Guidelines the 2016 MND, SCH No. 20007101148, are hereby incorporated by reference as part of the Addendum evaluation. A copy of this document is available to review as Appendix 1 of this document.

III. CEQA REQUIREMENTS FOR AN ADDENDUM

This Addendum No. 1 has been prepared in accordance with the current CEQA Statutes (2019) and Guidelines for implementing CEQA. CEQA Section 15164 includes the following procedures for the preparation and use of an Addendum:

- (b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.

- (c) An addendum need not be circulated for public review, but can be included in or attached to the Final EIR or adopted negative declaration.

- (d) The decision-making body shall consider the addendum with the Final EIR or adopted negative declaration prior to making a decision on the project.

- (e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's required findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

If changes to a project or its circumstances occur or new information becomes available after certification of an EIR or MND, the Lead Agency may: (1) prepare a subsequent EIR if the criteria of State CEQA Guidelines Section 15162(a) are met, (2) prepare a subsequent negative declaration, (3) prepare an addendum, or (4) prepare no further documentation. (State CEQA Guidelines Section 15162(b)) When only minor technical changes or additions to the approved Negative Declaration are necessary and none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred, CEQA allows the lead agency to prepare and adopt an addendum. (State CEQA Guidelines, Section 15164(b))

Under Section 15162, a subsequent EIR or negative declaration is required only when:

(1) Substantial changes are proposed in the project which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the negative declaration due to the involvement of any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the negative declaration was adopted, shows any of the following:

    (A) The project will have one or more significant effects not discussed in the previous negative declaration;

    (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Based on a review of the general data compiled to consider the South Shafter Sewer, Trunk Line & Lift Station Project installation, the County finds that an Addendum is the appropriate environmental determination to address this project modifications consistent with the previously adopted MND.

IV. ENVIRONMENTAL ANALYSIS OF THE PROPOSED MODIFICATION

As previously indicated, the County prepared a comprehensive review of the South Shafter Sewer, Trunk Line & Lift Station Project using an IS/MND that was adopted by the Board of Supervisors along with technical studies to substantiate findings for site specific environmental issues, such as air quality, biology, cultural resources (refer Appendix 1). The County Staff considered the options for CEQA compliance with this second-tier CEQA decision under the adopted IS/MND. Based on the scope of the proposed project modifications (refer to page 2 of this document), a decision was made to prepare an Addendum for the project modifications. After considering the available compliance alternatives, a decision was made by the Staff to recommend that the Board of Supervisors consider Addendum No. 1 to the adopted IS/MND as the appropriate CEQA environmental determination for the modified project.

Based on the status of information available for this second-tier evaluation, an Addendum, supported by the adopted IS/MND provided in Appendix 1, was concluded to provide the appropriate level of evaluation of the modified project for compliance with CEQA. Thus, the purpose of this Addendum is to assess the related potential environmental impacts that would result from implementing the modified project, in comparison to the impact forecast contained in the IS/MND. The following evaluation provides an analysis of potential environmental impacts in relation to the facts and findings contained in the IS/MND incorporated by reference in this document. The following conclusions were developed regarding potential impacts from approval and implementation of the modified project.

Note that a review of changes in environmental circumstances over the past few years since the IS/MND was adopted (2016) indicates that the no major changes have occurred for any environmental issue in the intervening two years and no modifications have been made to the project area since 2016. No changes in general land use have occurred in the vicinity of the project site. Ambient air quality is slightly better now than in the 2016 timeframe due to fewer vehicle miles traveled and better controlled mobile and stationary source emissions. Also, overall demand for public services and utilities has generally not grown substantially since the IS/MND was prepared as the population of area has also not increased substantially since 2016.

<u>Biological/Cultural Resources</u>

a) *POTENTIAL TO DEGRADE: Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant Impact/No Changes or No New Information Requiring Preparation of an additional environmental document. The biology findings of the 2016 EIR concluded that implementation of the South Shafter Sewer, Trunk Line & Lift Station Project would not result in any significant biology impacts. The original biology analysis in the IS/MND is provided on pages 16 through 22 and in a biology report, *Biological Assessment for South Shafter Sewer Project, Shafter Avenue, poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, Kern County, California;* SWCA Environmental Consultants, February 2016. The detailed biology resource study was made available to interested parties by the County in conjunction with the IS/MND. The biological resources evaluation was comprehensive and identified nine mitigation measures needed to reduce potential adverse impacts to a less than significant level. An updated biology evaluation of the modified project site was completed within the past year and no new adverse impacts or mitigation measures were identified for the current pipeline alignments. Refer to Appendix 2 of this document. Thus, for this project modification the new biological resources evaluation is considered sufficient evaluation to comply with the CEQA for biological resource issues.

In conclusion, relative to the biological resource impacts forecast in the 2016 IS/MND for the approved project, no significant adverse change or effect is forecast to occur in approving and implementing the modified project. All original mitigation measures must be implemented to ensure biological resource impacts remain a less than significant impact.

The 2016 IS/MND examined cultural resources on pages 23 and 24. A cultural resources study, *Archaeological Survey Report for South Sewer Project, Kern County Public Works Department*, Compass Rose Archaeological, Inc., December 2015, was made available to interested parties upon request. The evaluation identified potential adverse effects on cultural resources but also identified one mitigation measure capable of reducing potential impacts to a less than significant impact level. An updated cultural resources evaluation of the modified project area was completed within the past year and no new adverse impacts or mitigation measures were identified. Refer to Appendix 3 of this document. Thus, for the proposed project modifications the new cultural resources evaluation is considered sufficient evaluation to comply with the CEQA for cultural resource issues. The single mitigation measure must be implemented for the project to ensure that cultural resource impacts remain a less than significant impact.

In conclusion, relative to the cultural impacts forecast in the 2016 IS/MND for the approved project, no significant adverse change or effect is forecast to occur in approving and implementing the modified project.

b) *CUMULATIVE IMPACTS: Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future project.)*

Less than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. Those Project-related environmental resources or issues subject to cumulative effects include the following: aesthetics, agricultural resources, air quality, energy, hazards, hydrology/water quality, land use and planning, mineral resources, noise, public services/recreation, transportation/traffic, utilities/service systems, and wildfire. Energy and wildfire issues were not addressed in the 2016 IS/MND because they were just added to the standard Initial Study Environmental Checklist Form in the 2019 State CEQA Guidelines published by the Office of Planning and Research's State Clearinghouse. The 2016 IS/MND concluded that all of the above environmental issues would not experience any significant Project specific or cumulatively

considerable adverse environmental impact, in many cases with the implementation of identified mitigation measures. Based on the analyses in support of this Addendum, implementation of the modified Project will not result in cumulative impacts any greater than that identified in the 2016 IS/MND). Substantiation for this conclusion is provided in the following text.

Aesthetics: The 2016 IS/MND analyzes the general aesthetic impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on pages 6 and 7. The ISMND concluded that aesthetics impacts would be less than significant because sewer lines will be installed below ground and the lift stations will be low profile facilities that will not block views nor be located on sites with important visual qualities. No mitigation was required. The modified project has fewer linear feet of pipeline and only two, instead of five lift stations. No major changes in the circumstances regarding aesthetic resources have occurred within the modified Project area of potential impact since the original IS/MND was adopted. Installation of the modified project to collect wastewater is not forecast to cause any new adverse impacts that will require mitigation or be significantly adverse.

Agricultural and Forest Resources: The 2016 IS/MND analyzes the agricultural and forestry impacts of the WWTP Improvement Project in the Initial Study (IS) and concluded no impacts would occur from implementing the South Shafter Sewer, Trunk Line & Lift Station Project. The IS/MND concluded that impacts to agricultural and forestry resources would be less than significant as a result of Project implementation without implementation of any mitigation measures. The proposed modified Project will be implemented on the property (alignments) where no agricultural or timber resources exist. Therefore, implementation of this modified project has no potential to change the findings in the IS/MND. No changes in the circumstances regarding agricultural or forestry resources have occurred within the modified project area of potential impact since the original IS/MND was certified.

Air Quality: Due to the recent recession and increasing controls over emissions within the air basin, ambient air quality has not deteriorated, and in most cases has slightly improved, since the original IS/MND was certified. The 2016 IS/MND analyzes the air quality impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on pages 10 through 15. Construction impacts from project implementation would be short-term and would not obstruct the long-term planning goals of the applicable air quality plan. Construction would require the use of heavy equipment that would produce combustive and fugitive dust emissions. Construction activities associated with the project would generate less than significant air pollutant emissions (refer to Table B in the IS/MND). The project will have approximately 50% less pipeline to install. Thus, emissions from pipeline installation will have a comparable reduction in emissions. New calculations for the installation of the sewer laterals are provided in Appendix 4 of this document. The emissions are minimal, even assuming that ten laterals will be installed each day for 41 working days. Due to the already existing low construction emissions, the addition of this additional area of disturbance is not forecast to cause daily emissions or annual emissions to exceed regional thresholds. A *de minimis* finding is appropriate for the modified project. From an operational standpoint, there will be two lift stations instead of five. Thus, overall energy consumption and emissions will be reduced under the modified project. The project modifications will not substantially increase operational emissions. Therefore, implementation of this modified project has no potential to substantially change the findings in the adopted IS/MND. The three mitigation measures in the original IS/MND will still need to be implemented.

Energy: Energy impacts were not evaluated in the original IS/MND. However, the original project envisioned about 34,500 linear feet of pipeline and five pump stations. The modified project envisions about 16,000 linear feet of pipeline, two lift stations and 408 sewer laterals. The latter

pipelines can be installed using a single backhoe, compactor and concrete saw. Overall construction energy will be reduced and operational energy will be reduced relative to the original project. Energy impacts will be less than significant for this infrastructure project based on the minimal air emissions generated by the modified project.

GHG: The 2016 IS/MND analyzes the potential GHG impacts of the South Shafter Sewer, Trunk Line & Lift Station Project pages 28 through 31. As summarized under the air quality discussion, total modified project emissions will be substantially reduced relative to the original project due to fewer linear feet of pipeline and three fewer lift stations. GHG emissions were not found to be significant under the original project and the modified project emissions will be less, resulting in a less than significant GHG impact.

Hazards and Hazardous Materials: The 2016 IS/MND analyzes the potential hazards and hazardous material impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on pages 32 through 35. The analysis concluded no impacts would occur from implementing this project. The IS concluded that impacts to hazards and hazardous materials would be less than significant as a result of project implementation with implementation of two mitigation measures. The proposed modified project will be implemented in the same project area and will not require the greater use of hazardous materials, nor will it be exposed to hazards. Therefore, implementation of this modified project has no potential to change the findings in the IS/MND. Thus, no additional significant adverse direct or cumulative hazards or hazardous materials effects will result from implementing the proposed Project. No changes in the circumstances regarding hazards or hazardous materials issues have occurred within the Project area of potential impact since the original IS/MND.

Hydrology/Water Quality: The 2016 IS/MND analyzes the potential hydrology/water quality impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on pages36 through 38. The IS/MND evaluates groundwater impacts of the proposed project and identifies one mitigation measure to control hydrology and water quality impacts to a less than significant impact level. The modified project will alter several aspects of the original Project, most of which will reduce overall hydrology and water quality impacts. The one mitigation measure will still need to be implemented. The proposed modified project can be implemented without new or additional hydrology or water quality adverse impacts, with implementation of the mitigation measure included in the 2016 IS/MND. Otherwise, no changes in the circumstances regarding hydrology and water quality issues have occurred within the modified Project area of potential impact since the original IS/MND was adopted.

Land Use and Planning: The 2016 IS/MND analyzes the potential land use and planning impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on page 39. The IS/MND concluded that no impacts would occur to land use and planning issues as no land uses will change as a result of implementing the original project. No mitigation measures were required. No new significant adverse land use impacts will result from implementing the modified project and no cumulative changes in land use or effects on planned land uses will result from implementing the modified project. No changes in the circumstances regarding land use and planning issues have occurred within the modified project area of potential impact since the original IS/MND was adopted.

Mineral Resources: The 2016 IS/MND analyzes the potential mineral resource impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on pages 40 and 41 of the Initial Study. Because no significant mineral resources were identified within the original project footprint, this issue was found not to have a significant impact. Because closed oil wells are known in the area,

mitigation measures HAZ-1 and HAZ-2 must be implemented by the original and modified projects. No changes in the circumstances regarding mineral resource issues have occurred within the modified project area of potential impact since the original IS/MND was certified.

Noise: The 2016 IS/MND analyzes the potential noise impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on pages 42 through 45. The IS/MND concluded that all noise impacts would be less than significant without any mitigation. Construction noise will be generated by the modified project comparable with the original project, but all construction activities will occur during daylight hours. Three fewer lift stations will be installed and overall noise of modified project operations will be less over the long term. The circumstances regarding noise levels in the general area have not changed, thus, the modified project has no potential to alter the cumulatively considerable noise effects from construction noise levels.

Population and Housing: The 2016 IS/MND analyzes the potential population and housing impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on page 46. The IS/MND concluded that all population and housing impacts would be less than significant as a result of Project implementation. The modified project does not alter this finding, except to increase the total parcels served from 386 to 408. The modified project would not alter any population directly. No substantial changes in the regional population have occurred since the original IS/MND was adopted and no changes have occurred within the modified Project area of potential impact. Therefore, the modified Project's impact is not forecast to cause a cumulatively considerable population and housing impact.

Public Services/Recreation: The 2016 IS/MND analyzes the potential public service and recreation impacts on pages 47 and 48. The IS/MND concluded that all public service and recreation impacts would be less than significant as a result of project implementation. No new cumulative considerable or significant demand for public services is forecast to result from implementing proposed modified Project.

Transportation/Traffic: The 2016 EIR analyzes the potential transportation/traffic impacts of the South Shafter Sewer, Trunk Line & Lift Station Project WWTP Project on pages 49 and 50. The IS/MND concluded that all transportation/traffic impacts would be less than significant with implementation of two mitigation measures, AQ-2 and AQ-3 that will reduce construction traffic congestion during construction. The proposed modified Project would have a less substantial effect on the local area circulation system during construction and future operations based on the reduction in pipeline and lift stations to be installed. The modified project traffic impacts would be comparable to those forecast in the 2016 IS/MND. The circumstances have not changed since the original IS/MND was adopted. No new cumulative significant adverse impacts would result from implementing the modified project.

Utilities/Service Systems: The 2016 IS/MND analyzes the potential utilities/service system impacts of the South Shafter Sewer, Trunk Line & Lift Station Project WWTP Project on pages 51 and 52. The IS/MND concluded that all utilities/service system impacts would be less than significant as a result of Project implementation. One mitigation measure was required, HYD-1. The proposed modified project can be implemented without any adverse impacts to existing utilities or service systems. No other known changes have occurred since the IS/MND was certified that would affect the modified project. Thus, no new cumulative considerable or significant demand for utilities and service systems is forecast to result from implementing modified project.

Based on the above analysis, the implementation of the proposed modified project can proceed under this Addendum level analysis. Implementing the proposed modified project will not result in any new, unavoidable significant adverse direct or cumulative impacts. These issues have been fully described in the previously adopted 2016 IS/MND, as modified in the preceding analysis.

c) *ADVERSE IMPACTS ON HUMANS: Does the project have environmental effects on human beings, either directly or indirectly?*

Less than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. Those project-related environmental resources or issues that pose a potential to have direct or indirect adverse effects on human beings include the following: aesthetics, air quality, geology and soils, hazards and hazardous materials, hydrology/water quality, noise, and wildfire. The 2016 IS/MND concluded that most of the above environmental issues would experience less than significant project specific or cumulative adverse environmental impact, often with the implementation of identified mitigation measures. Based on the analyses in support of this Addendum, implementation of the modified project relative to the project defined in the 2016 IS/MND will not result in substantial direct or indirect effects on humans greater than that identified in the IS/MND. Substantiation for these findings is provided in the following text.

Aesthetics: Please refer to the evaluation under cumulative impacts, issue "b)" above. The IS/MND concluded that aesthetics impacts would be less than significant for the original project. The IS/MND concluded that no aesthetic mitigation will be necessary for the original project. No major changes in the circumstances regarding aesthetic resources have occurred within the modified project area of potential impact since the original IS/MND was adopted. Installation of the pipelines and two lift stations to support the South Shafter Sewer, Trunk Line & Lift Station Project is not forecast to cause any new adverse impacts that will require mitigation or be significantly adverse.

Air Quality: Please refer to the Air Quality under cumulative impacts, issue "b" above. An evaluation of local air quality effects in the 2016 IS/MND, such as fugitive dust, indicated that no potentially significant local public health impacts would be caused by implementing the original project. Construction impacts from project implementation would be short-term and would not obstruct the long-term planning goals of the applicable air quality plan. Construction would require the use of heavy equipment that would produce combustive and fugitive dust emissions. Construction activities associated with the project would generate less than significant air pollutant emissions. The modified project reduces pipeline installation and the total number of lift stations. The addition of the sewer laterals will not raise modified project emissions to greater than the original project. Due to the already existing low construction emissions, the addition of this small area of disturbance is not forecast to cause daily air pollutant emissions to exceed regional thresholds. From an operational standpoint, the fewer lift stations in operation will reduce overall energy demand of the modified project. Therefore, implementation of this modified project has no potential to substantially change the findings in the adopted IS/MND.

Geology and Soil: The 2016 IS/MND analyzes the potential geology and soil impacts of the South Shafter Sewer, Trunk Line & Lift Station Project on pages 25 through 27. The IS/MND concluded that all geology and soil impacts would be less than significant as a result of project implementation. The general project area is subject to ground shaking hazards and the modified project will be exposed to limited seismic groundshaking and potential for erosion. Mitigation measure was required for potential erosion hazards. The modified project facilities will not expose humans to greater seismic hazards. Thus, implementation of the modified project will not cause

significant geology or soil impacts and it will also not expose humans to significant geology or soil constraints.

Hazards and Hazardous Materials: Please refer to the hazards and hazardous materials discussion presented under issue "b" above. All hazards or use of hazardous materials associated with the project site were evaluated in the IS/MND and no potential for significant impact under this issue was identified. The modified project does not increase this potential as it does not include any new hazards associated with its installation or operations. Thus, implementation of the modified project will not cause significant new hazards or exposure to hazardous materials and it will also not expose humans to new significant hazards and hazardous materials.

Hydrology and Water Quality: Please refer to the hydrology and water quality discussion presented under issue "b" above. An evaluation of local hydrology and water quality effects in the 2016 IS/MND indicated that no significant public hazard impact would be caused by implementing the original project. The proposed modified project area will not be exposed to flood hazards, nor will it expose other humans or structures to greater flood hazards. The modified project will alter only several aspects of the original project, but the modified project can be implemented without new or additional hydrology or water quality adverse impacts, with implementation of the mitigation measure included in the 2016 IS/MND. Otherwise, no changes in the circumstances regarding hydrology and water quality issues have occurred within the modified project area of potential impact since the original IS/MND was certified.

Noise: Please refer to the noise discussion presented under issue "b" above. An evaluation of on- and off-site noise effects in the 2016 IS/MND during construction and operation indicated that the project will not be exposed to or cause significant adverse noise levels. Limited construction noise will be generated by the modified project, including the use of some heavy equipment to create the solar facility adjacent to the existing treatment site. All of the modified project construction noise can be controlled to a less than significant due to distance to sensitive noise receptors and observance of the daytime construction activity limitations. The circumstances regarding noise levels in the general area have not changed, thus, the modified project has no potential to alter the noise effects from construction activities.

Wildfire: This issue was not evaluated in the 2016 IS/MND because it was not part of the standard Initial Study Environmental Checklist Form. As noted under issue "b)" above, none of the project area is exposed to wildfire hazards. Thus, neither the original project nor the modified project has any potential to experience or cause a wildfire.

Based on the above analysis, the implementation of the proposed modified project will not increase direct or indirect impacts on humans to a significant level. The modified project results in comparable impacts to humans, which is consistent with the findings in the 2016 IS/MND.

V. CONCLUSION

The earlier analyses presented in the 2016 IS/MND were used as a basis for analysis in this Addendum, updated with current information from sources cited, referenced and attached. Upon review of the IS/MND, the information contained in this Addendum and all of the supporting evidence, it is the conclusion of Addendum No. 1 that the potential adverse environmental impacts from implementing the modified project, as defined in Section II of this document, will not be significantly greater than that identified within the adopted IS/MND. There are no new significant impacts that result from implementing the modified project, based on implementing the previous

mitigation commitments in the IS/MND. This Addendum provides an update of the specific facilities of the South Shafter Sewer, Trunk Line & Lift Station Project. There is a continued need to implement the mitigation measures required in the IS/MND to control potential modified project impacts to a less than significant impact level.

This Addendum provides Kern County with the information substantiating the conclusion that the South Shafter Sewer, Trunk Line & Lift Station Project as envisioned by the modified project will not cause substantial additional physical changes in the environment which would require preparation and processing of a new negative declaration or an updated environmental impact report. The facts and findings cited above and provided in this Addendum allow Kern County to use an Addendum in accordance with Section 15164(a) of the State CEQA Guidelines for this second-tier modified project.

Pursuant to CEQA Section 15164, the adopted 2016 IS/MND, as updated with this Addendum, can be relied upon for documentation of the effects of the modified project on the environment. Because the changes in the project do not exceed the thresholds outlined in Sections 15162 and 15164 of the State CEQA Guidelines, no further analysis of the environmental impacts of the modified project is required in a Supplemental/Subsequent EIR or MND. The proposed South Shafter Sewer, Trunk Line & Lift Station Project modifications do not alter the conclusions contained in the referenced 2016 IS/MND as previously certified. The analysis presented above of the changes and additions to the approved wastewater collection system project substantiates the use of Addendum No. 1 to the adopted IS/MND.

Addendum No. 1 to the 2016IS/MND for modifications to the South Shafter Sewer, Trunk Line & Lift Station Project incorporates the changes or additions necessary to make the adopted environmental document adequate under CEQA for the modified project. Addendum No. 1 includes the previously adopted IS/MND, this document (with Attachments), and all staff reports and information submitted to the decision-makers regarding environmental issues affected by the proposed future implementation of the modified project. Addendum No. 1 is intended as an additional information document to provide decision-makers and others, as appropriate, with an objective assessment of potential environmental impacts associated with the second-tier, site specific facilities associated with the modified project.

VI. REVIEW AUTHORITY

Kern County serves as the CEQA lead agency for the South Shafter Sewer, Trunk Line & Lift Station Project. It is recommended that Addendum No. 1 be adopted as the appropriate CEQA environmental determination for this modified project if the County decides to approve it for implementation.

VII. CERTIFICATION

Shawn Beyeler, Supervising Planner
Kern County Public Works Department

REFERENCES

Air Quality Summary assembled by Giroux & Associates dated June 21, 2019

Biological Resources Assessment for South Shafter Sewer, Trunk Line Sewer & Lift Station Project prepared by Jericho Systems, Inc. dated May 5, 2019

Cultural Resources Study Update and Addendum for South Shafter Sewer Project prepared by CRM TECH dated July 3, 2019

Mitigated Negative Declaration for South Shafter Sewer, Trunk line Sewer and Lift Station (SCH No. 2007101148) prepared by Kern County Public Works Department dated September 2016

TOM DODSON & ASSOCIATES

Mailing Address: **PO Box 2307, San Bernardino, CA 92406-2307**
Physical Address: **2150 N. Arrowhead Avenue, San Bernardino, CA 92405**
Tel: (909) 882-3612 ✦ Fax: (909) 882-7015 ✦ Email: tda@tdaenv.com

MEMORANDUM

September 24, 2019

From: Tom Dodson

To: Mr. Shawn Beyeler

Subj: Completion of the Addendum prepared for the South Shafter Trunk Line Sewer and Lift Station Project (SCH# 2007101148

The Kern County Public Works Department distributed an Addendum to the South Shafter Sewer, Trunk Line & Lift Station Project Initial Study and Mitigated Negative Declaration (IS/MND, adopted in 2007 by the Kern County Board of Supervisors, SCH#2017101148) for public review with the review starting on July 16 and ending on July 31, 2019. An Addendum does not normally require a public review, but the State Water Resources Control Board requested the public review to ensure the interested parties were afforded an opportunity to review current South Shafter Project. The Public Works Department received six (6) comment letters on the Addendum and these letters are attached. This memorandum and the attached responses to comments contained herein constitute a portion of the Final Addendum for this project.

The following agencies and parties submitted written comments, which are addressed in the attached responses to comments attachment.

1. Governor's Office of Planning and Research, State Clearinghouse and Planning Unit
2. California Department of Transportation, Caltrans Fresno
3. City of Shafter
4. San Joaquin Valley Air Pollution Control District
5. SoCalGas
6. State Water Resources Control Board

After review and response to all of the comments, the Final Addendum identifies the same general, less than significant impacts as were forecast in the adopted IS/MND. The Final Addendum for the South Shafter Sewer, Trunk Line & Lift Station Project can be approved by the Kern County Board of Supervisors along with the revised project itself.

Do not hesitate to contact me a call if you have any questions regarding the enclosed material.

Sincerely,

Tom Dodson

Attachments

COMMENT LETTER #1

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

August 1, 2019

Shawn Beyeler
Kern County
2700 M Street, Suite 400
Bakersfield, CA 93301

Subject: Addendum to South Shafter Sewer, Trunk Line Sewer & Lift Station Project
SCH#: 2007101148

Dear Shawn Beyeler:

The State Clearinghouse submitted the above named ADM to selected state agencies for review. The review period closed on 7/31/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

1-1

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2007101148/5 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly**.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

RESPONSES TO COMMENTS
LETTER #1
GOVERNORS OFFICE OF PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

1-1 This is an acknowledgment letter verifying that the State Clearinghouse submitted the Addendum to selected state agencies for review. No state agency submitted comments through the Clearinghouse by the close of the review period, which occurred on July 31, 2019. The Clearinghouse letter is for information only and does not require additional formal response.

From: OPR State Clearinghouse
Sent: Friday, July 26, 2019 10:17 AM
To: Charissa Martinez
Subject: FW: SCH #2007101148 - South Shafter Sewage Line Addendum

Governor's Office of Planning & Research

JULY 26 2019

STATE CLEARINGHOUSE

From: Lau, Scott@DOT <Scott.Lau@dot.ca.gov>
Sent: Friday, July 26, 2019 10:14 AM
To: BeyelerS@kerncounty.com; OPR State Clearinghouse <State.Clearinghouse@opr.ca.gov>
Cc: Mendibles, Lorena@DOT <lorena.mendibles@dot.ca.gov>
Subject: SCH #2007101148 - South Shafter Sewage Line Addendum

Good morning,

2-1 I have reviewed SCH #2007101148 on the Addendum for the South Shafter Sewage Line and have no additional comments.

Thank you,

Scott Lau
Transportation Planner
California Department of Transportation
1352 West Olive Avenue
Fresno, CA 93778
(559) 445-5763

RESPONSES TO COMMENTS
LETTER #2
CALIFORNIA DEPARTMENT OF TRANSPORTATION
(CALTRANS DISTRICT 4)

2-1 Your comment is noted and will be made available to the County decision-makers for consideration prior to a decision on the proposed project.

CITY OF SHAFTER

336 Pacific Avenue • Shafter, California 93263

July 31, 2018

Shawn Beyeler
Kern County Public Works Department
2700 M Street, Ste 400
Bakersfield, CA 93301

RE: Addendum to the South Shafter Sewer, Trunk Line Sewer & Lift Station Project (SCH 2007101148)

Mr. Beyeler,

3-1 While reviewing the proposed Addendum to the South Shafter Sewer, Trunk Line Sewer & Lift Station Project, a reference to the construction of a solar facility is mentioned in the "Noise" section located on page 11 of the document (see attached). The project description, however, does not indicate that construction of a solar facility is part of the wastewater collection system project in South Shafter. The City of Shafter recommends that the text error be corrected to ensure there is no confusion about the scope of the proposed project.

Should you have any questions, please don't hesitate to contact me at (661) 746-5002 or by e-mail at sforrest@shafter.com.

Sincerely,

Suzanne Forrest
Senior Planner

Attachment

significant geology or soil impacts and it will also not expose humans to significant geology or soil constraints.

Hazards and Hazardous Materials: Please refer to the hazards and hazardous materials discussion presented under issue "b" above. All hazards or use of hazardous materials associated with the project site were evaluated in the IS/MND and no potential for significant impact under this issue was identified. The modified project does not increase this potential as it does not include any new hazards associated with its installation or operations. Thus, implementation of the modified project will not cause significant new hazards or exposure to hazardous materials and it will also not expose humans to new significant hazards and hazardous materials.

Hydrology and Water Quality: Please refer to the hydrology and water quality discussion presented under issue "b" above. An evaluation of local hydrology and water quality effects in the 2016 IS/MND indicated that no significant public hazard impact would be caused by implementing the original project. The proposed modified project area will not be exposed to flood hazards, nor will it expose other humans or structures to greater flood hazards. The modified project will alter only several aspects of the original project, but the modified project can be implemented without new or additional hydrology or water quality adverse impacts, with implementation of the mitigation measure included in the 2016 IS/MND. Otherwise, no changes in the circumstances regarding hydrology and water quality issues have occurred within the modified project area of potential impact since the original IS/MND was certified.

Noise: Please refer to the noise discussion presented under issue "b" above. An evaluation of on- and off-site noise effects in the 2016 IS/MND during construction and operation indicated that the project will not be exposed to or cause significant adverse noise levels. Limited construction noise will be generated by the modified project, including the use of some heavy equipment to create the solar facility adjacent to the existing treatment site. All of the modified project construction noise can be controlled to a less than significant due to distance to sensitive noise receptors and observance of the daytime construction activity limitations. The circumstances regarding noise levels in the general area have not changed, thus, the modified project has no potential to alter the noise effects from construction activities.

Wildfire: This issue was not evaluated in the 2016 IS/MND because it was not part of the standard Initial Study Environmental Checklist Form. As noted under issue "b)" above, none of the project area is exposed to wildfire hazards. Thus, neither the original project nor the modified project has any potential to experience or cause a wildfire.

Based on the above analysis, the implementation of the proposed modified project will not increase direct or indirect impacts on humans to a significant level. The modified project results in comparable impacts to humans, which is consistent with the findings in the 2016 IS/MND.

V. CONCLUSION

The earlier analyses presented in the 2016 IS/MND were used as a basis for analysis in this Addendum, updated with current information from sources cited, referenced and attached. Upon review of the IS/MND, the information contained in this Addendum and all of the supporting evidence, it is the conclusion of Addendum No. 1 that the potential adverse environmental impacts from implementing the modified project, as defined in Section II of this document, will not be significantly greater than that identified within the adopted IS/MND. There are no new significant impacts that result from implementing the modified project, based on implementing the previous

RESPONSES TO COMMENTS
LETTER #3
CITY OF SHAFTER

3-1 Your comment is noted and will be made available to the County decision-makers for consideration prior to a decision on the proposed project. The text referenced in this comment was inadvertently carried over from another document. It will be removed from the final document as recommended.

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUG - 1 2019

August 1, 2019

Shawn Beyeler
County of Kern
Public Works Department
2700 M Street, Suite 400
Bakersfield, CA 93301

Project: Addendum No. 1 to the Adopted Mitigated Negative Declaration for the South Shafter Sewer, Trunk Line Sewer & Lift Station Project

District CEQA Reference No: 20190953

Dear Mr. Beyeler:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Addendum No. 1 to the Adopted Mitigated Negative Declaration for the South Shafter Sew, Trunk Line Sewer & Lift Station Project. The addendum consists of comparing the original project to a modified project that reflects modifications to design elements and change in management structure that has evolved since the original approval in November 2016. The changes to the original project includes the following:

4-1

- First, some of the sewer pipeline alignments have been shifted to different road alignments after consultation with the City of Shafter's Public Works Department;
- Second, instead of creating a new County Service Area Zone to oversee the wastewater collection system in the future, the City of Shafter has indicated that it proposes to assume responsibility for the collection system, with approval from the Kern County Local Agency Formation Commission of an out-of-area service contract;
- Third, as part of the project, the individual laterals to existing parcels will be installed to replace existing subsurface septic tanks;
- Fourth, instead of five lift stations only two lift stations will be installed;
- Fifth, instead of 386 residential parcel connections, the number of residential lots served will be 398, with the non-residential connections remaining at ten (10, total 408 parcel connections to the proposed sewer system);
- Sixth, potential daily flows will be increased to an average of 152,601 gpd and a peak daily flow of 223,344 gpd; and

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

RESPONSES TO COMMENTS
LETTER #4
SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT

4-1 Your comment is noted and will be made available to the County decision-makers for consideration prior to a decision on the proposed project. The project description provided in this comment is accurate.

- Seventh, the original total length of pipeline proposed for South Shafter was estimated at 34,500 linear feet, proposed pipeline under the modified project is estimated to be about 16,500 linear feet with the same pipeline sizes.

4-1 cont.

The Project is located 0.25 miles south of the City of Shafter in Kern County, CA. The District offers the following comments:

1. Based on information provided to the District, Project specific annual emissions of criteria pollutants are not expected to exceed any of the following District significance thresholds: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5). Therefore, the District concludes that the Project would have a less than significant impact on air quality when compared to the above-listed annual criteria pollutant emissions significance thresholds.

4-2

2. District Rule 9510 (Indirect Source Review) is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site fees. The proposed Project is subject to District Rule 9510 (Indirect Source Review) if (1) it has or will receive a project-level discretionary approval from a public agency and will equal or exceed 9,000 square feet of other space, or (2) if it has or will receive a project-level approval from a public agency and will equal or exceed 45,000 square feet of other space. If subject to the rule, an Air Impact Assessment (AIA) application is required prior to applying for project-level approval from a public agency. In this case, if not already done, please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510.

4-3

   In the case the Project is subject to District Rule 9510 an AIA application is required and the District recommends that demonstration of compliance with District Rule 9510, before issuance of the first building permit, be made a condition of Project approval. Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm. The AIA application form can be found online at: http://www.valleyair.org/ISR/ISRFormsAndApplications.htm.

3. The proposed Project may be subject to District Rules and Regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements,

4-4

4-2 Your comment is noted and will be made available to the County decision-makers for consideration prior to a decision on the proposed project. This finding is consistent with the previous Initial Study and the air emission study compiled for the Addendum.

4-3 This comment appears to ignore the type of project being considered. This is an infrastructure project that will not receive any entitlements, including a building permit. As the District is aware, the proposed facilities are primarily pipelines that will be installed within existing road rights-of-way. Pipeline installation is usually limited to a few hundred feet per day, with the area of disturbance typically about 5,000 square feet per day. Mitigation measures AIR-01 through AIR-03 must be implemented by the proposed project. Please refer to the attached portion of the Mitigation Measure Monitoring Program (MMMP) which lists these measures that must be implemented as part of the Addendum. Measure AIR-03 requires compliance with Rule 9510 if deemed appropriate by the District.

4-4 Refer to Measure AIR-03 which requires compliance with applicable District rules and regulations. The County and/or the project contractor is required to contact the District to ensure all required permits are in place in conjunction with project construction.

4-4 cont. the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

4-5 4. The District recommends that a copy of the District's comments be provided to the Project proponent.

4-6 If you have any questions or require further information, please call Sharla Yang at (559) 230-5934.

Sincerely,

Arnaud Marjollet
Director of Permit Services

for: Brian Clements
Program Manager

AM: sy

4-5 As the project proponent, the County has a copy of the District's comments.

4-6 Your comment is noted and will be made available to the County decision-makers for consideration prior to a decision on the proposed project.

Mike Campisi
Pipeline Planning Assistant

9400 Oakdale Ave
Chatsworth, CA 91311

Tel: 213-231-6081

August 2, 2019

Shawn Beyeler
Kern County
BeyelerS@kerncounty.com

Subject: **South Shafter Sewer, Trunk Line Sewer and Lift Station Project**

DCF: **1617-19NC**

5-1 The Transmission Department of SoCalGas does not operate any facilities within your proposed improvement. However, the Distribution Department of SoCalGas may maintain and operate facilities within your project scope.

To assure no conflict with the Distribution's pipeline system, please e-mail them at:

NorthwestDistributionUtilityRequest@semprautilities.com

Sincerely,

Mike Campisi
Pipeline Planning Assistant
SoCalGas Transmission Technical Services
SoCalGasTransmissionUtilityRequest@semprautilities.com

RESPONSES TO COMMENTS
LETTER #5
SoCalGas

5-1 Your comment is noted and will be made available to the County decision-makers for consideration prior to a decision on the proposed project. The District or its contractor will contact SoCalGas prior to ground disturbance.

COMMENT LETTER #6

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Mr. Shawn Beyeler
Kern County Public Works Department
2700 M Street, Suite 400,
Bakersfield, CA 93301

Dear Mr. Beyeler:

ADDENDUM TO MITIGATED NEGATIVE DECLARATION (ADDENDUM) FOR KERN COUNTY PUBLIC WORKS DEPARTMENT (COUNTY); SOUTH SHAFTER SEWER, TRUNK LINE SEWER AND LIFT STATION PROJECT (PROJECT); KERN COUNTY; STATE CLEARINGHOUSE NO.2007101148

We understand that the County is pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project (CWSRF No. 7659-110, 7659-210). As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the Addendum to be prepared for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program (Program). The primary purpose for the Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state.

6-1

The Program is partially funded by the United States Environmental Protection Agency (USEPA) and requires additional "California Environmental Quality Act (CEQA)-Plus" environmental documentation and review. For the complete environmental application package and instructions please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml . The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to the State Water Board's approval of a CWSRF financing commitment for your proposed Project. For further information on the Program, please contact Mr. Brian Cary, at (916) 449-5624.

RESPONSES TO COMMENTS
LETTER #6
STATE WATER RESOURCES CONTROL BOARD

6-1 Your comment is noted and will be retained in the project file that is made available to the County decision-makers prior to a decision on the proposed project. The County appreciates the clear summary of the State Water Resources Control Board's (State Board) responsibilities and data expectations required to fulfill its responsibilities. With the additional information provided in this response to the State Board's letter, the County concludes the response should fully meet the State Board's data needs.

It is important to note that prior to a CWSRF financing commitment, projects subject to provisions of the Federal Endangered Species Act (ESA), must obtain ESA, Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) specific to any potential effects to special-status species.

6-2 Please be advised that the State Water Board will coordinate with the USEPA to consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to affect if the Project is to be financed by the Program. The County will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board is responsible for ensuring compliance with Section 106 and is required to consult directly with the California State Historic Preservation Officer (SHPO). The SHPO consultation is initiated once sufficient information is provided by the CWSRF applicant. If the County decides to pursue CWSRF financing, please retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (http://www.nps.gov/history/local-law/arch_stnds_9.htm) to prepare a Section

6-3 106 compliance report.

Note that the County will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a ½-mile beyond project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the Program include the following (for a complete list of all federal requirements and instructions please visit:
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml

6-4

A. A public hearing or meeting for adoption/certification of all CEQA documents except for those with little or no environmental impacts.

B. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of

6-2 Your comment is noted and will be retained in the project file that is made available to the County decision-makers prior to a decision on the proposed project. A detailed biology resources assessment of the project area, including issues of federal concern, has been incorporated into the Addendum and CWSRF package for the South Shafter Sewer, Trunk Line Sewer and Lift Station Project.

6-3 Your comment is noted and will be retained in the project file that is made available to the County decision-makers prior to a decision on the proposed project. At the request of the State Board, the cultural resources consultant CRM TECH reevaluated its field data; conducted a virtual re-survey of the project Area of Potential Effect (APE); and then modified the APE maps to the extent feasible at this scale to show the APE extended beyond just the roadway alignment. The updated "Addendum" (September 23, 2019) to the original cultural resources survey is provided as an Attachment to these responses. The finding remains the same: *no potential "historic properties" / "historical resources" have been identified within the updated APE for the proposed undertaking, and the subsurface sediments within the vertical extent of the APE appear to be relatively low in archaeological sensitivity.*

6-4 The original Initial Study and this Addendum incorporate(d) the required information to address the list of federal requirements provided in this comment. This information has been extrapolated from these studies and combined by the applicant in the CWSRF package submitted separately to the State Board.

the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.

C. Compliance with the Coastal Zone Management Act: Identify whether or not the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.

D. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.

6-4 cont.

E. Compliance with the Farmland Protection Policy Act: Identify whether or not the Project will result in the conversion of farmland. Identify the status of farmland (prime, unique, local or statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.

F. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.

G. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.

H. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following are specific comments on the County's draft Addendum:

1. Individual septic system abandonment is mentioned on page 2 of the Addendum, "The identified units may then connect to the newly installed sewer systems and the individual septic systems abandoned". Please clarify the method that will be used to abandon/decommission the individual septic systems.

6-5

Please upload to FAAST the following documents applicable to the proposed Project following the County's CEQA process: (1) one copy of the draft and final Addendum, (2) the resolution adopting/certifying the Addendum and making CEQA findings, (3) all comments received during the review period and the County's response to those comments, (4) the adopted Mitigation Monitoring and Reporting Program and (5) the

6-6

6-5 The County has adopted Ordinance No. G-8682 to regulate “Onsite Wastewater Treatment Systems” (OWTS). A copy of this ordinance is provided as an Attachment to these responses to comments. Sub-Section 8.62.290 defines how an OWTS must be closed or abandoned. A septic tank abandonment permit must be obtained from the County and implement the following two actions: *a. Have the sewage removed from, and disposed of, in an approved manner. b. Have the tank top and bottom crushed, backfilled and compacted with material approved by EHD or be removed and disposed of in an approved manner.* “EHD” is the acronym for County “Environmental Health Department.”

6-6 When the package is completed as indicated in this comment, it will be uploaded to the FAAST in accordance with this request.

6-6 cont. Notice of Determination filed with the Kern County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

6-7 Thank you for the opportunity to review the County's draft Addendum. If you have any questions or concerns, please feel free to contact me at (916) 341-5686 or by email at Tessa.lenz@waterboards.ca.gov or contact Brian Cary at (916) 449-5624, or by email at Brian.Cary@waterboards.ca.gov.

Sincerely,

Tessa Lenz
Environmental Scientist

6-7 Your comment is noted and will be retained in the project file that is made available to the County decision-makers prior to a decision on the proposed project.

FIGURES

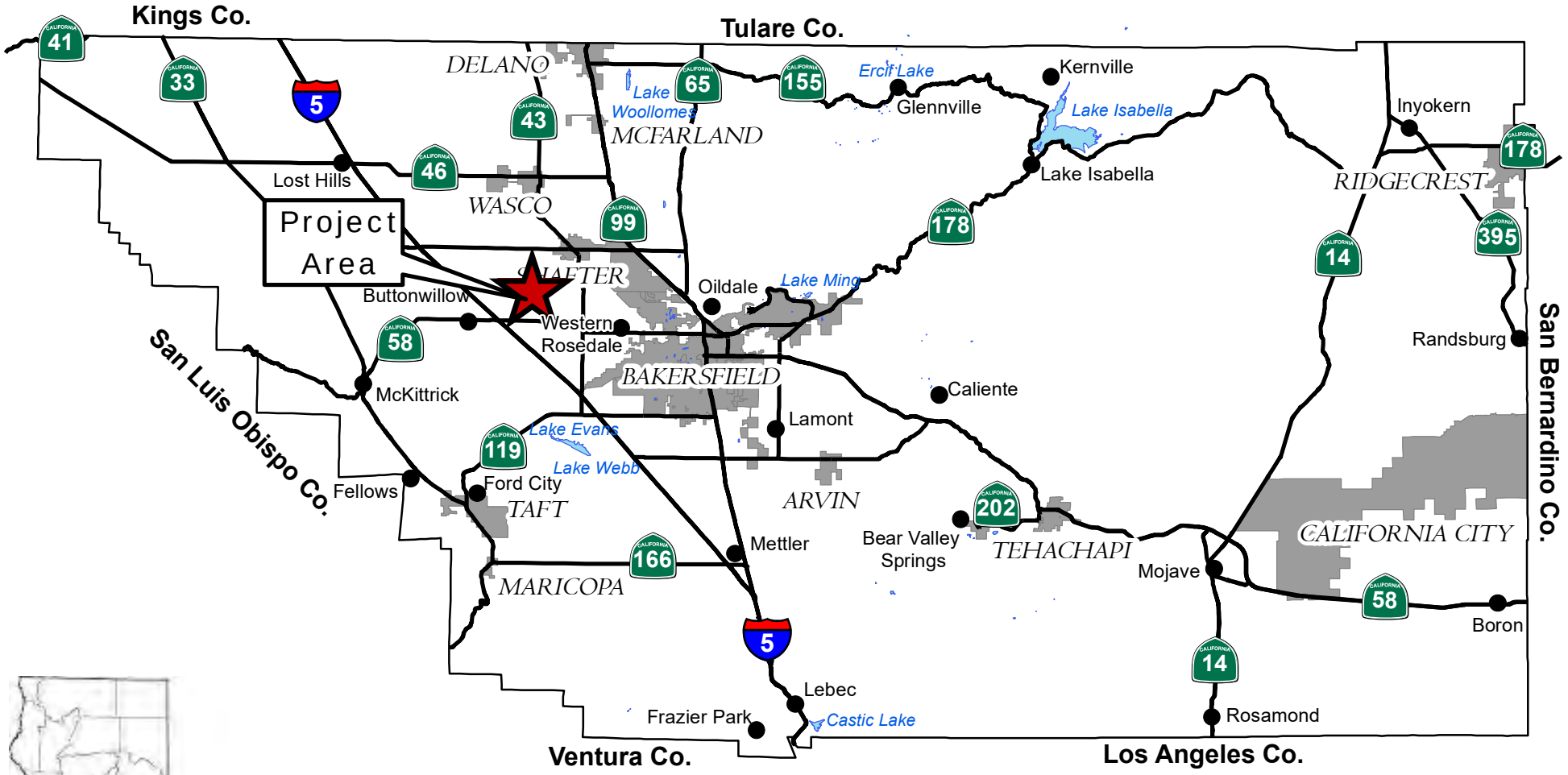


FIGURE 1

VICINITY MAP

Kern County, CA

Unincorporated Areas
Kern Highways
Lakes
City Limits

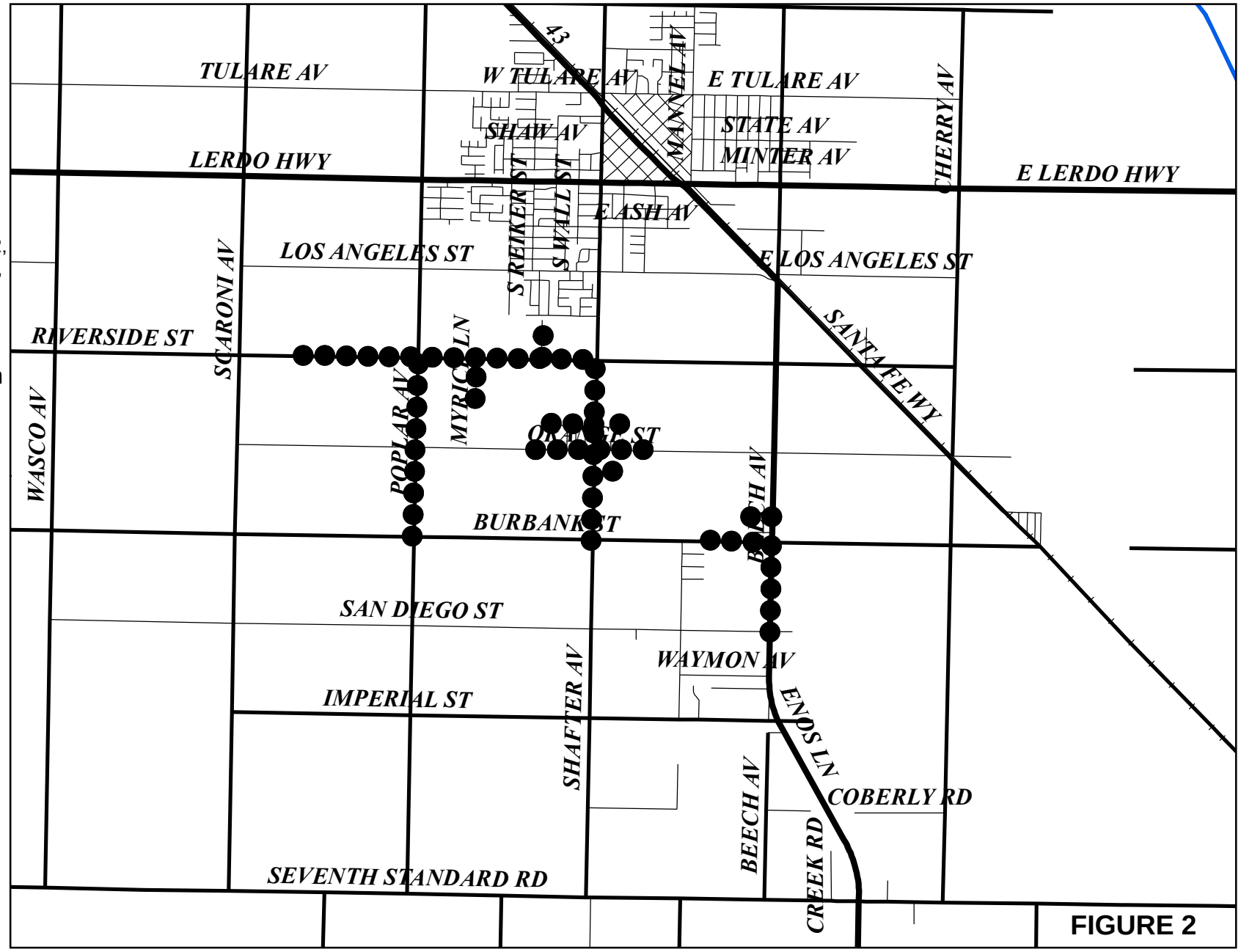
South Shafter Sewer Project

Secs. 16, 17, 20, 21, 22, 26, & 27,
T28 S/R25 E, MDM

Kern County Public Works Department

Feb. 2015

0 5 10 Miles



NO SCALE

SECS. 16, 17, 20, 21, 22, 26, & 27, T28 S/R25 E, MDM

● **Project Location**

FIGURE 2

Designed By *MDH*
Drawn By *MDH*
Checked By *YA*

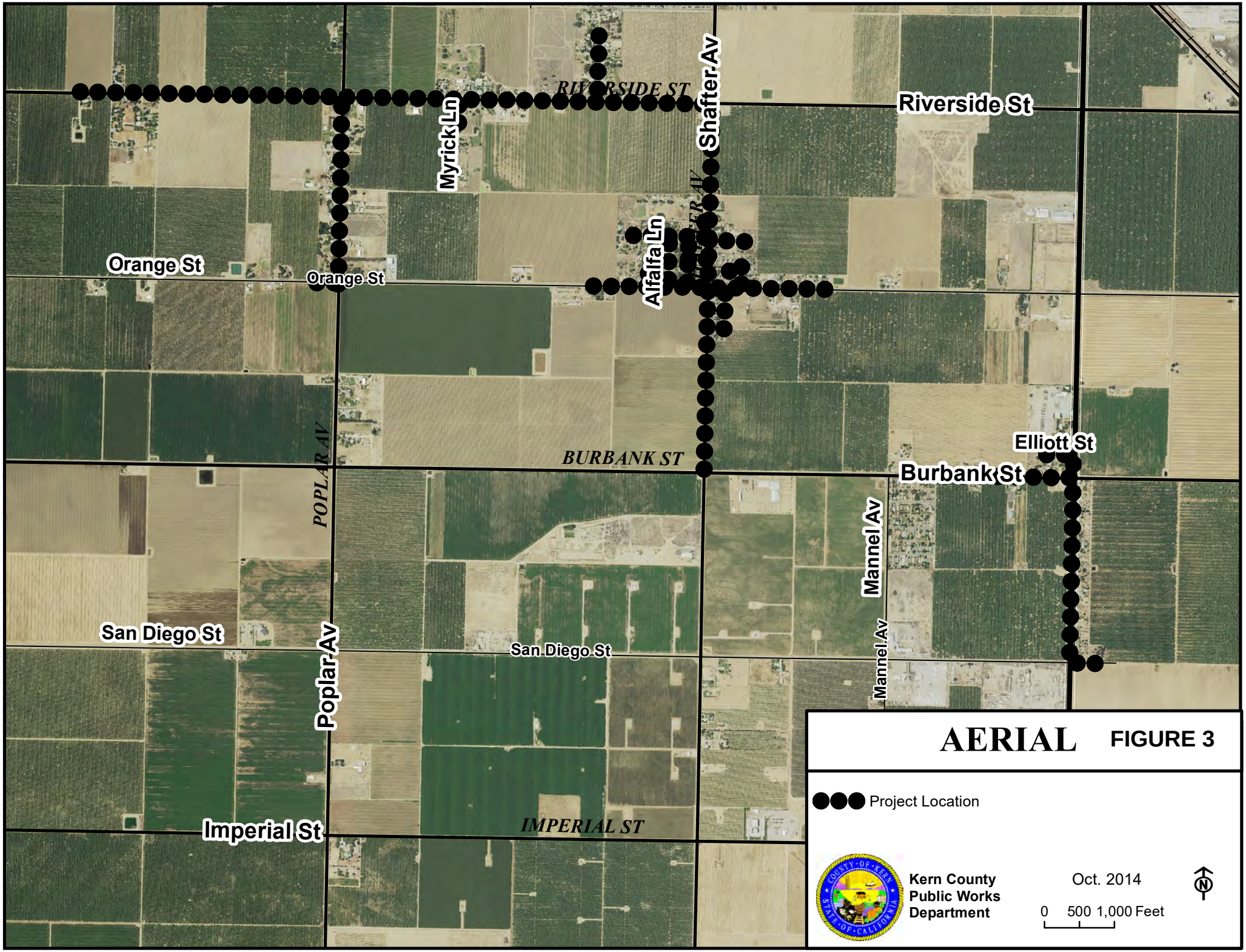
COUNTY OF KERN

PUBLIC WORKS DEPARTMENT

BAKERSFIELD, CALIFORNIA

LOCATION MAP

SOUTH SHAFTER SEWER PROJECT


Riverside St
Shafter Av
Myrick Ln
Alfalfa Ln
Orange St
Orange St
Elliott St
Burbank St
Mannel Av
Mannel Av
San Diego St
San Diego St
Poplar Av
Imperial St
RIVERSIDE ST
BURBANK ST
POPLAR AV
IMPERIAL ST
AERIAL
FIGURE 3
Project Location
Kern County
Public Works
Department
Oct. 2014
0 500 1,000 Feet
N

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
19/20	1	Sht Total

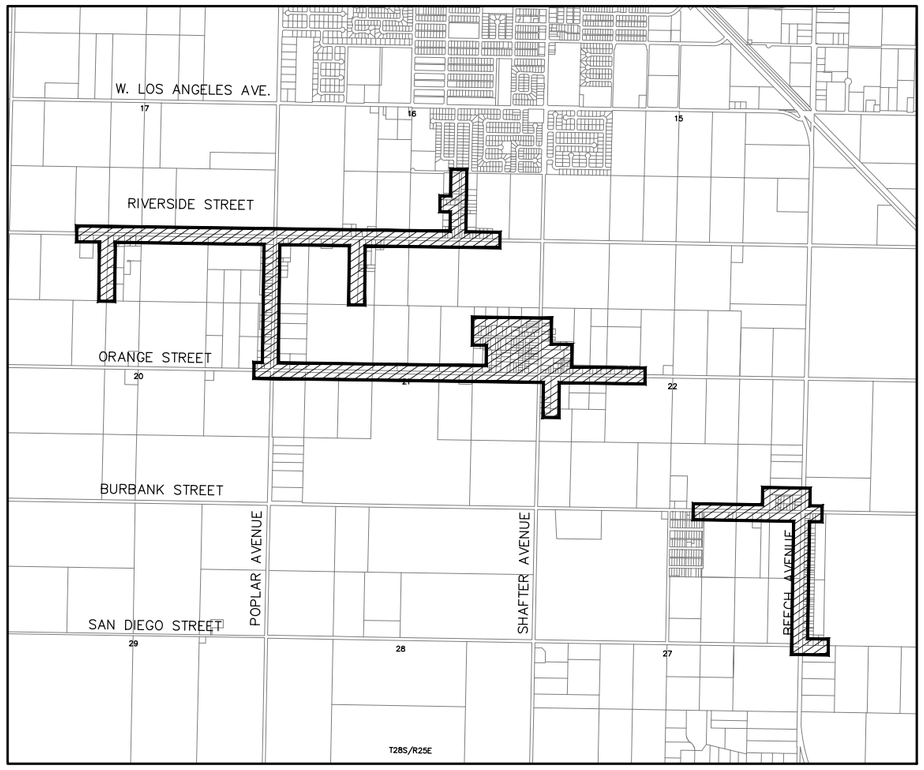
INDEX OF SHEETS

SHEET G-2	GENERAL NOTES
SHEET SI-1 TO SI-2	SHEET INDEX PLAN
SHEET PP-1 TO PP-35	PLAN AND PROFILE
SHEET LS-1 TO LS-2	SEWER LIFT STATION PLAN

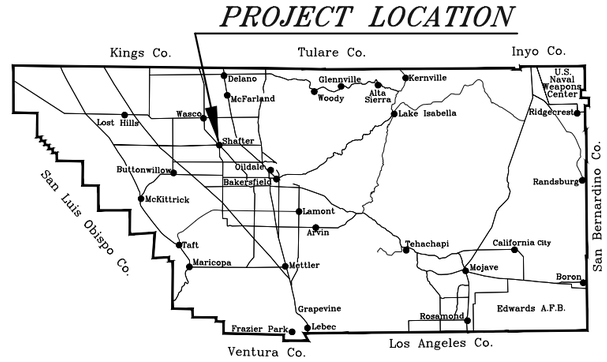
COUNTY OF KERN
PUBLIC WORKS DEPARTMENT

PLANS FOR CONSTRUCTION OF
SOUTH SHAFTER SEWER PROJECT

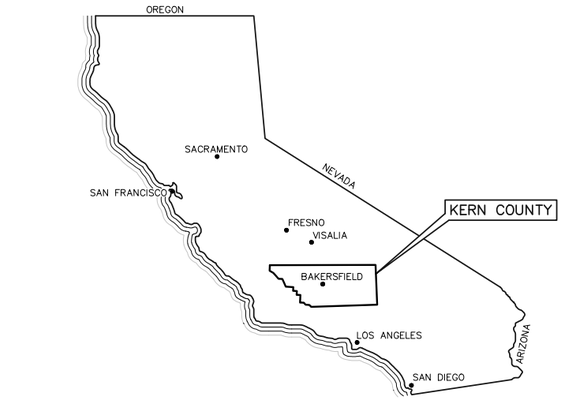
CONTRACT No. R190117



PROJECT LOCATION



COUNTY OF KERN



STATE OF CALIFORNIA

CONVENTIONAL SYMBOLS

- STA / OFFSET / # — Width or Width X Length; Key Note Number
- Township Line / Section Line
- Property Line
- Right of Way Line
- ℄ Survey or Construction (10+00, 11+00)
- Dirt Flow Line
- Existing Edge of Pavement
- New Edge of Pavement
- Tree (All types)
- Shrub (All types)
- Sprinkler
- Riser
- Ex. Marker Sign \ New Marker Sign
- Cut — Fill — Daylight
- Hinge
- Fence & Gate
- Guard Railing
- Railroad
- Culvert
- Hedge
- MB — Mail Box
- Signal Controller
- Pullbox
- CATV — Cable Television Box
- Survey Monument
- Ex. Sign \ New Sign

UTILITY SYMBOLS

- SD — Storm Drain Line
- OIL — Oil Line
- W — Water Line
- G — Gas Line
- S — Sewer Line
- FO — Buried Fiber Optic
- T — Buried Telephone Cable
- E — Buried Power Cable
- CTV — Buried Television Cable
- Aerial Wire/ Cable
- Aerial Cable
- Guy wire
- WM — Water Meter
- WV — Water Valve
- FH — Fire Hydrant
- GM — Gas Meter
- GV — Gas Valve
- SMH — Sewer Manhole
- SDMH — Storm Drain Manhole
- TMH — Telephone Manhole
- MH — Manhole – Field Verify
- Light Standard
- Street Light
- Telephone Pole
- Power Pole
- Service Pole

UNDERGROUND MARKER SYMBOLS

- UMBP – Buried Power
- UMFO – Fiber Optic
- UMG – Gas
- UMHG – High Pressure Gas
- UMO – Oil Line
- UMTV – Television Cable

NOTE:

COUNTY ACKNOWLEDGEMENT OF PLANS FOR CONSTRUCTION AND APPROVAL OF PLANS BY SIGNATURE DOES NOT ABROGATE COUNTY WRITTEN SPECIFICATIONS BY OMISSION OR MISINTERPRETATION. AUTHORIZED COUNTY INSPECTIONS OR AGENTS MAY REQUIRE CHANGES IN PLANS BEFORE CERTIFICATION AND ACCEPTANCE IN ORDER TO COMPLY WITH STANDARD SPECIFICATIONS.

ACAD FILE NAME
S:\KERN COUNTY\60587162 – SOUTH SHAFTER SEWER PROJECT\900_CAD_GIS\02-SHEETS\G-01

N

SCALE: N.T.S.

NOTE:

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA STANDARD PLANS DATED MAY, 2006.

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO CONTRACTORS" ON PAGE 1 OF THE SPECIAL PROVISIONS.

CALL UNDERGROUND SERVICE ALERT, 1-800-227-2600, 48 HOURS PRIOR TO ANY EXCAVATION.

Approval Recommended:

REGISTERED PROFESSIONAL ENGINEER — ERIC H. GARIBAY — No. 72121 — CIVIL — STATE OF CALIFORNIA

Design Engineer
AECOM RCE No. 72121

REGISTERED PROFESSIONAL ENGINEER — SAMUEL DAVID LUX — No. 77460 Exp. 6-30-19 — CIVIL — STATE OF CALIFORNIA

Senior Engineering Manager, Engineering Division
Public Works Department RCE No. 77460

REGISTERED PROFESSIONAL ENGINEER — CRAIG M. POPE — No. 37035 Exp. 6-30-20 — CIVIL — STATE OF CALIFORNIA

Director, Public Works Department
RCE No. 37035

APPROVED:
Chairman, Board of Supervisors

Date:

FIGURE 4

60% SUBMITTAL
NOT FOR CONSTRUCTION

CONTRACT #	PROJECT #	SHEET NO.	TOTAL SHEETS
R190117	8954-000021	3	Sht Total

REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
ERIC H. GARIBAY
No. 72121
Exp. 6-30-20
CIVIL
STATE OF CALIFORNIA

Month XX, XXXX
APPROVAL DATE

THE COUNTY OF KERN OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

AECOM
5001 E. COMMERCENTER DRIVE, SUITE 100
BAKERSFIELD, CA 93309
661.283.2323 TEL 661.395.0359 FAX
WWW.AECOM.COM

NORTH

SCARONI AVENUE
POPLAR AVENUE
SHAFTER AVENUE
RIVERSIDE STREET
ORANGE STREET
RICHLAND AVENUE
ALLEY J
ALLEY K
THOMAS LN.
RATZLAF LANE
ALLEY A
ALLEY G
ALLEY F
SMITH LANE
ALLEY C
GOSSIPER LANE
ALLEY I
20
21
22

PP-1 PP-2 PP-3 PP-4 PP-5 PP-6 PP-7 PP-8 PP-9 PP-10 PP-11 PP-12 PP-13 PP-14 PP-15 PP-16 PP-17 PP-18 PP-19 PP-20 PP-21 PP-22 PP-23 PP-24 PP-25 PP-26 PP-27 PP-28

LS-1
LIFT STATION 1

FIGURE 5a

SCALE: 1"=500'

SHEET INDEX
SI-1

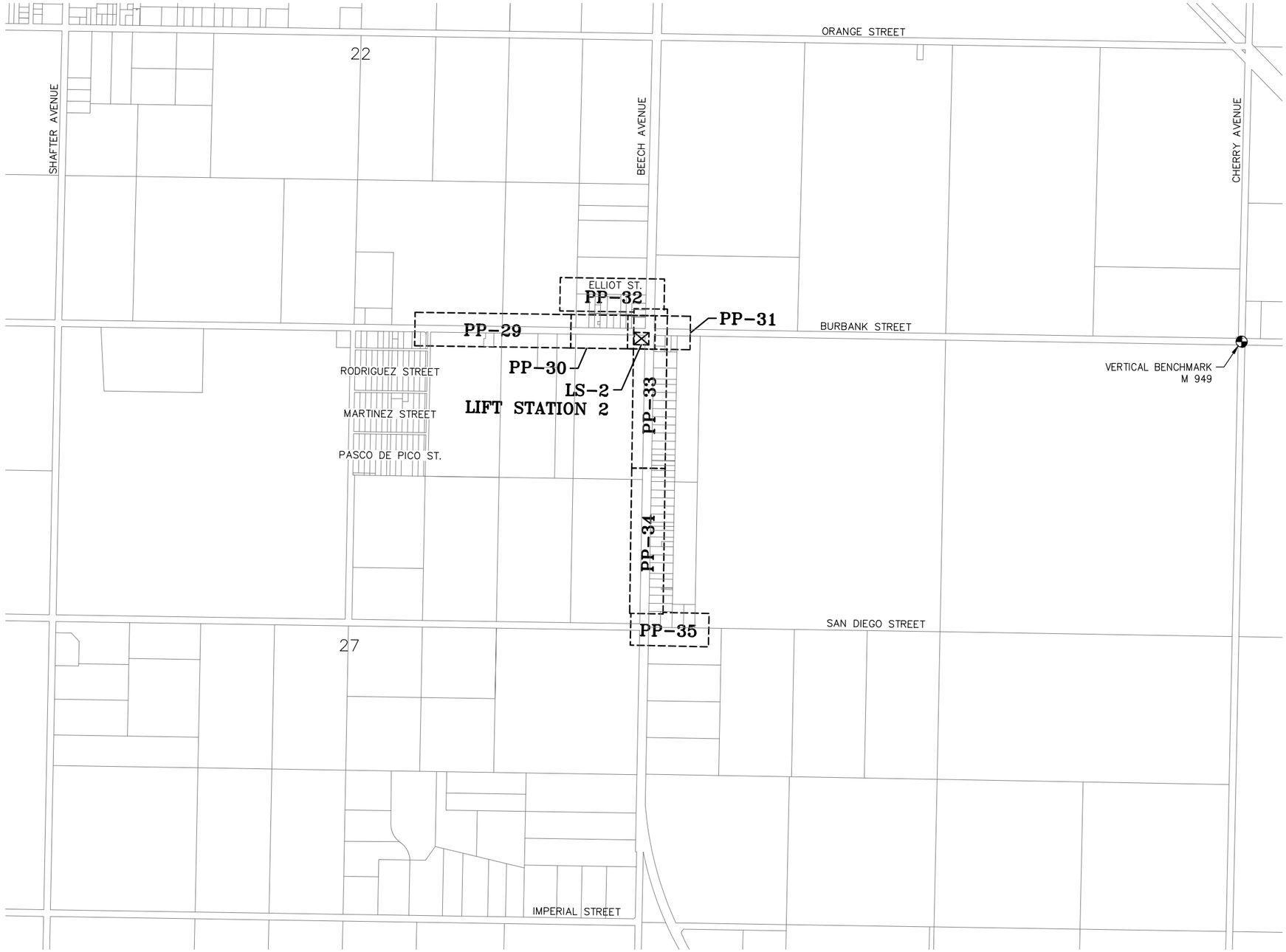
REVISION DATE/ REVISION #	D. GHILARDUCCI	DRAFTED BY	E. GARIBAY	CALCULATED-DESIGNED BY	
?	6/4/2019	DATE DRAFTED	SENG	CHECKED BY	
REVISED BY					

COUNTY OF KERN — PUBLIC WORKS DEPARTMENT
SOUTH SHAFTER SEWER PROJECT

DWG FILE: S:\KERN COUNTY\60587162 - SOUTH SHAFTER SEWER PROJECT\900_CAD_GIS\02-SHEETS\SI-01
USERNAME: GHILARDUCCID

BORDER LAST REVISED:

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3



NORTH

CONTRACT #	PROJECT #	SHEET NO.	TOTAL SHEETS
R190117	8954-000021	3	Sht Total

REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER ERIC H. GARIBAY No. 72121 Exp. 6-30-20 CIVIL STATE OF CALIFORNIA

Month XX, XXXX
APPROVAL DATE

THE COUNTY OF KERN OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

AECOM
5001 E. COMMERCENTER DRIVE, SUITE 100
BAKERSFIELD, CA 93309
661.283.2323 TEL 661.395.0359 FAX
WWW.AECOM.COM

FIGURE 5b

SHEET INDEX
SI-2

SCALE: 1"=500'

REVISION DATE/ REVISION #	?
REVISED BY	
D. GHILARDUCCI	
6/5/2019	
DRAFTED BY	
DATE DRAFTED	
E. GARIBAY	
SENG	
CALCULATED/ DESIGNED BY	
CHECKED BY	

COUNTY OF KERN – PUBLIC WORKS DEPARTMENT

SOUTH SHAFTER SEWER PROJECT

BORDER LAST REVISED:

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DWG FILE: S:\KERN COUNTY\60587162 – SOUTH SHAFTER SEWER PROJECT\900_CAD_GIS\02-SHEETS\SI-02

USERNAME: GHILARDUCCID

APPENDIX 1

KERN COUNTY
PUBLIC WORKS DEPARTMENT
CRAIG M. POPE, P.E., DIRECTOR

2700 "M" STREET, SUITE 400
BAKERSFIELD, CA 93301-2370

ACCOUNTING
ADMINISTRATION & ENGINEERING
BUILDING & DEVELOPMENT
OPERATIONS & MAINTENANCE

Phone: (661) 862-8850
FAX: (661) 862-8851
Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

September 14, 2016

FILE: South Shafter Sewer
Project (#8954-19608486)

ADDRESSEES (see Distribution List)

In Response Please Reference: Consultation Process on Proposed Negative Declaration for South Shafter Sewer, Trunk Line Sewer and Lift Station Project (SCH# 2007101148).

Ladies and Gentlemen:

This Department, as Lead Agency, has determined that preparation of a Negative Declaration would be appropriate for the referenced project. As required by Section 15073 of the State CEQA Guidelines, we are submitting the proposed Negative Declaration to all responsible agencies for consultation. This consultation is requested to ensure that the environmental decision by our Department will reflect the concerns of responsible agencies involved with the project.

If a response is not received from your agency by **October 16, 2016**, this Department will assume that your agency has no comment. A public hearing has been scheduled with the Kern County Board of Supervisors to receive comments on the document on: **November 1, 2016**, at 2:00 p.m. or soon there-after, Chambers of the Board of Supervisors, First Floor, Kern County Administrative Center, 1115 Truxtun Avenue, Bakersfield, California.

Should you have any questions, please contact Michael Dillenbeck at (661) 862-8913.

Sincerely,

Craig Pope, Director
Public Works Department

By:
Michael Dillenbeck, WMS III

MD

Enclosure

U. S. Fish & Wildlife Service
Division of Ecological Services
2800 Cottage Way #W-2605
Sacramento, CA 95825-1846

City of Shafter
336 Pacific Avenue
Shafter, CA 93263

U.S. Bureau of Land Management
Caliente/Bakersfield
3801 Pegasus Drive
Bakersfield, CA 93308-6837

U.S. Dept of Agriculture/NRCS
5000 California Avenue, Ste 100
Bakersfield, CA 93309-0711

North West Kern Resource Cons Dist
5000 California Avenue, Suite 100
Bakersfield, CA 93309

Environmental Protection Agency
Region IX Office
75 Hawthorn Street
San Francisco, CA 94105

State Dept of Conservation
Division of Oil & Gas
4800 Stockdale Highway, Ste 108
Bakersfield, CA 93309

Caltrans/Dist 6
Planning/Land Bank Bldg.
P.O. Box 12616
Fresno, CA 93778

State Clearinghouse
Office of Planning and Research
1400 - 10th Street, Room 222
Sacramento, CA 95814

California Regional Water Quality
Control Board/Central Valley Region
1685 E Street
Fresno, CA 93706-2020

California State University
Bakersfield - Library
9001 Stockdale Highway
Bakersfield, CA 93309

California Fish & Wildlife
1234 East Shaw Avenue
Fresno, CA 93710

Kern County Public Works Department/
Building & Development/Survey

State Department of Toxic
Substances Control
8800 Cal Center Drive
Sacramento, CA 95826

Kern County Public Works Department/
Building & Development/Floodplain

Kern County Public Works
Department/Operations &
Maintenance/Regulatory Monitoring &
Reporting

Kern County
Env Health Services Department

Kern County Sheriff's Dept
Administration

Kern County Superintendent of Schools
Attention Mary Baker
1300 17th Street
Bakersfield, CA 93301

Richland-Lerdo Union School Dist
331 Shafter Avenue
Shafter, CA 93263

Kern High School Dist
5801 Sundale Avenue
Bakersfield, CA 93309

Kern County Water Agency
P.O. Box 58
Bakersfield, CA 93302-0058

Shafter Rec & Parks Dist
700 East Tulare Avenue
Shafter, CA 93263

San Joaquin Valley
Air Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726

Kern Mosquito Abatement Dist
4705 Allen Road
Bakersfield, CA 93314

Adams, Broadwell, Joseph & Cardozo
Attention: Janet M. Laurain
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

AT&T California
OSP Engineering/Right-of-Way
4540 California Avenue, 4th Floor
Bakersfield, CA 93309

Center on Race, Poverty
& the Environment
Attn: Marissa Alexander
1999 Harrison Street – Suite 650
San Francisco, CA 94612

Center on Race, Poverty
& the Environmental/
CA Rural Legal Assistance Foundation
1012 Jefferson Street
Delano, CA 93215

Defenders of Wildlife/
Kim Delfino, California Dir
980 - 9th Street, Suite 1730
Sacramento, CA 95814

Native American Heritage Council
of Kern County
Attn: Gene Albitre
3401 Aslin Street
Bakersfield, CA 93312

Pacific Gas & Electric Co
Land Projects
650 "O" Street, First Floor
Fresno, CA 93760-0001

Sierra Club/Kern Kaweah Chapter
P.O. Box 3357
Bakersfield, CA 93385

Southern California Gas Co
1510 North Chester Avenue
Bakersfield, CA 93308

Southern California Gas Co
Transportation Dept
9400 Oakdale Avenue
Chatsworth, CA 91313-6511

David Laughing Horse Robinson
P.O. Box 20849
Bakersfield, CA 93390

Kern Valley Indian Council
Attn: Robert Robinson, Chairperson
P.O. Box 401
Weldon, CA 93283

Kern Valley Indian Council
Historic Preservation Office
P.O. Box 401
Weldon, CA 93283

LIUNA
Attn: Arthur Izzo
2201 "H" Street
Bakersfield, CA 93301

Lozeau Drury LLP
410 – 12th Street, Suite 250
Oakland, CA 94607

MITIGATED
NEGATIVE DECLARATION
NOTICE OF AVAILABILITY FOR PUBLIC REVIEW

This is to advise that the Kern County Public Works Department has prepared a Negative Declaration for the project identified below. As mandated by State law, the minimum public review period for this document is 30 days. The document and documents referenced in the draft Negative Declaration are available for review at the Public Works Department, 2700 "M" Street, Suite 400, Bakersfield, CA 93301.

A public hearing has been scheduled with the Kern County Board of Supervisors to receive comments on the document on: **November 8, 2016**, at 2:00 p.m. or soon there-after, Chambers of the Board of Supervisors, First Floor, Kern County Administrative Center, 1115 Truxtun Avenue, Bakersfield, California.

The comment period for this document closes on October 16, 2016. Testimony at future public hearings may be limited to those issues raised during the public review period either orally or submitted in writing by 5:00 p.m. the day the comment period closes.

Project Title: South Shafter Sewer, Trunk Line Sewer and Lift Station Project.

Project Location: Road rights-of-way (ROW) and water line easements in the unincorporated community of South Shafter (West Shafter, Southwest Shafter, Thomas Lane, Smith Corner, Burbank, and Cherokee Strip), along Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, within Sections 16, 17, 20, 21, 22, 26, & 27 of Township 28 South, Range 25 East, Mount Diablo Base and Meridian, County of Kern, State of California, and the Rio Bravo U.S. Geological Survey 7.5 minute topographical quadrangle. The project area is located 0.25 miles south of the City of Shafter.

Project Description: The Kern County Public Works Department (County) proposes to construct approximately 34,500 linear feet of sewer trunk line with associated manholes for access within existing road rights-of-way (ROW) and water line easements. Five sewer lift stations including three operating in series are proposed; one at Southwest Shafter; one near Thomas Lane; and one at Smith Corner. The two additional independent lift stations connecting to the lift station at Smith Corner are also proposed; one at Smith Corner and one at Burbank Street. The project is proposed for funding by the U.S. Department of Agriculture Rural Utilities Service Financing Program and other sources. United States Department of Housing and Community Development Block Grants Funds may also be provided for the project. The formation of an assessment district and County Service Area Zone of Benefit will also be required.

For further information, please contact Michael Dillenbeck at (661) 862-8913.

CRAIG POPE, Director
Public Works Department

To be published once only on next available date and as soon as possible:
SHAFTER PRESS; BAKERSFIELD CALIFORNIAN

cc: County Clerk (2) (with fee)
Environmental Status Board
Sierra Club/Kern Kaweah Chapter
LiUNA/Arthur Izzo
Supervisorial District No. 1
California Native Plant Society/Kern Chapter
Kern County Archaeological Society
Native American Heritage Pres. Council/Kern County
Center on Race, Poverty and Environment (2)

South Shafter Sewer for PWD
I:\Planning\WORKGRPS\WP\LABELS\so shafter sewer.mcd.pwd.docx
Sc 09/14/16

90 132 10 00 8
18487 SHAFTER LLC
18487 SHAFTER AV
SHAFTER CA 932632853

90 132 11 00 1 **DUP**
18487 SHAFTER LLC
18487 SHAFTER AV
SHAFTER CA 932632853

90 120 41 00 1
ABERNATHY AMANDA L
P O BOX 611
SHAFTER CA 93263

90 120 46 00 6 **DUP**
ABERNATHY AMANDA L
PO BOX 611
SHAFTER CA 932630611

90 120 47 00 9 **DUP**
ABERNATHY AMANDA L
PO BOX 611
SHAFTER CA 932630611

90 120 47 00 9
ABERNATHY SCRAP METAL INC
3820 HERRING RD
ARVIN CA 93203

90 221 36 00 3
AGAPITO LIV TRUST
PO BOX 167
SAINT ALBANS MO 630730167

90 211 33 00 1
AGUEL ALBA M TRUST
1715 ARAPAHOE ST
LOS ANGELES CA 900064813

90 132 47 00 6
AGUIAR ANTONIO MAXIMILLIANO
10709 BELFOUR
WHITTIER CA 90606

90 200 17 00 5
AGUILAR JESUS
18858 BEECH AV
SHAFTER CA 93263

90 070 13 00 6
AGUILAR MARIA
30788 BURBANK ST
SHAFTER CA 932632908

90 131 25 00 5
AGUILAR MARIO
30376 ORANGE ST
SHAFTER CA 93263

90 070 43 00 3
ALI KHALED
222 REDWOOD DR
SHAFTER CA 93263

26 501 09 00 7
ALMARAZ ABEL
881 OAKMONT ST
SHAFTER CA 93263

90 040 41 00 8
ALOLAQI TAHA N M
496 W LERDO HW
SHAFTER CA 932632518

90 132 37 00 7
ALVAREZ LEOPOLDO P & M JOSEFINA
18478 SMITH LN
SHAFTER CA 93263

90 120 31 00 2
APOSTOLIC ASSM FAITH CHRIST JESUS
30376 RICHLAN AV
SHAFTER CA 93263

90 120 39 00 6 **DUP**
APOSTOLIC ASSM FAITH CHRIST JESUS
P O BOX 574
SHAFTER CA 93263

90 160 09 00 1
ARCHULETA JESUS & LUZ
2519 SYCAMORE CT
WASCO CA 93280

90 120 33 00 8
ARELLANO FELIPE CASTANEDA
30346 RICHLAND AV
SHAFTER CA 93263

90 131 26 00 8
ARELLANO FERNANDO & MARIA
30372 ORANGE ST
SHAFTER CA 932632949

90 131 54 00 9
ARIAS ESTEBAN & FABIOLA
7722 VERA AV
BAKERSFIELD CA 93307

90 070 39 00 2
ARISMENDEZ VICTOR
361 E EUCLID AV
SHAFTER CA 93263

26 251 12 00 3
ARMENTA SONIA LOPEZ
30346 RIVERSIDE ST
SHAFTER CA 93263

89 160 22 00 8
ARNOLD WAYNE W TR
28144 FRESNO AV
SHAFTER CA 932639715

90 131 14 00 3
ASHMORE MABEL
P O BX 509
SHAFTER CA 932630509

90 131 03 00 1
AVALOS LYDIA
320 E MARENGO AV
SHAFTER CA 932632722

90 170 30 00 4
AVENDANO GUSTAVO A
18495 POPLAR AV
SHAFTER CA 93263

90 131 07 00 3
AVILA CONSUELA
30365 RICHLAND DR
SHAFTER CA 93263

26 251 10 00 7
AYALA NANCY MARIE
30342 RIVERSIDE ST
SHAFTER CA 932632840

90 070 15 00 2
AYALA TRINIDAD ORTIZ
30784 BURBANK ST
SHAFTER CA 932632908

26 251 11 00 0
AYON MIGUEL A
350 SHAW AV
SHAFTER CA 93263

90 110 12 00 4
BAERG DOUG
18424 POPLAR AV
SHAFTER CA 932632832

90 110 12 00 4
BAERG DOUGLAS L
18424 POPLAR AV
SHAFTER CA 932632832

90 060 04 00 7
BARRERA ADRIAN SR & LETICIA M
18620 S SHAFTER AV
SHAFTER CA 93263

26 251 21 00 9
BARRIENTE SHELLY JANE
18272 THOMAS LN
SHAFTER CA 93263

26 252 17 00 5
BARRIOS RENE
303263 RIVERSIDE ST
SHAFTER CA 932632838

90 050 04 00 4
BBK & BZT LLC
19580 WELLS DR
TARZANA CA 913563827

90 132 24 00 9 **DUP**
BBK & BZT LLC
19580 WELLS DR
TARZANA CA 913563827

90 040 36 01 3
BECK RUTH
1115 N NIAGARA ST
BURBANK CA 915052344

26 252 01 00 8
BECKER RODNEY A & CAROLYN M
217 CENTRAL AV
SHAFTER CA 93263

90 040 08 00 3
BEDOLLA OSCAR
18480 SHAFTER AV
SHAFTER CA 93263

90 190 24 00 3
BELTRAN AURORA
1680 ROYAL AV
SIMI VALLEY CA 93065

90 050 05 00 7
BENAVIDES FIDENCIA
30540 ORANGE RD
SHAFTER CA 93263

90 080 36 00 6
BENITEZ MARCELA ADRIANA GARCIA
30120 ORANGE ST
SHAFTER CA 932632922

90 080 20 00 9
BIAS ROBERT E & MARY R
7437 BEAR MOUNTAIN BL
BAKERSFIELD CA 933139317

89 160 27 00 3
BLOEMHOF FARMS & HARVESTING
28709 FRESNO AV
SHAFTER CA 932639716

90 140 60 00 2
BLOEMHOF FARMS & HARVESTING
28709 FRESNO AV
SHAFTER CA 932639716

26 552 04 00 4
BOJORQUEZ HECTOR M & FRANCISCA S
888 BRITTANY ST
SHAFTER CA 93263

90 070 17 00 8
BOJORQUEZ M OFELIA
30780 BURBANK ST
SHAFTER CA 932632908

90 070 23 00 5
BOJORQUEZ VALENZUELA AURELIO
1501 LILAC BREEZE CI
LAS VEGAS NV 89108

90 132 12 00 4
BOLANOS MARINA
P O BOX 1121
SHAFTER CA 93263

26 251 24 00 8 **DUP**
BRANCH JAMES
18286 THOMAS LN
SHAFTER CA 932632860

26 251 26 00 4
BRANCH JAMES & ANNIE LIV TR
18286 THOMAS LN
SHAFTER CA 93263

90 190 05 00 8
BROOKS IMOGENE ET AL
420 ASHER AV
TAFT CA 93268

90 120 16 00 9 **DUP**
BUENROSTRO ESTEBAN
30381 RICHLAND AV
SHAFTER CA 93263

90 120 17 00 2
BUENROSTRO ESTEBAN & ROXANA
30380 RICHLAND AV
SHAFTER CA 93263

90 131 13 00 0 **DUP**
BUENROSTRO ESTEBAN & ROXANNE
30381 RICHLAND AV
SHAFTER CA 93263

90 120 44 00 0
BUENROSTRO ROXANA
30381 RICHLAND AV
SHAFTER CA 93263

90 070 20 00 6
BURBANK WATER ASSOCIATION
P O BX 755
SHAFTER CA 93263

90 070 28 00 0 **DUP**
BURBANK WATER ASSOCIATION
P O BOX 755
SHAFTER CA 93263

90 120 42 00 4
CALEB PROP LLC
7701 JENICA RD
BAKERSFIELD CA 933149070

26 492 08 00 9
CAMARILLO ANGEL & MARGARITA
265 CAROLINE LN
SHAFTER CA 93263

90 200 20 00 3
CAMPO SANTOS
2225 1ST ST
WASCO CA 932801108

90 132 43 00 4
CARDENAS HECTOR & ISABEL V
18474 SMITH LN
SHAFTER CA 932632870

90 100 03 00 5
CARRILLO GUILLERMO V
30165 RIVERSIDE RD
SHAFTER CA 93263

90 100 12 00 1 **DUP**
CARRILLO GUILLERMO V
30165 RIVERSIDE ST
SHAFTER CA 93263

90 100 13 00 4 **DUP**
CARRILLO GUILLERMO V
30165 RIVERSIDE ST
SHAFTER CA 93263

90 100 15 00 0 **DUP**
CARRILLO GUILLERMO V
30165 RIVERSIDE ST
SHAFTER CA 93263

90 040 45 00 0
CARRILLO RUBEN & MARTHA
RODRIGUEZ DE
2416 9TH PL
WASCO CA 93280

90 070 12 00 3
CASTILLO GILDARDO
30785 ELLIOTT LN
SHAFTER CA 93263

90 150 45 00 2
CASTRO DOMINGO
18417 POPLAR AV
SHAFTER CA 932632831

90 131 41 00 1
CATALFAMO VINCENZO &
ADRIANNE
493 N MAAG AV
OAKDALE CA 95361

26 240 03 00 7
CATON JUANITA
P O BOX 1342
SHAFTER CA 93263

90 070 40 00 4
CAZARES JESUS MARIO
18695 BEECH AV
SHAFTER CA 932632901

26 252 02 00 1
CCVHRP I LLC
9530 HAGEMAN RD STE B234
BAKERSFIELD CA 93312

90 110 01 00 2
CENTRAL CAL CONF OF SEVENTH
DAY ADVENTISTS
P O BOX 770
CLOVIS CA 93613

90 110 02 00 5 **DUP**
CENTRAL CAL CONF OF SEVENTH
DAY ADVENTISTS
P O BOX 770
CLOVIS CA 93613

90 110 06 00 7 **DUP**
CENTRAL CAL CONF OF SEVENTH
DAY ADVENTISTS
P O BOX 770
CLOVIS CA 93613

90 132 49 00 2
CEPEDA JOSE L
18499 SHAFTER AV
SHAFTER CA 93263

90 131 50 00 7
CERNA MARGARITA
30366 ORANGE ST
SHAFTER CA 932632926

90 050 02 00 8
CERROS MORENA E
30548 ORANGE ST
SHAFTER CA 93263

90 132 02 00 5
CHURCH OF GOD SHAFTER
P O BX 771
SHAFTER CA 93263

90 132 03 00 8 **DUP**
CHURCH OF GOD SHAFTER
P O BX 771
SHAFTER CA 93263

26 502 06 00 5
CITY OF SHAFTER
336 PACIFIC AV
SHAFTER CA 93263

90 211 02 00 1
CITY OF SHAFTER
320 JAMES ST
SHAFTER CA 932632033

90 211 04 00 7 **DUP**
CITY OF SHAFTER SEWER FARM
ADDRESS UNKNOWN

90 131 40 00 8
CLAYTON HAROLD G & CYNTHIA
30354 W ORANGE AV
SHAFTER CA 93263

90 030 62 03 3
CLICK ERNEST W
1421 NO THESTA ST
FRESNO CA 93703

90 131 10 00 1
COATS TONY M & BARBARA B
30373 RICHLAND AV
SHAFTER CA 93263

90 120 24 00 2
COMBS ESTEL I & LUPE FMLY TR
30362 RICHLAND DR
SHAFTER CA 93263

90 190 11 00 5
CORDERO ABELINO & CONCEPCION FMLY TR
18824 BEECH AV
SHAFTER CA 93263

90 200 03 00 4 **DUP**
CORDERO ABELINO & CONCEPCION FMLY TR
18824 BEECH AV
SHAFTER CA 93263

90 200 04 00 7 **DUP**
CORDERO ABELINO & CONCEPCION FMLY TR
18824 BEECH AV
SHAFTER CA 93263

90 200 13 00 3
CORONA ABRAHAM C RAMIREZ
18866 BEECH AV
SHAFTER CA 932632906

90 131 22 00 6
COTTON CHARLIE OLIVER ESTATE
30382 ORANGE AV
SHAFTER CA 93263

90 170 27 00 6
CRISWELL PATSY J TRUST
18447 POPLAR AV
SHAFTER CA 93263

26 251 13 00 6
CRUZ FELIPE
30338 RIVERSIDE ST
SHAFTER CA 93263

90 160 01 00 7
CRUZ SALVADOR
PO BOX 9494
BAKERSFIELD CA 933899494

90 190 13 00 1
CUADRAS BENIGNO V & BATIZ MARICRUZ SAUCEDA
18828 BEECH AV
SHAFTER CA 932632906

90 221 03 00 7
CUTHBERT FRED
260 MAPLE ST
SHAFTER CA 93263

26 220 06 00 0
DAVARY GROUP INC
10905 CRAIGTON CT
BAKERSFIELD CA 933113569

90 030 62 03 3
DAVIS MELVIN G TR ET AL
P O BOX 10926
BAKERSFIELD CA 93389

90 190 17 00 3
DE SANTIS LINDA
1110 E ST
RIO LINDA CA 956735009

90 040 03 00 8
DIAZ OFELIO & MARISOL S
P O BOX 432
WASCO CA 932800432

90 221 11 00 0
DIAZ TOBIAS
214 N ALMA AV
LOS ANGELES CA 900634160

26 503 02 00 0
DOMINGUEZ FERNANDO & HERLINDA
894 OAKMONT ST
SHAFTER CA 93263

90 131 44 01 9
DOMINGUEZ JUAN
P O BOX 1104
GREENFIELD CA 93927

90 132 41 00 8 **DUP**
DOMINGUEZ JUAN
P O BOX 1104
GREENFIELD CA 93927

90 132 30 00 6
DUARTE LUIS & TERESA
18484 SMITH LN
SHAFTER CA 93263

26 551 09 00 2
DUENAS ARTURO & MARIA A
885 BRITTANY ST
SHAFTER CA 93263

90 221 25 00 1
DUNLAP D D
16081 E KINGS CYN RD
SANGER CA 93657

90 222 23 00 2 **DUP**
DUNLAP D D
16081 E KINGS CYN RD
SANGER CA 93657

26 551 11 00 7
DURAN MARIO
891 BRITTANY ST
SHAFTER CA 93263

90 040 09 00 6
EBLING JAMES R
2408 TIVERTON
BAKERSFIELD CA 93311

26 252 13 00 3
ELLIOTT VALERIE Y
30330 RIVERSIDE ST
SHAFTER CA 932632838

90 080 12 01 5
EOG RESOURCES INC
P O BOX 4362
HOUSTON TX 772104362

90 190 04 00 5
EPPS SHIRLEY ANN
12511 LENE PL
BAKERSFIELD CA 933069636

90 030 33 00 2
ESCALANTE FAMILY TRUST
30562 ORANGE ST
SHAFTER CA 932632952

90 200 28 00 7
ESPARZA JOSE & CARMEN
18882 BEECH AV
SHAFTER CA 932632906

90 070 21 00 9
ESPARZA JOSE M
9261 W AVENUE E8
LANCASTER CA 935369340

26 552 02 00 8
ESPERICUETA ELI & MELISSA
FAMILY TRUST
717 ACACIA AV
SHAFTER CA 932631805

90 160 08 00 8
ESPERICUETA EUSTOLIA P
29783 RIVERSIDE ST
SHAFTER CA 93263

90 131 37 00 0
ESPINOZA GUADALUPE & SILVIA
18489 BAYLESS
SHAFTER CA 93263

90 132 36 01 3
EVANS STEVE & KAREN
18480 SMITHS LN
SHAFTER CA 93263

90 190 06 00 1
EVARO JUAN
18810 BEECH AV
SHAFTER CA 932632906

90 200 26 00 1
FAIN BOBBY G
PO BOX 527
SHAFTER CA 93263

90 200 27 00 4 **DUP**
FAIN BOBBY G
PO BOX 527
SHAFTER CA 93263

90 100 22 00 0
FERNANDEZ ALICIA
379 MILL POND DR
SAN JOSE CA 951251427

90 100 20 00 4
FIVE BROS PROP LLC
30768 ORANGE ST
SHAFTER CA 932632934

90 100 21 00 7 **DUP**
FIVE BROS PROP LLC
30768 ORANGE ST
SHAFTER CA 932632934

90 120 07 00 3 **DUP**
FIVE BROS PROP LLC
30768 ORANGE ST
SHAFTER CA 932632934

90 131 33 00 8 **DUP**
FIVE BROS PROP LLC
30768 ORANGE ST
SHAFTER CA 932632934

26 260 05 00 9
FLORES CARMEN CARRIE ET AL
8735 BALBOA BL
NORTHRIDGE CA 91325

90 030 75 00 4
FLORES JOSE
336 E LERDO HW
SHAFTER CA 93263

90 030 85 00 3 **DUP**
FLORES JOSE
336 E LERDO HW
SHAFTER CA 93263

90 030 45 00 7
FLORES JOSE J R
30558 ORANGE ST
SHAFTER CA 93263

90 190 19 00 9
FLORES LUIS & ENEDINA
PO BOX 822
DELANO CA 932160822

90 100 10 00 5
FLORES MARIA D
18418 MYRICK LN
SHAFTER CA 932632830

90 120 27 00 1
FLORES RAPHAEL M & PATRICIA
P O BOX 1387
SHAFTER CA 932631387

90 221 07 00 9
FLOREZ JANET D
1162 BODEGA CT
GROVER BEACH CA 93433

90 170 28 00 9
FOLLOWAY JAMES H & SHERI A
18465 POPLAR AV
SHAFTER CA 93263

90 070 22 00 2
FRANCO MANUEL
30779 ELLIOTT ST
SHAFTER CA 932632917

90 120 45 00 3
FRASER ISSAC A & CORA G
P O BOX 1243
SHAFTER CA 93263

26 260 04 00 6
FRIAS NOLBERTO SALAZAR
396 MESQUITE CT
WASCO CA 93280

90 060 02 00 1
FUENTES REYNALDO
1010 DELFINO LN
BAKERSFIELD CA 93304

90 131 40 00 8
FULLER RICHARD & CHERYL
30354 W ORANGE AV
SHAFTER CA 93263

28 290 15 00 1
FURROW LAND CO LLC
474 OLEANDER AV
SHAFTER CA 93263

90 040 26 00 5
G & M LLANAS LLC
688 5 FRESNO AV
SHAFTER CA 93263

90 040 53 00 3 **DUP**
G & M LLANAS LLC
688 5 FRESNO AV
SHAFTER CA 93263

90 132 22 00 3 **DUP**
G & M LLANAS LLC
688 5 FRESNO AV
SHAFTER CA 93263

26 552 03 00 1
GARCIA ADALBERTO & YEPEZ MARIA D J M
892 BRITTANY ST
SHAFTER CA 932633133

90 100 14 00 7
GARCIA EDDY F & IRENE
PO BOX 11366
EARLIMART CA 932191366

90 030 43 00 1
GARCIA JESUS C & VIRGIE E
30552 ORANGE AV
SHAFTER CA 93263

90 221 04 00 0
GARCIA JOSE & GREGORIA
30720 RODRIGUEZ ST
SHAFTER CA 93263

90 120 43 00 7
GARCIA JOSE & HERMELINDA
P O BOX 1193
SHAFTER CA 93263

26 552 05 00 7
GARCIA JOSE L
884 BRITTANY ST
SHAFTER CA 93263

90 221 04 00 0
GARCIA JOSE L
30720 RODRIGUEZ AV
SHAFTER CA 93263

90 080 19 00 7
GARCIA JULIAN
PO BOX 1292
SHAFTER CA 932631292

90 080 34 00 0
GARCIA JULIAN
18458 POPLAR AV
SHAFTER CA 93263

90 120 14 00 3
GARCIA XAVIER
143 KATTENHORN ST
SHAFTER CA 932632877

90 040 16 00 6
GARZA KRISTA RACHELLE
18480 GOSSIPER LN
SHAFTER CA 932632900

90 040 47 00 6 **DUP**
GARZA KRISTA RACHELLE
18480 GOSSIPER LN
SHAFTER CA 932632900

90 160 07 00 5
GEIVET HARRY K & CONNIE R
29783 RIVERSIDE ST U 3
SHAFTER CA 932639411

90 132 34 00 8
GENTRY RUBY
303 IRENE ST
TAFT CA 932682209

90 131 18 00 5
GODINEZ BLANCA ESTELA PLASCENCIA
30376 ORANGE ST APT 10
SHAFTER CA 932632959

89 160 21 00 5
GOEHRING FAMILY TRUST
19401 POPLAR AV
SHAFTER CA 932639421

90 040 52 00 0
GOMEZ CARLOS & MARIA D
11908 GALILEO DR
BAKERSFIELD CA 933123361

90 132 16 00 6
GOMEZ JOSE M RODRIGUEZ
1538 3RD ST
WASCO CA 932801220

90 050 13 00 0
GONZALEZ DAVID H & RACHEL
30530 ORANGE ST
SHAFTER CA 932632952

90 160 15 00 8
GONZALEZ GLORIA
29797 RIVERSIDE ST
SHAFTER CA 93263

90 120 23 00 9
GONZALEZ GONZALO
30364 RICHLAND AV
SHAFTER CA 93263

90 090 03 00 3
GONZALEZ JUAN F & MARIA M
204 VILLA ELEGANTE DR
BAKERSFIELD CA 93314

90 131 09 00 9
GONZALEZ JULIAN JAVIER JR & ESMERALDA
PO BOX 408
SHAFTER CA 932630408

90 132 21 00 0 **DUP**
GONZALEZ JULIAN JAVIER JR & ESMERALDA
PO BOX 408
SHAFTER CA 932630408

90 200 09 00 2
GONZALEZ RAMIRO
18874 BEECH AV
SHAFTER CA 932632906

90 200 10 00 4 **DUP**
GONZALEZ RAMIRO
18874 BEECH AV
SHAFTER CA 932632906

90 132 05 00 4
GRACIA JUANITA C
18477 SHAFTER AV
SHAFTER CA 93263

26 252 18 00 8
GRAYBILL JANET
255 E 400 SOUTH
HEBER CITY UT 840322324

90 110 05 00 4
GUERRA JOHNNY G
18418 POPLAR AV
SHAFTER CA 93263

26 492 22 00 9
GUERRERO H MARCOS
274 ELIZABETH AV
SHAFTER CA 932633122

90 120 04 00 4
GUEVARA MARIAMARTHA B
ACEVEDO DE
2748 ST ELMO DR
RIALTO CA 923765342

90 211 18 00 8
GURON KARAM & SARABJIT FMLY
TRUST
12611 KNIGHTS BRIDGE PL
BAKERSFIELD CA 933126741

90 211 30 00 2 **DUP**
GURON KARAM & SARABJIT FMLY
TRUST
12611 KNIGHTS BRIDGE PL
BAKERSFIELD CA 933126741

90 132 38 00 0
GUTIERREZ EDELMIRO F JR
18459 POPLAR AV
SHAFTER CA 93263

90 160 10 00 3
GUTIERREZ EDELMIRO F JR
18459 POPLAR AV
SHAFTER CA 93263

90 170 03 00 6
GUTIERREZ NOEMI
18459 POPLAR AV
SHAFTER CA 93263

90 131 19 00 8
GUTIERREZ ROSARIO M
30378-12 ORANGE ST
SHAFTER CA 93263

90 131 11 00 4
GUTIERREZ SANTOS & CYNTHIA
30377 RICHLAND AV
SHAFTER CA 93263

90 190 21 00 4
GUZMAN ROBERT & LOURDES
987 ZACHARY AV
SHAFTER CA 932639592

90 170 08 00 1
HALL ROCKY H & BUFFY A
P O BOX 764
SHAFTER CA 93263

90 170 25 00 0 **DUP**
HALL ROCKY H & BUFFY A
P O BOX 764
SHAFTER CA 93263

90 190 03 00 2
HAMMETT DANIEL & BARBARA TR
18447 POPLAR AV
SHAFTER CA 93263

90 190 10 00 2
HARP EUNICE A & RONALD ROY
18822 BEECH AVE.
SHAFTER CA 932632906

90 040 25 00 2
HATHCOCK DELIA PASLAY
15951 MALDEN ST
SEPULVEDA CA 913435834

90 150 15 00 5
HEI PEET & DOROTHY TR
18433 POPLAR AV
SHAFTER CA 93263

90 131 02 00 8
HEMPFER THOMAS R & ROSE M
10066 N GRASSLYN RD
MEQUON WI 53092

90 221 19 00 4
HEREDIA FRANCISCO & OLIVIA
30711 BURBANK ST
SHAFTER CA 932632907

90 131 21 00 3
HEREDIA SAMUEL
408 BELMONT AV
BAKERSFIELD CA 933084208

90 131 22 00 6
HEREDIA SAMUEL
5373 AUSTELL RD
AUSTELL GA 30106

90 132 18 00 2 **DUP**
HEREDIA SAMUEL
408 BELMONT AV
BAKERSFIELD CA 933084208

90 200 25 00 8
HERNANDEZ FRANCISCA
18896 BEECH AV # 3
SHAFTER CA 93263

90 222 18 00 8
HERNANDEZ JARA DORA E
30723 MARTINEZ ST
SHAFTER CA 93263

90 222 19 00 1 **DUP**
HERNANDEZ JARA DORA E
30723 MARTINEZ ST
SHAFTER CA 93263

90 222 20 00 3 **DUP**
HERNANDEZ JARA DORA E
30723 MARTINEZ ST
SHAFTER CA 93263

90 120 02 00 8
HERNANDEZ MARIA E
P O BOX 584
WASCO CA 93280

90 080 35 00 3
HEYDARI MOHAMMAD T & FOROOZ
30100 ORANGE ST
SHAFTER CA 932632922

90 132 09 00 6
HIGHT BRADLEY S & CECIL B
300 S SHAFTER AV
SHAFTER CA 93263

90 120 26 00 8
HOPKINS LAURA J
525 WILLOW AV
SHAFTER CA 93263

90 190 22 00 7
IZQUIERDO MARY EVELYN
10004 OLD RIVER RD
BAKERSFIELD CA 93311

90 170 36 00 2
JAIME PEDRO P & MARIA L
29994 ORANGE ST
SHAFTER CA 93263

90 170 41 00 6 **DUP**
JAIME PEDRO PEREZ
29994 ORANGE ST
SHAFTER CA 93263

26 251 25 00 1
JAIME VICTOR M & AMANDA N
18284 THOMAS LN
SHAFTER CA 932632860

89 160 26 00 0
JANZEN FAMILY TRUST
29759 LOS ANGELES ST
SHAFTER CA 93263

90 120 09 00 9
JIMENEZ MARIA A
615 VASQUEZ AV
SHAFTER CA 93263

90 132 06 00 7
JIMENEZ VICTOR HUGO MATA
18483 SHAFTER AV
SHAFTER CA 932632853

90 132 07 01 9 **DUP**
JIMINEZ MARTIN MATA
18483 SHAFTER AV
SHAFTER CA 932632853

90 080 04 01 2
JOHNSON LYDIA
10721 COLOMA ST
LOMA LINDA CA 923542301

26 251 27 00 7
JOHNSON THOMAS C & SUSANN R
18250 THOMAS LN
SHAFTER CA 932632860

26 251 28 00 0 **DUP**
JOHNSON THOMAS C & SUSANN R
18250 THOMAS LN
SHAFTER CA 932632860

90 190 27 00 2
JONES T A
GENERAL DELIVERY
SHAFTER CA 932639999

90 211 35 00 7
JP OIL CAL LLC
PO BOX 1807
HENDERSON TX 756531807

90 211 24 00 5 **DUP**
JP OIL CALIFORNIA LLC
P O BOX 1807
HENDERSON TX 756531807

90 212 16 00 9 **DUP**
JP OIL CALIFORNIA LLC
P O BOX 1807
HENDERSON TX 756531807

90 280 01 00 2 **DUP**
JP OIL CALIFORNIA LLC
P O BOX 1807
HENDERSON TX 756531807

104 340 01 00 9 **DUP**
JP OIL CALIFORNIA LLC
P O BOX 1807
HENDERSON TX 756531807

104 340 02 00 2 **DUP**
JP OIL CALIFORNIA LLC
P O BOX 1807
HENDERSON TX 756531807

90 160 27 00 3
KAUHN HANS D & RICHELLE A
29799 RIVERSIDE ST
SHAFTER CA 93263

90 030 62 03 3
KIRSCHENMANN LAND & INVS LP
29781 FRESNO AV
SHAFTER CA 93263

90 080 04 01 2
KROEKER MICHAEL D TR
445 OAK ST
SHAFTER CA 93263

90 080 30 00 8 **DUP**
KROEKER MICHAEL D TR
445 OAK ST
SHAFTER CA 93263

26 260 09 00 1
KUBIK GEORGE
9530 HAGEMAN RD STE B365
BAKERSFIELD CA 93312

26 260 09 00 1
KUBIK HELENE N
250 W RIVERSIDE ST
SHAFTER CA 932633156

90 131 08 00 6
LAGUANA GINA G
30367 RICHLAND AV
SHAFTER CA 93263

26 503 03 00 3
LAWRENCE JOE ANN
890 OAKMONT ST
SHAFTER CA 93263

90 180 01 00 3
LENORA RANCH
P O BOX 699
SHAFTER CA 932630699

90 190 01 00 6 **DUP**
LENORA RANCH
P O BOX 699
SHAFTER CA 932630699

90 200 01 00 8 **DUP**
LENORA RANCH
P O BOX 699
SHAFTER CA 932630699

90 030 79 00 6
LEON FRANCISCO & ANGELICA
PO BOX 448
BUTTONWILLOW CA 93206

90 030 80 00 8 **DUP**
LEON FRANCISCO & ANGELICA
PO BOX 448
BUTTONWILLOW CA 93206

26 252 11 00 7
LEWIS RUTH M
6400 TERREBONNE CT
BAKERSFIELD CA 93309

90 040 27 00 8
LOPEZ ISMAEL
30512 ORANGE ST
SHAFTER CA 932632930

90 170 35 00 9
LOPEZ MARIA
18499 POPLAR AV
SHAFTER CA 93263

90 110 03 00 8
LORZO SERGIO MUNEZ ET AL
18414 POPLAR AV
SHAFTER CA 93263

90 040 07 00 0
LUCERO THOMAS & MARYCRUZ
18478 S SHAFTER AV
SHAFTER CA 93263

26 492 21 00 6
LUNA JESUS & JULIA
266 ELIZABETH AV
SHAFTER CA 93263

90 120 03 00 1
MAESE ALEXANDER A
2001 WEYRICH ST
TULARE CA 932747722

90 070 38 00 9 **DUP**
MALDONADO GABRIEL & CRUZ
30779 ELLIOTT ST
SHAFTER CA 93263

90 132 08 00 3
MARCHMAN KENNETH BURT
371 E ORANGE ST
SHAFTER CA 93263

90 131 17 00 2
LEON MONICA LOURDES RIVERA
2013 ROBERTSON RD
MODESTO CA 953513446

90 131 34 00 1
LITTLE L D
30362 ORANGE AV
SHAFTER CA 93263

90 150 50 00 6
LOPEZ LIONEL JR
18411 POPLAR AV
SHAFTER CA 93263

90 030 84 00 0
LOPEZ SALVADOR & MARY A
30533 ORANGE ST
SHAFTER CA 93263

90 200 29 00 0
LOZOYA FRANCISCO & RUFINA
4254 DOBSON DR
LAS VEGAS NV 89115

90 010 18 00 3
LUM CHARLES
2109 GLENDON CT
BAKERSFIELD CA 933093631

26 252 04 00 7
MACIAS ARNOLD & DELIA
29943 W LERDO HW
SHAFTER CA 932632859

90 070 18 00 1
MALDONADO GABRIEL & CRUZ
30779 ELLIOTT ST
SHAFTER CA 93263

90 131 59 00 4
MANNING JOHNNY & SANDRA
30362 ORANGE AV
SHAFTER CA 932632926

26 502 03 00 6
MARES LUIS FERNANDO JR
889 OAKMONT ST
SHAFTER CA 932633119

90 132 20 00 7 **DUP**
LEON MONICA LOURDES RIVERA
2013 ROBERTSON RD
MODESTO CA 953513446

90 131 53 00 6
LOPEZ ANTONIA C
18492 BAYLESS ST
SHAFTER CA 93263

90 200 11 00 7
LOPEZ LORENA & VALENZUELA MARCIAL LOPEZ
18870 BEECH AV
SHAFTER CA 932632906

26 220 06 00 0
LORENZ LELAND C
8200 STOCKDALE HW M10-324
BAKERSFIELD CA 933111091

90 200 30 00 2 **DUP**
LOZOYA RUFINA
4254 DOBSON DR
LAS VEGAS NV 89115

90 010 20 00 8 **DUP**
LUM CHARLES
2109 GLENDON CT
BAKERSFIELD CA 933093631

26 252 03 00 4 **DUP**
MACIAS ARNOLDO & DELIA
29943 W LERDO HW
SHAFTER CA 932632859

90 070 37 00 6 **DUP**
MALDONADO GABRIEL & CRUZ
30779 ELLIOTT ST
SHAFTER CA 93263

90 131 34 00 1 **DUP**
MANNING JOHNNY & SANDRA L
30362 ORANGE AV
SHAFTER CA 93263

90 132 27 00 8
MARIN RUBEN GONZALEZ
18489 SMITHS LN
SHAFTER CA 932632857

90 131 48 00 2
MARTINEZ ALBINO L & CANO JUANA M L
30376 SMITHS LN # 11
SHAFTER CA 93263

90 222 22 00 9
MARTINEZ B L & J A
7505 REYNOLDS ST
BAKERSFIELD CA 933079560

90 222 01 00 8
MARTINEZ BERNARDINO
7505 REYNOLDS ST
BAKERSFIELD CA 933079560

90 221 06 00 6
MARTINEZ DOLORES M
7505 REYNOLDS ST
BAKERSFIELD CA 933079560

90 050 12 00 7
MARTINEZ NICOLAS JR
30534 ORANGE ST
SHAFTER CA 93263

90 150 26 00 7
MARTINEZ PRISCILIANO & MARIA ELENA
18445 POPLAR AV
SHAFTER CA 93263

90 131 24 00 2
MARTINEZ REYNALDO R SR
30378 ORANGE AV
SHAFTER CA 93263

90 070 14 00 9
MARTINEZ RODRIGO T
30786 BURBANK ST
SHAFTER CA 93263

90 131 54 00 9
MATTHEWS JAMES L/SHAUNTINA
30777 LOS ANGELES ST
SHAFTER CA 93263

90 070 04 00 0
MC CASLIN JERRY LEON
24836 SIDDING RD
BAKERSFIELD CA 93314

90 070 42 00 0 **DUP**
MC CASLIN JERRY LEON
24836 SIDDING RD
BAKERSFIELD CA 93314

90 040 02 00 5
MC NABB SUSIE M
18462 SO SHAFTER
SHAFTER CA 93263

90 150 24 00 1
MC NUTT CARY S & BERNICE E
18443 POPLAR AV
SHAFTER CA 93263

90 190 07 00 4
MEJIA JUAN
18812 BEECH AV
SHAFTER CA 93263

90 040 36 01 3
MEJIA OSCAR
10921 SANTA BARBARA DR
LAMONT CA 93241

90 120 13 00 0
MELGOZA LEONEL AVILA & SANCHEZ ALMA
1651 PRIMROSE CT
WASCO CA 932809411

90 170 29 00 2
MENDOZA ENRIQUE & OLGA
18469 POPLAR AV
SHAFTER CA 93263

26 251 06 00 6
MENDOZA F JUAN
18276 THOMAS LN
SHAFTER CA 93263

26 251 19 00 4 **DUP**
MENDOZA F JUAN
18276 THOMAS LN
SHAFTER CA 93263

90 170 31 00 7
MENDOZA RENE G & GONZALEZ ANA
18489 POPLAR AV
SHAFTER CA 93263

90 080 42 00 3
MENNONITE BRETHREN CH PAC DIST
1717 S CHESTNUT AV
FRESNO CA 93702

26 492 09 00 2
MIRANDA ELEAZAR C
257 CAROLINE LN
SHAFTER CA 93263

90 131 27 00 1
MIZNER ROBERT & SHIRLEY LIV TR
3831 INDIAN BEND RD
SNOWFLAKE AZ 85937

90 131 49 00 5 **DUP**
MIZNER ROBERT & SHIRLEY LIV TR
3831 INDIAN BEND RD
SNOWFLAKE AZ 85937

90 132 13 00 7
MOHSEN ABDULLA
18487 S SHAFTER AV
SHAFTER CA 93263

26 260 11 00 6
MONACHE MEADOWS AG
2235 HIGHWAY 46 # 107
WASCO CA 932801167

90 120 31 00 2
MONSON ROBERT G & DOROTHY M
1001 H ST
BAKERSFIELD CA 93304

90 132 04 00 1
MONTENEGRO GABRIEL
605 HITCHCOCK AV
SHAFTER CA 93263

26 551 13 00 3
MONTOYA ERIC & MARIA S
897 BRITTANY ST
SHAFTER CA 93263

90 170 22 00 1
MONTOYA ROBERT C & ORALIA P
18477 POPLAR AVE.
SHAFTER CA 932632831

90 170 23 00 4 **DUP**
MONTOYA ROBERT C & ORALIA P
18477 POPLAR AVE.
SHAFTER CA 932632831

26 252 19 00 1
MORA JOSE & MARTHA
2601 VICTORIA ST 318
RANCHO CUCUMONG CA 90220

90 222 21 00 6
MORALES YVETTE J
30721 RODRIGUEZ AV
SHAFTER CA 932632942

90 131 01 00 5
MORENO AGUSTIN
10100 CRANBERRY ISLE DR
BAKERSFIELD CA 933148093

90 132 35 01 0
MORRIS E R
22423 DOLOROSA ST
WOODLAND HILLS CA 91364

90 060 05 00 0
MULLENS TRAVIS I & TONNA
18624 SHAFTER AV
SHAFTER CA 93263

26 252 12 00 0
MUNSEY JULIUS & SUSIE
30332 RIVERSIDE ST
SHAFTER CA 932632838

26 551 12 00 0
NAVARRETE HORACIO
893 BRITTANY ST
SHAFTER CA 932633134

26 251 02 00 4
NEELEY BARBARA J REV LIV TRUST
18268 THOMAS LN
SHAFTER CA 93263

26 251 04 00 0 **DUP**
NEELEY BARBARA J REV LIV TRUST
18268 THOMAS LN
SHAFTER CA 93263

26 551 10 00 4
NOLASCO ESPERANZA F
889 BRITTANY ST
SHAFTER CA 93263

90 040 04 00 1
NOZA PARTNERS L P
8200 STOCKDALE HW STE M 10
BAKERSFIELD CA 933111029

26 240 08 00 2
OBAID ANTER KAID
315 JAMES ST
SHAFTER CA 932632032

90 070 08 00 2
OBAID KARIM SALEH
538 CENTRAL AV
SHAFTER CA 932632122

90 080 33 00 7
ORTEGA DAVID
675 W SANTA PAULA ST
SANTA PAULA CA 930601835

26 492 20 00 3
ORTIZ DAVID & JUANITA
P O BOX 1053
SHAFTER CA 93263

90 010 28 00 2
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 030 86 00 6 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 030 87 00 9 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 030 89 00 5 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 030 90 00 7 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 030 92 00 3 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 030 93 00 6 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 080 52 00 2 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 180 36 00 5 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 212 50 00 7 **DUP**
OXY USA INC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 030 35 00 8
PALOMO RUDOLPH C IRREVOCABLE TRUST
5015 PELICAN HILL DR
BAKERSFIELD CA 933123986

90 140 22 00 2
PAYNE DAVID & JENNIFER FAMILY TRUST
381 CROSS ST
SHAFTER CA 932632203

90 190 09 00 0
PAYNE JAMES F
18818 BEECH AV
SHAFTER CA 932632906

90 200 08 00 9
PEARSON OTHEL L
18880 BEECH AV
SHAFTER CA 93263

90 030 01 00 9
PENNER ARTHUR J & DONNA LEE TR
637 E LOS ANGELES AV
SHAFTER CA 93263

90 050 03 00 1
PENTECOSTAL CH OF GOD I M
114RPCA
5000 BELLE TERRACE # 49
BAKERSFIELD CA 933093775

90 040 50 00 4
PEREZ FRANCISCO T
30518 ORANGE ST
SHAFTER CA 932632952

90 040 51 00 7 **DUP**
PEREZ FRANCISCO T
30518 E ORANGE AV
SHAFTER CA 93263

90 132 08 00 3
PEREZ JOSE
18483 SHAFTER AV
SHAFTER CA 93263

26 552 01 00 5
PEREZ MARTIN A & IRMA M
898 BRITTANY ST
SHAFTER CA 93263

90 131 45 00 3
PHRAMPUS ANGELO R
18483 BAYLESS ST
SHAFTER CA 93263

90 132 33 00 5
PIERCE CLIFFORD
18483 SMITH LN
SHAFTER CA 932632857

26 240 04 00 0 **DUP**
PINEDA JOSEPH W & FRANCES S
18281 THOMAS LN
SHAFTER CA 932632859

90 070 09 00 5
PINEDA JOSEPH WILLIAM & FRANCES
18281 THOMAS LN
SHAFTER CA 932632859

90 070 10 00 7 **DUP**
PINEDA MATILDE LOPEZ
30725 BURBANK ST
SHAFTER CA 932632907

90 221 01 00 1
PINEDA MATILDE LOPEZ FMLY TR
30725 BURBANK AV
SHAFTER CA 93263

90 212 15 00 6
PIPE PORTFOLIO OWNER MULTI LP
12720 HILLCREST RD STE 900
DALLAS TX 752302047

90 150 37 00 9 **DUP**
PITTS FRED KENNETH
18435 POPLAR ST
SHAFTER CA 93263

90 150 38 00 2
PITTS FRED KENNETH & PAMELA A
18425 POPLAR AV
SHAFTER CA 932632831

90 150 21 00 2
PITTS ROY & JOYCE 2001 FAM SURVIVOR TRUST
18435 POPLAR AV
SHAFTER CA 932632831

90 150 12 00 6 **DUP**
PITTS ROY & JOYCE 2001 FAM SURVIVORS TRUST
18435 POPLAR ST
SHAFTER CA 93263

90 200 06 00 3
PULIDO JOSE C & GODELEVA A
18888 BEECH AV
SHAFTER CA 93263

90 221 05 00 3
RADER CATHERINE SAENZ
30718 RODRIGUEZ AV
SHAFTER CA 932632943

90 190 12 00 8
RAMIREZ ADALBERTO GARCIA
16287 MAGNOLIA AV
WASCO CA 93280

26 551 12 00 0
RAMIREZ GERARD & VIOLETA
893 BRITTANY ST
SHAFTER CA 932633134

90 132 31 00 9
RAMIREZ ROBERTO ALEJANDRE
18487 SMITHS LN
SHAFTER CA 93263

90 070 45 00 9
RAPER GLEN E & BARBARA
30785 ELLIOTT ST
SHAFTER CA 932632917

26 252 14 00 6
RAY JOHN ADAM TRUST
29765 RIVERSIDE ST
SHAFTER CA 932639761

90 140 59 00 0 **DUP**
RAY JOHN ADAM TRUST
29765 RIVERSIDE ST
SHAFTER CA 932639761

89 160 25 00 7 **DUP**
RAY JOHN M & SUSAN C FAM TR
29784 RIVERSIDE ST
SHAFTER CA 932639761

90 211 17 00 5
REYES JOSE J
30771 BURBANK ST
SHAFTER CA 932632948

90 190 02 00 9
RHOADS DEEDRA HELENE
30909 BURBANK ST
SHAFTER CA 932632911

90 040 14 00 0
RICHARDSON GENEVA F
200 ASPEN ST
SHAFTER CA 932633001

90 040 15 00 3 **DUP**
RICHARDSON GENEVA F
200 ASPEN ST
SHAFTER CA 932633001

90 040 11 00 1
RICHARDSON JANICE ELAINE
200 S ELM ST
SHAFTER CA 932632258

90 221 20 00 6
RODRIGUEZ GAVINO E & ELVIRA R
LIVING TRUST
30749 BURBANK ST
SHAFTER CA 932632948

90 221 32 00 1 **DUP**
RODRIGUEZ GAVINO E & ELVIRA R
LIVING TRUST
30749 BURBANK ST
SHAFTER CA 932632948

90 221 23 00 5
RODRIGUEZ HENRY E
13201 LYNETT WY
BAKERSFIELD CA 933143861

90 150 53 00 5 **DUP**
RUB MARSHALL
30139 RIVERSIDE ST
SHAFTER CA 932632835

90 140 63 00 1
RUB MELVIN & MARJORIE FMLY TR
30139 RIVERSIDE ST
SHAFTER CA 93263

90 200 24 00 5
RUEDA EDUARDO & MARIA DE LA
LUZ
PO BOX 933
SHAFTER CA 93263

90 160 02 00 0
RUSSELL SE C
29903 RIVERSIDE ST
SHAFTER CA 93263

90 132 35 01 0 **DUP**
S C PRODUCTS INC
P O BOX 1394
BORREGO SPGS CA 92004

26 251 14 00 9
SALAZAR MARIA E
30336 RIVERSIDE ST
SHAFTER CA 93263

90 221 02 00 4
RIVERA DAVID A & NORA T
P O BOX 718
SHAFTER CA 93263

90 221 30 00 5 **DUP**
RODRIGUEZ GAVINO E & ELVIRA R
LIVING TRUST
30749 BURBANK ST
SHAFTER CA 932632948

90 230 15 00 8 **DUP**
RODRIGUEZ GAVINO E & ELVIRA R
LIVING TRUST
30749 BURBANK ST
SHAFTER CA 932632948

90 131 23 00 9
RODRIGUEZ JUAN & EMMA
30380 ORANGE ST
SHAFTER CA 932632949

90 080 49 00 4 **DUP**
RUB MARSHALL R
30139 RIVERSIDE ST
SHAFTER CA 93263

90 080 51 00 9 **DUP**
RUB MELVIN R & MARJORIE FMLY
TR
30139 RIVERSIDE ST
SHAFTER CA 93263

90 150 18 00 4
RUELAS JUANA MARIA
P O BOX 674
SHAFTER CA 93263

90 131 44 01 9
S C PRODUCTS INC
P O BOX 1394
BORREGO SPGS CA 92004

90 030 44 00 4
SALAZAR ENRIQUE N & ANGELINA O
30554 ORANGE AV
SHAFTER CA 93263

26 503 04 00 6
SALINAS MAGDIEL
886 OAKMONT ST
SHAFTER CA 93263

90 150 22 00 5
RODRIGUEZ FERNANDO & MARIA
18441 POPLAR AV
SHAFTER CA 932632831

90 221 31 00 8 **DUP**
RODRIGUEZ GAVINO E & ELVIRA R
LIVING TRUST
30749 BURBANK ST
SHAFTER CA 932632948

90 230 14 00 5
RODRIGUEZ GILBERT A
30745 BURBANK AV
SHAFTER CA 93263

90 150 30 00 8
ROSALES RALPH & EMILY ANNE
18429 POPLAR AV
SHAFTER CA 93263

90 080 49 00 4
RUB MARSHALL R & ESTELLA
30139 RIVERSIDE ST
SHAFTER CA 93263

90 110 11 00 1 **DUP**
RUB MELVIN R & MARJORIE FMLY
TR
30139 RIVERSIDE ST
SHAFTER CA 93263

90 200 14 00 6
RUIZ SEPTIMO LINO & AISPURO
ROSALVA RUIZ
2660 APPLETREE LN
WASCO CA 932803017

90 132 07 01 9 **DUP**
S C PRODUCTS INC
P O BOX 1394
BORREGO SPGS CA 92004

90 150 42 00 3
SALAZAR JUAN C & OLGA LIDIA
18421 POPLAR AV
SHAFTER CA 932632831

90 131 52 00 3
SANCHEZ EVA MARTINEZ
RODRIGUEZ DE
18490 BAYLESS AV
SHAFTER CA 93263

90 190 20 00 1
SANCHEZ FRANCISCO J GARCIA
18844 BEECH AV # A
SHAFTER CA 932632906

26 502 05 00 2
SANCHEZ RAMIRO GONZALEZ
899 OAKMONT ST
SHAFTER CA 93263

90 131 38 00 3
SANDERS INA
18483 BAYLESS ST
SHAFTER CA 93263

90 131 46 00 6 **DUP**
SANDERS INA
18483 BAYLESS ST
SHAFTER CA 93263

90 190 08 00 7
SAUCEDO PATRICIA E
PO BOX 792
SHAFTER CA 93263

26 260 06 00 2
SCHNEIDER TERRY & RHONDA
106 LE POINT ST
ARROYO GRANDE CA 934202710

90 120 05 00 7
SELLARS LESLIE H
24629 HALL RD
CHESHIRE OR 97419

90 131 43 00 7 **DUP**
SELLARS LESLIE H
24629 HALL RD
CHESHIRE OR 97419

90 132 39 00 3 **DUP**
SELLARS LESLIE H
24629 HALL RD
CHESHIRE OR 97419

90 132 40 00 5 **DUP**
SELLARS LESLIE H
24629 HALL RD
CHESHIRE OR 97419

90 132 42 00 1 **DUP**
SELLARS LESLIE H
24629 HALL RD
CHESHIRE OR 97419

26 503 05 00 9
SERRANO JOSE J & MARIA
882 OAKMONT ST
SHAFTER CA 93263

90 132 28 00 1
SERRANO SERAFIN & MARIA
307 RODRIGUEZ AV
SHAFTER CA 93263

90 040 06 00 7
SHAFTER-WASCO IRRIGATION DIST
P O BOX 158
WASCO CA 93280

90 132 19 00 5 **DUP**
SHAFTER-WASCO IRRIGATION DIST
ADDRESS UNKNOWN

90 132 36 01 3 **DUP**
SHARP JACK
ADDRESS UNKNOWN

90 200 05 00 0
SHARP RICHARD E & SANDRA M
18890 BEECH AV
SHAFTER CA 93263

90 060 03 00 4
SHEPHERD BOYD J & RUTH E
18618 SHAFTER AV
SHAFTER CA 93263

90 080 07 00 2
SILL PROP INC
1508 18TH ST STE 320
BAKERSFIELD CA 93301

90 080 12 01 5 **DUP**
SILL PROP INC
1508 18TH ST STE 320
BAKERSFIELD CA 93301

90 080 28 00 3 **DUP**
SILL PROP INC
1508 18TH ST STE 320
BAKERSFIELD CA 93301

90 080 43 00 6 **DUP**
SILL PROP INC
1508 18TH ST STE 320
BAKERSFIELD CA 93301

90 080 44 00 9 **DUP**
SILL PROP INC
1508 18TH ST STE 320
BAKERSFIELD CA 93301

90 140 12 00 3 **DUP**
SILL PROP INC
1508 18TH ST STE 320
BAKERSFIELD CA 93301

90 120 30 00 9
SMITH CAROL A
30368 RICHLAND AV
SHAFTER CA 932632834

90 040 42 00 1
SMITH JOSEPH EARL SR
18494 SHAFTER AV
SHAFTER CA 93263

90 040 43 00 4 **DUP**
SMITH JOSEPH EARL SR
18494 S SHAFTER AV
SHAFTER CA 93263

90 120 12 00 7
SOLIS FRANCISCO & JIMENEZ MARIA
615 VASQUEZ AV
SHAFTER CA 93263

90 030 72 00 5
SOLIS JOSE & MARIA
30547 ORANGE AV
SHAFTER CA 93263

90 132 29 00 4
SOLORIO JOSE CARLOS &
ALEJANDRE MARTHA A
124 S REIKER ST
SHAFTER CA 932632583

26 220 32 00 5
TEEN CHALLENGE OF SO CAL INC
5445 CHICAGO AV
RIVERSIDE CA 92507

26 240 11 00 0 **DUP**
TEEN CHALLENGE OF SO CAL INC
5445 CHICAGO AV
RIVERSIDE CA 92507

26 240 12 00 3 **DUP**
TEEN CHALLENGE OF SO CAL INC
5445 CHICAGO AV
RIVERSIDE CA 92507

90 131 60 00 6
TELLEZ FIDEL
275 GOLDEN WEST AV
SHAFTER CA 932631938

90 200 16 00 2
TOLBERT FLORA
18860 BEECH AV
SHAFTER CA 932632906

90 040 57 00 5
TORRES CESAR J
30508 ORANGE ST
SHAFTER CA 932632930

90 120 61 00 9 **DUP**
TORRES CESAR J
30508 ORANGE ST
SHAFTER CA 932632930

90 090 04 00 6
TORRES NICOLAS JR & ALICIA
204 REDWOOD DR
SHAFTER CA 93263

26 492 07 00 6
TORRES REYES
877 ALBERT ST
SHAFTER CA 93263

90 040 10 00 8 **DUP**
TRUJILLO FRANCISCO & MARIA
30518 ORANGE ST
SHAFTER CA 932632952

90 040 46 00 3
TRUJILLO FRANCISCO & MARIA
30518 ORANGE ST # 13
SHAFTER CA 932632952

90 132 32 00 2
TRUJILLO GUSTAVO & MARIA
210 RODRIGUEZ AV
SHAFTER CA 932632610

90 030 40 00 2
TUCKER ROBERT JR
30710 BURBANK ST
SHAFTER CA 932632908

26 251 07 00 9
URREA JOSE H & CONSUELO
18280 THOMAS LN
SHAFTER CA 93263

26 251 18 00 1 **DUP**
URREA JOSE H & CONSUELO
18280 THOMAS LN
SHAFTER CA 93263

26 251 20 00 6 **DUP**
URREA JOSE H & CONSUELO
18280 THOMAS LN
SHAFTER CA 93263

90 120 15 00 6
VALDES LEONARDO VALENZUELA
P O BOX 883
SHAFTER CA 932630883

26 503 01 00 7
VALDIVIA LEONEL & MARIA L
898 OAKMONT ST
SHAFTER CA 93263

90 132 49 00 2
VALDOVINOS MANUEL
30392 ORANGE ST
SHAFTER CA 932632950

26 502 04 00 9
VALENCIA MARIA H
895 OAKMONT ST
SHAFTER CA 93263

90 120 60 00 6
VALOV PATRICIA A
1626 6TH AV
DELANO CA 93215

90 200 19 00 1
VASQUEZ ISRAEL RAMIREZ
9744 RAMOS AV
BAKERSFIELD CA 93307

90 221 18 00 1
VASQUEZ JUAN J & ARAMBULA MARIA CARMEN
30709 BURBANK ST
SHAFTER CA 93263

90 200 15 00 9
VAUGHN RONDA M
5906 APPLECREEK CT
BAKERSFIELD CA 93313

90 221 17 00 8 **DUP**
VAZQUEZ JUAN J & ARAMBULA MA CARMEN
30709 BURBANK AV
SHAFTER CA 93263

90 221 09 00 5
VAZQUEZ MARY HELEN
30708 RODRIGUEZ ST
SHAFTER CA 93263

90 221 10 00 7
VAZQUEZ MARY HELEN
30708 RODRIGUEZ ST
SHAFTER CA 93263

90 190 14 00 4
VEISS ERIC
2239 SANTA BARBARA CI
DELANO CA 932154780

90 131 12 00 7
VELARDE ELIAS JR & CHARLENE
30379 RICHLAND AV
SHAFTER CA 93263

90 132 25 00 2
VELARDE RUDOLFO G & MARY C J
275 ATKINSON AV
SHAFTER CA 93263

90 132 26 00 5 **DUP**
VELARDE RUDY G & MARY
275 ATKINSON AV
SHAFTER CA 93263

90 131 05 00 7
VILLAGRAN JOSE L JR & OLGA C
30361 RICHLAND AV
SHAFTER CA 932632863

90 190 16 00 0
VILLANUEVA MICAELA DIAZ
18838 BEECH ST
SHAFTER CA 93263

26 251 17 00 8
VILLARREAL JESUS C
18282 THOMAS LN
SHAFTER CA 93263

26 251 22 00 2
VILLASANA JOSE E & NORMA R
18274 THOMAS LN
SHAFTER CA 93263

90 180 32 00 3
VINTAGE PRODUCTION CAL LLC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 180 34 00 9 **DUP**
VINTAGE PRODUCTION CAL LLC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 350 02 00 5 **DUP**
VINTAGE PRODUCTION CAL LLC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 350 10 00 8 **DUP**
VINTAGE PRODUCTION CAL LLC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 350 12 00 4 **DUP**
VINTAGE PRODUCTION CAL LLC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 350 15 00 3 **DUP**
VINTAGE PRODUCTION CAL LLC
9200 OAKDALE AV FLR 9
CHATSWORTH CA 913116506

90 131 17 00 2 **DUP**
VISSER JOAN ELLAMAY EST
ADDRESS UNKNOWN

90 030 21 00 7
VOLKOFF STEVE & LEAH
30348 MADERA AV
SHAFTER CA 932639740

90 030 41 00 5 **DUP**
VOLKOFF STEVE & LEAH
30348 MADERA AV
SHAFTER CA 932639740

90 030 42 00 8 **DUP**
VOLKOFF STEVE & LEAH
30348 MADERA AV
SHAFTER CA 932639740

90 030 69 00 7 **DUP**
VOLKOFF STEVE & LEAH
30348 MADERA AV
SHAFTER CA 932639740

90 030 71 00 2 **DUP**
VOLKOFF STEVE & LEAH
30348 MADERA AV
SHAFTER CA 932639740

90 050 10 00 1 **DUP**
VOLKOFF STEVE & LEAH
30348 MADERA AV
SHAFTER CA 932639740

90 050 16 00 9 **DUP**
VOLKOFF STEVE & LEAH
30348 MADERA AV
SHAFTER CA 932639740

90 140 16 00 5
VOTH RICHARD THEODORE LIV TR
12060 PAGOSA LN
LAKESIDE CA 920401751

90 170 38 00 8 **DUP**
VOTH RICHARD THEODORE LIV TR
12060 PAGOSA LN
LAKESIDE CA 920401751

90 170 39 00 1 **DUP**
VOTH RICHARD THEODORE LIV TR
12060 PAGOSA LN
LAKESIDE CA 920401751

90 190 15 00 7
VUONG TOM
1323 MT VERNON DR
SAN GABRIEL CA 917752717

90 150 51 00 9
WALKER RANDY ALLEN & DONYA JEANNE
18405 POPLAR AV
SHAFTER CA 93263

90 120 23 00 9
WALLS HAROLD B
7113 ELOY AV
BAKERSFIELD CA 93308

90 180 26 00 6
WEATHERFORD U S L P
2000 SAINT JAMES PL
HOUSTON TX 770564123

90 180 40 00 6 **DUP**
WEATHERFORD U S L P
2000 SAINT JAMES PL
HOUSTON TX 770564123

90 180 41 00 9 **DUP**
WEATHERFORD U S L P
2000 SAINT JAMES PL
HOUSTON TX 770564123

90 080 02 00 7
WEISHAAR RANCH
30185 RIVERSIDE ST
SHAFTER CA 93263

90 080 03 00 0 **DUP**
WEISHAAR RANCH
30185 RIVERSIDE ST
SHAFTER CA 93263

90 090 15 00 8 **DUP**
WEISHAAR RANCH LLC
30185 RIVERSIDE ST
SHAFTER CA 93263

90 120 28 00 4
WHITBEY DAVID L
30358 RICHLAND DR
SHAFTER CA 93263

90 131 04 00 4
WHITBEY DAVID L & JENNIFER L
30359 RICHLAND AV
SHAFTER CA 93263

90 200 18 00 8
WHITBEY JAMES R & JOSEPHINE
18854 BEECH AV
SHAFTER CA 93263

90 132 23 00 6
WILSON IRENE & SHEILLA
18492 SMITH LN
SHAFTER CA 932632858

90 211 28 00 7
WILSON WOODROW D & LOUISE E
30767 BURBANK ST
SHAFTER CA 932632948

90 211 29 00 0 **DUP**
WILSON WOODROW D & LOUISE E
30767 BURBANK AV
SHAFTER CA 93263

90 150 14 00 2
WOOD JACKIE M & JOY S
18431 POPLAR AV
SHAFTER CA 93263

90 040 01 00 2
ZAMORA EUGENIO
18452 SHAFTER AV
SHAFTER CA 93263

90 131 29 00 7
ZAPATA RAMON D
30376 ORANGE ST #10
SHAFTER CA 93263

90 131 20 00 0
ZARATE MANUEL
1194 BEACON ST
PITTSBURG CA 945652430

90 040 18 00 2
ZEPEDA DOMINGO
685 BECKER AV
SHAFTER CA 93263

90 040 19 00 5 **DUP**
ZEPEDA DOMINGO
685 BECKER AV
SHAFTER CA 93263

90 040 22 00 3 **DUP**
ZEPEDA DOMINGO
685 BECKER AV
SHAFTER CA 93263

90 040 23 00 6 **DUP**
ZEPEDA DOMINGO
685 BECKER AV
SHAFTER CA 93263

90 040 30 00 6 **DUP**
ZEPEDA DOMINGO
685 BECKER AV
SHAFTER CA 93263

90 040 54 00 6 **DUP**
ZEPEDA DOMINGO
685 BECKER AV
SHAFTER CA 93263

90 040 55 00 9 **DUP**
ZEPEDA DOMINGO
685 BECKER AV
SHAFTER CA 93263

90 221 08 00 2
ZUNIGA ARTURO E & ESPINOZA DIANA G
255 FLORES WY
SHAFTER CA 93263

90 132 09 00 6 **DUP**
18487 SHAFTER LLC
18487 SHAFTER AV
SHAFTER CA 932632853

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2007101148

Project Title: South Shafter Sewer, Trunk Line Sewer and Lift Station Project.

Lead Agency: Kern County Public Works Department — Contact Person: Michael Dillenbeck

Mailing Address: 2700 M Street, Suite 400 — Phone: 661.862.8913

City: Bakersfield — Zip: 93301 — County: Kern County

Project Location: County: Kern County — City/Nearest Community: Shafter

Cross Streets: Various — Zip Code: 93263

Longitude/Latitude (degrees, minutes and seconds): 35 ° 29 ′ 07.1 ″ N / 119 ° 16 ′ 42.6 ″ W Total Acres:

Assessor's Parcel No.: — Section: 21,22 — Twp.: 28S — Range: 25E — Base: MDM

Within 2 Miles: State Hwy #: 43 — Waterways:

Airports: Shafter-Minter Field — Railways: Burlington Northern-S — Schools: Golden Oak Elem.

Document Type:

CEQA: ☐ NOP ☐ Draft EIR — NEPA: ☐ NOI — Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other:
☒ Mit Neg Dec Other: ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: Sewer

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☐ Water Facilities: Type _____ MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☒ Other: Sewer Trunk Line

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☐ Vegetation
☒ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☐ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☐ Wetland/Riparian
☒ Biological Resources ☒ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☐ Coastal Zone ☒ Noise ☐ Solid Waste ☐ Land Use
☐ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☐ Cumulative Effects
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Residential/Commercial/Industrial

Project Description: *(please use a separate page if necessary)*

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

Project Description: The Kern County Public Works Department (County) proposes to construct approximately 34,500 linear feet of sewer trunk line with associated manholes for access within existing road rights-of-way (ROW) and water line easements. Five sewer lift stations including three operating in series are proposed; one at Southwest Shafter; one near Thomas Lane; and one at Smith Corner. The two additional independent lift stations connecting to the lift station at Smith Corner are also proposed; one at Smith Corner and one at Burbank Street. The project is proposed for funding by the U.S. Department of Agriculture Rural Utilities Service Financing Program and other sources. United States Department of Housing and Community Development Block Grants Funds may also be provided for the project. The formation of an assessment district and County Service Area Zone of Benefit will also be required.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

_____ Air Resources Board
_____ Boating & Waterways, Department of
_____ California Emergency Management Agency
_____ California Highway Patrol
_____ Caltrans District # _____
_____ Caltrans Division of Aeronautics
_____ Caltrans Planning
_____ Central Valley Flood Protection Board
_____ Coachella Valley Mtns. Conservancy
_____ Coastal Commission
_____ Colorado River Board
_____ Conservation, Department of
_____ Corrections, Department of
_____ Delta Protection Commission
_____ Education, Department of
_____ Energy Commission
_____ Fish & Game Region # _____
_____ Food & Agriculture, Department of
_____ Forestry and Fire Protection, Department of
_____ General Services, Department of
_____ Health Services, Department of
_____ Housing & Community Development
_____ Native American Heritage Commission

_____ Office of Historic Preservation
_____ Office of Public School Construction
_____ Parks & Recreation, Department of
_____ Pesticide Regulation, Department of
_____ Public Utilities Commission
_____ Regional WQCB # _____
_____ Resources Agency
_____ Resources Recycling and Recovery, Department of
_____ S.F. Bay Conservation & Development Comm.
_____ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
_____ San Joaquin River Conservancy
_____ Santa Monica Mtns. Conservancy
_____ State Lands Commission
_____ SWRCB: Clean Water Grants
_____ SWRCB: Water Quality
_____ SWRCB: Water Rights
_____ Tahoe Regional Planning Agency
_____ Toxic Substances Control, Department of
_____ Water Resources, Department of

_____ Other: _____
_____ Other: _____

Local Public Review Period (to be filled in by lead agency)

Starting Date September 15, 2016 Ending Date October 16, 2016

Lead Agency (Complete if applicable):

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: Kern County Public Works Department
Address: 2700 M Street, Suite 400
City/State/Zip: Bakersfield, CA 93301
Phone: 661.862.8913

Signature of Lead Agency Representative: _____ **Date:** 09/14/2016

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

MITIGATED
NEGATIVE DECLARATION

TO WHOM IT MAY CONCERN:

Pursuant to the California Environmental Quality Act of 1970 (CEQA),* the State CEQA Guidelines,** and the Kern County Guidelines for Implementation of CEQA and State CEQA Guidelines,*** the Kern Public Works Department has made an Initial Study of possible environmental impacts of the following-described project.

PROPOSED PROJECT: South Shafter Sewer, Trunk Line Sewer & Lift Station Project.

LOCATION: Road rights-of-way (ROW) and water line easements in the unincorporated community of South Shafter (West Shafter, Southwest Shafter, Thomas Lane, Smith Corner, Burbank, and Cherokee Strip), along Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, within Sections 16, 17, 20, 21, 22, 26, & 27 of Township 28 South, Range 25 East, Mount Diablo Base and Meridian, County of Kern, State of California, and the Rio Bravo U.S. Geological Survey 7.5 minute topographical quadrangle. The project area is located 0.25 miles south of the City of Shafter.

PROJECT DESCRIPTION: The Kern County Public Works Department (County) proposes to construct approximately 34,500 linear feet of sewer trunk line (consisting of 4-, 8- and 12-inch polyvinyl chloride [PVC] pipes) with associated manholes for access within existing road rights-of-way (ROW) and water line easements. Where possible the sewer lines and manholes will be located in the road shoulders, but due to some existing utilities within the ROW, some lines may be placed under the paved road surface. However, this document analyzes impacts based upon the assumption that all lines and manholes will be installed with the disturbed road shoulders. These sewer lines will connect to the Shafter/North of the River Wastewater Treatment Facilities (S/NOR WWTF), located approximately 4 miles southwest of the project sites, at the northeast corner of 7th Standard Road and Palm Avenue, 5 1/2 miles west of Highway 43 (Enos Lane). The S/NOR WWTF has the ability and capacity to handle the increased waste generated by the project. Up to five sewer lift stations to serve the lines will be installed on vacant lots outside of the ROW. Three lift stations operating in series are included; one at Southwest Shafter; one near Thomas Lane; and one at Smith Corner. Two independent lift stations connecting to the lift station at Smith Corner are also included; one at Smith Corner and one at Burbank Street.

System requirements call for an average daily flow of 124,080 gallons per day (gpd), with a peak flow of 223,344 gpd. After construction of the force main system, all aboveground facilities and disturbances will be restored to their previously existing condition or better. The system will be sized to provide sewer service to 386 residential units, 66 of which are vacant, and 10 which are nonresidential units. The identified units may then connect to the newly installed sewer systems and the individual septic systems abandoned. The system is being proposed to remedy a high rate of septic system failures and to prevent potential degradation of groundwater in the above-mentioned communities. The project is proposed for funding by the U.S. Department of Agriculture Rural Utilities Service Financing Program and other sources. United States Department of Housing and Community Development Block Grants Funds may also be provided for the project. The formation of an assessment district and County Service Area Zone of Benefit will also be required.

MITIGATION MEASURES: Included in the Proposed Project to Avoid Potentially Significant Effects for the following environmental factors (if required):

MM AIR-01 DUST CONTROL AND IDLE REDUCTION: The Contractor shall comply with applicable dust control methods to minimize dust from activities such as clearing, grading, earth moving, excavation, or transportation of fill materials. The following applies:

A. Use of water truck capable of applying water both by spray and hose to apply water for work areas in advance of work and to keep damp during the progress of work.
B. Stockpiled materials shall be watered down.
C. Traffic speeds on unpaved roads shall be limited to 10 miles per hour.
D. All truck hauling dirt, sand, soil, or loose material shall be covered.
E. Equipment will be shut down when not in use for extended periods.

MM AIR-02 TRAFFIC CONGESTION MANAGEMENT: During all grading and construction activities, the County will implement a Traffic Control Plan to reduce traffic congestion and improve safety within the project work area.

MM AIR-03: DISTRICT PERMITS: Prior to receiving final discretionary approval, the construction contractor shall provide verification to the Kern County Public Works Department that they are in full compliance with Rule 9510.

MM BIO-01 PRECONSTRUCTION SURVEY: Prior to any ground disturbance, a qualified biologist shall conduct preconstruction surveys for special status species with the potential to occur in the project area during construction activities. The appropriate scope, schedule and methodology of the surveys shall be determined by the qualified biologist.

MM BIO-02 EDUCATION SESSION: Prior to any ground disturbance, a qualified biologist shall conduct an education session for all individuals who will be present during site preparation or construction activities. The education session shall present all pertinent information for the avoidance and minimization of any special status-species with the potential to exist on the project site during construction. The Resident Engineer or their on-site designee, with the authority to stop all work on the project site, shall be identified as the contact source for any attendee who might observe or inadvertently kill or injure a special status species within the project area. Signup sheets identifying attendees and the Contractor/Company they represent shall be included in a post-construction compliance report.

MM BIO-03 SPECIES DISCOVERY: Should a special status species or avian species protected under the Migratory Bird Treaty Act, or their dens/burrows/nests, be discovered within the project boundary, the following shall occur:

A. All work within 100 feet of the discovery shall cease immediately.
B. The Resident Engineer or their on-site designee shall be immediately notified.
C. A qualified biologist shall determine if notification and/or consultation with regulatory agencies is required, and how to proceed with the project and avoid take.

MM BIO-04 EXCAVATION: All excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed no greater than 200 feet apart. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped special status species which were identified during the project's education session.

MM BIO-05 ON-SITE VEHICLES: Project-related vehicles shall observe a speed limit of 10 miles per hour throughout the project site, except on paved County roads and State and federal highways.

MM BIO-06 TRASH COLLECTION: All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the project site.

MM BIO-07 PIPES & CULVERTS: All pipes and culverts shall be searched for species identified during the project's education session prior to being moved or sealed. Should any special status species be discovered within a pipe or culvert, that section of pipe or culvert shall not be moved or sealed. Any special status species found in a pipe or culvert shall be allowed to vacate unimpeded.

MM BIO-08 ENTRAPMENT/ENTANGLEMENT PREVENTION: Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site to prevent entrapment or entangling of sensitive species.

MM BIO-09 VECTOR & WEED CONTROL: Use of rodenticides and herbicides at the project site shall be prohibited.

MM CUL-01 RESOURCE DISCOVERY In the event a subsurface cultural and/or paleontological resource is uncovered during the course of project construction, ground-disturbing activities in the vicinity of the find shall be redirected until the nature and extent of the find can be evaluated by a qualified archaeologist or paleontologist (as determined by the County). Any such resource uncovered during the course of the project related to grading or construction shall be recorded and/or removed per applicable County and/or State regulations.

MM HAZ-01 WELL DISCOVERY AND REPORTING: If any previously unknown oil, gas or injection wells are discovered, work in the area of discovery shall be stopped and the California Department of Conservation/Division of Oil, Gas and Geothermal Resources /Bakersfield Office contacted by the project proponent(s) to obtain information on the requirements of, and approval to perform, remedial operations implemented prior to resumption of work in the area of discovery.

MM HAZ-02 UTILITY NOTIFICATION: Prior to the final approval of the construction plans, the County shall notify the SoCalGas-Gas Transmission Department regarding the proposed improvements.

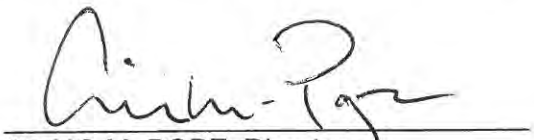
MM HYD-01 STORMWATER CONTROL: Prior to the commencement of grading or construction activities, the construction contractor shall file a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board for the project to be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of stormwater associated with construction activities.

FINDINGS: It has been found that this project, as described and proposed to be mitigated herein, will not have a significant effect on the environment and that an environmental impact report (EIR) is, therefore, not required. A brief statement of reasons supporting such findings is as follows:

(1) Proposed project does not appear to have a substantial demonstrable negative aesthetic effect.
(2) Proposal would not appear to expose humans or structures to major geologic hazards.
(3) There does not appear to be a substantial body of opinion that considers or will consider the various anticipated environmental effects resulting from the proposed action to be adverse.
(4) Anticipated construction and operation of proposed project would not appear to cause a substantial increase in existing ambient noise levels for adjoining areas.
(5) Proposed action would not appear to violate any ambient air quality standard, contribute substantially to an existing or potential air quality violation, or expose sensitive receptors to substantial pollutant concentration.

PUBLIC INQUIRY: Any person may object to dispensing with such EIR or respond to the findings herein. Information relating to the proposed project is on file in the office of the Public Works Department at the address shown below. Any person wishing to examine or obtain a copy of that information or this document, or seeking information as to the time and manner to so object or respond, may do so by inquiring at said office during regular business hours.
A copy of the Initial Study is attached hereto.

PROPOSED NEGATIVE DECLARATION DATE: November 8, 2016
NEGATIVE DECLARATION REVIEW PERIOD ENDS: October 16, 2016



CRAIG M. POPE, Director
Kern County Public Works Department

Kern County Public Works Department
2700 M Street, Suite 400
Bakersfield, CA 93301
(661)862-8850

AGENCY CONSULTATION REQUIRED: X Yes ___ No
AGENCIES CONSULTED: City of Shafter; US Fish & Wildlife; U.S. Bureau of Land Management; Nat. Resource Cons. Serv.; USA EPA; SJVAPCD; State Department of Conservation; Caltrans/Dist 6; State Clearinghouse; CRWQCB-Central Valley; ESPSD; KC Fire; KC Parks & Rec; KC Sheriff; Kern Regional Transit; California Fish and Wildlife; Kern High School Dist; DTSC; KC Environmental Health; KCSOS; KernCOG; KCWA; SJVRR; Richland-Lerdo School District; Shafter Parks and Recreation AT&T; PG&E; So Cal Gas; SSJV Arch Info Ctr; DOGGR; Fish & Game; NAHC & related Native American contacts; PUC; KCMAD;

STATE CLEARINGHOUSE NUMBER: #2007101148

INITIAL STUDY PREPARED BY: Michael Dillenbeck, WMS III, KC Public Works Dept.

DATE SENT TO COUNTY CLERK FOR POSTING: September 14, 2016
DATE OF NOTICE TO PUBLIC: September 14, 2016

*Public Resources Code, Section 21000, et seq.
**Title 14, Division 6, California Administrative Code, as amended
***Resolution No. 88-068, Adopted January 19, 1988
Attachments

MITIGATION MEASURE MONITORING PROGRAM
FOR
SOUTH SHAFTER SEWER, TRUNK LINE SEWER, AND LIFT STATIONS PROJECT, COUNTY OF KERN, CALIFORNIA
FINAL MITIGATED NEGATIVE DECLARATION

No.	Mitigation Measure	Justification	Time Frame	Responsible Monitoring Agency	Compliance		
					Enforced By	By (initials)	Verification Date
AIR-01	DUST CONTROL AND IDLE REDUCTION: The Contractor shall comply with applicable dust control methods to minimize dust from activities such as clearing, grading, earth moving, excavation, or transportation of fill materials. The following applies: A. Use of water truck capable of applying water both by spray and hose to apply water for work areas in advance of work and to keep damp during the progress of work. B. Stockpiled materials shall be watered down. C. Traffic speeds on unpaved roads shall be limited to 10 miles per hour. D. All truck hauling dirt, sand, soil, or loose material shall be covered. E. Equipment will be shut down when not in use for extended periods.	To minimize impacts to **AIR QUALITY** to a level of less than significant and ensure consistency with existing county standards, SJVAPCD's Regulations and the State Implementation Program	During Construction	San Joaquin Valley Air Pollution Control District (SJVAPCD)	To be carried out by the Contractor and enforced by the on-site Resident Engineer		
AIR-02	TRAFFIC CONGESTION MANAGEMENT: During all grading and construction activities, the County will implement a Traffic Control Plan to reduce traffic congestion and improve safety within the project work area.	To minimize impacts to **AIR QUALITY** to a level of less than significant and ensure consistency with existing county standards, SJVAPCD's Regulations and the State Implementation Program	During Construction	SJVAPCD	To be carried out by the Contractor and enforced by the on-site Resident Engineer		
	DISTRICT PERMITS: Prior to the start of construction activities, the construction contractor shall provide verification to the Kern County Public Works Department that either (1) the Contractor is in full compliance with Rule 9510 or (2) the San Joaquin Valley Air Pollution Control District has determined that Rule 9510 does not	To ensure consistency with existing county standards, SJVAPCD's Regulations and the State Implementation Program	Prior to Construction of Project	SJVAPCD	To be carried out by the Contractor and enforced by the on-site Resident Engineer		

No.	Mitigation Measure	Justification	Time Frame	Responsible Monitoring Agency	Compliance		
					Enforced By	By (initials)	Verification Date
	apply to the project based on its final design.						
BIO-01	PRECONSTRUCTION SURVEY: Prior to any ground disturbance, a qualified biologist shall conduct preconstruction surveys for special status species with the potential to occur in the project area during construction activities. The appropriate scope, schedule and methodology of the surveys shall be determined by the qualified biologist.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	Prior to Construction Of Project	Kern County Roads Department	To be carried out by the Contractor and enforced by the Resident Engineer		
BIO-02	EDUCATION SESSION: Prior to any ground disturbance, a qualified biologist shall conduct an education session for all individuals who will be present during site preparation or construction activities. The education session shall present all pertinent information for the avoidance and minimization of any special status-species with the potential to exist on the project site during construction. The Resident Engineer or their on-site designee, with the authority to stop all work on the project site, shall be identified as the contact source for any attendee who might observe or inadvertently kill or injure a special status species within the project area. Signup sheets identifying attendees and the Contractor/Company they represent shall be included in a post-construction compliance report.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	Prior to Construction and During Construction Of Project	Kern County Roads Department	To be carried out by the County appointed biologist and enforced by the Resident Engineer		
BIO-03	SPECIES DISCOVERY: Should a special status species or avian species protected under the Migratory Bird Treaty Act, or their dens/burrows/nests, be discovered within the project boundary, the following shall occur: A. All work within 100 feet of the discovery shall cease immediately. B. The Resident Engineer or their on-site designee shall be immediately notified. C. A qualified biologist shall determine if notification and/or consultation with regulatory agencies is required, and how to proceed with the project and avoid take. .	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	Prior to Construction and During Construction Of Project	Kern County Roads Department	To be carried out by the County appointed biologist and enforced by the Resident Engineer		

No.	Mitigation Measure	Justification	Time Frame	Responsible Monitoring Agency	Compliance		
					Enforced By	By (initials)	Verification Date
BIO-04	EXCAVATION: All excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed no greater than 200 feet apart. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped special status species which were identified during the project's education session.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	Prior to Construction and During Construction Of Project	Kern County Roads Department	To be carried out by the County appointed biologist and enforced by the Resident Engineer		
BIO-05	ON-SITE VEHICLES: Project-related vehicles shall observe a speed limit of 10 miles per hour throughout the project site, except on paved County roads and State and federal highways.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	Prior to Construction and During Construction Of Project	Kern County Roads Department & California Department of Fish and Wildlife (CDFW)	To be carried out by the County appointed biologist and enforced by the Resident Engineer and/or CDFW designee		
BIO-06	TRASH COLLECTION: All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the project site.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	Prior to Construction Of Project	Kern County Roads Department & U.S. Fish and Wildlife (USFWS)	To be carried out by the County appointed biologist and enforced by the Resident Engineer and/or USFWS designee		

No.	Mitigation Measure	Justification	Time Frame	Responsible Monitoring Agency	Compliance		
					Enforced By	By (initials)	Verification Date
BIO-07	PIPES & CULVERTS: All pipes and culverts shall be searched for species identified during the project's education session prior to being moved or sealed. Should any special status species be discovered within a pipe or culvert, that section of pipe or culvert shall not be moved or sealed. Any special status species found in a pipe or culvert shall be allowed to vacate unimpeded.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	Prior to Construction and During Construction Of Project	Kern County Roads Department & USFWS	To be carried out by the County appointed biologist and enforced by the Resident Engineer and/or USFWS designee		
BIO-08	ENTRAPMENT/ENTANGLEMENT PREVENTION: Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site to prevent entrapment or entangling of sensitive species.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant.	During Construction Of Project	Kern County Roads Department	To be carried out by the Contractor and enforced by the Resident Engineer		
BIO-09	VECTOR & WEED CONTROL: Use of rodenticides and herbicides at the project site shall be prohibited.	To reduce impacts to **BIOLOGICAL RESOURCES** to less than significant	During Construction Of Project	Kern County Roads Department	To be carried out by the Contractor and enforced by the Resident Engineer		
CUL-01	RESOURCE DISCOVERY In the event a subsurface cultural and/or paleontological resource is uncovered during the course of project construction, ground-disturbing activities in the vicinity of the find shall be redirected until the nature and extent of the find can be evaluated by a qualified archaeologist or paleontologist (as determined by the County). Any such resource uncovered during the course of the project related to grading or construction shall be recorded and/or removed per applicable County and/or State regulations.	To reduce impacts of **CULTURAL RESOURCES** to less than significant	During Construction Of Project	Kern County Roads Department	To be carried out by the Contractor or County designee and enforced by the Resident Engineer		

No.	Mitigation Measure	Justification	Time Frame	Responsible Monitoring Agency	Compliance		
					Enforced By	By (initials)	Verification Date
HAZ-01	WELL DISCOVERY AND REPORTING: If any previously unknown oil, gas or injection wells are discovered, work in the area of discovery shall be stopped and the California Department of Conservation/Division of Oil, Gas and Geothermal Resources /Bakersfield Office contacted by the project proponent(s) to obtain information on the requirements of, and approval to perform, remedial operations implemented prior to resumption of work in the area of discovery.	To reduce impacts of **HAZARDS and HAZARDOUS MATERIALS** to less than significant	Prior to Construction	Kern County Roads Department	Enforced by Director of Kern County Roads Department		
HAZ-02	UTILITY NOTIFICATION: Prior to the final approval of the construction plans, the County shall notify the SoCalGas-Gas Transmission Department regarding the proposed improvements.	To reduce impacts of **HAZARDS and HAZARDOUS MATERIALS** to less than significant	Prior to Construction	Kern County Roads Department	Enforced by Director of Kern County Roads Department		
HYD-01	STORMWATER CONTROL: Prior to the commencement of grading or construction activities, the construction contractor shall file a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board for the project to be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of stormwater associated with construction activities.	Disturbance of more than one acre, requires RWQCB permit to reduce impacts to **HYDROLOGY and WATER QUALITY** to less than significant	Prior to commencement of grading or construction	Central Valley Regional Water Quality Control Board (CVRWQCB)	Roads project engineer to prepare application and SWPPP to CVRWQCB and Contractor to carry out approved plan		

INITIAL STUDY

SOUTH SHAFTER SEWER
TRUNK LINE SEWER & LIFT STATION PROJECT
SHAFTER, COUNTY OF KERN, CALIFORNIA

SCH# 2007101148

LEAD AGENCY:

Kern County Public Works Department
2700 M Street, Suite 400
Bakersfield, CA 93301-2370

Contact:
Michael Dillenbeck, WMS III
(661) 862-8913

September 2016

PROJECT DESCRIPTION AND SETTING

PROJECT: South Shafter Sewer, Trunk Line Sewer & Lift Station Project

LOCATION: Road rights-of-way (ROW) and water line easements in the unincorporated community of South Shafter (West Shafter, Southwest Shafter, Thomas Lane, Smith Corner, Burbank, and Cherokee Strip), along Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, within Sections 16, 17, 20, 21, 22, 26, & 27 of Township 28 South, Range 25 East, Mount Diablo Base and Meridian, County of Kern, State of California, and the Rio Bravo U.S. Geological Survey 7.5 minute topographical quadrangle. The project area is located 0.25 miles south of the City of Shafter.

PROJECT DESCRIPTION: The Kern County Public Works Department (County) proposes to construct approximately 34,500 linear feet of sewer trunk line (consisting of 4-, 8- and 12-inch polyvinyl chloride [PVC] pipes) with associated manholes for access within existing road rights-of-way (ROW) and water line easements. Where possible the sewer lines and manholes will be located in the road shoulders, but due to some existing utilities within the ROW, some lines may be placed under the paved road surface. However, this document analyzes impacts based upon the assumption that all lines and manholes will be installed with the disturbed road shoulders. These sewer lines will connect to the Shafter/North of the River Wastewater Treatment Facilities (S/NOR WWTF), located approximately 4 miles southwest of the project sites, at the northeast corner of 7th Standard Road and Palm Avenue, 5 1/2 miles west of Highway 43 (Enos Lane). The S/NOR WWTF has the ability and capacity to handle the increased waste generated by the project. Up to five sewer lift stations to serve the lines will be installed on vacant lots outside of the ROW. Three lift stations operating in series are included; one at Southwest Shafter; one near Thomas Lane; and one at Smith Corner. Two independent lift stations connecting to the lift station at Smith Corner are also included; one at Smith Corner and one at Burbank Street.

System requirements call for an average daily flow of 124,080 gallons per day (gpd), with a peak flow of 223,344 gpd. After construction of the force main system, all aboveground facilities and disturbances will be restored to their previously existing condition or better. The system will be sized to provide sewer service to 386 residential units, 66 of which are vacant, and 10 which are nonresidential units. The identified units may then connect to the newly installed sewer systems and the individual septic systems abandoned. The system is being proposed to remedy a high rate of septic system failures and to prevent potential degradation of groundwater in the above-mentioned communities. The project is proposed for funding by the U.S. Department of Agriculture Rural Utilities Service Financing Program and other sources. United States Department of Housing and Community Development Block Grants Funds may also be provided for the project. The formation of an assessment district and County Service Area Zone of Benefit will also be required.

ENVIRONMENTAL SETTING: The 78.35-acre project site consists of several small rural communities located in the unincorporated community of South Shafter, Kern County, on the outskirts of the City of Shafter (est. population 18,336 per 2015 Census)[1], Kern County. Topographically the area is described as flat with a mean elevation of 350 feet above mean sea level.

Development within the communities consists of 310 residential and ten nonresidential units. There are

[1] U.S. Census Bureau, Quick Facts. http://www.census.gov/quickfacts/table/PST045215/0671106, website accessed September 6, 2016.

66 vacant lots that could become occupied and developed, as permitted "by right," would total 386 units to benefit from the project.

The project site is adjacent to property classified as Prime, Farmland of Statewide Importance, Semi-agricultural and Rural Commercial, Rural Residential, Urban and Built-up, and Vacant/Disturbed.[2] The majority of the project site is included within the administrative boundaries of Agricultural Preserve No. 8. Several properties in the project area are subject to Williamson Act and/or Farmland Security contracts land use contracts are adjacent to the project; however, the project site is not subject to either, or any open space agreements. Agricultural production in the project area primarily includes almond orchards, row crops, and alfalfa.

The project road rights-of-way (ROW), are known and designated as follows by the Circulation Element of the Kern County General Plan: Shafter Avenue (arterial), Poplar Avenue (arterial), Beech Avenue (arterial), Myrick Lane (local), Riverside Street (arterial), Orange Street (collector), and Burbank Street (arterial). None of the project roads are designated as a state scenic highway, and there are no designated state scenic highways within the project vicinity[3]. No scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings are located within the road ROW. The project area does not contain any surface water features, and it is not located within a flood hazard area. There are no known human remains; historic or cultural resources; or unique paleontological resources or geologic features on the project site.

The dominate vegetation on the site is described as agricultural, residential and disturbed (ruderal). The project area is within the range of several federal and State-listed endangered species. The project site does not lie within the administrative boundaries of any adopted habitat conservation plan or natural community conservation plan. No wildlife migration corridors or nursery sites exist on the project site. The project site is located within an Unzoned Local Responsibility Area as delineated by California Department of Forestry and Fire Protection's Fire and Resource Assessment Program.[4]

The project lies within the jurisdictional boundaries of the San Joaquin Valley Air Pollution Control District. The project site and adjacent parcels are not located on any sites which are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The project site is located immediately north of the Rio Bravo Oil Field, 0.5 miles southeast of the Shafter SE Gas (ABD) Oil Field, and 1.5 miles south of the North Shafter Oil Field. Consequently, numerous oil and gas wells are located within the project area. [5] Six oil and gas wells are known to exist within 100 feet of the proposed sewer line rights-of-way easements and the proposed construction activities. [6]

The project is not located within a designated active fault zone.[7] Site soils are classified as the following types: Garces silt loam, Kimberlina fine sandy loam, Lewkalb sandy loam, Milham sandy loam, Panoche clay loam, Calfax clay loam (saline), and Wasco sandy loam. These soils types are considered well

[2] Farmland Mapping and Monitoring Program Metadata. Department of Conservation, Division of Land Resource Protection, 2014, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/ker12_central.pdf, website accessed September 8, 2016.
[3] *Scenic Highways Lists.* California Scenic Highway Mapping System, http://www.dot.ca.gov/hq/LandArch//scenic_highways/index.htm, website accessed September 6, 2016.
[4] Draft Fire Hazard Severity Zones in LRA. California Department of Forestry and Fire, Fire and Resource Assessment Program, http://frap.fire.ca.gov/webdata/maps/kern/fhszl06_1_map.15.pdf, website accessed September 8, 2016.
[5] *Figure 4.8-1: Kern County Oil Fields,* Revised Update of the Kern County General Plan – Volume 1 Recirculated Draft Program Environmental Impact Report, Kern County Planning and Community Development Department, January 2004.
[6] *DOGGR Well Finder Map.* California Department of Conservation, http://maps.conservation.ca.gov/doggr/index.html, website accessed September 6, 2016.
[7] *2010 Fault Activity Map of California: California Geologic Survey, Geologic Data Map No. 6.* California Department of Conservation, http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html, website accessed September 6, 2016.

drained and do not contain significant amounts of clay particles that have the ability to shrink or swell. [8]

Water service to the identified communities is primarily provided by the City of Shafter; however, some units receive water from individual private wells. Four of these wells had nitrate concentrations exceeding the maximum contaminant level (MCL) in 1997 or 45 mg/L, and other wells showed elevated levels of nitrates according to a 1997 Water Quality Survey of private wells in the project area. The survey concluded that 30 percent of the area's domestic wells had levels of nitrates in violation of drinking water standards, and 48 percent of wells had elevated nitrate levels between 23 ppm and 45 ppm. Sewer service is in the project area is by individual septic tank systems using leech fields and/or seepage pits. In general, all developed lots contain at least one septic tank system. Septic tank systems in the project area communities have begun to experience an increased rate of failure. Approximately 63 percent of the septic tank systems serving the project site have required pumping one or more times in the past three years, and 35 percent have required pumping two or more times in the past three years. Due to increased septic tank failure, approximately 51 percent of the dwelling units in the project area dispose of gray water into their yards.[9]

The Kern County Parks and Recreation Department, the Kern County High School District, and the Richland Union Elementary School District serve the project area. The nearest school is a private, Seventh Day Adventist elementary school located in the project area on the southeast corner of Riverside Street and Poplar Avenue. The nearest public schools are Richland Elementary and Richland Senior Elementary; both of which are located approximately 1-1/2 miles to the north of the project area.

The Minter Field Airport lies approximately four miles to the northeast of the project site. Additionally, project area does not fall within an airport sphere of influence as identified by the Kern County Airport Land Use Compatibility Plan.[10]

[8] *Report and General Soil Map, Kern County, California.* United States Department of Agriculture, Soil Conservation Service, 1976.
[9] *South Shafter Wastewater Feasibility Study, Preliminary Engineering Report.* Carollo Engineers, August 2005.
[10] *Airport Land Use Compatibility Plan.* Kern County, March 2011.

KERN COUNTY
ENVIRONMENTAL CHECKLIST FORM

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture & Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology & Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology & Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☐ Noise
☐ Population & Housing	☐ Public Services	☐ Recreation
☐ Transportation & Traffic	☐ Utilities & Service Systems	☐ Mandatory Findings of Significance

DETERMINATION. (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENT IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signed by: Michael Dillenbeck, WMS III
Kern County Public Works Department

Date

Evaluation of Environmental Impacts:

(1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

(2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

(3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

(4) Negative Declaration: Less Than Significant With Mitigation Incorporated applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measure and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, Earlier Analyses, may be cross-referenced).

(5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration, Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

(a) Earlier Analysis Used. Identify and state where they are available for review.
(b) Impacts Adequately Addressed. Identify which effects from the above checklist where within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
(c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

(6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

(7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

(8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

(9) The explanation of each issue should identify:

(a) The significance criteria or threshold, if any, used to evaluate each question.
(b) The mitigation measure identified, if any, to reduce the impact to less than significance.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista? *(See Environmental Setting.)*	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock out-croppings, and historic buildings within a state scenic highway? *(See Environmental Setting.)*	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

RESPONSES:

Response to I(c): *Less Than Significant Impact.* The proposed project improvements would result in the construction of underground sewer lines and up to five lift stations along easements. The proposed roadway improvements would not degrade the existing visual character of the area as the proposed project consists of improvements that would primarily occur at or below grade and within the rights-of-way. Less than significant impacts related to the change of the existing visual character of the project site would occur; consequently, no mitigation is required.

Response to I(d): Security lighting installed at sewer lift stations to deter vandalism and theft will be shielded to reduce glare and light spillover onto adjacent property in compliance with the general requirements of the Kern County Zoning Ordinance, Chapter 19.81 Outdoor Lighting "Dark Skies Ordinance" (Section 19.81.040). Therefore, as proposed, the project impacts which would adversely affect daytime or nighttime views in the area are less than significant, and no mitigation is required.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, would result in significant project-level or cumulative impacts to scenic resources; the existing visual character or quality of the site and its surroundings; or daytime or nighttime views in the area.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use? *(See Environmental Setting.)*	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or Williamson Act contract? *(See Environmental Setting.)*	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)? *(See Environmental Setting.)*	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use? *(See Environmental Setting.)*	☐	☐	☐	☒

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES. (Continued) Would the project:				
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐
f) Result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres (Section 15206(b)(3) Public Resources Code? *(See Environmental Setting.)*	☐	☐	☐	☒

RESPONSES:

Response to II(a) – II(d): *No Impact.* Refer to Matrix above.

Response to II(e): *Less Than Significant Impact.* The project site is located in an area that is developed with residences and agricultural production. All work will occur within existing road rights-of-ways and access easements for residences, which are areas where agricultural production will not occur. Additionally, the proposed sewer lines will be constructed to only serve existing permitted residential lots. As such, implementation of the proposed project is not expected to result in the conversion of farmland to non-agricultural uses. Therefore, impacts associated with this issue would be less than significant, and no mitigation measures are required.

Response to II(f): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, would result in significant project-level or cumulative impacts to agriculture and forest resources.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard as adopted in (c)i, (c)ii, or as established by EPA or air district or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? Specifically, would implementation of the project exceed any of the following adopted thresholds:				
i. San Joaquin Valley Unified Air Pollution Control District:				
<u>Operational and Area Sources</u>				
Reactive Organic Gases (ROG) 10 tons per year.	☐	☒	☐	☐
Oxides of Nitrogen (NO_x) 10 tons per year.	☐	☒	☐	☐
Particulate Matter (PM_{10}) 15 tons per year.	☐	☒	☐	☐
<u>Stationary Sources as determined by District Rules</u>				
Severe Nonattainment 25 tons per year.	☐	☒	☐	☐
Extreme Nonattainment 10 tons per year.	☐	☒	☐	☐

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY. (Continued)				
ii. Eastern Kern Air Pollution Control District.				
Operational and Area Sources				
Reactive Organic Gases (ROG) 25 tons per year.	☐	☐	☐	☐
Oxides of nitrogen (NO_x) 25 tons per year.	☐	☐	☐	☐
Particulate Matter (PM_{10}) 15 tons per year.	☐	☐	☐	☐
Stationary Sources as determined by District Rules 25 tons per year.	☐	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

RESPONSES:

Response to III(a): *Less Than Significant Impact with Mitigation Incorporated.* The U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) have established National Ambient Air Quality Standards (NAAQS) for common pollutants that adversely affect human health and safety. The EPA has jurisdiction under the federal Clean Air Act to require individual states to prepare State Implementation Plans to attain these standards. CARB has jurisdiction under the California Health and Safety Code and the California Clean Air Act to require regional plans to attain these standards and to coordinate the preparation of plans by local air districts to comply with both the federal and State Clean Air Acts. The federal and State standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. In general, the State standards are more stringent.

CARB has divided California into fifteen separate air basins to better manage pollution. The project site is located within the San Joaquin Valley Air Basin, which includes the portion of Kern County west of the Sierra Nevada Mountains. The Air Basin is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which is responsible for developing air quality plans and implementing air quality control measures. Currently, the Air Basin is in attainment for all pollutants per federal and State standards, except for eight-hour ozone, one-hour ozone (State only) and particulate matter (PM10 and $PM_{2.5}$). Attainment status for all monitored pollutants for the San Joaquin Valley is summarized in Table A below:

Table A: San Joaquin Valley Air District Attainment Status

POLLUTANT	DESIGNATION/CLASSIFICATION	
	FEDERAL STANDARDS[a]	STATE STANDARDS[b]
Ozone - One hour	No Federal Standard[f]	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme[e]	Nonattainment
PM 10	Attainment[c]	Nonattainment
PM 2.5	Nonattainment[d]	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

[a] See 40 CFR Part 81
[b] See CCR Title 17 Sections 60200-60210
[c] On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.
[d] The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).
[e] Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
[f] Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.
Source: San Joaquin Valley Air Pollution Control District, Ambient Air Quality Standards & Valley Attainment Status. Accessed on June 24, 2013. http://www.valleyair.org/aqinfo/attainment.htm

Construction is anticipated to begin in March 2017 and take approximately 115 days (23 weeks) to complete, excluding weekends. Construction is anticipated to be completed in two stages. The first stage would involve trenching and pipeline installation and the second stage would involve paving of disturbed roadways. The two construction stages may occur simultaneously in the same day, but most likely would occur in multiple locations during varying times with different work crews as the project progresses.

It is anticipated that during the trenching and pipeline installation stage, 19 employees would work in two 9-person crews with 1 supervising foreman. Trenching and pipeline installation would proceed at a rate of 150 feet per day per crew. A 10-person crew would be used for paving. It is anticipated that paving would progress at a rate of 6,900 feet per day. Additionally, construction

activity would include approximately 60 deliveries per day of asphalt from local batch plants. It is anticipated that these trip lengths would be 30 miles one way.

Short-Term (Construction) Emissions. Short-term impacts from the project would primarily occur as a result of fugitive particulate matter emissions during construction. Activities that increase these emissions include grading, excavating, trenching, filling, and related activities. In addition, exhaust emissions from diesel-powered heavy equipment also increase emissions from the transport of machinery and supplies to and from the site and equipment use. These emissions impact visibility and can result in increased respiratory complications. These impacts are temporary in nature.

Construction activities from vehicles and equipment would generate exhaust, fugitive particulate matter, and organic gas emissions that would affect local air quality. Effects of project-related construction activities would increase dust fall and locally elevated levels of PM_{10} downwind of construction activity. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate NO_x, ROG, CO, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. The project would comply with all SJVAPCD regulations to control fugitive dust, including Regulation VIII.

Based on the Air Quality and Greenhouse Gas Impact Report[11] conducted for the proposed project, estimated construction emissions are detailed in the following table:

Table B: Annual Construction Emissions by Phase

CONSTRUCTION PHASE	Tons Per Year					
	ROG	NO_x	CO	SO_x	$PM_{2.5}$	PM_{10}
Pipe Trenching and Laying Phase	1	7	5	<1	<1	<1
Paving Phase	<1	<1	<1	<1	<1	<1
Total Overlapping Emissions	1	7	5	<1	<1	<1
APCD THRESHOLDS OF SIGNIFICANCE	10	10	100	27	15	15
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Long-Term (Operational) Emissions Impacts. Upon completion of the proposed sewer line, the project will not include operational activities that would generate criteria pollutant emissions.

Stationary Source Emissions Impacts
A stationary source is defined by the SJAPCD's Rule 2201, Section 3.39, as any building, structure, facility, or installation that emits or may emit any affected pollutant directly or as a fugitive emission. Since the project, as proposed, is limited to sewer line installation and construction of lift stations, no stationary sources are proposed.

Rule 9510 Indirect Source Review (ISR)
District Rule 9510 is intended to mitigate a project's impact on air quality through project design

[11] *Archaeological Survey Report for Improvements to Midway Road from State Route 119 to State Route 33 (approximately 4.15-mile), Kern County, California,* Compass Rose Archaeological, Inc., May 2012.

elements or by payment of applicable off-site mitigation fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm.

In an effort to further reduce pollutant emissions, the County incorporates Best Management Practices (BMP) which includes regular watering, elimination of unnecessary engine and equipment idling, and traffic congestion management. The BMP's are being incorporated as mitigation below:

MM AIR-01 DUST CONTROL AND IDLE REDUCTION: The Contractor shall comply with applicable dust control methods to minimize dust from activities such as clearing, grading, earth moving, excavation, or transportation of fill materials. The following applies:

A. Use of water truck capable of applying water both by spray and hose to apply water for work areas in advance of work and to keep damp during the progress of work.

B. Stockpiled materials shall be watered down.

C. Traffic speeds on unpaved roads shall be limited to 10 miles per hour.

D. All truck hauling dirt, sand, soil, or loose material shall be covered.

E. Equipment will be shut down when not in use for extended periods.

MM AIR-02 TRAFFIC CONGESTION MANAGEMENT: During all grading and construction activities, the County will implement a Traffic Control Plan to reduce traffic congestion and improve safety within the project work area.

MM AIR-03 DISTRICT PERMITS: Prior to receiving final discretionary approval, the construction contractor shall provide verification to the Kern County Public Works Department that they are in full compliance with Rule 9510.

Based upon the above evaluation, the proposed project would not conflict or obstruct implementation of the applicable air quality plan. Consequently, no mitigation is necessary.

Response to III(b): *Less Than Significant Impact with Mitigation Incorporated.* Determination of whether project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. If project emissions would not exceed State and federal ambient air quality standards at the project's property boundaries, the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The need to perform an air quality dispersion modeling analysis for projects is determined on a case-by-case basis depending on the level of emissions associated with the proposed project.

The quantity of criteria pollutant emissions is proportionate to the size of the construction project. For small construction projects, compliance with APCD Regulation VIII and Rule 9510 would typically reduce project specific construction emissions to below the thresholds of significance. The SJVAPCD recommends that an ambient air quality analysis be performed when emissions of

any criteria pollutant related to construction activities exceed the 100 pounds per day, or 10 tons per year, screening level for PM_{10} or NO_X. As shown in Table B, above, the proposed project would not exceed the SJVAPCD thresholds. Dispersion modeling is not necessary to demonstrate that construction emissions would not exceed the State and federal ambient air quality standards. Construction activities would not generate pollutant hot-spots. Therefore, the proposed project would result in a less-than-significant impact related to violating any air quality standard or contribute substantially to an existing or projected air quality violation. Furthermore, implementation of MM AIR-01, MM AIR-02, and MM AIR-03, incorporated above for Response to III(a), will further ensure that air quality impacts are reduced to a less-than-significant level.

Response to III(c): *Less Than Significant Impact with Mitigation Incorporated.* Because the Basin is designated as in State and/or federal nonattainment or maintenance for O_3, $PM_{2.5}$, PM_{10}, there is an ongoing regional cumulative impact associated with these pollutants. An individual project can emit these pollutants without significantly contributing to this cumulative impact depending on the magnitude of emissions. The SJVAPCD has indicated that the project-level thresholds of significance may be used as an indicator defining if project emissions contribute to the regional cumulative impact. As discussed above, emissions would not exceed the SJVAPCD regional significance thresholds, and the proposed project would not contribute to a cumulative impact. Therefore, the proposed project would result in a less-than-significant impact related to cumulative emissions. Furthermore, implementation of MM AIR-01, MM AIR-02, and MM AIR-03, incorporated above for Response to III(a), will further ensure that air quality impacts are reduced to a less-than-significant level.

Response to III(d): *Less Than Significant Impact with Mitigation Incorporated.* Sensitive receptors are persons who may be particularly sensitive to air pollution because they are ill, elderly, or have lungs that are not fully developed. Locations where such persons reside, spend considerable amounts of time, or engage in strenuous activities are also referred to as sensitive receptors. Typical sensitive receptors include inhabitants of long-term healthcare facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. The closest sensitive receptors include the residences located adjacent to project work area.

Construction activity would generate toxic air contaminants and hazardous air pollutant emissions, including diesel particulate matter. The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminant and hazardous air pollutant emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the OEHHA, health risk assessments, which determines the exposure of sensitive receptors to toxic air contaminant and hazardous air pollutant emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed project.

The use of construction equipment would be limited to an approximate total duration of 6 months. In addition, local exposure would be much shorter than the total duration of construction since the construction crew would not reside any location for more than a few days; construction activity would not occur with intensity and duration to significantly increase health risk. Although elevated cancer rates can result from exposure periods of less than 70 years, acute exposure (i.e., exposure periods of less than a year) to diesel exhaust typically does not typically result in significant health risks. In addition, SJAPCD does not consider cancer risks associated with operation of diesel-powered construction equipment to be an issue because of the short-term nature of construction activities. Therefore, the proposed project would not expose sensitive

receptors to substantial pollutant concentrations related to construction emissions. However, implementation of MM AIR-01, MM AIR-02, and MM AIR-03, incorporated above for Response to III(a), will further ensure that air quality impacts to sensitive receptors are reduced to a less-than-significant level.

Response to III(e): *Less Than Significant Impact*. Potential sources that may emit odors during construction activities include equipment exhaust and asphalt paving. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The proposed project would utilize typical construction techniques (e.g., diesel-fueled heavy-duty equipment), and the odors would be typical of most construction sites and temporary in nature. Therefore, the proposed project would result in a less-than-significant impact related to construction odors.

The SJAPCD has listed example of land uses than generate objectionable odors during operating activities. A sewer pipeline for residences is not included as an example project. The SJAPCD has included wastewater treatment facilities a potential source of odors. The proposed pipeline would handle a fraction of wastewater typically handled at a wastewater treatment facility. The pipeline would be constructed to industry standards common to residential areas. Sewage pipelines exist along most residential streets without causing odor nuisances. It is not anticipated that the proposed project would result in odor nuisances. Therefore, the proposed project would result in a less-than-significant impact related to operational odors, and no mitigation is necessary.

Based upon the foregoing evaluation, potential impacts of this project on air quality are less than significant with compliance with proposed mitigation measures; therefore, the proposed project would not result in a significant air quality impact.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? *(See Environmental Setting.)*	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *(See Environmental Setting.)*	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? *(See Environmental Setting.)*	☐	☐	☐	☒

RESPONSES:

Response to IV(a) and IV(d): *Less Than Significant Impact with Mitigation Incorporated.* In February 2016, SWCA Environmental Consultants prepared a Biological Resources Assessment

(BRA) for the proposed project.[12] A records search indicated that a total of 4 special-status plant species and 28 special-status animal species have been documented within a ten-mile radius of the project. Based upon an evaluation of the existing conditions, elevation, and soils of the Biological Study Area (BSA), it was determined that suitable conditions do not occur within the BSA for the special-status plant species. However, it was determined that suitable conditions occur within the BSA for the following special-status animal species:

- California horned lark *(Eremophila alpestris actia)*
- Crotch bumble bee (*Bombus crotchii)*
- giant kangaroo rat (*Dipodomys ingenus*)
- Nelson's antelope squirrel (*Ammospermophilus nelsoni*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)
- San Joaquin pocket mouse *(Perognathus inornatus)*
- San Joaquin whipsnake (*Masticophis flagellum ruddocki*)
- short-nosed kangaroo rat (Dipodomys nitratoides brevinasus)
- Swainson's hawk *(Buteo swainsoni)*
- white-tailed kite *(Elanus leucurus)*
- Class Aves (nesting) migratory birds

SURVEY RESULTS

Sensitive Habitats

The BSA consists of 206 acres of developed features associated with existing roads and residences, disturbed roadside vegetation (ruderal), and active and fallow agricultural land. The 78.35-acre PIA consists primarily of developed and ruderal land adjacent to the road rights-of-way (ROW). These vegetative community types are not considered sensitive habitat for any species with the potential to occur within the BSA.

Special-Status Plant Species

The surveys conducted within the BSA were conducted within the appropriate blooming period for those special-status plant species that were considered. None of the species that were considered, or any other sensitive plant species, were observed. No suitable habitat for these species occurs within the Project Impact Area (PIA).

Crotch bumble bee

Crotch bumble bee (Bombus crotchii) is considered a special animal (SA) by the California Department of Fish and Wildlife. This species inhabits open grassland and scrub habitats and nests underground. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees. Bumble bees collect both nectar and pollen of the plants that they pollinate. In general, bumble bees forage from a diversity of plants, although individual species can vary greatly in their plant preferences, largely due to differences in tongue length. This species is classified as a short-tongued species, whose food plants include Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, and Salvia. This species was historically common in the Central Valley but now appears to be absent from much of its

[12] *Biological Assessment for South Shafter Sewer Project, Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, Kern County, California.* SWCA Environmental Consultants, February 2016

historic range, especially in the central part of its range.
Based on the results of a CNDDB query, there are several records of crotch bumble bee surrounding the BSA. The nearest occurrences are located approximately 0.5 mile north of the BSA from March of 1953 and approximately five miles east of the BSA from June of 1952. The PIA itself is highly disturbed and devoid of suitable vegetation or soils suitable for nesting for this species. Adjacent habitat on private property does include some marginal habitat value and could potentially provide suitable foraging habitat for this species. No individuals were observed during the surveys conducted on November 5, 2015, nor would presence be expected during the survey conducted in November. Due to the presence of marginally suitable habitat adjacent to the PIA, there is a low likelihood that this species may enter the PIA during construction.

Marginally suitable nesting habitat is available within fallow agricultural lands adjacent to the PIA; however, the PIA does not support suitable nesting habitat due to the existing level of disturbance associated roadway and agricultural maintenance activities. The PIA does not support suitable soils for underground nests or vegetation for food sources suitable for this species; therefore, direct impacts to this species are not anticipated to occur as a result of the proposed project. Therefore, impacts to crotch bumble bee associated with the proposed project would be less than significant; consequently, mitigation measures for this species are not necessary.

San Joaquin whipsnake
Although presence within the PIA is highly unlikely, potential project impacts to San Joaquin whipsnake include direct effects associated with the use and movement of construction equipment, construction debris, vegetation removal, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, may cause disturbance to San Joaquin whipsnake and may cause them to migrate to adjacent work areas.

The following mitigation measure are recommended in the BRA to reduce impacts to San Joaquin whipsnake:

MM BIO-01 PRECONSTRUCTION SURVEY: Prior to any ground disturbance, a qualified biologist shall conduct preconstruction surveys for special status species with the potential to occur in the project area during construction activities. The appropriate scope, schedule and methodology of the surveys shall be determined by the qualified biologist.

MM BIO-02 EDUCATION SESSION: Prior to any ground disturbance, a qualified biologist shall conduct an education session for all individuals who will be present during site preparation or construction activities. The education session shall present all pertinent information for the avoidance and minimization of any special status-species with the potential to exist on the project site during construction. The Resident Engineer or their on-site designee, with the authority to stop all work on the project site, shall be identified as the contact source for any attendee who might observe or inadvertently kill or injure a special status species within the project area. Signup sheets identifying attendees and the Contractor/Company they represent shall be included in a post-construction compliance report.

MM BIO-03 SPECIES DISCOVERY: Should a special status species or avian species protected under the Migratory Bird Treaty Act, or their dens/burrows/nests, be discovered within the project boundary, the following shall occur:

A. All work within 100 feet of the discovery shall cease immediately.

B. The Resident Engineer or their on-site designee shall be immediately notified.

C. A qualified biologist shall determine if notification and/or consultation with regulatory agencies is required, and how to proceed with the project and avoid take.

MM BIO-04 EXCAVATION: All excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed no greater than 200 feet apart. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped special status species which were identified during the project's education session.

MM BIO-05 ON-SITE VEHICLES: Project-related vehicles shall observe a speed limit of 10 miles per hour throughout the project site, except on paved County roads and State and federal highways.

MM BIO-06 TRASH COLLECTION: All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the project site.

MM BIO-07 PIPES & CULVERTS: All pipes and culverts shall be searched for species identified during the project's education session prior to being moved or sealed. Should any special status species be discovered within a pipe or culvert, that section of pipe or culvert shall not be moved or sealed. Any special status species found in a pipe or culvert shall be allowed to vacate unimpeded.

MM BIO-08 ENTRAPMENT/ENTANGLEMENT PREVENTION: Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site to prevent entrapment or entangling of sensitive species.

MM BIO-09 VECTOR & WEED CONTROL: Use of rodenticides and herbicides at the project site shall be prohibited.

Giant kangaroo rat, Nelson's antelope squirrel, short-nosed kangaroo rat, and San Joaquin pocket mouse

No formal trapping efforts were conducted for small mammals as part of this survey effort. There are several documented CNDDB occurrences of giant kangaroo rat approximately 12 miles southwest of the BSA. The nearest occurrence is from June 1990 and is located approximately 11.7 miles southwest of the BSA. The PIA is highly disturbed and devoid of vegetation due to ongoing roadway and agricultural maintenance activities; however, portions of the PIA may provide marginally suitable foraging habitat for giant kangaroo rats. Land adjacent to the PIA may also provide marginally suitable foraging and burrowing habitat for this species. No individuals, or sign of individuals, were observed during surveys conducted in November 2015.

Based on the results of a CNDDB query, there are several occurrences of Nelson's antelope squirrel west of the BSA; the nearest occurrence is from April of 2006 and is located approximately five miles west of the BSA (CNDDB Occ. 328). There are no documented occurrences of short-nosed kangaroo rat within a 10-mile radius of the BSA. There are several documented occurrences of San Joaquin pocket mouse in the vicinity of the BSA; the nearest occurrence is from September of 2013 and is located approximately five miles west of the BSA.

The PIA supports marginally suitable foraging habitat in the form of fallow agricultural land and ruderal habitat; however, presence is unlikely due to the existing level of disturbance associated

with ongoing roadway and agricultural maintenance activities. Adjacent habitat on private property provides marginally suitable foraging and burrowing habitat for these species. No individuals were observed during the surveys conducted on November 5, 2015. Due to the existing level of disturbance and presence of marginally suitable habitat adjacent to the PIA, there is a low likelihood that these species may enter the PIA during construction.

Although presence within the PIA is highly unlikely, potential project impacts to giant kangaroo rat, Nelson's antelope squirrel, short-nosed kangaroo rat, and San Joaquin pocket mouse include direct effects associated with the use and movement of construction equipment, construction debris, vegetation removal, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, may cause disturbance to these species and may cause them to migrate to adjacent work areas, making them more susceptible to impacts associated with construction as well as predation by other animals. The measures provided below would reduce the potential for these impacts to occur.

Therefore, impacts to giant kangaroo rat, Nelson's antelope squirrel, short-nosed kangaroo rat, and San Joaquin pocket mouse associated with the proposed project would be less than significant with mitigation.

Implementation of Mitigation Measures (MM) BIO-01 through BIO-09 above would be sufficient to avoid and minimize potential impacts to giant kangaroo rat, Nelson's antelope squirrel, short-nosed kangaroo rat, and San Joaquin pocket mouse.

San Joaquin kit fox

There is one CNDDB record of San Joaquin kit fox within the BSA from July 1975, and several additional occurrences mapped within a 10-mile radius of the BSA. There is marginally suitable foraging habitat for this species in the form of fallow agricultural land and ruderal habitat within the PIA and marginally suitable foraging and burrowing habitat within agricultural land adjacent to the PIA. San Joaquin kit fox is also known to have a large home range and is transitory. No San Joaquin kit fox, active burrows, or sign of this species were observed during the November 2015 general biological reconnaissance surveys of the BSA; however, San Joaquin kit fox may occur within the BSA in unidentified burrows or pass through the BSA foraging.

Implementation of Mitigation Measures (MM) BIO-01 through BIO-09 above would be sufficient to avoid and minimize potential impacts to San Joaquin kit fox.

Swainson's hawk, white-tailed kite, California horned lark, and nesting migratory birds

The Swainson's hawk is federally protected by the Migratory Bird Treaty Act (MBTA). This species occurs in open desert, grassland, or cropland containing scattered, large trees or small groves. Swainson's hawks roost in large trees, but will roost on the ground if suitable trees are not available. Swainson's hawks breed in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. The nearest recorded occurrence of this species is from May of 2008 and was located approximately 6.5 miles southeast of the BSA.

The white-tailed kite is federally protected by the MBTA. The white tailed kite typically occurs in savanna, open woodlands, marshes, dessert grassland, partially cleared lands, and cultivated fields. White-tailed kites forage over lightly grazed or ungrazed fields. White-tailed kites nest in open country isolated trees, and at the edge of or within forests. During the nonbreeding season, white-tailed kites roost communally, sometimes with more than 100 individuals. The nearest recorded occurrence of this species is from July of 1992 and is located approximately 9.6 miles southeast of the BSA.

The California horned lark is federally protected by the MBTA. California horned larks occupy areas dominated by bare ground or very little vegetation such as short grass prairies, coastal

plains, fallow grain fields and alkali flats. Horned larks are found in coastal regions from Sonoma to San Diego County and east to the San Joaquin Valley. The nearest recorded occurrence is from October of 2006 and is located approximately 5.5 miles southeast of the BSA.

Suitable habitat for migratory birds is absent within the PIA; however, suitable habitat is present for migratory birds within the BSA in the form of scattered stands of trees and isolated trees potentially suitable for nesting along the roadways. Agricultural fields and open space may provide potentially suitable foraging habitat for migratory birds. None of the aforementioned migratory birds or sign of nesting activity were observed during the survey of the BSA; however, they have the potential to occur. The presence of migratory bird species protected by the MBTA is inferred due to their migratory nature and the presence of potentially suitable habitat within and adjacent to the BSA.

If migratory birds are nesting adjacent to the PIA within the BSA, temporary indirect impacts to nesting migratory bird species could occur as a result of noise disturbance and increased airborne dust associated with construction activities. Increased, prolonged, ambient construction-related noise and vibration could adversely affect breeding and nesting behavior and contribute to a decrease in nesting success. Additionally, increased airborne construction dust could temporarily degrade the quality of the surrounding riparian vegetation and habitat. Therefore impacts to migratory birds associated with the proposed project would be less than significant with mitigation.

Implementation of Mitigation Measures (MM) BIO-01 through BIO-03 above would be sufficient to avoid and minimize potential impacts to Swainson's hawk, white-tailed kite, California horned lark, and other nesting migratory birds.

Adherence to identified mitigation measures would reduce impacts to special-status species to a less than significant level.

Response to IV(b): *Less Than Significant Impact.* The 78.35-acre Project Impact Area (PIA) consists of primarily agriculture, developed land and disturbed vegetation (Ruderal).[13]

Agriculture
Agricultural fields occupy approximately 100.56 acres of the 206-acre BSA and approximately 16.33 acres of the 78-acre PIA. These fields support row crops, orchards, fallow areas, and disturbed dirt access roads and edges. Agricultural fields may provide habitat for rodents, other small mammals, and foraging birds, but are unlikely to support sensitive species because they are often subjected to considerable disturbance unsuitable for these species.

Developed
Developed (or anthropogenic) communities are those in which all naturally occurring vegetation is stripped and replaced with landscaped plants and artificial surfaces, such as road base, asphalt, and concrete. The developed portions include developed roadways, sidewalks, and other developed features associated with roads and residential and commercial areas. These areas have very limited value for wildlife. Approximately 154.18 acres of the 206-acre BSA and approximately 60.81 acres of the 78.35-acre PIA consist of developed land.

Ruderal
Ruderal habitats often occur in abandoned agricultural fields, along roadsides, near developments, and in other areas experiencing severe ground surface disturbance. This vegetation type is typically dominated by weedy/non-native species that exhibit clinging seeds, adhesive stems, and rough leaves that assist their dispersal, invasion, and colonization of

[13] *Biological Assessment for South Shafter Sewer Project, Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, Kern County, California.* SWCA Environmental Consultants, February 2016.

disturbed lands. Much of the BSA consists of areas with ruderal vegetation (or no vegetation) as a result of historical and on-going disturbance by grading, vehicle impacts, agricultural operations, and other activities. Typical plant species observed within the ruderal habitat located in the BSA include Russian thistle (*Salsola tragus*), red brome (*Bromus madritensis* ssp. *rubens*), Mediterranean grass (*Schismus arabicus*), rattail fescue (*Festuca myuros*), filaree (*Erodium cicutarium*), short-pod mustard (*Hirschfeldia incana*), and black mustard (*Brassica nigra*).

In general, vegetation in ruderal habitat areas does not provide the habitat complexity necessary for diverse wildlife communities. The wildlife habitat values provided by this community are dependent upon the level of on-going disturbance and the type of plants present. Within the PIA, ruderal habitat is largely disturbed and lacking value as suitable habitat due to the existing level of disturbance adjacent to existing roadways. Approximately 7.09 acres of the 206-acre BSA and approximately 1.20 acres of the 78.35-acre PIA consist of ruderal habitat.

Based upon the highly disturbed nature of vegetation located within the PIA and BSA, impacts associated with adverse effects to sensitive natural communities are less than significant. Since no riparian habitat or wetlands are present on or adjacent to the proposed project site, no impacts associated with riparian habitat would occur with implementation of the proposed project. No mitigation is required.

Response to IV(c): *No Impact.* Refer to Matrix above.

Response to IV(d): *Less Than Significant Impact.* Habitat fragmentation occurs when a proposed action results in a single, unified habitat area being divided into two or more areas, such that the division isolates the two new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or from one habitat type to another. An example is the fragmentation of habitats within and around clustered residential development. Habitat fragmentation may occur when a portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning.

The California Essential Habitat Connectivity Project was queried for Essential Habitat Connectivity, which are the best available data describing important areas for maintaining connectivity between large blocks of land for wildlife corridor purposes (CDFW 2010). These important areas are referred to as Essential Connectivity Areas (ECA). ECAs are only intended to be a broad scale representation of areas that provide essential connectivity. It is expected that additional linkages will be identified as new data becomes available for various species. According to the existing data, the Project site is not located within or adjacent to a designated ECA or associated feature.

However, as discussed above in *Response to IV(a)*, project activities have the potential to directly and/or indirectly impact a variety of nesting migratory bird species, including State and federally protected species. Therefore, MM BIO-03 has been previously recommended to avoid or minimize impacts to migratory bird species within the project study area. Adherence to this mitigation would reduce impacts to migratory wildlife species to a less than significant level.

Response to IV(e) and IV(f): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, the potential impacts of this project on biological resources are less than significant with the proposed avoidance, minimization and mitigation measures.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
e) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074?	☐	☒	☐	☐

RESPONSES:

Response to V(a) – V(c): *Less Than Significant Impact with Mitigation Incorporated.* In general, CEQA considers a historical resource as any resource that: (1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (2) is associated with lives of persons important in our past; (3) embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual, or possesses high artistic values; or (4) has yielded or may be likely to yield information important in prehistory or history. Additionally, CEQA considers an archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it: (1) contains information needed to answer important scientific questions and that there is a demonstrable public interest in that information; (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

Based on the Archaeological Survey Report[14] conducted for the proposed project, no cultural resources or potential historic properties were observed during the surface survey of the project area, and no cultural resources or potential historic properties have been previously identified

[14] *Archaeological Survey Report for South Sewer Project, Kern County Public Works Department.* Compass Rose Archaeological, Inc., December 2015.

within or adjacent to the project area. Based on the results of this investigation, the proposed undertaking will not affect any potential historic properties in accordance with 36 CFR Part 800, and therefore, no additional studies are necessary at this time.

If any previously unidentified cultural materials are unearthed during construction, it is the County's policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Due to the potential to discover previously unknown artifacts within the project site as a result of construction activities, a mitigation measure is included to require compliance with the above-referenced policy.

MM CUL-01 In the event a subsurface cultural and/or paleontological resource is uncovered during the course of project construction, ground-disturbing activities in the vicinity of the find shall be redirected until the nature and extent of the find can be evaluated by a qualified archaeologist or paleontologist (as determined by the County). Any such resource uncovered during the course of the project related to grading or construction shall be recorded and/or removed per applicable County and/or State regulations.

It is the determination of the Lead Agency that construction activities, as proposed and subject to existing regulations and required mitigation, would result in less than significant impacts to cultural resources.

Response to V(d): *Less Than Significant Impact.* The California Health and Safety Code states that if human remains are discovered on site, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition.[15] Disposition of the human remains shall occur in the manner provided in § 5097.98 of the Public Resources Code. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC). As adherence to State regulations is required for all development, no mitigation is required in the unlikely event that human remains were discovered on the site. Therefore, impacts associated with the discovery of human remains would be less than significant, and no mitigation is required.

Response to V(e): *Less Than Significant Impact with Mitigation Incorporated.* The Native American Heritage Commission provided the Lead Agency with a list of contacts for potentially affected Native American tribes in response to a sacred lands files record search. The record search failed to indicate the presence of Native American cultural resources in the immediate area. In compliance with AB 52, the Lead Agency sent project notification and consultation request letters to the noted tribal contacts. As of this writing, the Lead Agency received only one letter, which was from the San Manuel Band of Mission Indians and noted that the project was outside of their Tribe's ancestral territory. Mitigation Measure (MM) CUL-01 has been previously incorporated for Response to V(a) – V(c) and will reduce impacts to previously undiscovered cultural resources should they be found during project implementation. In consideration of existing record and the responses received to date, impacts associated with Tribal Cultural Resources would be reduced to a less-than-significant level with mitigation.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest the implementation of this project, as proposed and in accordance with existing code requirements and the proposed mitigation measure, will significantly impact cultural resources.

[15] Division 7, *Dead Bodies;* Chapter 2, *General Provisions*, § 7050.5, California Health and Safety Code.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic groundshaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides? *(See Environmental Setting.)*	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? *(See Project Description.)*	☐	☐	☐	☒

RESPONSES:

Response to VI(a)i: *Less Than Significant Impact.* Fault rupture is the most easily avoided seismic hazard. The Alquist-Priolo Earthquake Fault Zoning Act (Act) mitigates fault rupture hazards by prohibiting the location of structures for human occupancy across the trace of an active fault. The

Act requires the State Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The boundary of an "Earthquake Fault Zone" is generally 500 feet from major active faults and from 200 to 300 feet from well-defined minor faults. The mapping of active faults has been completed by the State Geologist. These maps are distributed to all affected cities, counties, and State agencies for their use in developing planning policies and controlling renovation or new construction.

According to the California Department of Conservation/Division of Mines and Geology's (DMG) Fault Activity Map of California, the nearest recently active faults are the Pond-Poso Creek, Premier, New Hope and Kern Front faults located over twelve miles to the north and east of the project site[16]. An unnamed Pre-Quaternary fault (older than 1.6 million year), without recognized displacement, transects the project area. However, the project is not located within a designated active fault zone; therefore, the potential for exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, as a result of fault ground rupture at the site is considered low. Therefore, a less than significant impact related to this issue would occur and no mitigation is required.

Response to VI(a)ii: *Less Than Significant Impact.* Like all of southern California, the project site is located in a seismically active area and is subject to ground shaking resulting from activity on local and regional faults. Particular aspects of the project site may reduce the hazards associated with ground shaking relative to a typical urban location. The design of the proposed project would include seismic design parameters that would reduce the potential for seismic shaking-related impacts to a less than significant level. No mitigation is required.

Response to VI(a)iii: *Less Than Significant Impact.* Liquefaction is a phenomenon that occurs when strong earthquake shaking causes soils to collapse from a sudden loss of cohesion and undergo a transformation from a solid to a liquefied state. Factors influencing a site's potential for liquefaction include area seismicity, the type and characteristics of on-site soils, and the level of groundwater. Liquefaction typically occurs in areas where groundwater is shallower than approximately 30 feet, and where there is the presence of loose, sandy soils. According to the County's General Plan, liquefaction is not considered to be a local hazard since groundwater levels in the project area are far below the surface[17]. The proposed project site is not located in an area identified as being prone to liquefaction. Therefore, the potential for earthquake-induced liquefaction within the proposed project area is considered very low. Because liquefaction at the project site is considered to be very low, a less than significant impact related to liquefaction would occur. No mitigation is required.

Response to VI(b): *Less Than Significant Impact.* Temporary impacts from construction related activities would result in disturbance of the ground surface of adjacent soils. Implementation of the proposed project is expected to involve the disturbance of more than one acre; therefore, the County is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit. A Storm Water Pollution Prevention Plan (SWPPP) would also be required to address erosion and discharge impacts associated with the proposed on-site grading. As soils covering the majority of the project site have a slight or slight to moderate erosion hazard potential and because the project would be required to adhere to County requirements, obtain an NPDES Permit, and prepare an SWPPP, construction and operational impacts associated with soil erosion hazards are less than significant. No mitigation is required.

[16] *2010 Fault Activity Map of California: California Geologic Survey, Geologic Data Map No. 6.* California Department of Conservation, http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html, website accessed September 6, 2016.
[17] *Figure 14: Overlay Constraints: Flooding and Shallow Ground Water, Chapter 4: Safety Element*, *Kern County General Plan*. Kern County Planning and Community Development Department, September 22, 2009.

Response to VI(c): *Less Than Significant Impact.* Please refer to Checklist Response 6a. Subsidence is the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal motion. Subsidence is caused by a variety of activities, which include (but is not limited to) withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydro-compaction. Minor ground subsidence is expected to occur in the soils below the zone of removal due to settlement and machinery working. The actual amount of subsidence is expected to be variable and would be dependent on the type of machinery used, repetitions of use, and dynamic effect, all of which are difficult to assess quantitatively. The proposed project would be required to adhere to County and engineering requirements and standards, which would reduce impacts to a less than significant level. No mitigation is required.

Response to VI(d): *Less Than Significant Impact.* Expansive soils generally have a significant amount of clay particles, which can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The extent of shrink/swell is influenced by the amount and kind of clay in the soil. The occurrence of these soils is often associated with geologic units having marginal stability. The distribution of expansive soils can be widely dispersed, and they can occur in hillside areas as well as low-lying alluvial basins.

According to the United States Department of Agriculture, National Resources Conservation Service soil database, site soils are classified as the following types: Garces silt loam, Kimberlina fine sandy loam, Lewkalb sandy loam, Milham sandy loam, Panoche clay loam, Calfax clay loam (saline), and Wasco sandy loam. These soils types are considered well drained and do not contain significant amounts of clay particles that have the ability to shrink or swell.[18] However, mandatory soil testing is performed by staff as part of the project to ensure that the sewer line construction would not result in substantial risks to life or property due to expansive soil. Additionally, development of the proposed project would be required to adhere to County design and engineering standards. Impacts associated with this issue are less than significant; consequently, no mitigation is required.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, will result in significant impacts to geology and soils.

[18] *Report and General Soil Map, Kern County, California*. United States Department of Agriculture, Soil Conservation Service, 1976.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

RESPONSES:

Response to VII(a): *Less Than Significant Impact.* Climate change is a shift in the average weather patterns that a given region experiences. This is measured by changes in temperature, wind patterns, precipitation, and storms. Global climate change means change in the climate of the Earth as a whole. It can occur naturally as in the case of the Ice Age or as some evidence suggests, can result from man's activities on the Earth. Climate varies constantly, warming and cooling occurs at varying rates, magnitudes, and time scales in response to solar variations, orbital variations, volcanic eruptions, and a variety of other natural forcing. According to California Air Resources Board (CARB), the climate change that is occurring today differs from previous climate changes in both rate and magnitude, although this conclusion is still being debated in the scientific community.

Gases that trap heat in the atmosphere are often called climate change gases or greenhouse gases. The Earth's surface temperature would be colder than it is now if it were not for the natural heat trapping effect of climate change gases. The accumulation of these gases in the Earth's atmosphere is considered the cause of the observed increase in the Earth's temperature (global warming). The primary climate change gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. These particular gases are important due to the residence time in the atmosphere, from tens of years to more than 100 years. Some climate change gases, such as carbon dioxide, occur naturally and are emitted to the atmosphere through natural processes, as well as human activities.

Several studies have implicated human activities, including site development, as a contributing factor in greenhouse gas emissions to global climate change or global warming. As a result, California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. Assembly Bill (AB) 32 (the Global Warming Solutions Act) was passed by the California legislature on August 31, 2006. It requires the State's global warming emissions to be reduced to 1990 levels by 2020.

The principal greenhouse gases are carbon dioxide (CO_2), methane (CH_4), nitrogen oxides (NO_x), ozone, water vapor, and fluorinated gases. Fossil fuel consumption in the transportation sector (on road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of greenhouse gas emissions, accounting for approximately one-half of greenhouse gas emissions globally. Construction related activities associated with heavy equipment operation, daily truck deliveries, and worker commute trips would temporarily generate

an increase in greenhouse gases. Additionally, a permanent increase in greenhouse gas emissions will result from long-term operations of the project, specifically the increase in mobile sources (heavy truck travel to and from the site).

As directed by Senate Bill (SB) 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines for greenhouse gas emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010. Kern County's approach to analyzing greenhouse gas emissions and impacts are consistent with the CEQA Guidelines.

According to the CEQA Guidelines, the proposed project would be considered significant and cumulatively considerable if it were to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance; or in conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

With regards to past, present, and foreseeable future projects, it should be noted that several special interest groups have suggested what has come to be known as the "one molecule theory." This theory supposes that the addition of even one molecule of a criteria pollutant in a nonattainment air basin would constitute a significant increase. While these groups have attempted to enforce this theory in various jurisdictions, the Court of Appeals has held that CEQA does not require this approach. One court has stated, "the one [additional] molecule rule is not the law" (Communities for a Better Environment versus California Resources Agency 2002, 103 Cal. App. 4th 98,119). Therefore, while the San Joaquin Valley Air Pollution Control District's (SJVAPCD) cumulative air quality impacts would remain significant without the project (i.e., since the air basin is considered to be in nonattainment for certain criteria pollutants), the proposed project's incremental contribution to these impacts will be mitigated to the extent feasible and poses an insignificant contribution to the cumulative impacts on the Basin's air quality.

It should be noted SJVAPCD staff has concluded that existing science is inadequate to support quantification of impacts that project specific greenhouse gas emissions have on global climatic change. This is readily understood when one considers that global climatic change is the result of the sum total of greenhouse gas emissions, both manmade and natural that occurred in the past; that is occurring now; and will occur in the future. The effects of project-specific greenhouse gas emissions are cumulative, and without mitigation their incremental contribution to global climatic change could be considered cumulatively considerable. The District staff concludes that this cumulative impact is best addressed by requiring all projects subject to CEQA to reduce their greenhouse gas emissions through project design elements. No mitigation is required with implementation of existing regulations.

Construction Emissions. Construction activities, such as site preparation, excavation and site grading, would require the use of on-site heavy-duty construction vehicles and the use of equipment for hauling materials to and from the site. Motor vehicles would also be used to transport the construction crew, all of which would produce combustion emissions from these various sources.

During construction of the project, greenhouse gases would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates greenhouse gases such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. The only greenhouse gas with well-studied emissions characteristics and

published emissions factors for construction equipment is CO_2.

Project construction emissions were evaluated using the CalEEMod OFFROAD model for equipment exhaust and EMFAC2011 of on-road vehicles (CalEEMod, Version 2013.2.2). Based on the results of the analysis, the project would generate a total of 555 metric tons per year of CO_2 during the construction period. Project emissions would be approximately 0.002 percent of the total County GHG emissions inventory of 27,272,709 metric tons per year. The SJVAPCD does not have a quantitative threshold of significance for construction-related greenhouse gas emissions. However, implementation of the SJVAPCD Regulation VIII would reduce greenhouse gas emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. Therefore, project construction impacts associated with the release of greenhouse gas emissions would be considered less than significant.

Operational Greenhouse Gas Emissions. The proposed project would provide a gravity flow sewer line that would be assisted by up to five sewer lift stations. Operational activities would include the transfer of sewer to an existing waste water treatment facility. The project itself would not result in the generation of new operational greenhouse gas emissions. Therefore, the project would not generate emissions that would have a significant impact on the environment.

Response to VII(b): *Less Than Significant*. The California Environmental Protection Agency Climate Action Team (CAT) and the California Air Resources Board (ARB) have developed several reports to achieve the Governor's greenhouse gas targets, which rely on voluntary actions by California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT 2006 *Report to Governor Schwarzenegger and the Legislature*, the ARB 2007 *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California*, and the ARB *Climate Change Scoping Plan: a Framework for Change*. The reports identify strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05 and AB 32. The adopted Scoping Plan includes proposed greenhouse gas reductions from direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as cap-and-trade systems.

In addition to reducing greenhouse gas emissions to 1990 levels by 2020, AB 32 directed ARB to identify a list of "discrete early action greenhouse gas reduction measures" that can be adopted and made enforceable by January 1, 2010.[19] In June 2007 ARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). The ARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures.

ARB's focus in identifying the 44 early action items was to recommend measures that ARB staff concluded were "expected to yield significant greenhouse gas emission reductions, and likely to be cost-effective and technologically feasible."[20] The combination of early action measures is estimated to reduce State-wide greenhouse gas emissions by nearly 16 million metric tons (MMT). Accordingly, the 44 early action items focus on industrial production processes, agriculture, and transportation sectors.

Early action items associated with industrial production and agriculture do not apply to the proposed project. The transportation sector early action items, which include truck efficiency, low

[19] Discrete early action measures are measures that are required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5.
[20] *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration.* California Air Resources Board, October 2007.

carbon fuel standard, proper tire inflation, truck stop electrification and strengthening light duty vehicle standards, are either not specifically applicable to the proposed project or, if implemented, would result in a reduction of greenhouse gas emissions associated with the project (i.e., emissions from vehicles using the new roadway would be reduced due to implementation of light duty vehicle standards). Measures implemented as part of the Scoping Plan at the State-wide level that would reduce project-specific emissions include emission reductions, such as light-duty vehicle greenhouse gas standards ("Pavley standards"), low carbon fuel standard, and energy efficiency measures.

The SJVAPCD's governing board adopted the Climate Change Action Plan (CCAP) in August 2008. The CCAP directed the Air District to develop guidance documents to assist district staff, valley businesses, land use agencies, and other permitting agencies in addressing greenhouse gas emissions as part of the CEQA process. On June 30, 2009, the SJVAPCD published its draft staff report, entitled Climate Change Action Plan: addressing greenhouse gas under CEQA, in which the District provides guidance by which processes may be established for assessing the significance of project-specific greenhouse gas impacts by identifying and quantifying greenhouse gas emissions reduction measures for development projects and by providing tools to streamline evaluations of project-specific greenhouse gas effects. The Air District suggests that projects exempt from the requirements of CEQA and projects complying with an approved plan or mitigation program be determined to have a less than significant cumulative impact. Where projects are not exempt from CEQA, and in absence of an approved plan or mitigation program, projects complying with best performance standards do not require specific quantification of greenhouse gas emissions. Projects not fitting any of the described standards, programs, or exemptions require quantification of greenhouse gas emissions and demonstration that greenhouse gas emissions have been reduced or mitigated by 29 percent, as targeted by the CARB's Assembly Bill (AB) 32 scoping plan. The CCAP does not have thresholds for construction emissions. In addition, where it has been determined that an Environmental Impact Report (EIR) is required, regardless of whether the project incorporates best performance standards quantification of greenhouse gas emissions is required.

In its document, SJVAPCD proposes quantitative thresholds, including mass of greenhouse gas emissions generated per unit of activity, greenhouse gas emissions per capita unit basis, and percent reduction compared to business as usual.

SJVAPCD, in Climate Change Action Plan; addressing greenhouse gas under CEQA, acknowledges that "CEQA Guidelines clearly recognize the use of fee payments as mitigation for a project's otherwise cumulatively considerable incremental contribution to significant cumulative impacts. A project's contribution is less than cumulatively significant if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact" (CEQA Guidelines, Section 15130(a)(3)).

Once operational, the project would not be expected to generate greenhouse gas emissions, and, therefore, would not conflict with any applicable plan, policy or regulation for the purpose of reducing greenhouse gas emissions. Therefore, operation of the proposed project would not exceed the SJVAPCD's threshold of significance for greenhouse gas emissions.

Based upon the foregoing evaluation, potential impacts of this project on Greenhouse Gas Emissions are less than significant.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school? *(See Environmental Setting.)*	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? *(See Environmental Setting.)*	☐	☐	☐	☒
e) For a project located within the adopted Kern County Airport Land Use Compatibility Plan, would the project result in a safety hazard for people residing or working in the project area? *(See Environmental Setting.)*	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? *(See Environmental Setting.)*	☐	☐	☐	☒
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? *(See Environmental Setting.)*	☐	☐	☐	☒

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. (Continued) Would the project:				
i) Would implementation of the project generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste? Specifically, would the project exceed the following qualitative threshold: The presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the project is significant when the applicable enforcement agency determines that any of the vectors:	☐	☐	☒	☐
i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; and	☐	☐	☒	☐
ii. Are associated with design, layout, and management of project operations; and	☐	☐	☒	☐
iii. Disseminate widely from the property; and	☐	☐	☒	☐
iv. Cause detrimental effects on the public health or well being of the majority of the surrounding population.	☐	☐	☒	☐

RESPONSES:

Response to VIII(a): *No Impact*. Project construction and operation activities would not require the routine transport, use or disposal of hazardous materials. Therefore, no impacts to the public or the environment regarding hazardous materials would occur from implementation and future operations of the project; consequently, no mitigation is required.

Response to VIII(b): *Less Than Significant Impact.* Exposure to hazardous materials during the construction and operation of the proposed on-site uses would result from (1) the improper handling or use of hazardous substances; (2) transportation accident; or (3) an unforeseen event (e.g., fire, flood, earthquake, discovery of previously unknown wells, etc.). The severity of any such exposure is dependent upon the type, amount, and characteristics of the hazardous material involved; the timing, location, and nature of the event; and the sensitivity of the individual or environment affected.

The transport, storage, and handling of hazardous material are governed by existing local, State,

and federal regulations, including applicable sections of the California Code of Regulations. In Kern County, the County of Kern Public Health Services Department, Environmental Health Division is the local agency that has been certified by the California Environmental Protection Agency (CalEPA) to implement and ensure compliance with six State environmental and emergency programs. These programs include Hazardous Materials Business Plan/Emergency Response Plan, Hazardous Waste/Tiered Permitting, Underground Storage Tanks, Aboveground Storage Tanks, California Accidental Release Program, and the Uniform Fire Code Hazardous Materials Management Plan and Hazardous Material Inventory Statements. The County of Kern Public Health Services Department, Environmental Health Division, as the local agency charged with implementing these programs, will provide permitting, inspections, and enforcement with the required regulations. Hazardous wastes produced on site from construction activities are subject to requirements associated with accumulation time limits, proper storage locations and containers, and proper labeling. Additionally, for removal of any construction related hazardous waste from the site, hazardous waste generators are required to use a certified hazardous waste transportation company, which must ship hazardous waste to a permitted facility for treatment, storage, recycling, or disposal.

As with any operation in which hazardous materials are utilized, any on-site activity involving hazardous substances must adhere to applicable local, State, and federal safety standards, ordinances, or regulations. Businesses engaged in the use, storage, or transport of hazardous substances are monitored by various local (i.e., Kern County Fire Department and Kern County Environmental Health Services Department) and State (i.e., Department of Toxic Substance Control) entities. Because the proposed project is a transportation improvement project, the range of activities that would occur on the project site during the operational phase would not allow for the use, storage, or disposal of large volumes of toxic, flammable, explosive, or otherwise hazardous materials that could cause serious environmental damage in the event of an accident.

Furthermore, the Lead Agency notes that six oil and gas wells, listed below, are known to exist within 100 feet of the proposed sewer line rights-of-way easements and the proposed construction activities.[21]

Table C: Known Oil and Gas Wells

Well Number	API Number	Status	Operator
87	02955045	Plugged	ARCO Western Energy
1	02987346	Plugged	B.H. Richards
32	02956437	Plugged	ARCO Western Energy
25X-26	02916710	Plugged	Union Oil Company of California
1	02930754	Plugged	Stransbury-Webb-McGoey
1	02930756	Plugged	Mobil Oil Exploration & Production N. America, Inc.

The potential to disturb the six known oil and gas wells listed above is very low. However, construction activities do have the potential to discover and disturb previously unknown wells. The California Department of Conservation/Division of Oil, Gas and Geothermal Resources (DOGGR) supervises the drilling, maintenance, and plugging and abandonment of oil, gas and geothermal wells in California. Should previously unknown wells be discovered during the course of grading or construction activities, the Division may require remedial activities for the well prior to the resumption of construction activities within the vicinity of the discovery. Section 3208.1 of the Public Resources Code authorizes the State Oil and Gas Supervisor to order remedial activities for a well when construction activities in the proximity of the well could result in a hazard. The cost

[21] *DOGGR Well Finder Map,* California Department of Conservation, http://maps.conservation.ca.gov/doggr/index.html, website accessed September 6, 2016.

of remedial activities is the responsibility of the owner or developer of the project. Therefore, in order to ensure that impacts resulting the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment are reduced to a less than significant level, the following mitigation measure (MM) has been incorporated.

MM HAZ-01 If any previously unknown oil, gas or injection wells are discovered, work in the area of discovery shall be stopped and the California Department of Conservation/Division of Oil, Gas and Geothermal Resources /Bakersfield Office contacted by the project proponent(s) to obtain information on the requirements of, and approval to perform, remedial operations implemented prior to resumption of work in the area of discovery.

MM HAZ-02 Prior to the final approval of the construction plans, the County shall notify the SoCalGas – Gas transmission Department regarding the proposed improvements.

Compliance with existing regulations and adherence to the mitigation measure will ensure that impacts associated with the creation of significant hazards involving the release of hazardous materials issue are reduced to a less than significant level.

Response to VIII(g): *Less Than Significant Impact*. Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Adherence to County standards and required construction measures would reduce potential impacts related to this issue to a less than significant level. No mitigation is required.

Response to VIII(h): *No Impact.* Refer to Matrix above.

Response to VIII(i): *Less Than Significant Impact.* A vector is defined as any organism capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury, including mosquitoes, flies, fleas, cockroaches, ticks, mites, or rats. Mosquitoes can act as potential disease carrying vectors. All species of mosquitoes require standing water to complete their growth cycle; therefore, any standing body of water represents a potential mosquito breeding habitat. Project construction activities would require the creation of trenches that could fill with water during a rain event; however, any flooded trenches would be quickly drained and backfilled once the sewer lines have been constructed, and no standing water that could encourage vector populations would result. Impacts associated with this issue are less than significant, and no mitigation measures are required.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing ordinance requirements and the required mitigation measures, will result in significant impacts relating to hazards and hazardous materials.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on site or off site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on site or off site?	☐	☐	☒	☐
e) Create/ contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? *(See Project Description.)*	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? *(See Project Description.)*	☐	☐	☐	☒

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
i) Expose people/structures to a significant risk of loss, injury, or death involving flooding, as a result of the failure of a levee or dam? *(See Environmental Setting.)*	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow? *(See Environmental Setting.)*	☐	☐	☐	☒

RESPONSES:

Response to IX(a) and IX(f): *Less Than Significant Impact with Mitigation Incorporated.* Construction of the proposed project would involve the disturbance of more than one acre; therefore, the County would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for general construction activities. A Stormwater Pollution Prevention Plan (SWPPP) would also be required to address erosion and discharge impacts associated with the proposed construction activities. Because the project is greater than one acre, the County is required to file a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board (RWQCB) for the project to be covered under the State NPDES General Construction Permit for discharge of storm water associated with construction activities. Compliance with the project-specific SWPPP would reduce impacts related to this issue to a less than significant level. Therefore, to ensure compliance with the NPDES program and protect against the degradation of water quality, the following mitigation measure (MM) has been identified.

MM HYD-01 STORMWATER CONTROL: Prior to the commencement of grading or construction activities, the construction contractor shall file a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board for the project to be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of stormwater associated with construction activities.

Response to IX(b): *Less Than Significant Impact.* Drinking water for construction workers would be provided via bottled water. Construction activities would utilize non-potable water for compaction and dust suppression activities. The proposed project site is underlain by the Tulare Lake Groundwater Basin. However, development of the proposed project would not require any withdrawal of groundwater beneath the project site. Any water used for construction would be hauled in from a certified water supplier and would not exceed one acre-foot (271,329.7 gallons) in quantity; therefore, no significant impact would occur. No mitigation is required.

Response to IX(c) – IX(e): *Less Than Significant Impact*. Construction activities will occur within the vicinity of 23 ephemeral drainages which cross the existing road alignment. Culverts will need to be extended for 22 of the drainage crossings. Culvert extensions will most likely involve the installation of a high-density polyethylene (HDPE) pipe, the replacement of concrete headwalls, the installation of rip-rap along the channels for energy dissipation on the downstream side of the culver, and excavation of a footing trench.

One of the drainage crossings is serviced by a concrete box culvert with three (3), eight- (8-) foot-wide cells. The existing box culvert will be demolished and replaced with a similar-sized box culvert with two (2), 12-foot-wide cells. This culvert will be cast in place and will be composed of 93 cubic yards of concrete with rebar reinforcement. No rip-rap will be installed at this location.

Development of the project site would result in an increase in the amount of impervious surfaces in the form of roadway shoulder surfaces. However, the project would convey on-site runoff during storms and from nuisance flows to existing drainage channels and would be subsequently percolated into the soil. As proposed, all project drainage facilities will be constructed to adequately reduce the rate and amount of surface runoff in a manner which would minimize flooding. There is no evidence in the record to indicate that implementation of the project would provide substantial additional sources of polluted runoff.

Implementation of the proposed development would have the potential to alter the existing drainage pattern of the site or area, and increase the amount of surface runoff. However, Section 18.55.030.D of the Kern County Land Division Ordinance requires grading, drainage flood protection and erosion control improvements be provided, as deemed necessary by the Kern County Engineering, Surveying and Permit Services Department. This ordinance ensures that grading, drainage, flood protection and erosion control concerns are addressed prior to development of the project. Compliance with existing rules and regulations will ensure that the project's impacts associated with the alteration of a stream, or an increase of surface runoff are less than significant.

Response to IX(h) – IX(j): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, potential impacts of this project on hydrology and water quality are less than significant with the incorporation of mitigation and compliance with existing rules and regulations.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community? *(See Environmental Setting and Kern County General Plan.)*	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? *(See Environmental Setting and Kern County General Plan.)*	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan? *(See Environmental Setting.)*	☐	☐	☐	☒

RESPONSES:

Response to IX(a): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, will result in impacts to land use and planning.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☒	☐	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☒	☐	☐

RESPONSES:

Response to XI(a) – XI(b): *Less Than Significant Impact with Mitigation Incorporated.* Kern County is one of the largest producers of mineral products in California with a production value of almost one-quarter of the State's total. The principal mineral product is petroleum (an organic derivative material) and related products, which contributes about 75 percent of the total valuation of all County mineral products. The remainder is comprised of borax, cement products, sand and gravel, and other construction and gem-like minerals. As delineated in the County's General Plan Update PEIR, the project site is located immediately north of the Rio Bravo Oil Field, 0.5 miles southeast of the Shafter SE Gas (ABD) Oil Field, and 1.5 miles south of the North Shafter Oil Field.[22] Consequently, numerous oil and gas wells are located within the project area. The Lead Agency notes that six oil and gas wells, listed below, are known to exist within 100 feet of the proposed sewer line rights-of-way easements and the proposed construction activities.[23]

Table C: Known Oil and Gas Wells

Well Number	API Number	Status	Operator
87	02955045	Plugged	ARCO Western Energy
1	02987346	Plugged	B.H. Richards
32	02956437	Plugged	ARCO Western Energy
25X-26	02916710	Plugged	Union Oil Company of California
1	02930754	Plugged	Stransbury-Webb-McGoey
1	02930756	Plugged	Mobil Oil Exploration & Production N. America, Inc.

The potential to disturb the six known oil and gas wells listed above is very low. However, construction activities do have the potential to discover and disturb previously unknown wells. The California Department of Conservation/Division of Oil, Gas and Geothermal Resources (DOGGR) supervises the drilling, maintenance, and plugging and abandonment of oil, gas and geothermal wells in California. Should previously unknown wells be discovered during the course of grading or construction activities, the Division may require remedial activities for the well prior to the resumption of construction activities within the vicinity of the discovery. Section 3208.1 of the

[22] *Figure 4.8-1: Kern County Oil Fields, Revised Update of the Kern County General Plan – Volume 1 Recirculated Draft Program Environmental Impact Report*. Kern County Planning and Community Development Department, January 2004.
[23] *DOGGR Well Finder Map,* http://maps.conservation.ca.gov/doggr/index.html, California Department of Conservation, 2014.

Public Resources Code authorizes the State Oil and Gas Supervisor to order remedial activities for a well when construction activities in the proximity of the well could result in a hazard. The cost of remedial activities is the responsibility of the owner or developer of the project. Therefore, in order to ensure that impacts resulting the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment are reduced to a less than significant level, Mitigation Measures (MM) HAZ-01 & HAZ-02 from Section VIII Hazard and Hazardous Materials of this document has been previously incorporated. Therefore, impacts to mineral resources would be reduced to a less-than-significant level with mitigation.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, will result in significant impacts to mineral resources.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to, or generation of, excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within the Kern County Airport Land Use Compatibility Plan, would the project expose people residing or working in the project area to excessive noise levels? *(See Environmental Setting.)*	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? *(See Environmental Setting.)*	☐	☐	☐	☒

RESPONSES:

Response to XII(a), XII(c), and XII(d): *Less Than Significant.* Land uses determined to be sensitive to noise as defined by the Kern County General Plan include residential areas, schools, convalescent and acute care hospitals, parks/recreational areas, and churches.

Since, the proposed project is located in an unincorporated area of Kern County, noise is regulated through the Noise Element of the General Plan[24] and in Chapter 8.36 of the Kern County Municipal Code.[25] The policies of the Noise Element relevant to the proposed project encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise. In addition, the best available methods of noise control are required to be employed for new construction. The noise ordinances, in Chapter 8.36 of the

[24] *Chapter 3: Noise Element, Kern County General Plan.* Kern County Planning and Community Development Department, September 22, 2009.
[25] *Chapter 8.36 Noise Control, Kern County Municipal Code.* Kern County, 2007.

Municipal Code, establish acceptable hours of construction and limitations on construction related noise impacts on adjacent sensitive receptors. The ordinance prohibits the creation of noise between the hours of 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. and 8:00 a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of 150 feet from the construction site, if the construction site is within 1,000 feet of an occupied residential dwelling, except as provided with good cause by the Development Services Agency Director (or their designated representative), or conducted for emergency work.

Construction related short-term noise levels would be higher than existing ambient noise levels in the project area but would no longer occur once construction of the project is completed. Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance (passing pickup trucks at 50 feet would generate up to a maximum of 55 dBA L_{max}), the effect on longer term (hourly or daily) ambient noise levels would be small. Therefore, short-term construction related impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during site preparation, trenching, installation of sewer lines, backfilling, road paving, and lift station construction. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase.

Because the noisiest construction equipment is earthmoving equipment, the excavation for the sewer line is expected to generate the highest noise levels as measured at the closest sensitive receptor land uses. Construction of the proposed project is expected to require the use of motor graders, front-end loaders, compactors, hydraulic backhoes, and haul trucks. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three or four minutes at lower power settings. Impact equipment such as pile drivers is not expected to be used during construction of this project. As shown in Table D, the typical maximum noise level generated by backhoes and front-end loaders is assumed to be 80 dBA L_{max} at 50 feet from the operating equipment. The maximum noise level generated by compactors or rollers is approximately 80 dBA L_{max} at 50 feet. The maximum noise level generated by haul trucks operating at full power is approximately 84 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment but reaches the sensitive receptors from the same distance, the worst-case combined noise level during this phase of construction would be 94.6 dBA L_{max} at a distance of 50 feet from an active construction area.

Table D: Typical Construction Equipment Maximum Noise Levels

Type of Equipment	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Jackhammers	85
Concrete Mixer Truck	85
Pumps	77
Scrapers	85
Haul Trucks	84
Portable Generators (>25 KVA)	82
Rollers	80
Dozers	85
Crane	85
Front-End Loaders	80
Backhoe	80
Excavators	85
Graders	85
Air Compressors	80
Flatbed Trucks	84

Source: U.S. Department of Transportation, Federal Highway Administration, 2006. *Construction Noise Handbook, 7.0 Mitigation of Construction Noise.*

The project site is bordered by agricultural and residential land uses. The nearest noise sensitive land uses are single-family residences located approximately within 50 feet of the proposed sewer lines to the north and south of Riverside Street, Burbank Street, and Orange Avenue, and to the east and west of Poplar Avenue, Beach Avenue, and Shafter Avenue. A worst-case scenario would be if all fifteen of the above-listed pieces of equipment operated simultaneously along the nearest sensitive receptor property boundary, construction noise levels would attenuate to 94.6 dBA L_{max} at the nearest residential land uses. This is a worst-case scenarios because construction would be spread out throughout the site, and it is generally not feasible for all pieces of construction equipment to be used simultaneously at the closest property line. The Hearing Loss Association of America notes that hearing loss for an individual could occur if unprotected exposure to 94 dB occurs for an hour or more. Operation of equipment at or above 94 dB would not occur for more than four minutes at any given time. Therefore, development of the project, as proposed and in compliance with existing regulations, would not create significant noise impacts resulting in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. Therefore, no mitigation is required.

Response to XII(b): *Less Than Significant.* Out of the variety of equipment listed on Table D, the rollers are known to produce the highest ground-borne vibrations, ranging up to 0.210 inches per second peak particle velocity (PPV) at 25 feet from the operating equipment[26]. In consideration of site soils, at the closest off-site occupied residential structures located approximately 50 feet from the project site, vibration levels for this piece of equipment would be 0.074 inches per second PPV. Therefore, vibrations would not exceed the 0.2 inches per second PPV significance threshold for non-engineered timber and masonry buildings, as established by the Federal Transit Administration.

[26] *Transportation and Construction Vibration Guidance Manual.* California Department of Transportation, September 2013.

Kern County does not have regulations that define acceptable levels of vibration, however, project construction vibration would be well below the industry standard vibration damage criteria of 0.12 inches per second PPV for even the most sensitive and fragile structures.[27] Therefore, ground-borne vibration impacts resulting from project construction would not be considered significant, and no mitigation measures are required.

Response to XII(e) and XII(f): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, will result in significant noise impacts to the surrounding environment.

[27] *Table 12-3, Transit Noise and Vibration Impact Assessment*, Federal Transit Administration, May 2006.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

RESPONSES:

Response to XIII(a): *Less Than Significant Impact.* The project will be sized to provide sewer service to 386 residential units and 10 nonresidential units that are already existing, or could be developed "by right" in the service area. The identified units will then be connected to the newly installed sewer systems and the individual septic systems abandoned. Only the above-identified units will be allowed connection. Impacts to population growth are considered less than significant; consequently, no mitigation is required.

Response to XIII(b) and XIII(c): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, will result in significant impacts to population and housing.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services:				
i. Fire Protection?	☐	☐	☒	☐
ii. Police Protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other Public Facilities?	☐	☐	☒	☐

RESPONSES:

Response to XIV(a) through XIV(v): *Less Than Significant Impact.* There is no evidence in the record to indicate that installation of sewer lines to serve existing permitted residences would significantly impact public services. The existing sewer lines and waste processing facilities have adequate capacity to serve the proposed project. Fees associated with maintenance and operation of the facilities will be addressed through sewer agreements affecting the residences served by the project. Therefore, no mitigation is required.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, will result in significant impacts to public services.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? *(See Project Description.)*	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? *(See Project Description.)*	☐	☐	☐	☒

RESPONSES:

Response to XV(a) and (b): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing requirements, will result in significant impacts to parks or recreational facilities.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION AND TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for performance of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to, Level of Service standard and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways?				
i. Metropolitan Bakersfield General Plan LOS "C" *(See Environmental Setting.)*	☐	☐	☐	☐
ii. Kern County General Plan LOS “D”	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? *(See Project Description.)*	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? *(See Environmental Setting.)*	☐	☐	☐	☒

RESPONSES:

Response to XVI(a), XVI(b), XVI(d), and XVI(e): *Less Than Significant Impact with Mitigation Incorporated.* The Circulation Element of the Kern County General Plan establishes a minimum

service standards of Level of Service (LOS) D for all roads throughout the County.[28] Regional transportation records indicate that Poplar Avenue, Riverside Street, and Burbank Street operate at LOS A, while Shafter Avenue and Beech Avenue currently operate at LOS B.[29] Project construction activities may temporarily restrict vehicular traffic and could conflict with measures of effectiveness for performance of the circulation system, congestion management, emergency access, and traffic safety. However, the project would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Mitigation Measures (MM) AIR-02 and AIR-03 have been previously incorporated for Section III Air Quality in order to reduce traffic congestion and improve safety. Implementation of this mitigation will reduce impacts to traffic management and safety to a less-than significant level.

Response to XV(c) and (f): *No Impact.* Refer to Matrix above.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing ordinance requirements and mitigation measure, will result in significant impacts to transportation and traffic.

[28] *Kern County General Plan, Chapter 2: Circulation Element*. Kern County Planning and Community Development Department, September 22, 2009.
[29] Regional Traffic Count Map, Kern Council of Governments, http://www.kerncog.org/data-center/regional-traffic-count-data-map, website accessed September 6, 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☒	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? *(See Project Description.)*	☐	☐	☐	☒
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? *(See Project Description.)*	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

RESPONSES:

Response to XVII(a): *Less Than Significant Impact.* Refer to Section IV Hydrology and Water Quality, *Response to IX(a) and IX(f).*

Response to XVII(c): *Less Than Significant Impact.* Refer to Section IV Hydrology and Water Quality, *Response to IX(c) – IX(e).*

Response to XVII(d): *Less Than Significant Impact.* Refer to Section IV Hydrology and Water Quality, *Response to IX(b).*

Response to XVII(f): *Less Than Significant Impact.* Solid waste collection is a "demand-responsive" service and current service levels can be expanded and funded through user fees without difficulty. However, because the proposed project consists of a roadway project, it is anticipated that construction activities would not generate solid waste that would exceed or significantly impact the capacity of regional landfills. Impacts related to solid waste disposal would be minimal; therefore, no mitigation is required.

Response to XVII(g): *Less Than Significant Impact.* During the construction phase of the project, some waste such as concrete, asphalt, and green waste may be generated. However, this waste would be collected and transported to a construction debris recycling facility or other type of waste facility for disposal in accordance with the County's construction requirements. During the operation of the proposed project, it is anticipated that no solid waste would be generated. Because the proposed project would be required to adhere to federal, State, and local statutes and regulations concerning the disposal of any construction waste generated during construction activities, impacts related to this issue would be reduced to a less than significant level, and no mitigation is required.

Based upon the foregoing evaluation, there is no evidence in the record to date to suggest that implementation of this project, as proposed and in accordance with existing ordinance requirements, will result in significant impacts to utilities and service systems.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

RESPONSES:

Response to XVIII(a): *Less Than Significant Impact with Mitigation Incorporated*. Based on the foregoing evaluation, the proposed project is not expected to significantly impact biological or cultural resources in a manner which cannot be reduced to less than significant level through implementation of existing regulatory requirements and proposed mitigation measures.

Response to XVIII(b): *Less Than Significant Impact with Mitigation Incorporated*. It is anticipated that no short-term construction-related air quality impacts would result from construction of the proposed project. Other impacts related to biological resources, cultural resources, hydrology and water quality, hazards and hazardous materials, noise, and traffic are similarly reduced to a less than significant level through the implementation of mitigation measures and the adherence to established County-mandated design and construction standards. Based on the foregoing evaluation, there is no evidence that these impacts are cumulatively significant or cannot be reduced to less than significant level through implementation of existing regulatory requirements, adopted ordinances, developmental standards, and proposed mitigation measures.

Response to XVIII(c): *Less Than Significant Impact.* Based on the foregoing evaluation, the proposed project is not expected to cause substantial adverse effects on human beings, either directly or indirectly. Project impacts on human health, safety, or welfare can be reduced to less than significant through compliance with regulatory requirements, adopted ordinances, development standards, general plan policies, and proposed mitigation measures.

MITIGATION MEASURES

The following measures are required to reduce impacts to less than significant levels for the following environmental factors:

AIR-01 DUST CONTROL AND IDLE REDUCTION: The Contractor shall comply with applicable dust control methods to minimize dust from activities such as clearing, grading, earth moving, excavation, or transportation of fill materials. The following applies:

A. Use of water truck capable of applying water both by spray and hose to apply water for work areas in advance of work and to keep damp during the progress of work.

B. Stockpiled materials shall be watered down.

C. Traffic speeds on unpaved roads shall be limited to 10 miles per hour.

D. All truck hauling dirt, sand, soil, or loose material shall be covered.

E. Equipment will be shut down when not in use for extended periods.

AIR-02 TRAFFIC CONGECTION MANAGEMENT: During all grading and construction activities, the County will implement a Traffic Control Plan to reduce traffic congestion and improve safety within the project work area.

AIR-03 DISTRICT PERMITS: Prior to receiving final discretionary approval, the construction contractor shall provide verification to the Kern County Public Works Department that they are in full compliance with Rule 9510.

BIO-01 PRECONSTRUCTION SURVEY: Prior to any ground disturbance, a qualified biologist shall conduct preconstruction surveys for special status species with the potential to occur in the project area during construction activities. The appropriate scope, schedule and methodology of the surveys shall be determined by the qualified biologist.

BIO-02 EDUCATION SESSION: Prior to any ground disturbance, a qualified biologist shall conduct an education session for all individuals who will be present during site preparation or construction activities. The education session shall present all pertinent information for the avoidance and minimization of any special status-species with the potential to exist on the project site during construction. The Resident Engineer or their on-site designee, with the authority to stop all work on the project site, shall be identified as the contact source for any attendee who might observe or inadvertently kill or injure a special status species within the project area. Signup sheets identifying attendees and the Contractor/Company they represent shall be included in a post-construction compliance report.

BIO-03 SPECIES DISCOVERY: Should a special status species or avian species protected under the Migratory Bird Treaty Act, or their dens/burrows/nests, be discovered within the project boundary, the following shall occur:

A. All work within 100 feet of the discovery shall cease immediately.

B. The Resident Engineer or their on-site designee shall be immediately notified.

C. A qualified biologist shall determine if notification and/or consultation with regulatory agencies is required, and how to proceed with the project and avoid take.

BIO-04 EXCAVATION: All excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed no greater than 200 feet apart. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped special status species which were identified during the project's education session.

BIO-05 ON-SITE VEHICLES: Project-related vehicles shall observe a speed limit of 10 miles per hour throughout the project site, except on paved County roads and State and federal highways.

BIO-06 TRASH COLLECTION: All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the project site.

BIO-07 PIPES & CULVERTS: All pipes and culverts shall be searched for species identified during the project's education session prior to being moved or sealed. Should any special status species be discovered within a pipe or culvert, that section of pipe or culvert shall not be moved or sealed. Any special status species found in a pipe or culvert shall be allowed to vacate unimpeded.

BIO-08 ENTRAPMENT/ENTANGLEMENT PREVENTION: Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site to prevent entrapment or entangling of sensitive species.

BIO-09 VECTOR & WEED CONTROL: Use of rodenticides and herbicides at the project site shall be prohibited.

CUL-01 RESOURCE DISCOVERY: In the event a subsurface cultural and/or paleontological resource is uncovered during the course of project construction, ground-disturbing activities in the vicinity of the find shall be redirected until the nature and extent of the find can be evaluated by a qualified paleontologist (as determined by the County). Any such resource uncovered during the course of the project related to grading or construction shall be recorded and/or removed per applicable County and/or State regulations.

HAZ-01 WELL DISCOVERY AND REPORTING: If any previously unknown oil, gas or injection wells are discovered, work in the area of discovery shall be stopped and the California Department of Conservation/Division of Oil, Gas and Geothermal Resources /Bakersfield Office contacted by the project proponent(s) to obtain information on the requirements of, and approval to perform, remedial operations implemented prior to resumption of work in the area of discovery.

HAZ-02 UTILITY NOTIFICATION: Prior to the final approval of the construction plans, the County shall notify the SoCalGas – Gas transmission Department regarding the proposed improvements.

HYD-01 STORMWATER CONTROL: Prior to the commencement of grading or construction activities, the construction contractor shall file a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board for the project to be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of stormwater associated with construction activities.

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Discrete early action measures are measures that are required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5.

Division 7, Dead Bodies; Chapter 2, General Provisions, § 7050.5, California Health and Safety Code.

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DOGGR Well Finder Map. California Department of Conservation, http://maps.conservation.ca.gov/doggr/index.html, website accessed September 6, 2016.

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Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration. California Air Resources Board, October 2007.

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Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Figure 14: Overlay Constraints: Flooding and Shallow Ground Water, Chapter 4: Safety Element, Kern County General Plan. Kern County Planning and Community Development Department, September 22, 2009.

Figure 4.8-1: Kern County Oil Fields, Revised Update of the Kern County General Plan – Volume 1 Recirculated Draft Program Environmental Impact Report, Kern County Planning and Community Development Department, January 2004.

Figure 4.8-1: Kern County Oil Fields, Revised Update of the Kern County General Plan – Volume 1 Recirculated Draft Program Environmental Impact Report. Kern County Planning and Community Development Department, January 2004.

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Kern County, Airport Land Use Commission, Airport Land Use Compatibility Plan, March 2011.

Kern County, Kern County Municipal Code, Chapter 8.36 Noise Control. March 23, 2010.

Kern County, Kern County Planning Department, Kern County General Plan Noise Element. March 13, 2007.

Kern County, Kern County Planning Department, Kern County General Plan Safety Element, 2004.

Kern County, Kern County Planning Department, Revised Update of the Kern County General Plan – Volume 1 Recirculated Draft Program Environmental Impact Report, January 2004.

Regional Traffic Count Map, Kern Council of Governments, http://www.kerncog.org/data-center/regional-traffic-count-data-map, website accessed September 6, 2016.

Report and General Soil Map, Kern County, California. United States Department of Agriculture, Soil Conservation Service, 1976.

Report and General Soil Map, Kern County, California. United States Department of Agriculture, Soil Conservation Service, 1976.

San Joaquin Valley Air Pollution Control District, Ambient Air Quality Standards & Valley Attainment Status, http://www.valleyair.org/aqinfo/attainment.htm, website accessed June 24, 2013.

Scenic Highways Lists. California Scenic Highway Mapping System, http://www.dot.ca.gov/hq/LandArch//scenic_highways/index.htm, website accessed September 6, 2016.

South Shafter Wastewater Feasibility Study, Preliminary Engineering Report. Carollo Engineers, August 2005.

State of California, California Health and Safety Code, Division 7, Dead Bodies; Chapter 2, General Provisions, § 7050.5.

Table 12-3, Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

Transportation and Construction Vibration Guidance Manual. California Department of Transportation, September 2013.

U.S. Census Bureau, Quick Facts. http://www.census.gov/quickfacts/table/PST045215/0671106, website accessed September 6, 2016.

ENVIRONMENTAL INFORMATION FORM

Date Filed September 14, 2016

GENERAL INFORMATION

1. Name and address of developer or project sponsor: Kern County Public Works Department, 2700 M Street, Suite 400, Bakersfield CA 93301

2. Address of project: Various Locations within Sections 16,17,20,21,22,26, and\ 27 of Township 28 South, Range 25 East, Mount Diablo Base and Meridian, County of Kern ,State of California

   Assessor's Block and Lot Number: Portions of 120, 130, 132, 070, 200, 160, 131, 251, 110, 010, 060, 080, 070, 190, 040, 052, 240, 150, 100, 502, 211, 240, 211, 131, 551, 030, 200

3. Name, address, and telephone number of person to be contacted concerning this project:
   Michael Dillenbeck, Kern County Public Works Department, 2700 M St, Suite 400, Bakersfield, CA 93301
   Phone: (661) 862-8913 or e-mail: dillenbeckm@co.kern.ca.us

4. Indicate number of the permit application for the project to which this form pertains:
   N/A

5. List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state, and federal agencies:
   National Pollutant Discharge Elimination System Storm Water Permit

6. Existing zoning district: N/A

7. Proposed use of site (project for which this form is filed): Construction of a sewer trunk line under the existing roadway.

PROJECT DESCRIPTION

8. Site size. 34,500 LF ± Ac.
9. Square footage. N/A
10. Number of floors of construction. N/A
11. Amount of off-street parking provided. N/A

12. Attach plans.
13. Proposed scheduling. Summer 2018
14. Other proposed actions within the area: N/A
15. Anticipated incremental development. N/A
16. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected. N/A
17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities. N/A
18. If industrial, indicate type, estimated employment per shift, and loading facilities. N/A
19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities, and community benefits to be derived from the project. N/A
20. If the project involves a variance, conditional use, or rezoning application, state this and indicate clearly why the application is required. N/A

Are the following items applicable to the project or its effects? Discuss below all items checked yes (attach additional sheets as necessary).

		Yes	No
21.	Change in existing features of any bays, tidelands, beaches, or hills, or substantial alteration of ground contours.	☐	■
22.	Change in scenic views or vistas from existing residential areas or public lands or roads.	☐	■
23.	Change in pattern, scale, or character of general area of project.	☐	■
24.	Significant amounts of solid waste or litter.	☐	■
25.	Change in dust, ash, smoke, fumes, or odors in vicinity. * See below.	■	☐
26.	Change in ocean, bay, lake, stream, or ground water quality or quantity, or alteration of existing drainage patterns.	☐	■
27.	Substantial change in existing noise or vibration levels in the vicinity.	☐	■
28.	Site on filled land or on slope of 10 percent or more.	☐	■
29.	Use of disposal of potentially hazardous materials, such as toxic substances, flammables, or explosives. ** See below.	☐	■
30.	Substantial change in demand for municipal services (police, fire, water, sewage, etc.).	☐	■
31.	Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.).	☐	■
32.	Relationship to a larger project or series of projects.	☐	■

ENVIRONMENTAL SETTING

33. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical, or scenic aspects. Describe any existing structures on the site and the use of the structures. Attach photographs of the site. Snapshots or polaroid photos will be accepted. See Project Description and Setting, attached.

34. Describe the surrounding properties, including information on plants and animals and any cultural, historical, or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, setback, rear yard, etc.). Attach photographs of the vicinity. Snapshots or polaroid photos will be accepted. See Project Description and Setting, attached.

35. Attach a completed fiscal impact form unless project consists of a parcel split of four or less parcels.
N/A

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date _____ Signature _____

Michael Dillenbeck, Waste Management Specialist III
Kern County Public Works Department

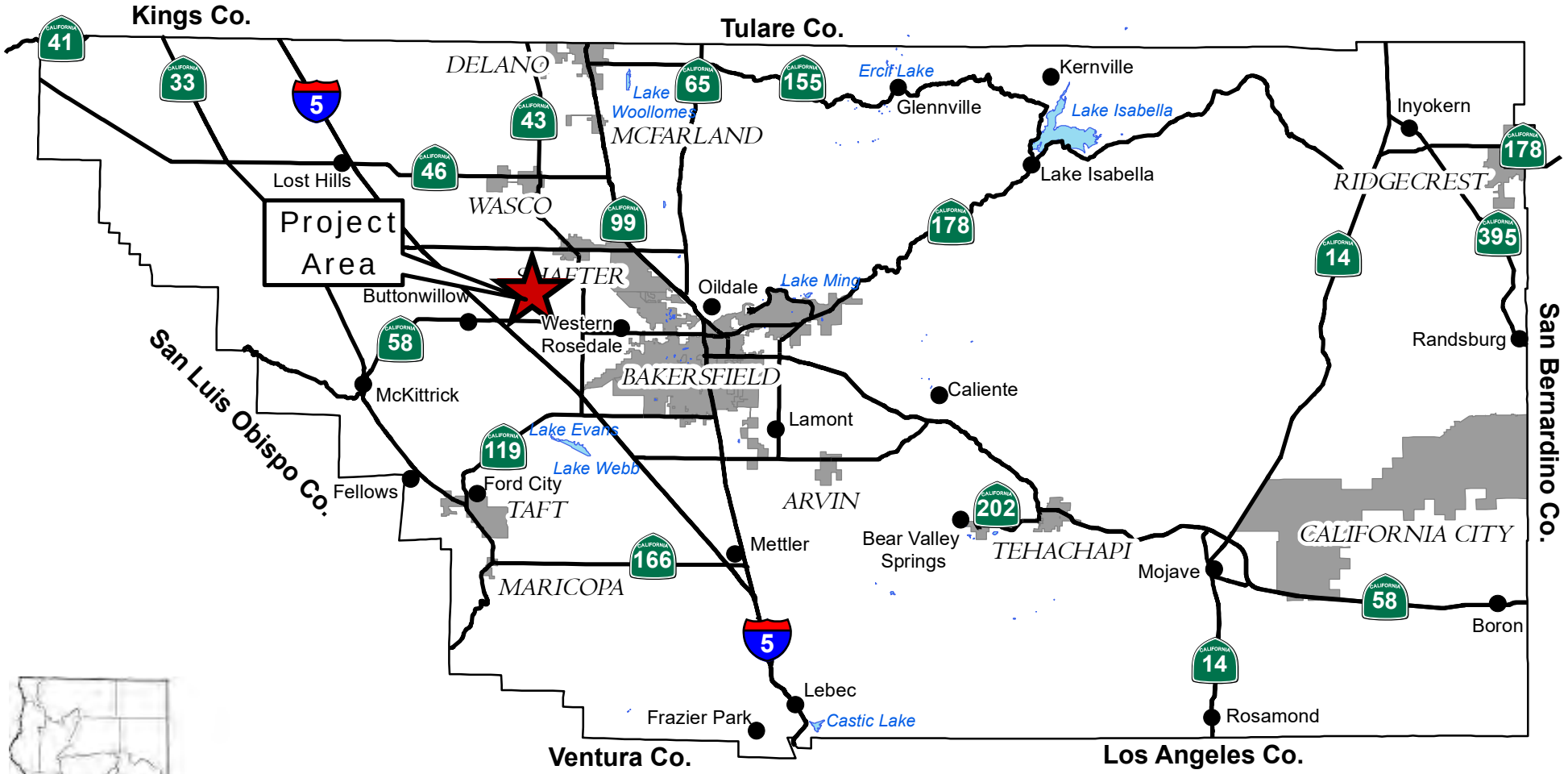
* #25. For a short term, the construction activities will generate exhaust, fugitive particulate matter, and organic gas emissions. Fugitive dust would be controlled by construction crews through adherence to San Joaquin Valley Air Pollution Control District Rules and Mitigation Measures included within the Mitigated Negative Declaration











VICINITY MAP

Kern County, CA

Unincorporated Areas
Kern Highways
Lakes
City Limits

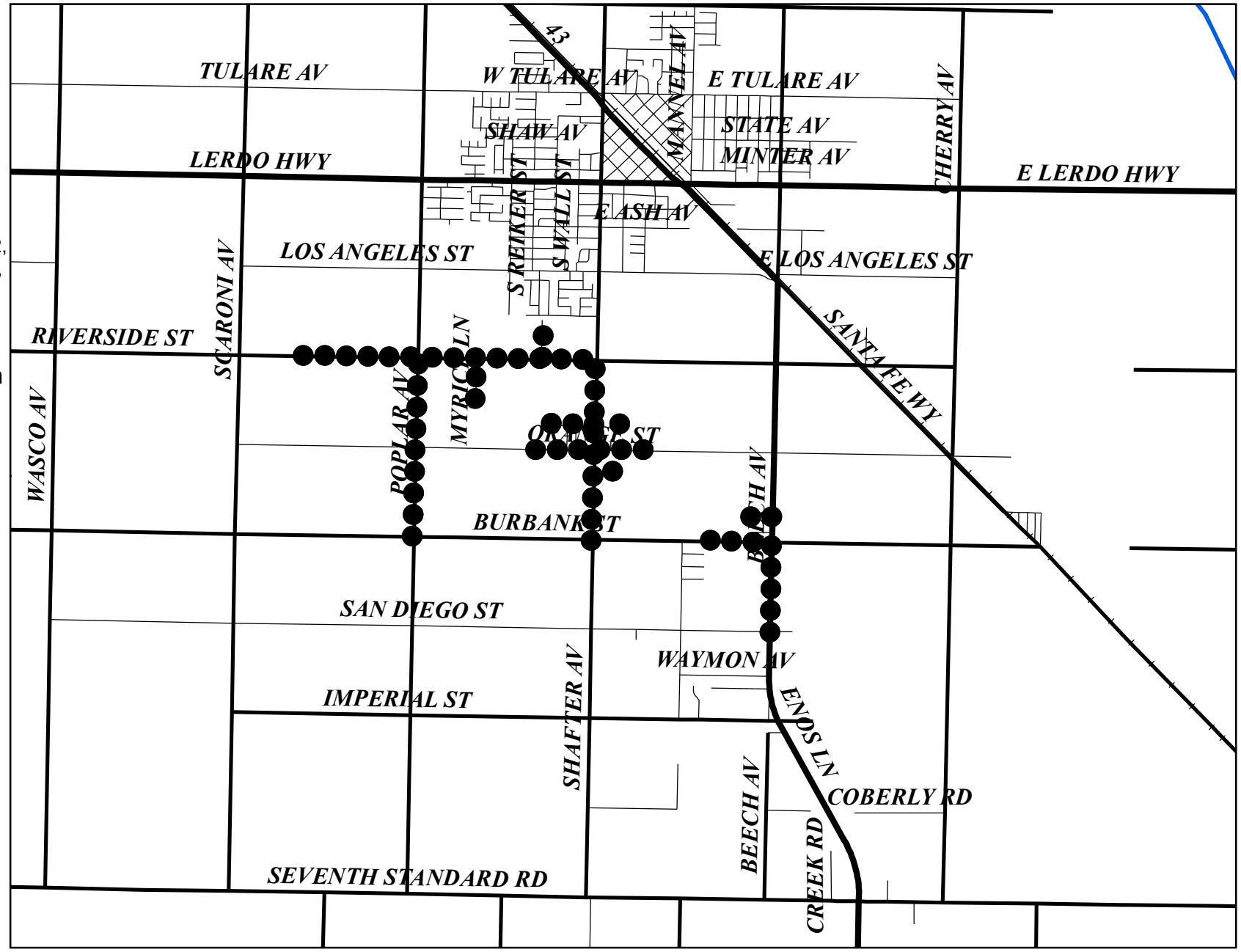
South Shafter Sewer Project

Secs. 16, 17, 20, 21, 22, 26, & 27,
T28 S/R25 E, MDM

Kern County Public Works Department

Feb. 2015

0 5 10 Miles



NO SCALE

SECS. 16, 17, 20, 21, 22, 26, & 27, T28 S/R25 E, MDM

● **Project Location**

Designed By
MDH
Drawn By
MDH
Checked By
YA

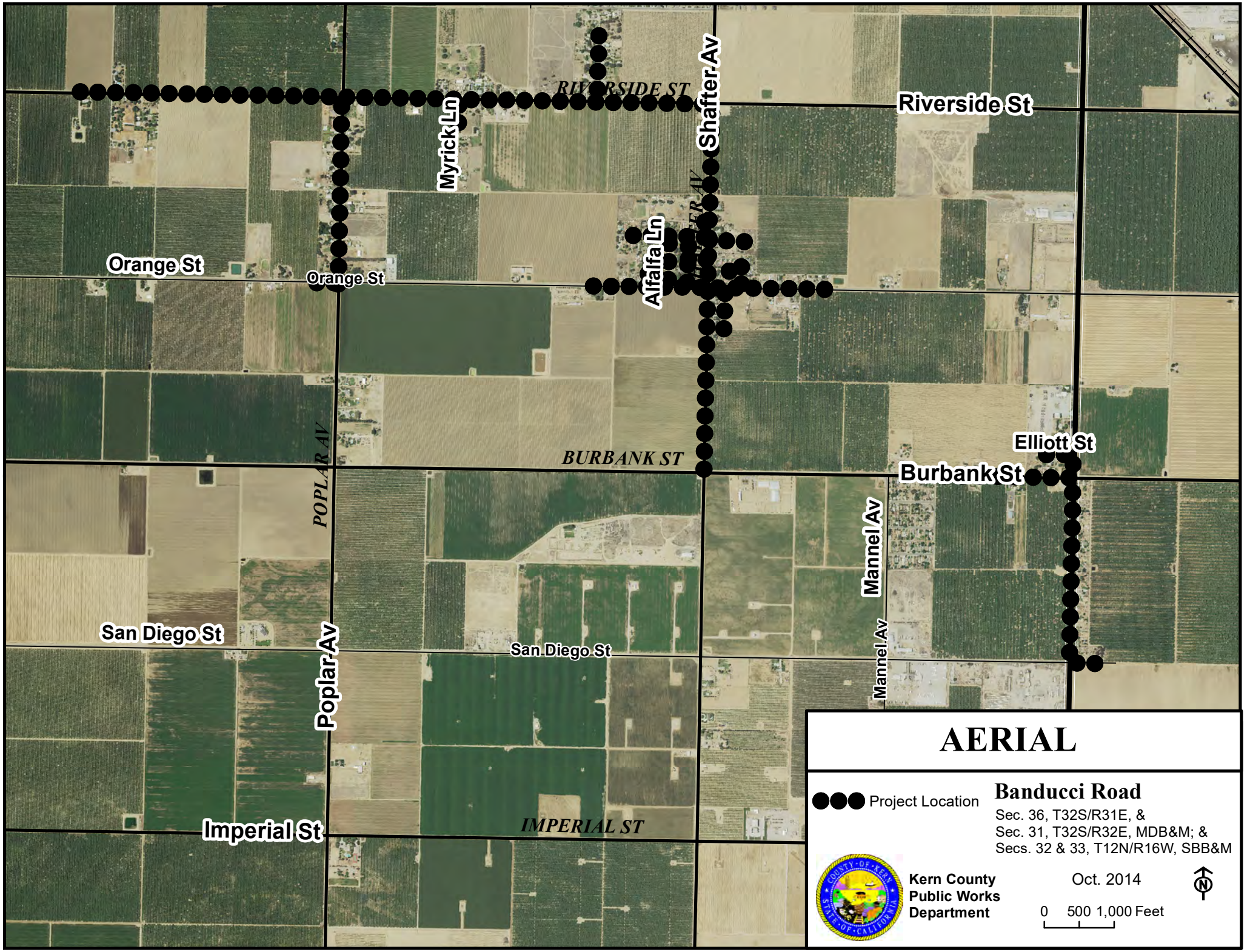
COUNTY OF KERN

PUBLIC WORKS DEPARTMENT

BAKERSFIELD, CALIFORNIA

LOCATION MAP

SOUTH SHAFTER SEWER PROJECT



AERIAL

Project Location

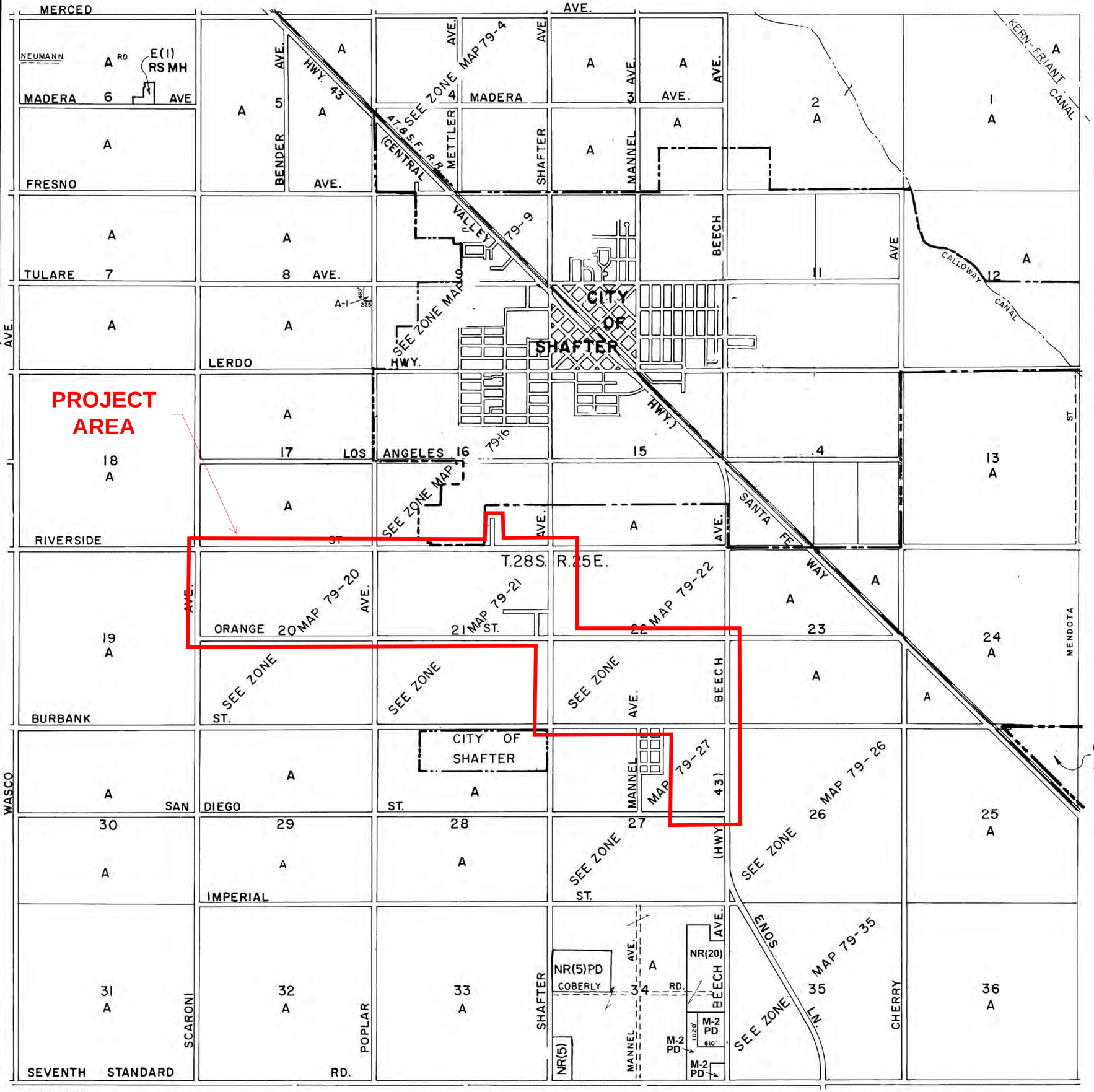
Banducci Road

Sec. 36, T32S/R31E, &
Sec. 31, T32S/R32E, MDB&M; &
Secs. 32 & 33, T12N/R16W, SBB&M

Kern County Public Works Department

Oct. 2014

0 500 1,000 Feet



ZONING MAP 79

(SEC. 7297.390.29 OF THE ORDINANCE CODE OF KERN COUNTY)

T. 28S., R. 25E. M.D.B.& M.

KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES

LEGEND

A	(EXCLUSIVE AGRICULTURE)
A-1	(LIMITED AGRICULTURE)
E (1/4)	(ESTATE - 1/4 ACRE)
E (1/2)	(ESTATE - 1/2 ACRE)
E (1)	(ESTATE - 1 ACRE)
R-1	(LOW-DENSITY RESIDENTIAL)
M-1	(LIGHT INDUSTRIAL)
M-2	(MEDIUM INDUSTRIAL)
M-3	(HEAVY INDUSTRIAL)
PD	(PRECISE DEVELOPMENT)
RS	(RESIDENTIAL SUBURBAN COMBINING)
MH	(MOBILEHOME COMBINING)
NR(5)	(NATURAL RESOURCES - 5 ACRES)
NR(20)	(NATURAL RESOURCES - 20 ACRES)

WE HEREBY CERTIFY THAT THIS PROPOSED ZONE MAP WAS ADOPTED IN THIS FORM BY RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 17TH. DAY OF NOV 1969.

CHAIRMAN SECRETARY

WE HEREBY CERTIFY THAT THIS OFFICIAL ZONE MAP, WAS ADOPTED AS AN AMENDMENT TO THE OFFICIAL "LAND USE ZONING ORDINANCE OF THE COUNTY OF KERN", BY THE BOARD OF SUPERVISORS OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF, HELD ON THE 13 TH. DAY OF JANUARY 1970, BY ORDINANCE NO G-1234 PASSED BY SAID BOARD.

CHAIRMAN OF THE BOARD CLERK

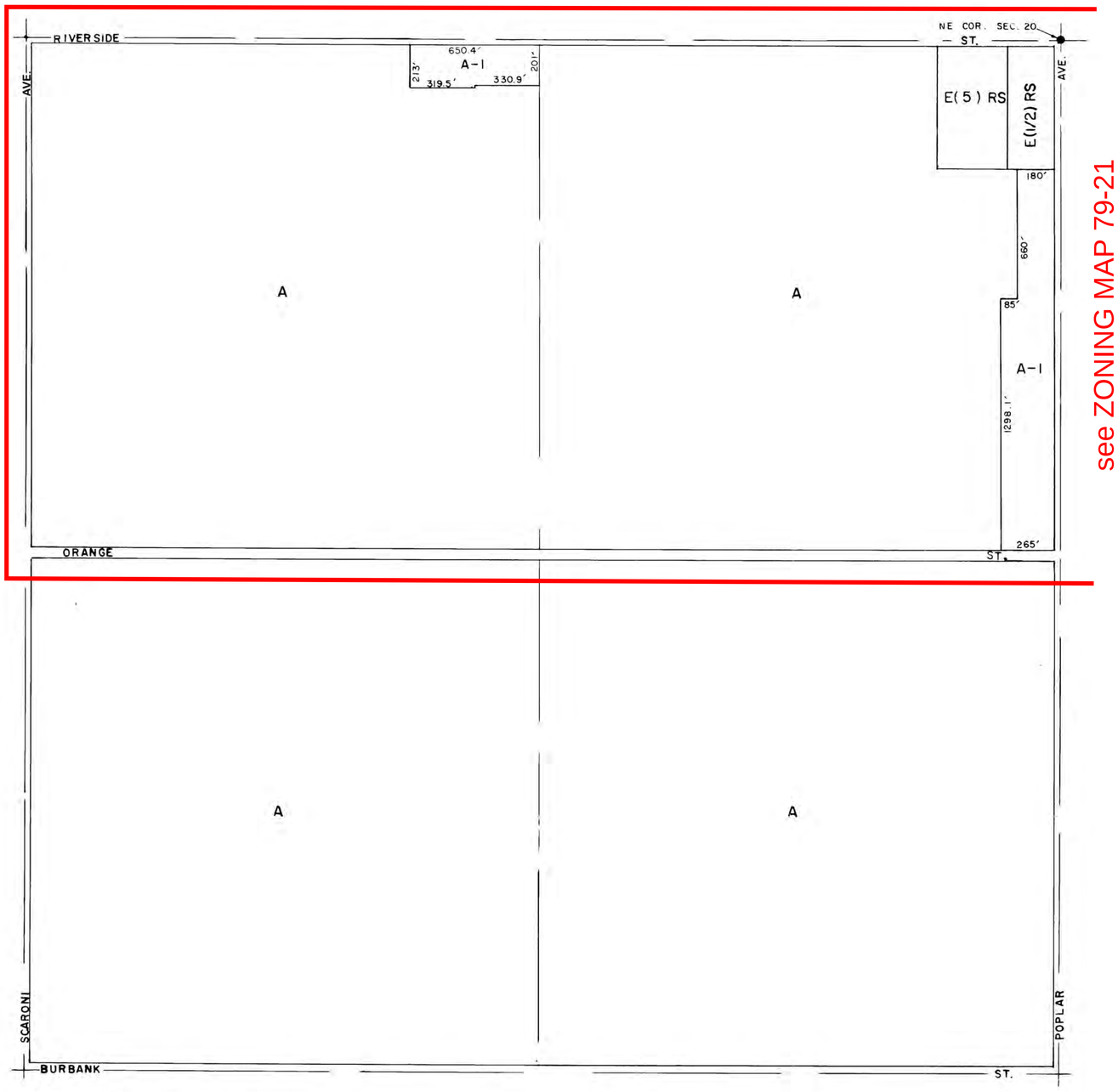
2000 1000 0 2000 4000 1 mi

SCALE IN FEET

AMENDMENTS

(A) ORD NO G-1601 DATED JAN 31, 1972
(B) ORD NO G-1726 DATED OCT 10, 1972
(C) ORD NO G-1949 DATED DEC. 17, 1973
(D) ORD NO G-1950 DATED DEC. 17, 1973
(E) ORD NO G-1951 DATED DEC. 17, 1973
(F) ORD. NO G-2206 DATED DEC. 16, 1975
(G) ORD NO G-3546 DATED DEC 13, 1982
(H) ORD NO G-4066 DATED JULY 15, 1985
(I) ORD NO G-4295 DATED SEPT 8, 1988
(J) ORD. G-4910, DEC. 12, 1988
(K) ORD G-4987, 4-17-89
(L) ORD. G-5043, 7-19-89
(M) ORD. G-5215, 3-26-90
(N) ORD. G-5976, 7-12-93
(O) ORD G-6333, 9-23-96
(P) ORD G-6383, 5-7-97
(Q) ORD. G-6490, 3-30-98
(R) ORD G-6659, 2-29-2000
(S) ORD. G-6736, 4-7-2001
(T) ORD. G-6790, 7-12-2001
(U) ORD. G-6863, 4-18-2002
(V) ORD. G-7141, 10-28-04
(W) ORD. G-7206, 4-14-05
(X) ORD. G-7285, 10-13-2005
(Y) ORD. G-7207, 4-14-05
(Z) ORD. G-6932, 1-02-03
(a) ORD. G-7853, 5-21-09

ZONE MAP 79



see ZONING MAP 79-21

ZONING MAP 79-20

(SEC. 7297.394.4 OF THE ORDINANCE CODE OF KERN COUNTY)

SEC. 20 T. 28 S. R. 25 E. MDB&M.
KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES

LEGEND

A	(EXCLUSIVE AGRICULTURE)
A-1	(LIMITED AGRICULTURE)
E-(1/2)	**(ESTATE - 1/2 ACRE)**
E-(5)	(ESTATE - 5 ACRES)
RS	(RESIDENTIAL SUBURBAN COMBINING)

AMENDMENTS:
(A) ORD. NO. G-1946 DATED 12-17-73
(B) ORD. NO. G-1947 DATED 12-17-73
(Q) ORD. NO. G-6490, 3-30-98
(R) ORD. NO. G-7598, 7-30-07

WE HEREBY CERTIFY THAT THIS PROPOSED ZONE MAP WAS ADOPTED IN THIS FORM BY RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 17TH. DAY OF NOVEMBER 1969.

CHAIRMAN SECRETARY

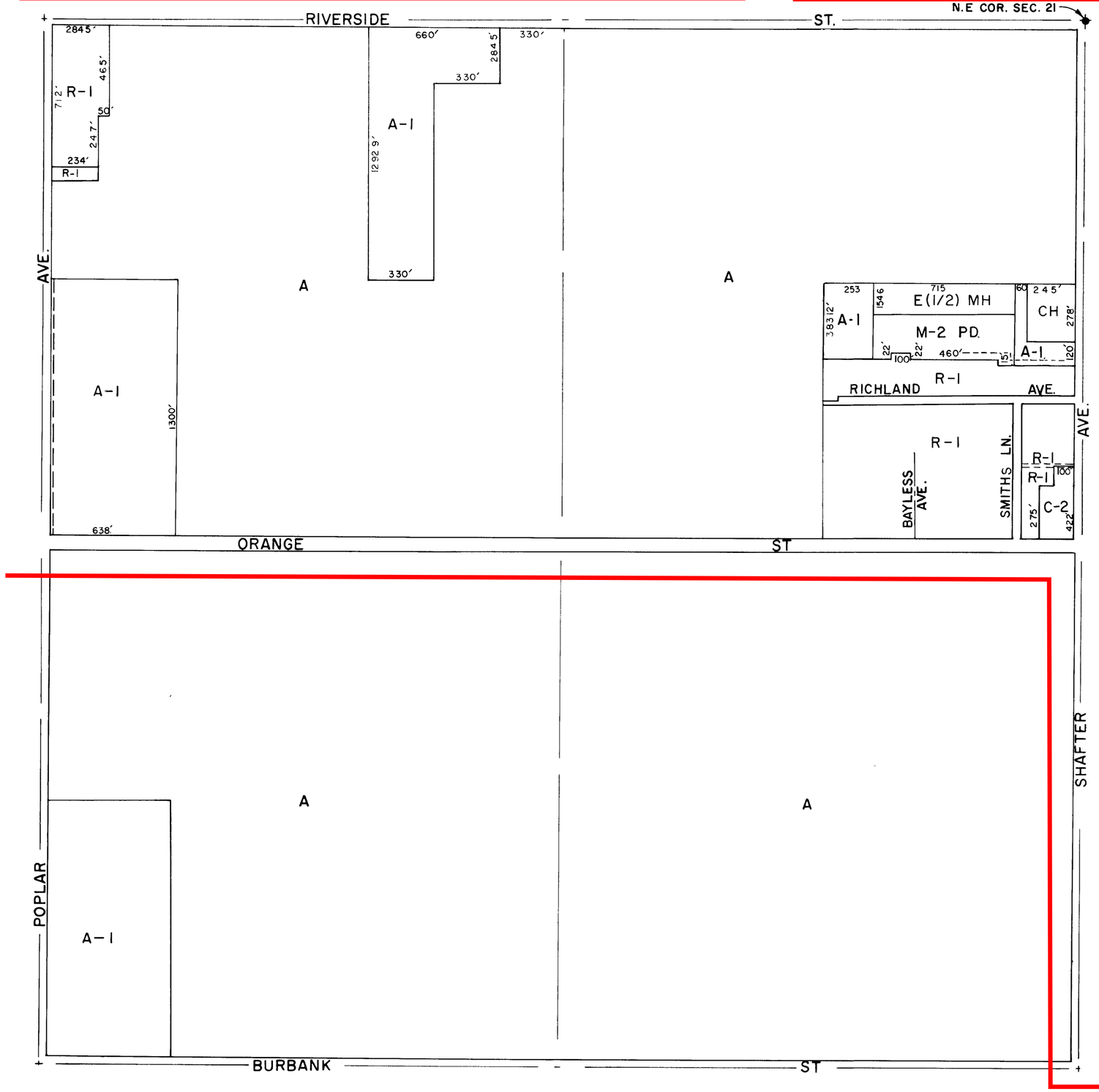
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CHAIRMAN OF THE BOARD CLERK

400 200 0 330 660 990 1/4 MI.
SCALE IN FEET

ZONE MAP 79-20

see ZONING MAP 76-16



see ZONING MAP 79-20

see ZONING MAP 79-22

ZONING MAP 79-21

(SEC. 7297.395.4 OF THE ORDINANCE CODE OF KERN COUNTY)

SEC. 21, T. 28 S., R. 25 E. M.D.B.& M.

KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES

LEGEND

A	(EXCLUSIVE AGRICULTURE)
A-1	(LIMITED AGRICULTURE)
E(1/4)	(ESTATE - 1/4 ACRE)
E(1/2)	(ESTATE - 1/2 ACRE)
E(1)	(ESTATE - 1 ACRE)
R-1	(LOW - DENSITY RESIDENTIAL)
MH	(MOBILEHOME COMBINING)
CH	(HIGHWAY COMMERCIAL)
C-2	(GENERAL COMMERCIAL)
M-2	(MEDIUM INDUSTRIAL)
PD	(PRECISE DEVELOPMENT COMBINING)

AMENDMENTS.
(A) ORD NO G- 1549 DATED 11-22-71
(B) ORD NO G-3123 DATED 10-6-80
(C) ORD NO. G-3132 DATED 10-17-80
(D) ORD No G-7087, 4-29-04

WE HEREBY CERTIFY THAT THIS PROPOSED ZONE MAP WAS ADOPTED IN THIS FORM BY RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 17TH. DAY OF NOV. 1969.

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CHAIRMAN OF THE BOARD CLERK

400 200 0 330 660 990 1/4 MI

SCALE IN FEET

ZONE MAP 79-21

MAP UPDATED 7-8-04 DLH



AMENDMENTS
(X) ORD. G-7285, 10-13-2005

see ZONING MAP 79-21

ZONING MAP 79-16

(SEC. 7297.393.1 OF THE ORDINANCE CODE OF KERN COUNTY)

SEC. 16 T. 28 S. R. 25 E. MDB&M.

KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES

LEGEND

A	(EXCLUSIVE AGRICULTURE)
A-1	(LIMITED AGRICULTURE)
R-1	(LOW-DENSITY RESIDENTIAL)
E(1)	(ESTATE - 1 ACRE)
RS	(RESIDENTIAL SUBURBAN COMBINING)

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CHAIRMAN OF THE BOARD CLERK

400 200 0 330 660 990 1/4 MI

SCALE IN FEET

ZONE MAP 79-16

MAP UPDATED 7-6-2004 DLH

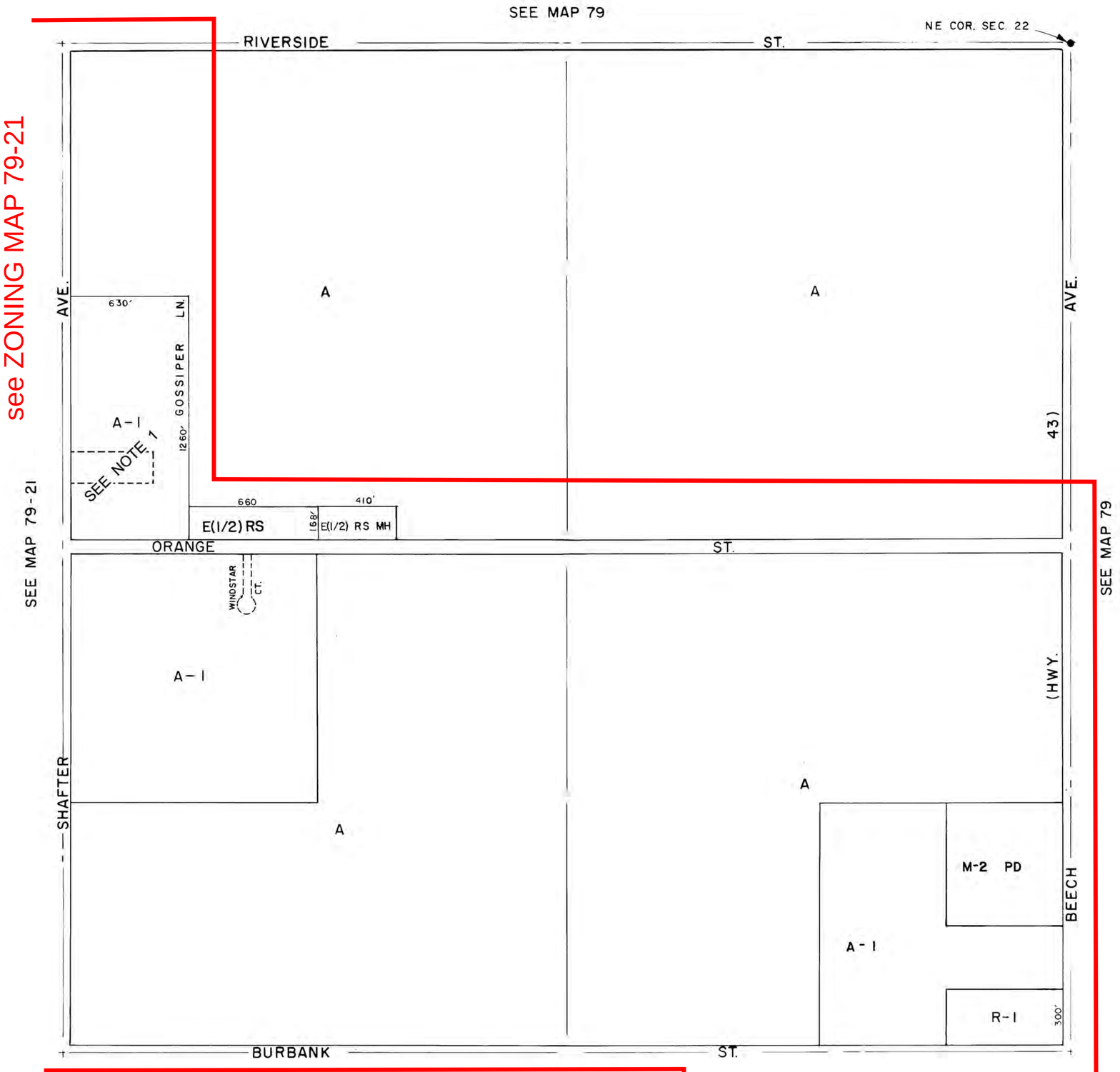
ZONING MAP 79-22

(SEC. 7297.396.2 OF THE ORDINANCE CODE OF KERN COUNTY)

SEC. 22, T.28S., R.25E. M.D.B.&M.

KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES



LEGEND

A	(EXCLUSIVE AGRICULTURE)
A-1	(LIMITED AGRICULTURE)
RS	(RESIDENTIAL SUBURBAN)
MH	(MOBILEHOME COMBINING)
M-2	(MEDIUM INDUSTRIAL)
PD	(PRECISE DEVELOPMENT COMBINING)
R-1	(LOW-DENSITY RESIDENTIAL)
E(1/2)	(ESTATE - 1/2 ACRE)

NOTES:

1. A-1 to R-1, ORD. G-8115, in suspense

AMENDMENTS:

(A) G-2287 DATED JUNE 28, 1976
(B) ORD. G-4421, APRIL 6, 1987
(C) ORD. G-8115, 01-16-2011 susp

SEE MAP 79-27

see ZONING MAP 79-27

WE HEREBY CERTIFY THAT THIS PROPOSED ZONE MAP WAS ADOPTED IN THIS FORM BY RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 17TH. DAY OF NOV. 1969.

CHAIRMAN SECRETARY

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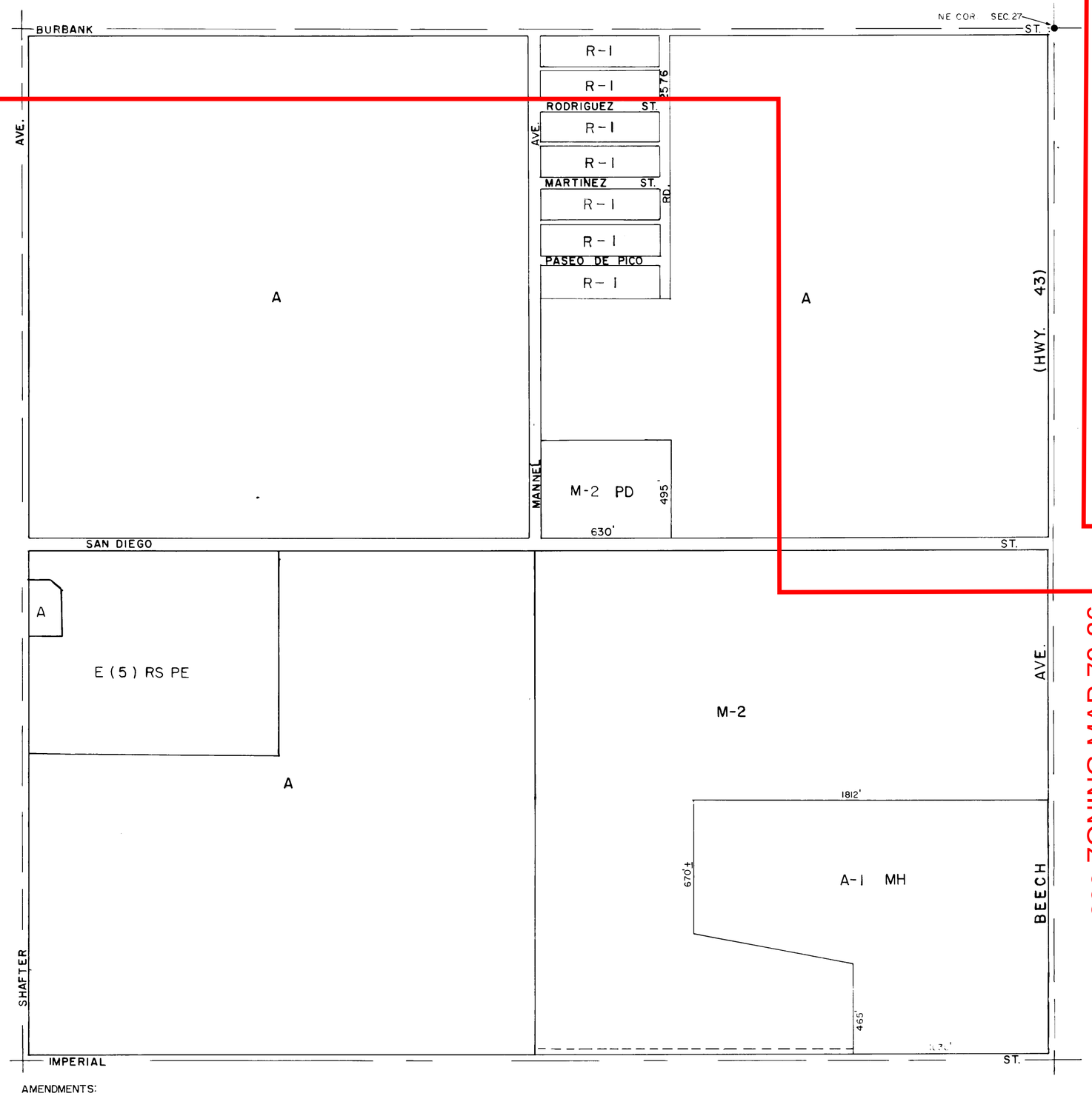
CHAIRMAN OF THE BOARD CLERK

400 200 0 330 660 990 1/4 MI.

SCALE IN FEET

ZONE MAP 79-22

see ZONING MAP 79-22



AMENDMENTS:
(A.) ORD. NO. G-1729 DATED OCT. 10, 1972
(B) ORD. NO. G-1777 DATED FEB. 26, 1973
(C) ORD. NO. G-2994 DATED NOV. 26, 1979
(D) ORD. G-6070, MAR 14, 1994

see ZONING MAP 79-26

ZONING MAP 79-27

(SEC. 7297. 398.4 OF THE ORDINANCE CODE OF KERN COUNTY)

SEC. 27 T. 28S. R. 25E. MDB&M.

KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES

LEGEND

A	(EXCLUSIVE AGRICULTURE)
A-1	(LIMITED AGRICULTURE)
E (1/4)	(ESTATE - 1/4 ACRE)
E (1/2)	(ESTATE - 1/2 ACRE)
E (1)	(ESTATE - 1 ACRE)
E (2 1/2)	(ESTATE - 2 1/2 ACRES)
E (5)	(ESTATE - 5 ACRES)
E (10)	(ESTATE - 10 ACRES)
E (20)	(ESTATE - 20 ACRES)
R-1	(LOW-DENSITY RESIDENTIAL)
R-2	(MEDIUM-DENSITY RESIDENTIAL)
MS	(MOBILEHOME SUBDIVISION-6000 SQ. FT.)
MP	(MOBILEHOME PARK)
C-1	(NEIGHBORHOOD COMMERCIAL)
C-2	(GENERAL COMMERCIAL)
CH	(HIGHWAY COMMERCIAL)
PD	(PRECISE DEVELOPMENT COMBINING)
RS	(RESIDENTIAL SUBURBAN COMBINING)
MH	(MOBILEHOME COMBINING)
RF	(RECREATION - FORESTRY)
OS	(OPEN SPACE)
FPS	(FLOODPLAIN - SECONDARY COMBINING)
FPP	(FLOODPLAIN - PRIMARY)
PE	(PETROLEUM EXTRACTION COMBINING)
M-2	(MEDIUM INDUSTRIAL)

WE HEREBY CERTIFY THAT THIS PROPOSED ZONE MAP WAS ADOPTED IN THIS FORM BY RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 17TH. DAY OF NOV. 1969.

Kenneth Pitcher — CHAIRMAN
Jack L. Dalton — SECRETARY

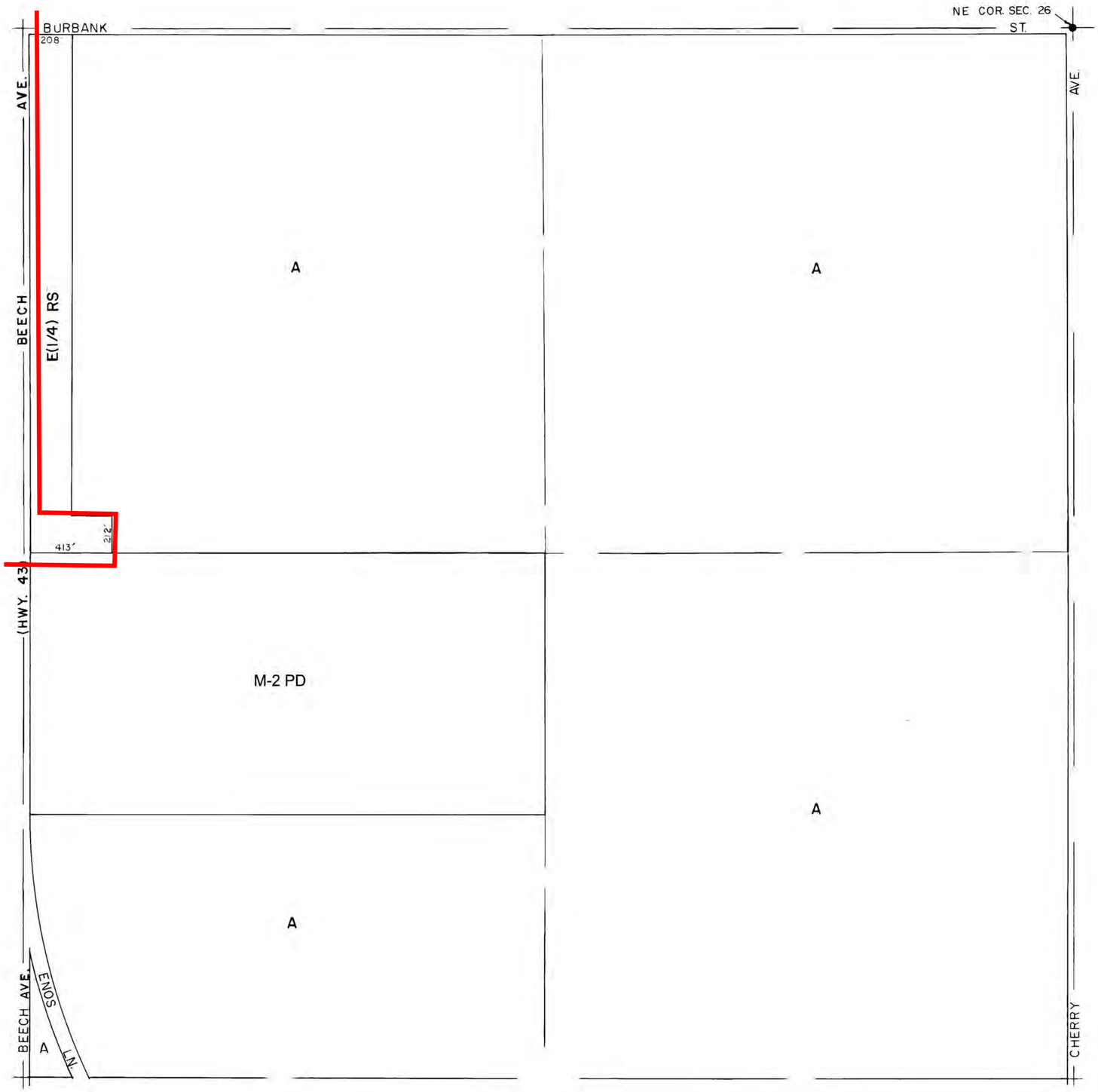
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Vance A. Jobe — CHAIRMAN OF THE BOARD
Edward Echo — CLERK

400 200 0 330 660 990 1/4 MI.

ZONE MAP 79-27

see ZONING MAP 79-27



AMENDMENTS:

(A) ORD. G-4459, MAY 11, 1987
(B) ORD. G-8060, JUL 29, 2010

ZONING MAP 79-26

(SEC. 7297.397.1 OF THE ORDINANCE CODE OF KERN COUNTY)

SEC. 26 T. 28 S. R. 25 E. MDB&M.

KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES

LEGEND

A	(EXCLUSIVE AGRICULTURE)
A-1	(LIMITED AGRICULTURE)
E (1/4)	(ESTATE - 1/4 ACRE)
E (1/2)	(ESTATE - 1/2 ACRE)
E (1)	(ESTATE - 1 ACRE)
RS	(RESIDENTIAL SUBURBAN COMBINING)
M-2	(MEDIUM INDUSTRIAL)
PD	(PRECISE DEVELOPMENT COMBINING)

WE HEREBY CERTIFY THAT THIS PROPOSED ZONE MAP WAS ADOPTED IN THIS FORM BY RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 17TH. DAY OF NOV. 1969.

Kenneth Dickson — CHAIRMAN
Jack R. Dalton — SECRETARY

WE HEREBY CERTIFY THAT THIS OFFICIAL ZONE MAP, WAS ADOPTED AS AN AMENDMENT TO THE OFFICIAL "LAND USE ZONING ORDINANCE OF THE COUNTY OF KERN", BY THE BOARD OF SUPERVISORS OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF, HELD ON THE 13 TH. DAY OF JANUARY 1970, BY ORDINANCE NO. G-1234 PASSED BY SAID BOARD.

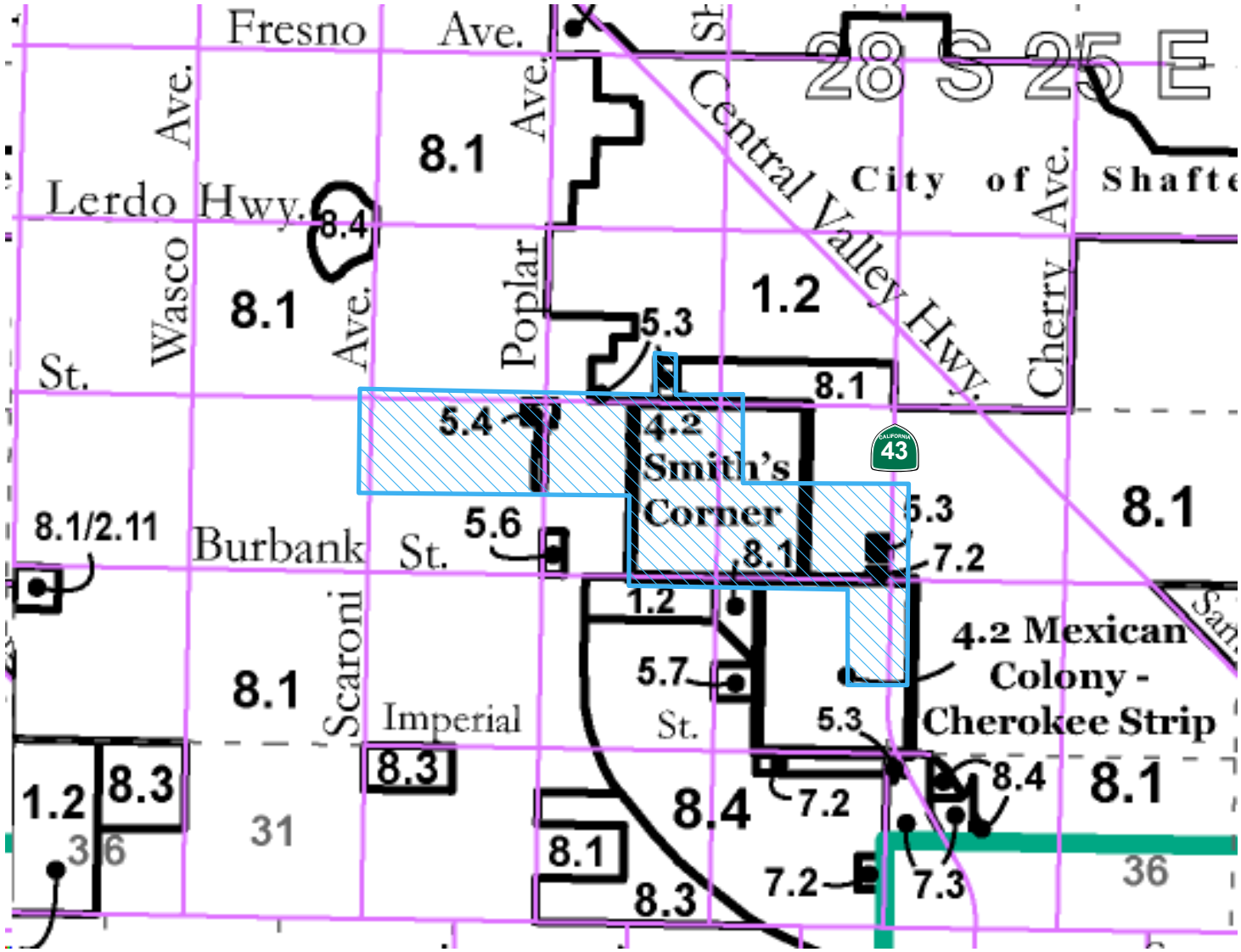
Vance A. Wiebe — CHAIRMAN OF THE BOARD
Clara L. Foster — CLERK

400 200 0 330 660 990 1/4 MI.

ZONE MAP 79-26

LAND USE MAP

Kern County, CA



KERN COUNTY
GENERAL PLAN DESIGNATIONS

1.2 INCORPORATED CITIES
4.2 INTERIM RURAL COMMUNITY PLAN
5.3 MAXIMUM 10 UNITS/NET ACRE
(4356 SQ. FT. SITE AREA/UNIT)
5.4 MAXIMUM 4 UNITS/NET ACRE
(10,890 SQ. FT. SITE AREA/UNIT)
5.6 MINIMUM 2.5 GROSS ACRES/UNIT
5.7 MINIMUM 5 GROSS ACRES/UNIT
7.2 SERVICE INDUSTRIAL
7.3 HEAVY INDUSTRIAL
8.1 INTENSIVE AGRICULTURE
(MIN. 20- ACRE PARCEL SIZE)
8.3 EXTENSIVE AGRICULTURE
(MIN. 20- OR 80-ACRE PARCEL SIZE)
8.4 MINERAL AND PETROLEUM
(MIN. 5-ACRE PARCEL SIZE)

Project Area

South Shafter Sewer Project

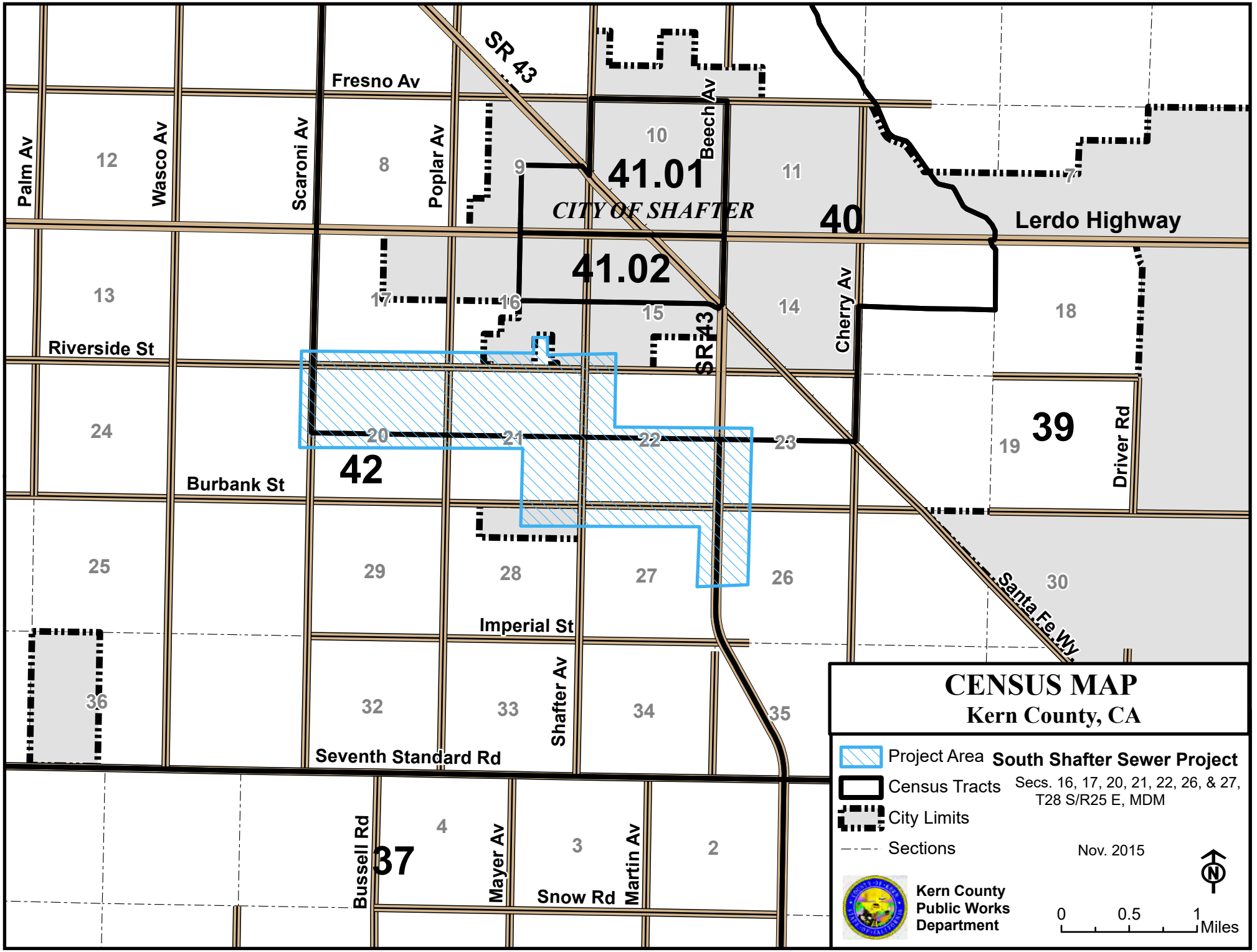
Secs. 16, 17, 20, 21, 22, 26, & 27,
T28 S/R25 E, MDM

Nov. 2015

0 1 Miles

N

Kern County Public Works Department



CENSUS MAP
Kern County, CA

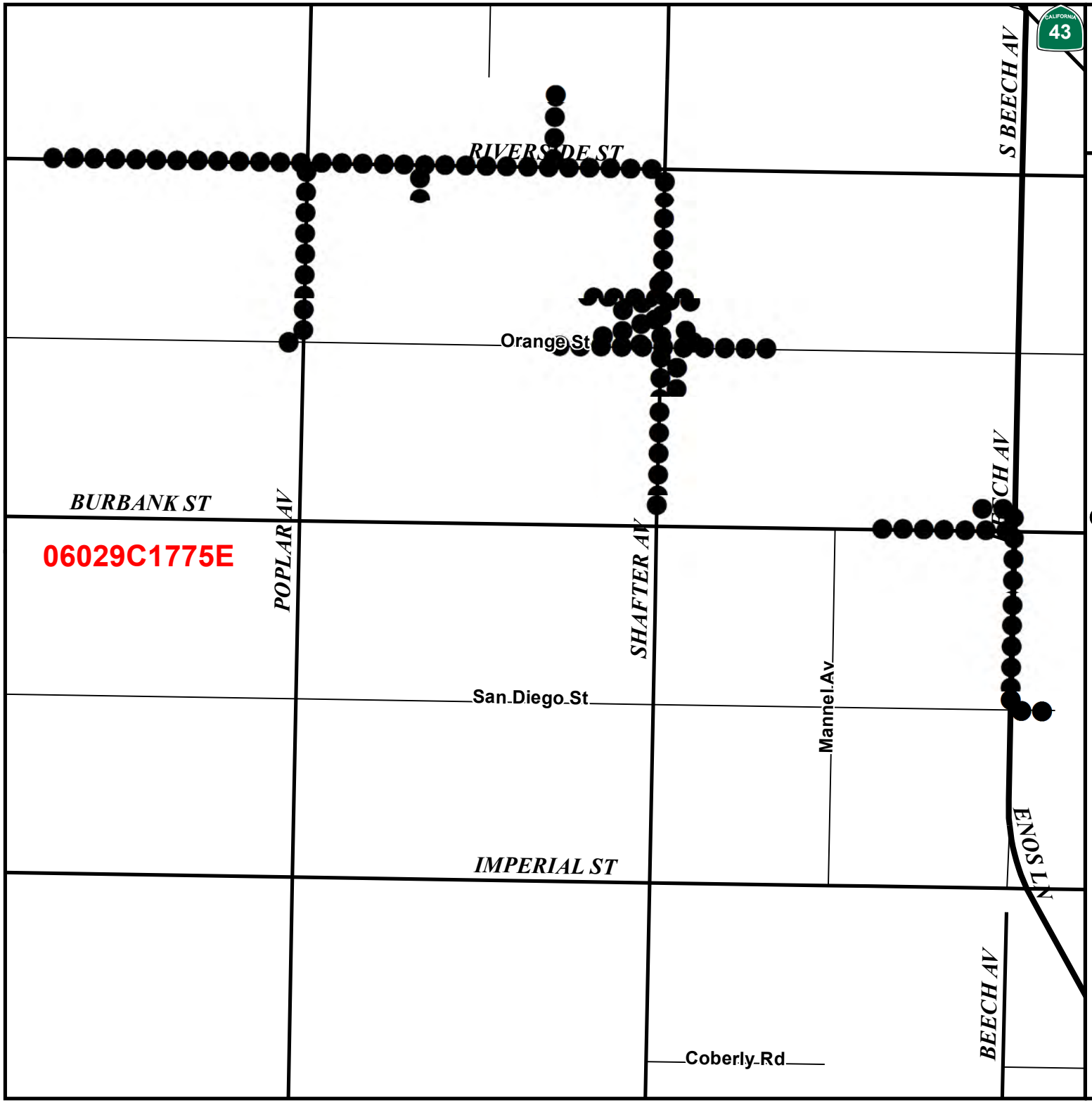
Project Area
Census Tracts
City Limits
Sections

South Shafter Sewer Project
Secs. 16, 17, 20, 21, 22, 26, & 27, T28 S/R25 E, MDM

Nov. 2015

Kern County Public Works Department

0 0.5 1 Miles



FEMA DFIRM

Flood Hazard Zones

- X (0.2%)
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- X
- Panel Boundaries
- Project Location

Shafter Av.

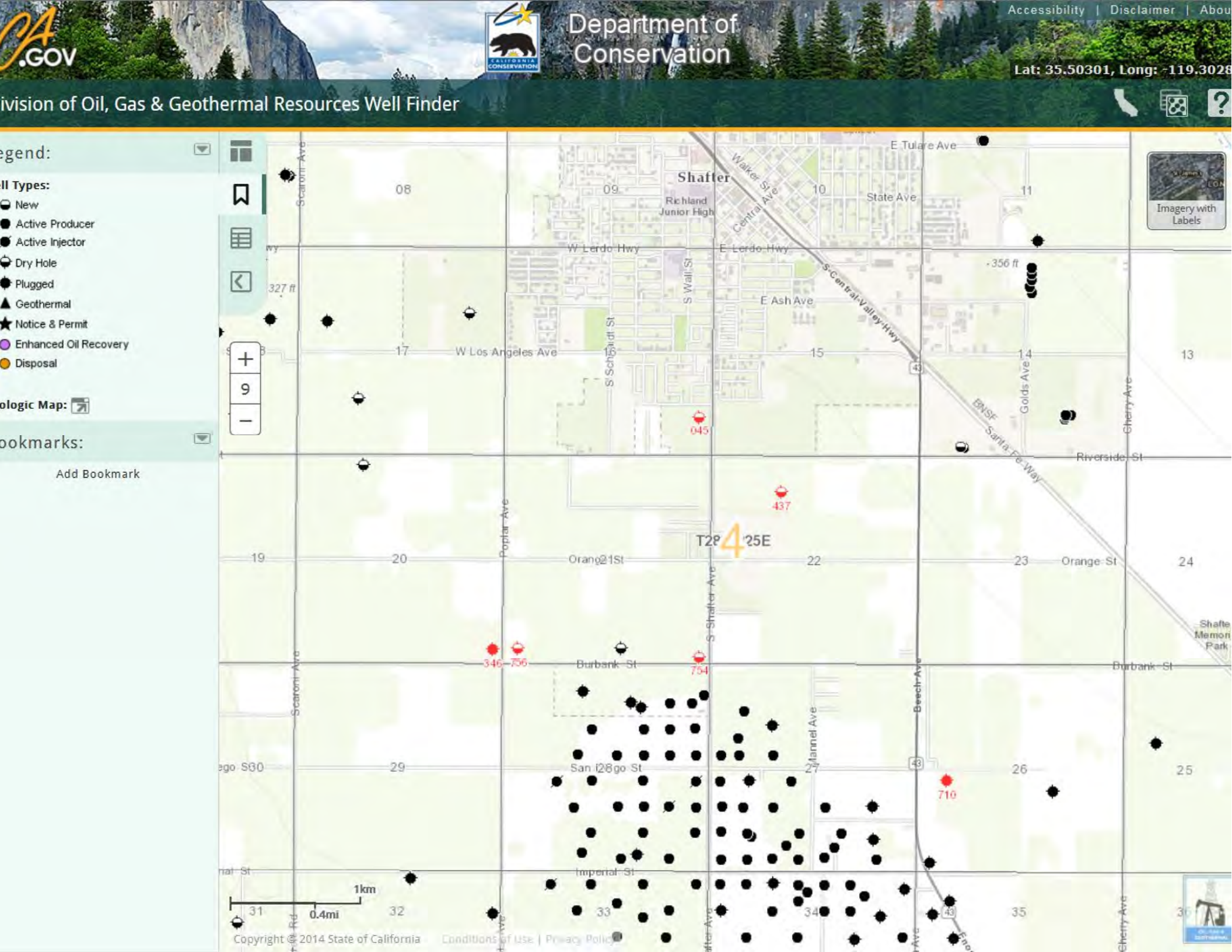
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- T28S/R25E, MDM

0 0.5 Miles

N

Kern County Public Works Department

July 2016


Accessibility | Disclaimer | Abou
Department of Conservation
Lat: 35.50301, Long: -119.3028
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E Ash Ave
W Los Angeles Ave
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Cherry Ave
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Orange St
S Shafter Ave
Burbank St
Beech Ave
Mannel Ave
San Diego St
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TECHNICAL MEMORANDUM

To: Michael Hollier, Planner III – Kern County Public Works Department

From: Jon Claxton, Project Manager/Natural Resources Lead – SWCA Environmental Consultants
Jacqueline McCrory, Environmental Planner

Date: February 10, 2016

Re: **South Shafter Sewer Project – Biological Resources Technical Memorandum / SWCA No. 34545**

INTRODUCTION

This Biological Resources Technical Memorandum was prepared for the South Shafter Sewer Project (project) in support of the California Environmental Quality Act (CEQA) document that will be prepared by the Kern County Public Works Department (County). SWCA has previously submitted a federal Biological Assessment. Therefore, the intent of this supplemental memo is to provide supplemental information regarding potential impacts to state listed species and species of local concern under CEQA associated with the proposed project. The impact analysis provided in this memorandum is intended to be applicable to the biological resources section of the CEQA document that will be prepared by the County.

METHODS

SWCA biologists initiated a review of potentially occurring special status species with the USFWS Information Planning and Conservation System (IPaC 2015), the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2015), and the California Native Plant Society (CNPS 2015) Online Inventory of Rare and Endangered Plants. Additional species, such as migratory birds and special status animal species that were included on the CDFW Special Animals List (CDFW 2015b), were considered for potential occurrence in the region. Through review of these databases, a list of State and federally protected species for the Rio Bravo U.S. Geological Survey (USGS) 7.5-minute quadrangle, and the surrounding eight quadrangles (Wasco SW, Wasco, Famoso, Buttonwillow, Rosedale, East Elk Hills, Tupman, and Stevens) in which the project area occurs, was generated (refer to Attachment A).

The lists generated by the USFWS, CNDDB, and CNPS database queries are included in Appendix A. Each of the species included in those lists are evaluated in Attachment B, Tables 1 and 2. Because these lists are regional in nature, an analysis of the range and habitat preferences of the listed species was conducted to identify which species have the potential to occur in or near the Biological Study Area (BSA). SWCA evaluated the elevation range, soil types, and habitat preferences of the identified species to determine which species have potential to occur within the BSA prior to conducting field surveys. Those species determined to have no potential to occur in the BSA due to a lack of suitable habitat and species already included in the federal Biological Assessment are not discussed further within this memorandum.

Following the preliminary desktop analysis of the database records, SWCA conducted a general biological reconnaissance survey on November 5, 2015, to assess the current conditions of the BSA. The survey was conducted under clear and warm weather conditions and consisted of walking the areas within the BSA that would be potentially impacted by the proposed project, which consisted of County road rights-of-way (ROW), and documenting the vegetation types, wildlife, and current land use practices. The remainder of the BSA consists of private property, which was visually surveyed for evidence of raptor nesting or identification of other suitable habitat areas. The survey primarily focused on site conditions within the PIA; however, additional visual observations were conducted with the aid of 8 × 40 binoculars along the areas up to approximately 100 feet beyond the PIA with the intent of documenting habitat areas and identifying any features (e.g., trees and structures) that may provide habitat for wildlife species (e.g., raptors, migratory birds).

Based on the results of the field surveys conducted for the project and information obtained through literature review, protocol-level surveys for special-status plants and wildlife were deemed unnecessary. The presence of sensitive species has been inferred and the appropriate avoidance and minimization efforts have been proposed to avoid and minimize impacts to any species that may inadvertently enter the PIA.

RESULTS

Special-Status Plants

Based on a review of special-status plant species occurrences identified by the IPaC and/or CNDDB and CNPS as having the potential to occur in the vicinity of the BSA, preliminary evaluation of habitat requirements, and the known site conditions within the PIA, it was determined that no suitable habitat is available for special-status plants within the PIA (refer to Table 1). No special-status plants were observed during field surveys of the PIA and none are expected to be present due to the lack of habitat and ongoing level of disturbance. Therefore, no impacts to special-status plants are anticipated to occur as a result of the proposed project and no mitigation measures are necessary.

Special-Status Animals

Based on the database review, 18 additional special-status species (not including federally protected species covered in the BA) have the potential to occur in the vicinity of the BSA. Following preliminary evaluation of habitat requirements and the known site conditions within the PIA, it was determined that a total of eight additional special-status species (not including federally protected species covered in the BA) have the potential to occur within the BSA (refer to Table 2). Each of those species has been evaluated for their potential to be impacted by the proposed project and is discussed in further detail below.

Discussion of Crotch Bumble Bee

Crotch bumble bee (*Bombus crotchii*) is considered a special animal (SA) by the California Department of Fish and Wildlife (CDFW 2015b). This species inhabits open grassland and scrub habitats and nests underground. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees. Bumble bees collect both nectar and pollen of the plants that they pollinate. In general, bumble bees forage from a diversity of plants, although individual species can vary greatly in their plant preferences, largely due to differences in tongue length. This species is classified as a short-tongued species, whose food plants include *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia* (Hatfield et al. 2015). This species was historically common in the Central Valley but now appears to be absent from much of its historic range, especially in the central part of its range (Hatfield et al. 2015).

SURVEY RESULTS

Based on the results of a CNDDB query, there are several records of crotch bumble bee surrounding the BSA. The nearest occurrences are located approximately 0.5 mile north of the BSA (CNDDB Occ. 101) from March of 1953 and approximately 5 miles east of the BSA (CNDDB Occ. 102) from June of 1952. The PIA itself is highly disturbed and devoid of suitable vegetation or soils suitable for nesting for this species. Adjacent habitat on private property does include some marginal habitat value and could potentially provide suitable foraging habitat for this species. No individuals were observed during the surveys conducted on November 5, 2015, nor would presence be expected during the survey conducted in November. Due to the presence of marginally suitable habitat adjacent to the PIA, there is a low likelihood that this species may enter the PIA during construction.

IMPACTS

Marginally suitable nesting habitat is available within fallow agricultural lands adjacent to the PIA; however, the PIA does not support suitable nesting habitat due to the existing level of disturbance associated roadway and agricultural maintenance activities. The PIA does not support suitable soils for underground nests or vegetation for food sources suitable for this species; therefore, direct impacts to this species are not anticipated to occur as a result of the proposed project. Therefore impacts to crotch bumble bee associated with the proposed project would be less than significant.

RECOMMENDED MEASURES

Mitigation measures are not necessary.

Discussion of San Joaquin Whipsnake

San Joaquin whipsnake (*Masticophis flagellum ruddocki*) is recognized by CDFW as a California Species of Special Concern (SSC). Whipsnakes are common to uncommon species found in arid regions below 6,000 feet in California (California Herps.com 2015). The known range of this California endemic species extends from 8 miles west of the community of Arbuckle in Colusa County in the Sacramento Valley, southward to the Grapevine in the Kern County portion of the San Joaquin Valley, and westward into the inner South Coast Ranges. They occur in open, dry, vegetative associations with little or no tree cover. In the western San Joaquin Valley, the San Joaquin whipsnake occurs in valley grassland and saltbush scrub associations and is known to climb bushes such as *Atriplex* for viewing prey and potential predators. They use mammal burrows for refuge and possibly for oviposition sites. Whipsnakes occur in open terrain and are most abundant in grass, desert scrub, chaparral, and pasture habitats. Whipsnakes seek cover in rodent burrows, bushes, trees, and rock piles. They hibernate in soil or sand approximately 1 foot below the surface, sometimes at the bases of plants (California Herps.com 2015). Their diet consists of rodents, lizards and eggs, snakes (including rattlesnakes), birds and eggs, young turtles, insects, and carrion (California Herps.com 2015). Whipsnakes actively search for prey, with their heads elevated. They poke their heads in burrows, or climb trees, using both vision and olfaction to detect prey, which is consumed alive and whole (California Herps.com 2015). San Joaquin whipsnakes mate in April and May, they lay their eggs in June and July, and the first young appear in late August or early September. Their clutch size ranges from four to 16 eggs with a mean of eight to 10 (CaliforniaHerps.com 2015).

SURVEY RESULTS

Based on the results of a CNDDB query, there are no records of San Joaquin whipsnake located within a 10-mile radius of the BSA. The PIA itself is highly disturbed and devoid of suitable vegetation or soils suitable for this species. Adjacent habitat on private property does provide some marginally suitable habitat within fallow agricultural lands for this species. No individuals were observed during the surveys conducted

on November 5, 2015. Due to the presence of marginally suitable habitat adjacent to the PIA, there is a low likelihood that this species may enter the PIA during construction.

IMPACTS

Although presence within the PIA is highly unlikely, potential project impacts to San Joaquin whipsnake include direct effects associated with the use and movement of construction equipment, construction debris, vegetation removal, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, may cause disturbance to San Joaquin whipsnake and may cause them to migrate to adjacent work areas. The measures provided below would reduce the potential for these impacts to occur.

Therefore impacts to San Joaquin whipsnake associated with the proposed project would be less than significant with mitigation.

RECOMMENDED MEASURES

The following measures are proposed to reduce potential impacts to San Joaquin whipsnake.

1 PRECONSTRUCTION SURVEY: Prior to any ground disturbance, a qualified biologist shall conduct preconstruction surveys for special status species with the potential to occur in the project area during construction activities. The appropriate scope, schedule and methodology of the surveys shall be determined by the qualified biologist.

2 EDUCATION SESSION: Prior to any ground disturbance, a qualified biologist shall conduct an education session for all individuals who will be present during site preparation or construction activities. The education session shall present all pertinent information for the avoidance and minimization of any special status-species with the potential to exist on the project site during construction. The Resident Engineer or their on-site designee, with the authority to stop all work on the project site, shall be identified as the contact source for any attendee who might observe or inadvertently kill or injure a special status species within the project area. Signup sheets identifying attendees and the Contractor/Company they represent shall be included in a post-construction compliance report.

3 SPECIES DISCOVERY: Should a special status species or avian species protected under the Migratory Bird Treaty Act, or their dens/burrows/nests, be discovered within the project boundary, the following shall occur:

   A. All work within 100 feet of the discovery shall cease immediately.

   B. The Resident Engineer or their on-site designee shall be immediately notified.

   C. A qualified biologist shall determine if notification and/or consultation with regulatory agencies is required, and how to proceed with the project and avoid take.

4 EXCAVATION: All excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed no greater than 200 feet apart. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped special status species which were identified during the project's education session.

5 ON-SITE VEHICLES: Project-related vehicles shall observe a speed limit of 20 miles per hour throughout the project site, except on paved County roads and State and federal highways.

6 TRASH COLLECTION: All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the project site.

7 PIPES & CULVERTS: All pipes and culverts shall be searched for species identified during the project's education session prior to being moved or sealed. Should any special status species be discovered within a pipe or culvert, that section of pipe or culvert shall not be moved or sealed. Any special status species found in a pipe or culvert shall be allowed to vacate unimpeded.

8 EROSION CONTROL: Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site.

9 VECTOR & WEED CONTROL: Use of rodenticides and herbicides at the project site shall be prohibited. Discussion of Nelson's Antelope Squirrel, Short-Nosed Kangaroo Rat and San Joaquin Pocket Mouse

NELSON'S ANTELOPE SQUIRREL

Nelson's (or San Joaquin) antelope squirrel (*Ammospermophilus nelsoni*) is a State threatened species. This species is a small ground-dwelling squirrel with rounded ears and a relatively short tail and legs. It is light brown in color with a light-colored stripe on each of its sides. The tail is light gray or whitish on the underside and is usually held in a vertical position when sitting or curled over the back when running. Nelson's antelope squirrels are smaller in size than the California ground squirrel, ranging in length from 8.6 to 9.4 inches and in weight from 130 to 170 grams (4.6 to 6.0 ounces). It is an omnivore whose diet is dependent on food availability. This diet typically includes green vegetation, fungi, seeds, and insects (California State University, Stanislaus 2002).

The cultivation of once native communities and other types of development have resulted in extensive habitat loss for this species. Nelson's antelope squirrels are found in arid grassland, shrubland, and alkali sink habitats of the San Joaquin Valley and adjacent foothills. They are active year-round and live in burrows they construct themselves or that are modifications of kangaroo rat burrows (California State University, Stanislaus 2002). Nelson's antelope squirrels typically have a very short life span of only one year; however, some individuals live as long as four years (California State University, Stanislaus 2002). Their average territory size is approximately 10 acres.

SHORT-NOSED KANGAROO RAT

Short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*) is recognized by CDFW as a SSC. The short-nosed kangaroo rat is the only four-toed kangaroo rat in the San Joaquin Valley and is larger and has paler dorsal coloration than the other San Joaquin kangaroo rats. Historically, brevinasus occurred on the western, southern, and extreme southeastern side of the San Joaquin Valley, generally above the valley floor. Short-nosed kangaroo rats are generally found on friable soils on flat or gently rolling terrain in grassland and desert-shrub vegetation.

SAN JOAQUIN POCKET MOUSE

San Joaquin pocket mouse (*Perognathus inornatus*) is recognized by CDFW as a SSC. It is a buff-orange nocturnal pocket mouse with an indistinct lateral line, and dark guard hairs on its back. The tails of pocket mice are similar to kangaroo rats, being rather long with extended hairs on the tip. Its primary diet consists of seeds from grasses, forbs, or shrubs, and soft-bodied insects. They excavate vertically dug burrows of 0.75 to 1 inch in diameter, and may plug the entrances with dirt to help regulate temperature within the burrow. The San Joaquin pocket mouse occurs in dry, open grasslands or scrub areas on fine textured soils in the Central and Salinas Valleys (California State University, Stanislaus 2002).

SURVEY RESULTS

Based on the results of a CNDDB query, there are several occurrences of Nelson's antelope squirrel west of the BSA; the nearest occurrence is from April of 2006 and is located approximately 5 miles west of the BSA (CNDDB Occ. 328). There are no documented occurrences of short-nosed kangaroo rat within a 10-mile radius of the BSA. There are several documented occurrences of San Joaquin pocket mouse in the vicinity of the BSA; the nearest occurrence is from September of 2013 and is located approximately 5 miles west of the BSA.

The PIA supports marginally suitable foraging habitat in the form of fallow agricultural land and ruderal habitat; however, presence is unlikely due to the existing level of disturbance associated with ongoing roadway and agricultural maintenance activities. Adjacent habitat on private property provides marginally suitable foraging and burrowing habitat for these species. No individuals were observed during the surveys conducted on November 5, 2015. Due to the existing level of disturbance and presence of marginally suitable habitat adjacent to the PIA, there is a low likelihood that these species may enter the PIA during construction.

IMPACTS

Although presence within the PIA is highly unlikely, potential project impacts to Nelson's antelope squirrel, short-nosed kangaroo rat, and San Joaquin pocket mouse include direct effects associated with the use and movement of construction equipment, construction debris, vegetation removal, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, may cause disturbance to these species and may cause them to migrate to adjacent work areas, making them more susceptible to impacts associated with construction as well as predation by other animals. The measures provided below would reduce the potential for these impacts to occur.

Therefore, impacts to Nelson's antelope squirrel, short-nosed kangaroo rat, and San Joaquin pocket mouse associated with the proposed project would be less than significant with mitigation.

RECOMENDED MEASURES

Implementation of Measures 1-9 above would be sufficient to avoid and minimize potential impacts to Nelson's antelope squirrel, short-nosed kangaroo rat, and San Joaquin pocket mouse.

Discussion of Class Aves: Other Migratory Bird Species

Based on the results of the USFWS IPaC list generated for the project area, six additional migratory bird species (not including federally listed least Bell's vireo) protected by the Migratory Bird Treaty Act (MBTA) have the potential to occur in the region. Based on site conditions, the following three of the six migratory bird species were considered to have the potential to occur in the vicinity of the BSA: Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), and California horned lark (*Eremophila alpestris actia*). Discussion for each of these species is provided below.

SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is federally protected by the MBTA. This species occurs in open desert, grassland, or cropland containing scattered, large trees or small groves. Swainson's hawk roosts in large trees, but will roost on the ground if suitable trees are not available. Swainson's hawk breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. The nearest recorded occurrence of this species is from May of 2008 and was located approximately 6.5 miles southeast of the BSA (CNDDB Occ. 2529).

WHITE-TAILED KITE

The white-tailed kite (*Elanus leucurus*) is federally protected by the MBTA. The white tailed kite typically occurs in savanna, open woodlands, marshes, dessert grassland, partially cleared lands, and cultivated fields. White –tailed kites forage over lightly grazed or ungrazed fields. White-tailed kites nest in open-country isolated trees, and at the edge of or within forests. During the nonbreeding season, white-tailed kites roost communally, sometimes with more than 100 individuals. The nearest recorded occurrence of this species is from July of 1992 and is located approximately 9.6 miles southeast of the BSA (CNDDB Occ. 106).

CALIFORNIA HORNED LARK

The California horned lark (*Eremophila alpestris actia*) is federally protected by the MBTA. California horned larks occupy areas dominated by bare ground or very little vegetation such as short grass prairies, coastal plains, fallow grain fields and alkali flats. Horned larks are found in coastal regions from Sonoma to San Diego County and east to the San Joaquin Valley. The nearest recorded occurrence is from October of 2006 and is located approximately 5.5 miles southeast of the BSA (CNDDB Occ. 73)

SURVEY RESULTS

Suitable habitat for migratory birds is absent within the PIA; however, suitable habitat is present for migratory birds within the BSA in the form of scattered stands of trees and isolated trees potentially suitable for nesting along the roadways. Agricultural fields and open space may provide potentially suitable foraging habitat for migratory birds. None of the aforementioned migratory birds or sign of nesting activity were observed during the survey of the BSA; however, they have the potential to occur. The presence of migratory bird species protected by the MBTA is inferred due to their migratory nature and the presence of potentially suitable habitat within and adjacent to the BSA.

IMPACTS

No suitable habitat is located within the PIA and vegetation and tree removal are not required for the proposed project. Due to the lack of suitable habitat within the PIA, as well as the high level of existing disturbance, migratory bird species would only have the potential to occur within the PIA as infrequent foragers and would not be nesting within the PIA. If migratory birds are nesting adjacent to the PIA within the BSA, temporary indirect impacts to nesting migratory bird species could occur as a result of noise disturbance and increased airborne dust associated with construction activities. Increased, prolonged, ambient construction-related noise and vibration could adversely affect breeding and nesting behavior and contribute to a decrease in nesting success. Additionally, increased airborne construction dust could temporarily degrade the quality of the surrounding riparian vegetation and habitat.

Therefore impacts to migratory birds associated with the proposed project would be less than significant with mitigation.

RECOMMENDED MEASURES

Implementation of Measures 1-3 above would be sufficient to avoid and minimize potential impacts to migratory birds.

REFERENCES

California Department of Fish and Wildlife (CDFW). 2015a. California Natural Diversity Database (CNDDB) Rarefind5 data output for the Rio Bravo USGS 7.5-minute quadrangle and eight surrounding quadrangles. State of California Biogeographic Data Branch, Department of Fish and Wildlife. Accessed November 3, 2015.

———. 2015b. CDFW CNDDB Special Animals List. October 2015. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline. Accessed November 3, 2015.

California Herps.com. 2015a. California Herps: a guide to the amphibians and reptiles of California. Available at: http://www.californiaherps.com/. Accessed August 2015.

California Native Plant Society (CNPS). 2015. Inventory of Rare and Endangered Plants. Available at: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi. Accessed November 3, 2015.

California State University Stanislaus (CSUS). 2002. Stanislaus Endangered Species Recovery Program, Endangered Species Profiles. Available at: http://esrp.csustan.edu/speciesprofiles/. Accessed April 2015.

Hatfield, R., Jepsen, S., Thorp, R., Richardson, L. & Colla, S. 2015. *Bombus crotchii*. The International Union for Conservation of Nature (IUCN) Red List of Threatened Species 2015: e.T44937582A46440211. Available at: http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937582A46440211.en. Accessed November 2015.

United States Fish and Wildlife Service (USFWS). 2015. Official Species List for the South Shafter Sewer Project. Requested online through the Information for Planning and Conservation (IPaC) database at: https://ecos.fws.gov/ipac/. November 3, 2015.

Williams, D.F., and K.S. Kilburn. 1984. Sensitive, threatened, and endangered mammals of riparian and other wetland communities in California. Pp. 950-956, *in* California riparian systems ecology, conservation, and productive management (R.E. Warner and K.M. Hendrix, eds.). Univ. California Press, Berkeley, 1035 pp.

Attachment A.
USFWS, CNDDB, and CNPS Species Lists

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2016-SLI-0214 November 03, 2015
Event Code: 08ESMF00-2016-E-00428
Project Name: South Shafter Sewer Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2)

of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

The table below outlines lead FWS field offices by county and land ownership/project type. Please refer to this table when you are ready to coordinate (including requests for section 7 consultation) with the field office corresponding to your project, and send any documentation regarding your project to that corresponding office. Therefore, the lead FWS field office may not be the office listed above in the letterhead. Please visit our office's website (http://www.fws.gov/sacramento) to view a map of office jurisdictions.

Lead FWS offices by County and Ownership/Program

County	Ownership/Program	Species	Office Lead*
Alameda	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Alameda	All ownerships but tidal/estuarine	All	SFWO
Alpine	Humboldt Toiyabe National Forest	All	RFWO
Alpine	Lake Tahoe Basin Management Unit	All	RFWO
Alpine	Stanislaus National Forest	All	SFWO
Alpine	El Dorado National Forest	All	SFWO
Colusa	Mendocino National Forest	All	AFWO
Colusa	Other	All	By jurisdiction (see map)
Contra Costa	Legal Delta (Excluding ECCHCP)	All	BDFWO
Contra Costa	Antioch Dunes NWR	All	BDFWO
Contra Costa	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Contra Costa	All ownerships but tidal/estuarine	All	SFWO

El Dorado	El Dorado National Forest	All	SFWO
El Dorado	LakeTahoe Basin Management Unit		RFWO
Glenn	Mendocino National Forest	All	AFWO
Glenn	Other	All	By jurisdiction (see map)
Lake	Mendocino National Forest	All	AFWO
Lake	Other	All	By jurisdiction (see map)
Lassen	Modoc National Forest	All	KFWO
Lassen	Lassen National Forest	All	SFWO
Lassen	Toiyabe National Forest	All	RFWO
Lassen	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Lassen	BLM Alturas Resource Area	All	KFWO
Lassen	Lassen Volcanic National Park	All (includes Eagle Lake trout on all ownerships)	SFWO
Lassen	All other ownerships	All	By jurisdiction (see map)

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Marin	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Marin	All ownerships but tidal/estuarine	All	SFWO
Mendocino	Russian River watershed	All	SFWO
Mendocino	All except Russian River watershed	All	AFWO
Napa	All ownerships but tidal/estuarine	All	SFWO
Napa	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Nevada	Humboldt Toiyabe National Forest	All	RFWO
Nevada	All other ownerships	All	By jurisdiction (See map)
Placer	Lake Tahoe Basin Management Unit	All	RFWO
Placer	All other ownerships	All	SFWO
Sacramento	Legal Delta	Delta Smelt	BDFWO
Sacramento	Other	All	By jurisdiction (see map)
San Francisco	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO

San Francisco	All ownerships but tidal/estuarine	All	SFWO
San Mateo	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Mateo	All ownerships but tidal/estuarine	All	SFWO
San Joaquin	Legal Delta excluding San Joaquin HCP	All	BDFWO
San Joaquin	Other	All	SFWO
Santa Clara	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
Santa Clara	All ownerships but tidal/estuarine	All	SFWO
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Shasta	Hat Creek Ranger District	All	SFWO
Shasta	Bureau of Reclamation (Central Valley Project)	All	BDFWO
Shasta	Whiskeytown National Recreation Area	All	YFWO
Shasta	BLM Alturas Resource Area	All	KFWO

Shasta	Caltrans	By jurisdiction	SFWO/AFWO
Shasta	Ahjumawi Lava Springs State Park	Shasta crayfish	SFWO
Shasta	All other ownerships	All	By jurisdiction (see map)
Shasta	Natural Resource Damage Assessment, all lands	All	SFWO/BDFWO
Sierra	Humboldt Toiyabe National Forest	All	RFWO
Sierra	All other ownerships	All	SFWO
Solano	Suisun Marsh	All	BDFWO
Solano	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Solano	All ownerships but tidal/estuarine	All	SFWO
Solano	Other	All	By jurisdiction (see map)
Sonoma	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Sonoma	All ownerships but tidal/estuarine	All	SFWO
Tehama	Mendocino National Forest	All	AFWO
	Shasta Trinity National Forest		

Tehama	except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Tehama	All other ownerships	All	By jurisdiction (see map)
Yolo	Yolo Bypass	All	BDFWO
Yolo	Other	All	By jurisdiction (see map)
All	FERC-ESA	All	By jurisdiction (see map)
All	FERC-ESA	Shasta crayfish	SFWO
All	FERC-Relicensing (non-ESA)	All	BDFWO
***Office Leads:**			
AFWO=Arcata Fish and Wildlife Office			
BDFWO=Bay Delta Fish and Wildlife Office			
KFWO=Klamath Falls Fish and Wildlife Office			
RFWO=Reno Fish and Wildlife Office			
YFWO=Yreka Fish and Wildlife Office			

Attachment

8

United States Department of Interior
Fish and Wildlife Service

Project name: South Shafter Sewer Project

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2016-SLI-0214
Event Code: 08ESMF00-2016-E-00428

Project Type: WASTEWATER PIPELINE

Project Name: South Shafter Sewer Project
Project Description: As Lead Agency, the Kern County Public Works Department is preparing a mitigated Negative Declaration to submit a California State Water Resources Control Board (SWRCB) application for a federally- and state-funded sewer trunk line installation project. The sewer lines will be constructed along Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street, all in the unincorporated community of South Shafter, Kern County.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

United States Department of Interior
Fish and Wildlife Service

Project name: South Shafter Sewer Project

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-119.31392669677733 35.49268249233984, -119.2426872253418 35.49240296201183, -119.24337387084961 35.455776082164796, -119.31444168090819 35.45619556834375, -119.31392669677733 35.49268249233984)))

Project Counties: Kern, CA

United States Department of Interior
Fish and Wildlife Service

Project name: South Shafter Sewer Project

Endangered Species Act Species List

There are a total of 12 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
California red-legged frog *(Rana draytonii)* Population: Entire	Threatened	Final designated	
Crustaceans			
Vernal Pool fairy shrimp *(Branchinecta lynchi)* Population: Entire	Threatened	Final designated	
Fishes			
Delta smelt *(Hypomesus transpacificus)* Population: Entire	Threatened	Final designated	
Flowering Plants			
Kern mallow *(Eremalche kernensis)*	Endangered		
San Joaquin wooly-threads *(Monolopia (=lembertia) congdonii)*	Endangered		
San Mateo thornmint *(Acanthomintha obovata ssp. duttonii)*	Endangered		

United States Department of Interior
Fish and Wildlife Service

Project name: South Shafter Sewer Project

Mammals			
Buena Vista Lake Ornate Shrew *(Sorex ornatus relictus)* Population: Entire	Endangered	Final designated	
Giant kangaroo rat *(Dipodomys ingens)* Population: Entire	Endangered		
San Joaquin Kit fox *(Vulpes macrotis mutica)* Population: wherever found	Endangered		
Tipton kangaroo rat *(Dipodomys nitratoides nitratoides)* Population: Entire	Endangered		
Reptiles			
Blunt-Nosed Leopard lizard *(Gambelia silus)* Population: Entire	Endangered		
Giant Garter snake *(Thamnophis gigas)* Population: Entire	Threatened		

United States Department of Interior
Fish and Wildlife Service

Project name: South Shafter Sewer Project

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad is (Buttonwillow (3511944) or East Elk Hills (3511934) or Famoso (3511952) or Rio Bravo (3511943) or Rosedale (3511942) or Stevens (3511932) or Tupman (3511933) or Wasco (3511953) or Wasco SW (3511954))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	None	G2G3	S1S2	SSC
Ammospermophilus nelsoni Nelson's antelope squirrel	AMAFB04040	None	Threatened	G2	S2	
Anniella pulchra pulchra silvery legless lizard	ARACC01012	None	None	G3G4T3T4Q	S3	SSC
Astragalus hornii var. hornii Horn's milk-vetch	PDFAB0F421	None	None	G4G5T2T3	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
Atriplex cordulata var. erecticaulis Earlimart orache	PDCHE042V0	None	None	G3T1	S1	1B.2
Atriplex coronata var. vallicola Lost Hills crownscale	PDCHE04250	None	None	G4T2	S2	1B.2
Atriplex minuscula lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
Atriplex subtilis subtle orache	PDCHE042T0	None	None	G1	S1	1B.2
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calochortus striatus alkali mariposa-lily	PMLIL0D190	None	None	G3	S3	1B.2
Caulanthus californicus California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
Charadrius montanus mountain plover	ABNNB03100	None	None	G3	S2?	SSC
Cirsium crassicaule slough thistle	PDAST2E0U0	None	None	G2	S2	1B.1
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G3	S3	1B.2
Dipodomys ingens giant kangaroo rat	AMAFD03080	Endangered	Endangered	G1G2	S1S2	
Dipodomys nitratoides brevinasus short-nosed kangaroo rat	AMAFD03153	None	None	G3T1T2	S1S2	SSC

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Dipodomys nitratoides nitratoides Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremalche kernensis Kern mallow	PDMAL0C031	Endangered	None	G3?T2Q	S2	1B.1
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T3Q	S3	WL
Eriastrum hooveri Hoover's eriastrum	PDPLM03070	Delisted	None	G3	S3	4.2
Eschscholzia lemmonii ssp. kernensis Tejon poppy	PDPAP0A071	None	None	G5T2	S2	1B.1
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Gambelia sila blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1	FP
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Great Valley Mesquite Scrub Great Valley Mesquite Scrub	CTT63420CA	None	None	G1	S1.1	
Masticophis flagellum ruddocki San Joaquin whipsnake	ARADB21021	None	None	G5T2T3	S2?	SSC
Monolopia congdonii San Joaquin woollythreads	PDASTA8010	Endangered	None	G2	S2	1B.2
Onychomys torridus tularensis Tulare grasshopper mouse	AMAFF06021	None	None	G5T1T2	S1S2	SSC
Perognathus inornatus San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Sorex ornatus relictus Buena Vista Lake ornate shrew	AMABA01102	Endangered	None	G5T1	S1	SSC
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Stylocline citroleum oil neststraw	PDAST8Y070	None	None	G3	S3	1B.1
Stylocline masonii Mason's neststraw	PDAST8Y080	None	None	G1	S1	1B.1
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC

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Report Printed on Tuesday, November 03, 2015 **Information Expires 5/3/2016**

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Thamnophis gigas giant garter snake	ARADB36150	Threatened	Threatened	G2	S2	
Toxostoma lecontei Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
Valley Saltbush Scrub Valley Saltbush Scrub	CTT36220CA	None	None	G2	S2.1	
Valley Sink Scrub Valley Sink Scrub	CTT36210CA	None	None	G1	S1.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 46

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Report Printed on Tuesday, November 03, 2015 **Information Expires 5/3/2016**

CNPS California Native Plant Soc Rare and Endangered Plant Inventory

Plant List

22 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around 35119D3

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus hornii var. hornii	Horn's milk-vetch	Fabaceae	annual herb	1B.1	S1	G4G5T2T3
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B.2	S2	G3T2
Atriplex cordulata var. erecticaulis	Earlimart orache	Chenopodiaceae	annual herb	1B.2	S1	G3T1
Atriplex coronata var. coronata	crownscale	Chenopodiaceae	annual herb	4.2	S3	G4T3
Atriplex coronata var. vallicola	Lost Hills crownscale	Chenopodiaceae	annual herb	1B.2	S2	G4T2
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	1B.1	S2	G2
Atriplex subtilis	subtle orache	Chenopodiaceae	annual herb	1B.2	S1	G1
Azolla microphylla	Mexican mosquito fern	Azollaceae	annual / perennial herb	4.2	S4	G5
Calochortus striatus	alkali mariposa lily	Liliaceae	perennial bulbiferous herb	1B.2	S3	G3
Caulanthus californicus	California jewel-flower	Brassicaceae	annual herb	1B.1	S1	G1
Cirsium crassicaule	slough thistle	Asteraceae	annual / perennial herb	1B.1	S2	G2
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	1B.2	S3	G3
Eremalche kernensis	Kern mallow	Malvaceae	annual herb	1B.1	S2	G3?T2Q
Eriastrum hooveri	Hoover's eriastrum	Polemoniaceae	annual herb	4.2	S3	G3
Eriogonum gossypinum	cottony buckwheat	Polygonaceae	annual herb	4.2	S3S4	G3G4
Eschscholzia lemmonii ssp. kernensis	Tejon poppy	Papaveraceae	annual herb	1B.1	S2	G5T2
Goodmania luteola	golden goodmania	Polygonaceae	annual herb	4.2	S3	G3
Hordeum intercedens	vernal barley	Poaceae	annual herb	3.2	S3S4	G3G4
Monolopia congdonii	San Joaquin woollythreads	Asteraceae	annual herb	1B.2	S2	G2
Stylocline citroleum	oil neststraw	Asteraceae	annual herb	1B.1	S3	G3
Stylocline masonii	Mason's neststraw	Asteraceae	annual herb	1B.1	S1	G1
Trichostema ovatum	San Joaquin bluecurls	Lamiaceae	annual herb	4.2	S4	G4

Suggested Citation

CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed 03 November 2015].

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Attachment B.
Special-Status Species Investigated for Potential Occurrence

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Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
San Mateo thornmint *Acanthomintha obovata* ssp. *dutonii*	Annual herb found in chaparral and valley and foothill grassland habitats in serpentinite soils. Elevation 50-300 meters.	April-June	FE/SE/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for San Mateo thornmint is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
Horn's milk-vetch *Astragalus hornii* var. *hornii*	Annual herb found in meadows and seeps and playa habitats along lake margins in alkaline soils. Elevation: 60-850 meters.	May-October	--/--/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Horn's milk-vetch is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
heartscale *Atriplex cordulata* var. *cordulata*	Annual herb found in chenopod scrub, meadows and seeps, and valley and foothill grassland in sandy, saline, or alkaline soils. Elevation: 0-560 meters.	April-October	--/--/1B.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for heartscale is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
Earlimart orache *Atriplex cordulata* var. *erecticaulis*	Annual herb found in valley and foothill grassland habitat. Elevation: 40-100 meters.	August-November	--/--/1B.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Earlimart orache is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
crownscale *Atriplex coronata* var. *coronata*	Annual herb found in chenopod scrub, valley and foothill grassland, and vernal pool habitats in alkaline, often clay soils. Elevation: 1-590 meters.	March-October	--/--/4.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for crownscale is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
Lost Hills crownscale *Atriplex coronata* var. *vallicola*	Annual herb found in chenopod scrub, valley and foothill grassland, and vernal pool habitats in alkaline soils. Elevation: 50-635 meters.	April-September	--/--/1B.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Lost Hills crownscale is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
lesser saltscale *Atriplex minuscula*	Annual herb found in chenopod scrub, playas, valley and foothill grassland habitats in alkaline and sandy soils. Elevation: 15-200 meters.	May-October	--/--/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for lesser saltscale is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
subtle orache *Atriplex subtilis*	Annual herb found in valley and foothill grassland habitat in alkaline soils. Elevation: 40-100 meters.	June-October	--/--/1B.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for subtle orache is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Mexican mosquito fern *Azolla microphylla*	Annual/perennial herb found in marshes and swamps (ponds, slow water) habitat. Elevation: 30-100 meters.	August	--/--/4.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Mexican mosquito fern is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
alkali mariposa-lily *Calochortus striatus*	Perennial bulbiferous herb found in chaparral, chenopod scrub, Mojavean desert scrub, and meadows and seeps habitat in alkaline, mesic soils. Elevation 70-1595 meters.	April-June	--/--/1B.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for alkali mariposa-lily is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
California jewelflower *Caulanthus californicus*	Annual herb found in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland habitat in sandy soils. Elevation: 61-1000 meters.	February-May	FE/SE/1B.1	**Suitable Conditions Absent/No Potential to Occur:** No suitable habitat for California jewel-flower is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
slough thistle *Cirsium crassicaule*	Annual/perennial herb hound in chenopod scrub, marshes and swamps (sloughs), and riparian scrub habitats. Elevation: 3-100 meters.	May-August	--/--/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for slough thistle is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
recurved larkspur *Delphinium recurvatum*	Perennial herb found in chenopod scrub, cismontane woodland, and valley and foothill grassland habitat in alkaline soils. Elevation: 3-790 meters.	March-June	--/--/1B.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for recurved larkspur is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
Kern mallow *Eremalche kernensis*	Annual herb that occurs in chenopod scrub and valley and foothill grassland. 70-1,290 meters.	March-May	FE/--/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Kern mallow is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
Hoover's eriastrum *Eriastrum hooveri*	Annual herb found in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland habitat. Elevation: 50-915 meters.	March-July	--/--/4.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Kern mallow is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
cottony buckwheat *Eriogonum gossypinum*	Annual herb found in chenopod scrub and valley and foothill grassland habitat in clay soil. Elevation: 100-550 meters.	March-September	--/--/4.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for cottony buckwheat is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Tejon poppy *Eschscholzia lemmonii* ssp. *kernensis*	Annual herb found in chenopod scrub and valley and foothill grassland habitat. Elevation: 160-1000 meters.	March-May	--/--/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Tejon poppy is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
golden goodmania *Goodmania luteola*	Annual herb found in creosote bush scrub, valley grassland, alkali sink, wetland-riparian, meadows, and playas. Elevation: 70-2200 meters.	April-August	--/--/4.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for golden goodlania is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
vernal barley *Hordeum intercedens*	Annual herb found in coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions) and vernal pool habitats. Elevation: 5-1000 meters.	March-June	--/--/3.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for vernal barley is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
San Joaquin woollythreads *Monolopia congdonii*	Annual herb found in chenopod scrub and valley and foothill grassland habitat in sandy soils. Elevation: 60-800 meters.	February-May	FE/--/1B.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for San Joaquin woollythreads is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
oil nestraw *Stylocline citroleum*	Annual herb found in chenopod scrub, coastal scrub, and valley and foothill grassland habitat in clay soils. Elevation: 50-400 meters.	March-April	--/--/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for oil neststraw is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
Mason's neststraw *Stylocline masonii*	Annual herb found in chenopod scrub and pinyon and juniper habitat in sandy soils. Elevation: 100-1200 meters.	March-May	--/--/1B.1	**Suitable Conditions Absent / Species Absent:** No suitable habitat for Mason's neststraw is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
San Joaquin bluecurls *Trichostema ovatum*	Annual herb found in valley grassland habitat.	July-October	--/--/4.2	**Suitable Conditions Absent / Species Absent:** No suitable habitat for San Joaquin bluecurls is present within the PIA. The PIA is devoid of vegetation from road maintenance activities. Species was not observed during field surveys. No further studies anticipated to be necessary.
Natural Communities of Concern				
Great Valley Cottonwood Riparian Forest	A dense, broadleafed, winter deciduous riparian forest dominated by *Populus fremontii* and *Salix gooddingii variabilis*. Understories are dense with abundant vegetative conspicuous liana. Scattered seedlings and saplings of shade-tolerant species such as *Acer negundo californica* or *Fraxinus latifolia* may be found, but frequent flooding prevents their reaching into the canopy. Element Code: 61410.			**Absent:** The PIA does not support Great Valley Cottonwood Riparian Forest.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Great Valley Mesquite Scrub	An open woodland or savanna dominated by *Prosopis glandulosa torreyana* and *Atriplex polycarpa*. Understories are grassy in good rainfall years, though usually dominated by introduced annuals. Perennial coverusually is low, with *Prosopis* densities as low as 2-3 per acre. Element Code: 63420.			**Absent:** The PIA does not support Great Valley Mesquite Scrub.
Valley Saltbrush Scrub	Open, gray- or blue-green chenopod scrubs (10-40% cover), usually over a low herbaceous annual understory. Cover types dominated by *Atriplex polycarpa* (36221) or *A. spinifera* (36222) perhaps are differentiable. Most perennials (except *A. spinifera*) flower in May-September. The annuals (and *A. spinifera*) are active January-April.			**Absent:** The PIA does not support Valley Saltbrush Scrub.
Valley Sink Scrub	Low, open to dense succulent shrublands dominated by alkali-tolerant Chenopodiaceae, especially Allenrolfea occidentalis or several sueda species. Understories usually are lacking, though sparse herbaceous cover dominated by Bromus rubens develop occasionally. The annuals are most active from January to April; the perennials from March to September.			**Absent:** The PIA does not support Valley Sink Scrub.

General references: CDFW 2015, Hickman (ed.) 1993, Munz 1974, CNDDB 2015

Status Codes
--= No status

Federal:
FE = Federal Endangered
FT=Federal Threatened

State:
SE=State Endangered
ST= State Threatened
SR= State Rare

California Native Plant Society (CNPS):
List 1B = rare, threatened, or endangered in California and elsewhere.
List 2 = rare, threatened, or endangered in California, but more common elsewhere.
List 3 = plants that about which more information is needed.
List 4 = a watch list plants of limited distribution.

Threat Code:
.1 = Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly endangered in California (20-80% occurrences threatened)
.3 = Not very endangered I California (<20% of occurrences threatened or no current threats known)

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Brachiopods			
Vernal pool fairy shrimp *Branchinecta lynchi*	Occur in vernal pool habitats including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/--/SA	**Suitable Conditions Absent/No Potential to Occur:** No vernal pools are present within the PIA and suitable habitat is not supported. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
Fish			
delta smelt *Hypomesus transpacificus*	Euryhaline species (tolerant of a wide salinity range) occurring in estuarine waters up to 14 ppt salinity. Found only from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties.	FT/SE/SA	**Suitable Conditions Absent/No Potential to Occur:** No perennial water sources are present within the PIA and suitable habitat is not supported. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
Invertebrates			
crotch bumble bee *Bombus crotchii*	This species inhabits open grassland and scrub habitats and nests underground. This species is classified as a short-tongued species, whose food plants include *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia* (Hatfield *et al.* 2015).	--/--/SA	**Potential to Occur:** No suitable habitat is present within the PIA. However, due to the presence of marginally suitable habitat on adjacent undeveloped properties outside of the PIA, there is a potential that this species may enter the PIA.
Amphibians			
California red-legged frog *Rana draytonii*	Aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports such as cattails.	FT/--/SSC	**Suitable Conditions Absent/ No Potential to Occur:** The PIA does not support aquatic habitat suitable for this species. No suitable aquatic habitat is present within the PIA. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
western spadefoot *Spea hammondii*	Inhabits vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands.	--/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** No vernal pools or perennial water sources are present within the PIA or BSA; therefore, suitable habitat is not supported for this species. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
Reptiles			
silvery legless lizard *Anniella pulchra pulchra*	Occurs in riparian, sand dune, chaparral, hardwood forest and mixed woodland habitats. Silvery legless lizard burrows in loose soil found in stabilized sand dunes, vegetated oak or pine-oak woodland, chaparral, and along wooded stream edges and occasionally in desert scrub habitat.	--/--/CSC	**Suitable Conditions Absent/No Potential to Occur:** The BSA does not support riparian, sand dune, chaparral, hardwood forest or mixed woodland habitats suitable for this species. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
western pond turtle *Emys marmorata*	Quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.	--/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** No perennial water sources are present within the PIA or BSA; therefore, suitable habitat is not supported for this species. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
Blunt-nosed leopard lizard *Gambelia sila*	Occur in semiarid grasslands, alkali flats, low foothills, canyon floors, large washes, and arroyos, typically on sandy, gravelly, or loamy substrate and sometimes on hardpan. Occur in areas where abundant rodent burrows are available and are rare or absent in dense vegetation or tall grass.	FE/SE/SA	**Suitable Conditions Absent/No Potential to Occur: The BSA does not support** grasslands, alkali flats, low foothills, canyon floors, large washes, arroyos, or suitable soils for this species. Due to the absence of habitat and existing level of disturbance, this species is not expected to occur in the PIA.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
San Joaquin whipsnake *Masticophis flagellum ruddocki*	Occurs in open, dry, treeless areas, including grassland and saltbrush scrub and uses rodent burrows under shaded vegetation and surface objects.	--/--/SSC	**Potential to Occur:** The PIA supports marginally suitable foraging habitat for this species within ruderal habitat; however, this species is not expected to occur due to the existing level of ongoing disturbance associated with roadway and agricultural maintenance activities. However, due to the presence of marginally suitable foraging and burrowing habitat on adjacent properties outside of the PIA, there is a potential that this species may enter the PIA.
coast horned lizard *Phrynosoma coronatum* (*blainvillii* population)	Frequents a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub and chaparral in arid and semi-arid climate conditions. Species prefers friable, rocky or shallow sandy soils.	--/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** The PIA is entirely composed of ruderal, developed, and agricultural land and does not support sandy washes, coastal sage scrub and chaparral habitat suitable for this species. The PIA is heavily disturbed as a result of regular maintenance activities. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
giant garter snake *Thamnophis gigas*	The giant garter snake utilizes canals, creeks, ponds, and other areas that support permanent water with vegetative cover. The snake uses grasses, weeds, cattails, tules, and other vegetation for basking, foraging and cover.	FT/ST/SA	**Suitable Conditions Absent/No Potential to Occur:** The PIA is entirely composed of ruderal, developed, and agricultural land and does not support permanent water sources or other habitat suitable for this species. The PIA is heavily disturbed as a result of regular maintenance activities. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Birds			
tricolored blackbird *Agelaius tricolor*	(Nesting colony); requires open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	MBTA/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** The PIA does not support open water habitat with cattails or tall rushes suitable for this species. Tricolored blackbird was not observed during field surveys and is not expected to nest within the project impact area due to the lack of suitable habitat and existing level of disturbance.
burrowing owl *Athene cunicularia*	Open, dry grasslands, deserts and scrublands. Subterranean nester, dependent upon burrowing mammals.	MBTA/-- /SSC	**Suitable Conditions Absent/No Potential to Occur:** The PIA does not support suitable habitat for this species. There are no available burrows within the PIA suitable for burrowing owl habitat. Occurrence is not likely due to absence of suitable burrows and existing level of disturbance.
Swainson's hawk *Buteo swainsoni*	Open desert, grassland, or cropland containing scattered, large trees or small groves. Roosts in large trees, but will roost on ground if none available. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley.	MBTA/ST/SA	**Potential to Occur:** The BSA supports scattered stands of trees and agricultural fields that may provide potentially suitable foraging, roosting or nesting habitat for this species. Nesting within the PIA is not likely due to existing level of disturbance associated with roadway and agricultural maintenance activities.
white-tailed kite *Elanus leucurus*	Open grasslands, meadows, or marshlands for foraging close to isolated trees for nesting and perching.	MBTA/--/FP	**Potential to Occur:** The BSA supports scattered stands of trees and agricultural fields that may provide potentially suitable foraging, roosting or nesting habitat for this species. Nesting within the PIA is not likely due to existing level of disturbance associated with roadway and agricultural maintenance activities.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
California horned lark *Eremophila alpestris actia*	Occurs in short grass prairies, coastal plains, fallow grain fields and alkali flats. Found in coastal regions from Sonoma to San Diego county, and west to the San Joaquin Valley. .	MBTA/--/WL	**Potential to Occur:** The BSA supports scattered stands of trees and agricultural fields that may provide potentially suitable foraging, roosting or nesting habitat for this species. Nesting within the PIA is not likely due to existing level of disturbance.
Le Conte's thrasher *Toxostoma lecontei*	Desert resident. Primarily open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	MBTA/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** The PIA is located in a residential, developed area and is entirely composed of ruderal/developed land. The PIA does not support habitat suitable for this species. Occurrence is not likely due to absence of suitable habitat and existing level of disturbance associated with roadway and agricultural maintenance activities.
least Bell's vireo *Vireo bellii pusillus*	Summer resident of southern California. Occurs in low riparian areas in the vicinity of water or in dry river bottoms below 2000 feet. Nests along the margins of bushes or twigs of willow, Baccharis or mesquite.	MBTA,FE/SE/SSC	**Suitable Conditions Absent/No Potential to Occur:** The PIA does not support riparian habitat or sources of water suitable for this species. Occurrence within the PIA is not likely due to absence of suitable habitat and existing level of disturbance associated with roadway and agricultural maintenance activities.
Class Aves Other migratory bird species (nesting)	Non-native grassland, valley oak woodland, central coastal scrub, windrows, landscaping, water tanks, and structures may provide nesting habitat.	MBTA/--/--	**Potential to Occur:** Migratory birds may use the scattered stands of trees or surrounding agricultural fields within the BSA for nesting and foraging. Migratory birds are not expected to nest within the PIA due to lack of suitable habitat and existing levels of disturbance associated with roadway and agricultural maintenance activities.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Mammals			
Nelson's antelope squirrel *Ammospermophilus nelsoni*	Found in Western San Joaquin Valley from 200-1200 ft on dry sparsely vegetated loam soils. Needs widely scattered shrubs, forbes, and grasses in broken terrain with gullies and washes. Dig burrows or use k-rat burrows.	--/ST/SA	**Potential to Occur:** The PIA supports marginally suitable foraging habitat for this species within ruderal and agricultural land; however, this species is not expected to occur within the PIA due to the existing level of disturbance associated with ongoing roadway and agricultural maintenance activities. However, due to the presence of marginally suitable foraging and burrowing habitat on adjacent agricultural properties outside of the PIA, there is a potential that this species may enter the PIA.
giant kangaroo rat *Dipodomys ingens*	Occur in gently sloping and level piedmont plains and formerly areas supporting saltbrush and perennial grasses. Habitat is dominated by introduced annuals, with many shrubs in some areas. Prefers areas of sparse vegetative cover and well-drained soils and slope generally less than 9%.	FE/SE/SA	**Potential to Occur:** The PIA supports marginally suitable foraging habitat for this species within ruderal and agricultural land; however, this species is not expected to occur within the PIA due to the existing level of disturbance associated with ongoing roadway and agricultural maintenance activities. However, due to the presence of marginally suitable foraging and burrowing habitat on adjacent agricultural properties outside of the PIA, there is a potential that this species may enter the PIA.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
short-nosed kangaroo rat *Dipodomys nitratoides brevinasus*	Habitat includes friable sandy or silty soils in areas with no to moderate shrub cover and scattered herbaceous plants: sparsely vegetated alkali sink communities where soils are generally sandy or silty; valley grassland; saltbush and sink scrub. The species does not tolerate irrigation or cultivation but may reinvade fields no longer under cultivation.	--/--/SSC	**Potential to Occur:** The PIA supports marginally suitable foraging habitat for this species within ruderal and agricultural land; however, this species is not expected to occur within the PIA due to the existing level of disturbance associated with ongoing roadway and agricultural maintenance activities. However, due to the presence of marginally suitable foraging and burrowing habitat on adjacent agricultural properties outside of the PIA, there is a potential that this species may enter the PIA.
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	Occurs in saltbush scrub and sink scrub communities in the Tulare Lake basin of the southern San Joaquin Valley. Also occurs in terrace grasslands lacking woody shrubs. Needs soft friable soils that escape seasonal flooding. Digs burrows in elevated soil mounds at bases of shrubs.	FE/SE/SA	**Suitable Conditions Absent/No Potential to Occur:** No suitable habitat is present within the PIA. The project is located outside the documented range of this species. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
Western mastiff bat *Eumops perotis californicus*	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	--/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** The BSA does not support conifer or deciduous woodlands, coastal scrub, grasslands, or chaparral habitats. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
Tulare grasshopper mouse *Onychomys torridus tularensis*	Habitats include: compact soils with a sparse growth of perennial grasses; blue oak savanna (where rare); desert scrub associations composed of grasses and shrubs; valley sink and saltbush scrub communities dominated by one or more shrubs; Coast Range saltbush scrub; Great Valley mesquite scrub on the valley floor; and valley grassland (Williams and Kilburn 1984).	--/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** No suitable habitat is present within the PIA or the BSA. The PIA is devoid of vegetation and the BSA is disturbed and does not support habitat suitable for this species. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
San Joaquin pocket mouse *Perognathus inornatus*	Occurs in dry, open grasslands or scrub areas on fine-textured soils between 350 and 600 m (1100 and 2000 ft) in the Central and Salinas valleys.	--/--/SA	**Potential to Occur:** The PIA supports marginally suitable foraging habitat for this species within ruderal and agricultural land; however, this species is not expected to occur within the PIA due to the existing level of disturbance associated with ongoing roadway and agricultural maintenance activities. However, due to the presence of marginally suitable foraging and burrowing habitat on adjacent agricultural properties outside of the PIA, there is a potential that this species may enter the PIA.
Buena Vista Lake ornate shrew *Sorex ornatus relictus*	Occurs in marshlands and riparian areas in the Tulare Basin. Uses stumps and logs for cover.	FE/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** The BSA is outside of the known range of this species and does not support marshland or riparian areas required for this species. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.
American badger *Taxidea taxus*	Occurs in open stages of shrub, forest, and herbaceous habitats; needs uncultivated ground with friable soils.	--/--/SSC	**Suitable Conditions Absent/No Potential to Occur:** The BSA does not support shrub, forest, or herbaceous habitats required for this species. Due to the lack of habitat and existing level of disturbance, this species is not expected to occur in the PIA.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
San Joaquin kit fox *Vulpes macrotis mutica*	Inhabits annual grasslands or grassy open stages with scattered shrubby vegetation; needs loose-textured sandy soils for burrowing, and suitable prey base.	FE/ST/SA	**Potential to Occur:** The PIA supports marginally suitable foraging habitat for this species within ruderal and agricultural land; however, this species is not expected to occur within the PIA due to the existing level of disturbance associated with ongoing roadway and agricultural maintenance activities. However, due to the presence of marginally suitable foraging and burrowing habitat on adjacent agricultural properties outside of the PIA, there is a potential that this species may enter the PIA.

General references: Unless otherwise noted all habitat and distribution data provided by California Natural Diversity Database

Status Codes
--= No status

Federal:
FE = Federal Endangered
FT= Federal Threatened
FC= Federal Candidate
FDL=Federal Delisted
CH= Federal Critical Habitat
PCH= Proposed Federal Critical Habitat
MBTA= Protected by Federal Migratory Bird Treaty Act

State:
SE= State Endangered
ST= State Threatened
WL=Waitlisted

California Department of Fish and Game:
SSC= California Special Concern Species
FP= Fully Protected Species
SA= Not formally listed but included in CDFW "Special Animal" List (CNDDB and CDFW 2015).

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ARCHAEOLOGICAL SURVEY REPORT

FOR THE

SOUTH SHAFTER SEWER PROJECT

KERN COUNTY PUBLIC WORKS DEPARTMENT

Prepared by _____
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USGS 7.5-minute Topographic Quadrangle
Rio Bravo, California
6.53 Linear miles
December 2015

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Exhibits

Figure 1: Study Vicinity Map
Figure 2: Location of APE Map (USGS 7.5' Oil Center)
Figures 3-7: Area of Potential Effects Maps (Sheets 1-5)

Appendix A

Native American Consultation and Correspondence

1.0 Summary of Findings

At the request of the Kern County Public Works Department, Compass Rose Archaeological, Inc. has conducted a Phase I archaeological survey, in accordance with Section 106 of the National Historic Preservation Act (1966, as amended), 36 CFR Part 800, and the California Environmental Quality Act (CEQA), of an approximately 6.53-mile (34,500 linear feet) long alignment in the South Shafter area of Kern County, California (Figure 1: Project Vicinity Map). The project Area of Potential Effects (APE), follows the courses of Shafter Avenue, Poplar Avenue, Beech Avenue, Myrik Lane, Riverside Street, Orange Street, Burbank Street and intersecting roads and alleys that included Ratzlaffe Lane, Thomas Lane, Eliot Street, Richland Avenue, Gossiper Lane, Smith Lane, and Alfalfa Lane, all in the unincorporated community of South Shafter (Figure 2: Location of APE; and Figures 3-7: APE Maps, Sheets 1-5). The proposed undertaking by Kern County Public Works Department will entail the installation of 34,500 linear feet of sewer trunk line (consisting of 4-, 8-, and 12-inch PVC pipes) and up to five sewer lift stations within existing road rights-of-way and water line easements. This study included a project specific review of cultural resource archives, and a surface survey of the APE.

Based on the records search, there are no previously recorded cultural resources within the APE, and no evidence of any cultural resources, either prehistoric or historic, was encountered during the surface survey of the APE. There were no constraints to the survey effort.

If buried cultural materials are encountered during construction, the contractor should stop work in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the project changes to include areas not previously surveyed. Further, if human remains are unearthed during excavation, State Health and Safety Code Section 7050.5 states that "…no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and distribution pursuant to Public Resource Code Section 5097.98."

2.0 Introduction

Compass Rose archaeologist, James J. Schmidt, who has a B.A. degree in Anthropology and 30 years of professional archaeological experience in California, conducted the survey of the APE on November 20 and 23, 2015. The South Shafter Sewer Project APE (existing right-of-way to existing right-of-way) passes through areas of residential development and agricultural lands (Figure 1: Study Vicinity Map), and follows an approximately 6.53-mile long (34,500 feet) corridor that follows Shafter Avenue, Poplar Avenue, Beech Avenue, Myrik Lane, Riverside Street, Orange Street, Burbank Street and intersecting roads and alleys that included Ratzlaffe Lane, Thomas Lane, Eliot Street, Richland Avenue, Gossiper Lane, Smith Lane, and Alfalfa Lane (Figure 2). The width of the APE was generally maintained at 5 meters (16.4 feet), as measured from the edge of the pavement along both sides of the existing roadways (Figures 3-7).

3.0 Project Location and Description

The proposed project is located in the unincorporated area of South Shafter in Kern County, California, along an approximately 6.53-mile long corridor that follows the courses of Shafter Avenue, Poplar Avenue, Beech Avenue, Myrik Lane, Riverside Street, Orange Street, Burbank Street and intersecting roads and alleys that included Ratzlaffe Lane, Thomas Lane, Eliot Street, Richland Avenue, Gossiper Lane, Smith Lane, and Alfalfa Lane. The surrounding area is dominated by residential development and agricultural lands.

The APE passes through or along portions of Sections16, 17, 20, 21, 22, 26, 27, and 28 of Township 28 South (R25E), as depicted on the USGS 7.5' Rio Bravo Quadrangle (Figure 2). Kern County Public Works Department proposes installation of 34,500 linear feet of sewer trunk line (consisting of 4-, 8-, and 12-inch PVC pipes) and up to five sewer lift stations within existing road rights-of-way and water line easements (Sheets1-5). This project will not require new right-of-way.

4.0 Regulatory Requirements

4.1 National Register Significance Criteria (36 CFR 60.4)

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
b. that are associated with the lives of persons significant in our past; or
c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d. that have yielded, or may be likely to yield, information important in prehistory or history.

4.2 Traditional Cultural Properties

Bulletin 38 "*Guidelines for Evaluating and Documenting Traditional Cultural Properties*" (n.d.:1) states that a traditional cultural property may exist if it represents:

- *a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;*
- *a rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long term residents;*
- *an urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;*

- *a location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and*
- *a location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historical identity.*

As further defined in Bulletin 38 (n.d.:1):

> *A traditional cultural property, then, can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in the community's history, and (b) are important in maintaining the continuing cultural identity of the community.*

4.3 Integrity

Site integrity depends upon the survival of historic or prehistoric materials that exist today as they were crafted or combined into a district, site, building, structure, or object in the past, or as they were deposited in a site. As stated in Bulletin 15 "*How to Apply National Register Criteria for Evaluation*" (n.d.:45):

> *Integrity is based on significance: why, where, and when a property is important. Only after significance is fully established can you proceed to the issue of integrity. Ultimately, the question of integrity is answered by whether or not the property retains the identity for which it is significant.*

Bulletin 15 outlines seven aspects of integrity, as follows:

- Location
- Design
- Setting
- Materials
- Workmanship
- Feeling
- Association

4.4 Area of Potential Effects (APE)

In accordance with 36 CFR Part 800, the APE is defined as the *geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist*. For the purpose of this investigation, the APE was confined to the archaeological direct impact area (ADI) for the proposed sewer trunk line and attendant structures.

4.5 California Environmental Quality Act (CEQA)

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) consisting of the following criteria:

1) *It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or*
2) *It is associated with the lives of persons important to local, California, or National History; or*
3) *It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or*
4) *It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.*

5.0 Sources Consulted

5.1 Records Search

The records search was conducted by June Schmidt, for Compass Rose, on November 12, 2015, at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. In addition to known and recorded archaeological and historic sites, and inventory and excavation reports on file within a 0.5-mile radius of the APE, the following sources were consulted:

The National Register of Historic Places (1979-2002 & supplements).
The California Inventory of Historical Resources (1976).
California Historical Landmarks (1995 & supplemental information).
California Points of Historical Interest (1992 & supplemental information).
California Register of Historical Resources (1992 & supplemental information).

Based on the records search, six cultural resource investigations have been conducted (Hudlow 2003a; Jackson 1993; Osborne 1991; Schiffman 1980 and 1993; Schuster 1986), and one cultural resource location has been recorded within a 0.5-mile radius of the project APE. One of the investigations (Schiffman 1980) is mapped and described as having directly examined portions of the current project APE. This survey, a block examination, is generally southwest of the intersection of Shafter and Burbank Avenues and examined the west side of Shafter Avenue and the southern side of Burbank Avenue, with negative results for cultural resources in the immediate area.

The single recorded resource in the project study area (P15-012536) is described as an early Twentieth Century residential structure set along Los Angeles Street approximately 0.5 mile west of Shafter Avenue. The resource is depicted on the Information Center maps as well removed from the current project APE and beyond the limits of any project related disturbance.

5.2 Native American Consultation

The Native American Heritage Commission (NAHC), was contacted to conduct a search of the Sacred Lands File for both cultural materials and properties that may exist in the project area (Appendix A). A letter of response was received from the NAHC on January 25, 2016 stating that the search failed to indicate the presence of Native American traditional cultural places in the project "Area of Potential Effect." Kern County then contacted the organizations on the Native American Contact List by letter dated February 29, 2016. To date, only the San Manuel Band of Mission Indians has responded saying that the project lies outside the Tribe's ancestral territory.

6.0 Background

6.1 Environment, Geology and Soils

Kern County covers 8,172 square miles and measures 66 miles from north to south and 130 miles from east to west. The County contains five of California's 13 geomorphic provinces, with the three most prominent being the San Joaquin or Great Interior Valley of California, the southern Sierra Nevada, and the western portion of the Mojave Desert.

The project area is located in Kern County at the southern end of the San Joaquin Valley, and is bound by the Coast Range to the west, the Transverse Range (San Emigdio Mountains) to the south, and the Sierra Nevada (including the Tehachapi Mountains) to the east. Elevation of the project area is between 460 and 520 feet above mean sea level. Prior development activities have altered the current environment and native plants have for the most part been removed as a result.

The climate is characterized by an almost desert-like aridity (Schiffman and Garfinkel 1981:15). The general vicinity of the project area is inhabited by several species of mammals, including the California pocket mouse (*Chaetodipuscalifornicus)*, house mouse (*Mus musculus),* ground squirrel (*Citellusbeecheyi)*, desert cottontail rabbit (*Sylvilagusaudubonii)*, black-tailed hare (*Lepus californicus)*, coyote (*Canislatrans)*, badger *(Taxideataxus)*, western spotted skunk (*Spilogalegracilis)*, striped skunk (*Mephitis mephitis),* brush rabbit (*Sylvilagusbachmani),* gray fox (*Urocyoncinereoargenteus),* and bobcat (*Felisrufus)* (Jamison and Peeters 1988).

This portion of the San Joaquin Valley is a down-warped basin consisting of primarily marine sediments extending to a maximum of 35,000 feet. These sediments range in age from the late Cretaceous (66-114 million years before present) to Recent. The eastern geologic boundary of the Valley is the Sierra Nevada Range, the San Andreas Fault and associate structures bounds the Valley south and west, and the northern boundary is characterized by the subsurface rise called the Stockton Arch (Berry et al. 1996:6).

The southernmost river in Kern County, the Kern River, has deposited an alluvial ridge across the San Joaquin Valley floor. To the north and south of this alluvial ridge lie the Tulare and Buena Vista Basins into which the Kern River discharges. For thousands of years these basins contained freshwater lakes and sloughs which provided a lush marsh habitat for plant and animal life. The

Buena Vista Lake basin, extending some 30 miles east-west, contained the Buena Vista Lake in its western portion and the smaller Kern Lake to the east. These were connected by the Buena Vista slough (Miles and Goudey 1997).

The soils on alluvial fans are well-drained Typic Torriorthents and soils on lake beds are well-drained Torriorthents and Typic Natrargids (Miles and Goudey 1997). Although not of any one soil classification series, the Torriorthents consist of weathered rock outcrop and shallow to deep, residual soils from host rocks on the mountains.
The soils range from a clay loam to a cobbly loamy sand with up to 60 to 70 percent rock and cobbles on slopes of 50 to 75 percent. Permeability ranges from moderately slow to moderately rapid with moderate erosion potential. Natrargids are Argid soils that have a natric horizon within the Aridisol soil classification. Aridisols form in semi-desert or desert areas, where water is only available for plant growth during limited periods.

Under such conditions vegetation is restricted to ephemeral grasses or drought-resistant shrubs, so these soils contain little organic matter. Soluble salts such as calcium carbonate and gypsum often accumulate as distinct horizons, which are sometimes cemented to form hardpans. Argidaridisols have a clay-rich horizon. As clay accumulation is generally produced by leaching, such horizons are thought to be a relic of moister conditions in the past (Rapp and Hill 1998:33-34). Soils within the APE consist of light brown to brown alluvium with very few rock inclusions.

6.2 Ethnography

Southern Valley Yokuts peoples are historically described as occupying the territory surrounding the project area. The Yokuts are linguistically of Penution stock, a family of languages grouped into four primary branches: *Wintuan, Maiduan, Yokutson,* and*Utian* (Shipley 1978:82). *Yokutson* speakers include approximately 40 named groups that have been subdivided into two primary groups — Valley and Foothill Yokuts — on the basis of dialectic diversion, and into three — Northern, Southern Valley, and Foothill Yokuts — according to cultural/geographical divisions (Silverstein 1978:446).

The Yokuts occupied the floor of the San Joaquin Valley, south from the river of that name to the Tehachapi Mountains, as well as the foothills and lower elevations of the Sierra Nevada (Kroeber 1953:475; Silverstein 1978:446). The Southern Valley people claimed the valley floor south from the lower Kings River to the Tehachapis (Wallace 1978:448), and Foothill peoples the western slopes of the Sierra Nevada from the Fresno to the Kern River (Spier 1978:471).

Southern Valley Yokuts tribelets were either organized in single large village settlements or in several smaller settlements grouped together. The availability of abundant food resources enabled the Southern Valley Yokuts to occupy permanent villages most of the year (Kroeber 1970).

The Yokuts inhabited the San Joaquin Valley during the ethnohistoric era and were studied by several ethnographers including Gayton (1948), Kroeber (1970), Latta (1949), and Wallace (1978). The Yokuts were dependent on the network of waterways that fanned over the valley

floor and flowed into three shallow lake basins. A mixed subsistence strategy emphasized the acquisition of fish, waterfowl, shellfish, terrestrial mammals, roots, and seeds. The rivers and sloughs supported numerous fish species, mussels, turtles, and waterfowl. Pronghorn and tule elk browsed on the dry plains, and mule deer came down from the mountains in the winter. Rabbits, hares, ground squirrels, and quail were abundant.

6.3 Prehistory and Archaeology

The following has been adapted from Schiffman and Gold (2005:4-6).

Francis Riddell recently chronicled the status of the archaeology of the San Joaquin Valley (Riddell 2002). He suggested that up to 90 percent of all the archaeological sites - including many of the most significant and important village sites - have been largely destroyed. Nevertheless, a huge body of literature exists covering the prehistory of the southern San Joaquin. Much of that recent material, encompassing hundreds of reports, has not been synthesized and is formally unpublished. This "gray literature" has been completed for compliance with State and Federal historic preservation and environmental laws.

Published literature on the area began with a survey conducted by a University of California expedition in 1899 (Gifford and Schenk 1926). Following this study, important research was completed at Buena Vista Lake by Waldo Wedel for the WPA during the Great Depression of the 1930s (Wedel 1941). That early research was later augmented by the studies of Fredrickson and Grossman (1977) and Hartzell (1992).

Walker revisited a Yokuts cemetery at Buena Vista Lake providing some general material (Walker and Woodward 1947). Riddell (1951) gleaned information from private collections and reported on his studies. Riddell and Olson (1969) highlighted the voluminous Paleo-Indian remains located at Tulare Lake. Moratto (1984) surveys and reviews a number of studies of historic and proto-historic cemeteries for the area.

In 1965 William Wallace and Francis Riddell created an informal consortium of researchers known as the Tulare Lake Archaeological Research Group which spawned a newsletter and two monographs (Wallace and Riddell 1991, 1993). Over the last few decades California State University, Bakersfield, Bakersfield Community College, and the Kern County Archaeological Society have sponsored a variety of archaeological and historical studies in the area. Notably all three organizations have produced publication series disseminating the results of their efforts (i.e. Dieckman 1977; Estep 1993; Fenenga 1994; Schiffman and Garfinkel 1981; Siefkin et al. 1996; and many others).

The archaeological sites and materials identified over the years can be subsumed into the traditional tripartite cultural sequence developed early on for the Central Valley (Lillard et al. 1939). This sequence was revised through subsequent detailed seriation of burial lots and grave offerings (Bennyhoff and Hughes 1987). The chronology has undergone several significant revisions and recently changes have been offered for the cultural sequence based on AMS radiocarbon dates directly dating the shell beads themselves (Groza 2002). The prehistoric sequence spans a period of some 5000 to 7000 years. Prior to this time archaeological materials

associated with Late Pleistocene and Early Holocene deposits occur around the lakeshores of Buena Vista (CA-KER-116) and Tulare Lakes (Fredrickson and Grossman 1977; Hartzell 1992).

As detailed in Moratto (1984:113, 181-193), most archeological researchers would agree that the prehistoric remains identified in the southern San Joaquin Valley might be subsumed under the following generalized, regional cultural sequence.

Paleo-Indian Period (13,500-8,000 B.P.)

There is ample evidence of human use of the southern San Joaquin Valley dating to the late Pleistocene and early Holocene eras. Most of these materials have been recognized at the Witt Site and associated localities on the ancient shorelines of Tulare Lake with a minor expression also corresponding with the deeply buried component at Buena Vista Lake (Buena Vista Lake IV). This material includes Clovis-like, fluted points, concave base darts or thrusting spears, crescents and early Stemmed Series projectiles (cf. Lake Mojave and Silver Lake forms).

Early Horizon (8,000-4,000 B.P.)

Mortars, pestles and millingstones are uncommon during this interval. Most frequent are artifacts of baked clay, Olivella and Haliotis shell beads and ornaments, charmstones and heavy-stemmed dart points. Prehistoric materials from sites in the vicinity of Buena Vista and Tulare Lakes areas apparently date to this period. Burials are mostly recognized in extended, supine or prone positions with few to no associated mortuary artifacts (Warren and McKusick 1959).

Middle Horizon (4,000-1,500 B.P.)

A diversified subsistence base with increased emphasis on plant procurement along with hunting, fishing and fowling is recognized during this era. Cultural materials include temporally diagnostic forms of beads and ornaments manufactured from Haliotis and Olivella shells. Spindle-shaped charmstones, cobble mortars, chisel-ended pestles and heavy dart points are identified. An extensive inventory of bone tools including awls, fish spears, saws and flakers are also diagnostic of this period. Preferred burial positions shift to supine semi-flexed and mortuary artifacts are present but limited in number.

Late Horizon (1,500 B.P. – Historic)

Intensification of plant procurement and a decrease in hunting marks this most recent cultural period. Stone beads and cylinders, clamshell disks, tubular smoking pipes, arrow-shaft straighteners, flat-bottomed mortars, cylindrical pestles, and small side-notched arrow points mark the cultural inventory of typical archaeological sites from this period. Burial posture is tightly flexed on the side or supine with a moderate amount of mortuary accoutrements. In the protohistoric and historic era sites contain Euroamerican trade items (glass beads, brass buttons, etc.).

6.4 History

In 1772, a band of Spanish soldiers led by Pedro Fages ventured through Tejon Pass into the San Joaquin Valley. Over the next 50 years, Spanish expeditions came into the southern valley looking for suitable mission sites, chasing escaped mission Indians, and recovering stolen horses. Similar expeditions continued during the Mexican Period [1822-1846] (Preston 1981).

California became a territory of the United States in 1848, with the signing of the Treaty of Guadalupe-Hildalgo. The discovery of gold on the North Fork of the American River at Sutter's Mill had a profound effect upon the development of the upper San Joaquin Valley. As the placer played out in the northern mines, gold was discovered on the upper Kern River resulting in an influx of miners from both the northern and southern parts of the state. Many who failed to make their fortune in the gold fields became entrepreneurs, providing goods and services for miners (Preston 1981:75).

In 1864, oil began to influence the Southern San Joaquin Valley when several thousand barrels of crude oil were shipped from the Buena Vista Lake area to San Francisco (Burmeister 1977). Large quantities of oil were also discovered in 1899 at Gordon's Ferry, located on the Kern River (the Kern River Oil Field). The discovery of oil brought a new level of prosperity to the Bakersfield area and surrounding communities. Another period of intense activity occurred when vast deposits of petroleum and natural gas were discovered in and around Elk Hills and Buena Vista Hills during the early 1900s.

On April 2, 1866, Kern County was carved from portions of Los Angeles and Tulare counties. The county's name was derived from a topographer named Edward M. Kern, who was on General John Fremont's third expedition that ventured through the Sierra Nevada (Preston 1981).

The City of Shafter has at its roots the completion of the rail line between Fresno and Bakersfield, in 1898, by the San Francisco & San Joaquin Valley Railroad and the construction by the Kern County Land Company of cattle pens and a loading platform next to the tracks (Burmeister 1977). The city was originally founded, in 1912, as a potential agricultural colony, by the Kern County Land Company and named after General William Shafter, a Spanish-American War veteran who was a friend of the land company president Henry Jastro (Brewer 2001; Burmeister 1977). The city was incorporated in 1938 and became a charter city in 1995 (Brewer 2001).

7.0 Field Methods

The surface survey of the South Shafter Sewer Project APE (Figures 3-7) was conducted on November 20 and 23, 2015. The approximately 6.53-mile long area examined consisted of the exposed shoulder and immediately adjacent areas along both sides of the paved or graded surfaces of Shafter Avenue, Poplar Avenue, Beech Avenue, Myrik Lane, Riverside Street, Orange Street, Burbank Street and intersecting roads and alleys that included Ratzlaffe Lane, Thomas Lane, Eliot Street, Richland Avenue, Gossiper Lane, Smith Lane, and Alfalfa Lane (Figures 3-7). The surrounding area consists of mixed agricultural lands and residential development.

The width of the APE examined was generally maintained at approximately 5 meters (16.4 feet) along both sides of the road shoulders, where the surveyor completed systematic zig-zag transects. Much of the project area consisted of residential properties where graveled approaches obscured surface visibility. Open ground surface generally occurred along road shoulders bordering active orchards. Most vegetation in these areas had been removed and where present consisted primarily of introduced grasses and forbs.

8.0 Study Findings

No cultural resources or potential historic properties were observed, during the surface survey of the APE, and no cultural resources or potential historic properties have been previously identified within or adjacent to the APE. Based on the results of this investigation, the proposed undertaking will not affect any potential historic properties in accordance with 36 CFR Part 800, and therefore, no additional studies are recommended at this time.

However, in the event that cultural resources are encountered during any future earth disturbing activities, all work must halt at that location until the resources can be properly evaluated by a qualified archaeologist. Further, if human remains are unearthed during excavation, State Health and Safety Code Section 7050.5 states that "…no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and distribution pursuant to Public Resources Code Section 5097.98."

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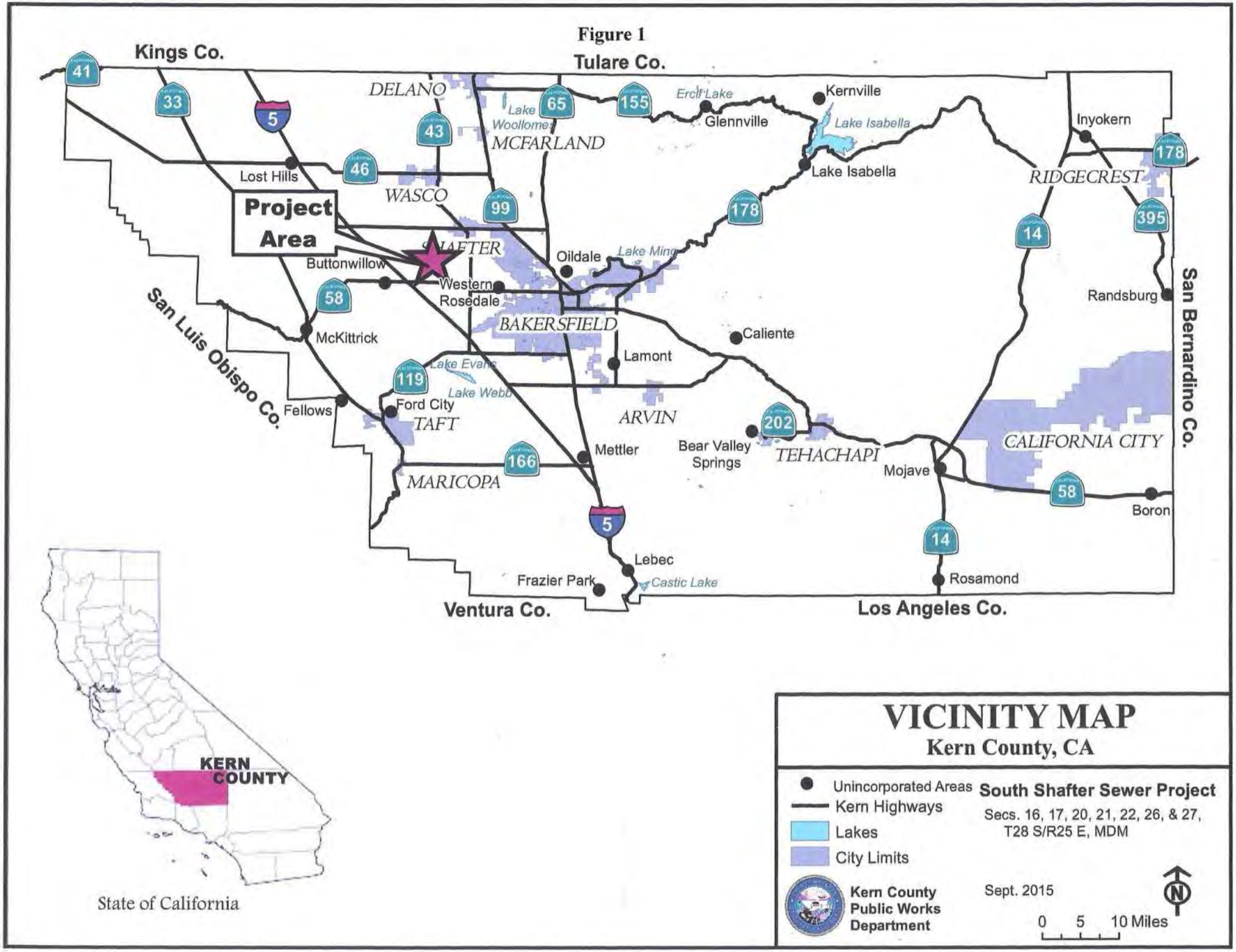
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Exhibits

Figure 1: Study Vicinity Map
Figure 2: Location of APE Map (USGS 7.5' Rio Bravo)
Figures 3-7: Area of Potential Effects Maps (Sheets 1-5)

Figure 1



VICINITY MAP

Kern County, CA

Unincorporated Areas
Kern Highways
Lakes
City Limits

South Shafter Sewer Project

Secs. 16, 17, 20, 21, 22, 26, & 27,
T28 S/R25 E, MDM

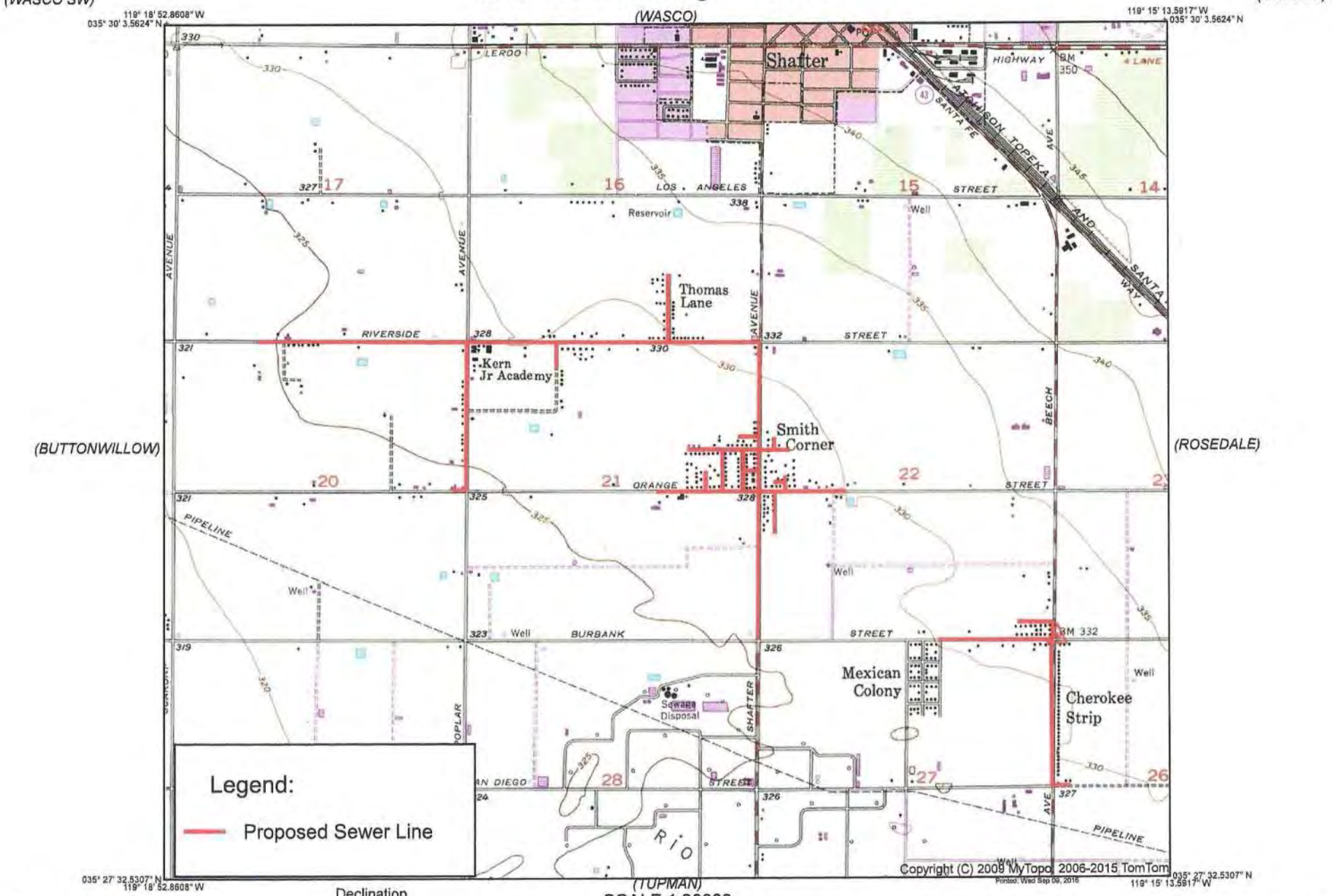
Kern County Public Works Department

Sept. 2015

0 5 10 Miles

Figure 2

Rio Bravo Quadrangle - USGS



Kern County
Public Works
Department

South Shafter Sewer Project

Secs. 16, 17, 20, 21, 22, 26, & 27,
T28S/R25E, MDM

Sept. 2015

Figure 3



\\dsafile01\Vol1_Roads\Workgrps\DESIGN\Environmental\GIS\PDFs\S Shafter Sewer\AutoCAD APE\S Shafter APEb.dwg

Figure 4



AERIAL: 2014

NORTH

LEGEND

Archaeological Area of Potential Effects

Section Line

200' 0 200'

Graphic Scale In Feet

District 6 Local Assistance Engineer

District 6 Archaeologist

Date

COUNTY OF KERN

PUBLIC WORKS DEPARTMENT

BAKERSFIELD, CALIFORNIA

Area of Potential Effects Map

SOUTH SHAFTER WASTEWATER STUDY

SHEET NO. 2 OF 5

\\dsafile01\Vol1_Roads\Workgrps\DESIGN\Environmental\GIS\PDFs\S Shafter Sewer\AutoCAD APE\S Shafter APEb.dwg

Figure 5



\\dsafile01\Vol1_Roads\Workgrps\DESIGN\Environmental\GIS\PDFs\S Shafter Sewer\AutoCAD APE\S Shafter APEb.dwg

Figure 6



\\dsafile01\Vol1_Roads\Workgrps\DESIGN\Environmental\GIS\PDFs\S Shafter Sewer\AutoCAD APE\S Shafter APEb.dwg

Figure 7



\\dsafile01\Vol1_Roads\Workgrps\DESIGN\Environmental\GIS\PDFs\S Shafter Sewer\AutoCAD APE\S Shafter APEb.dwg

Appendix A
Native American Consultation and Correspondence

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95501
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: South Shafter Sewer Project

County: Kern

USGS Quadrangle

Name: Rio Bravo

Township: 28 S Range: 25 E Section(s): 16, 17, 20, 21, 22, 26, & 27

Company/Firm/Agency:
Public Works Department

Contact Person: Michael Hollier

Street Address: 2700 'M' St., Ste. 400

City: Bakersfield Zip: 93301

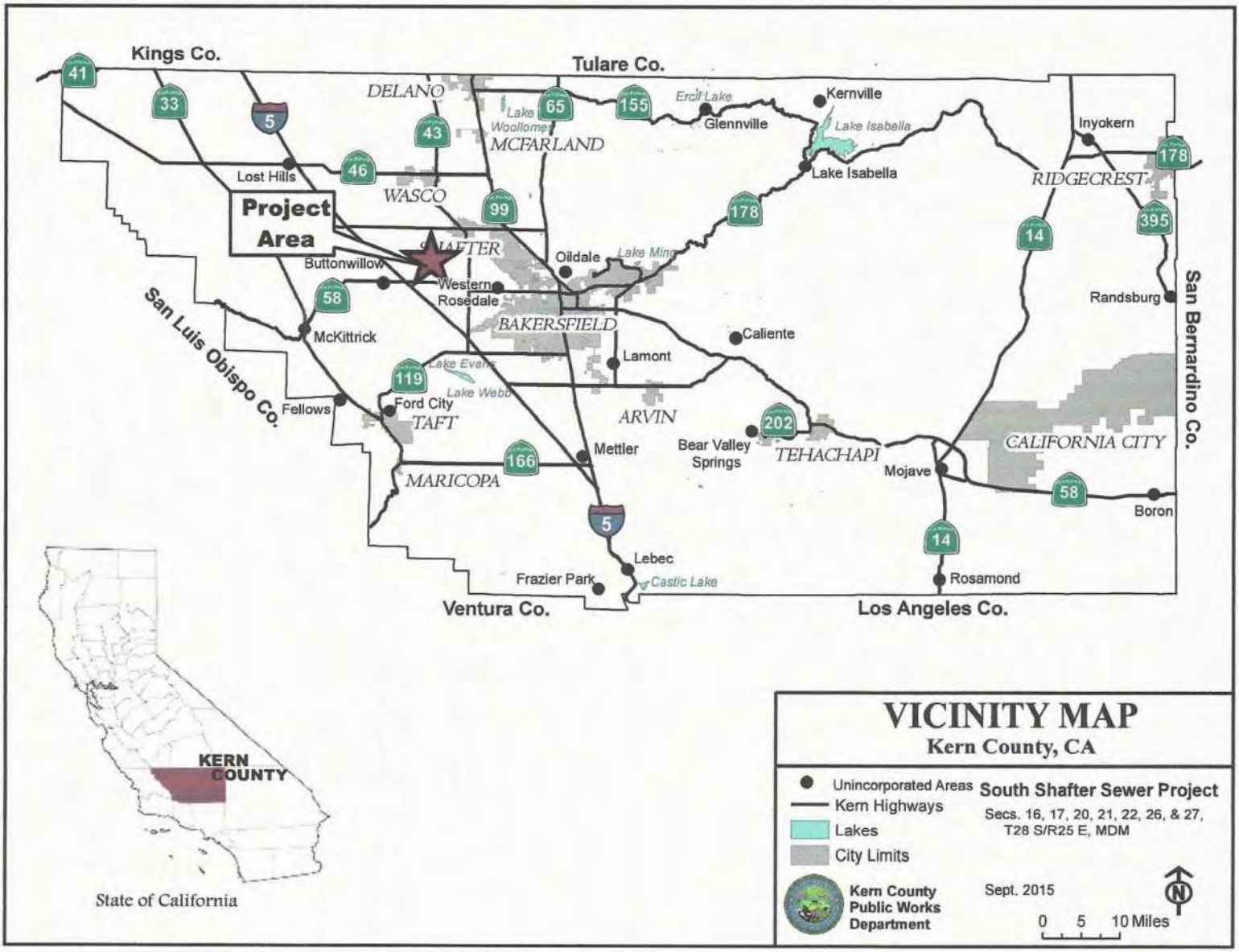
Phone: (661) 862-5027 Extension: N/A

Fax: (661) 862-8851

Email: holliermi@co.kern.ca.us

Project Description:
The proposed project is construction of 34,500 linear ft. of sewer lines along Shafter Av., Poplar Av., Beech Av., Myrick Ln., Riverside St., Orange St., and Burbank St., all in the unincorporated community of S. Shafter. Construction activities would involve street demolition, trenching down to 12 ft., installation of PVC pipes and 5 lift stations, soil compaction, and asphalt paving within existing road rights-of-way and water line easements. All staging areas, access and construction will be limited to existing easements.

☑ Project Location Map is attached



VICINITY MAP

Kern County, CA

- Unincorporated Areas
- Kern Highways
- Lakes
- City Limits

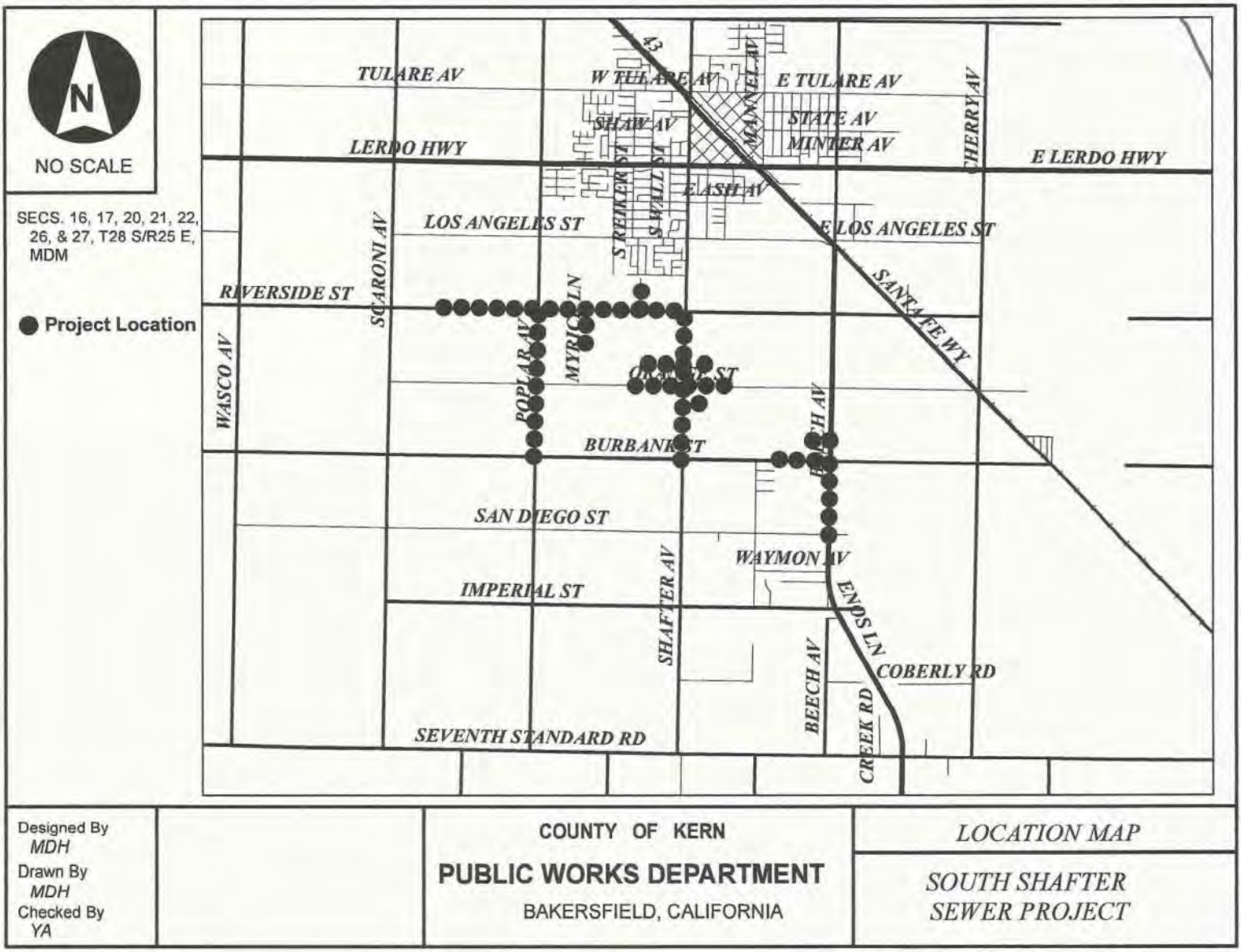
South Shafter Sewer Project

Secs. 16, 17, 20, 21, 22, 26, & 27, T28 S/R25 E, MDM

Kern County Public Works Department

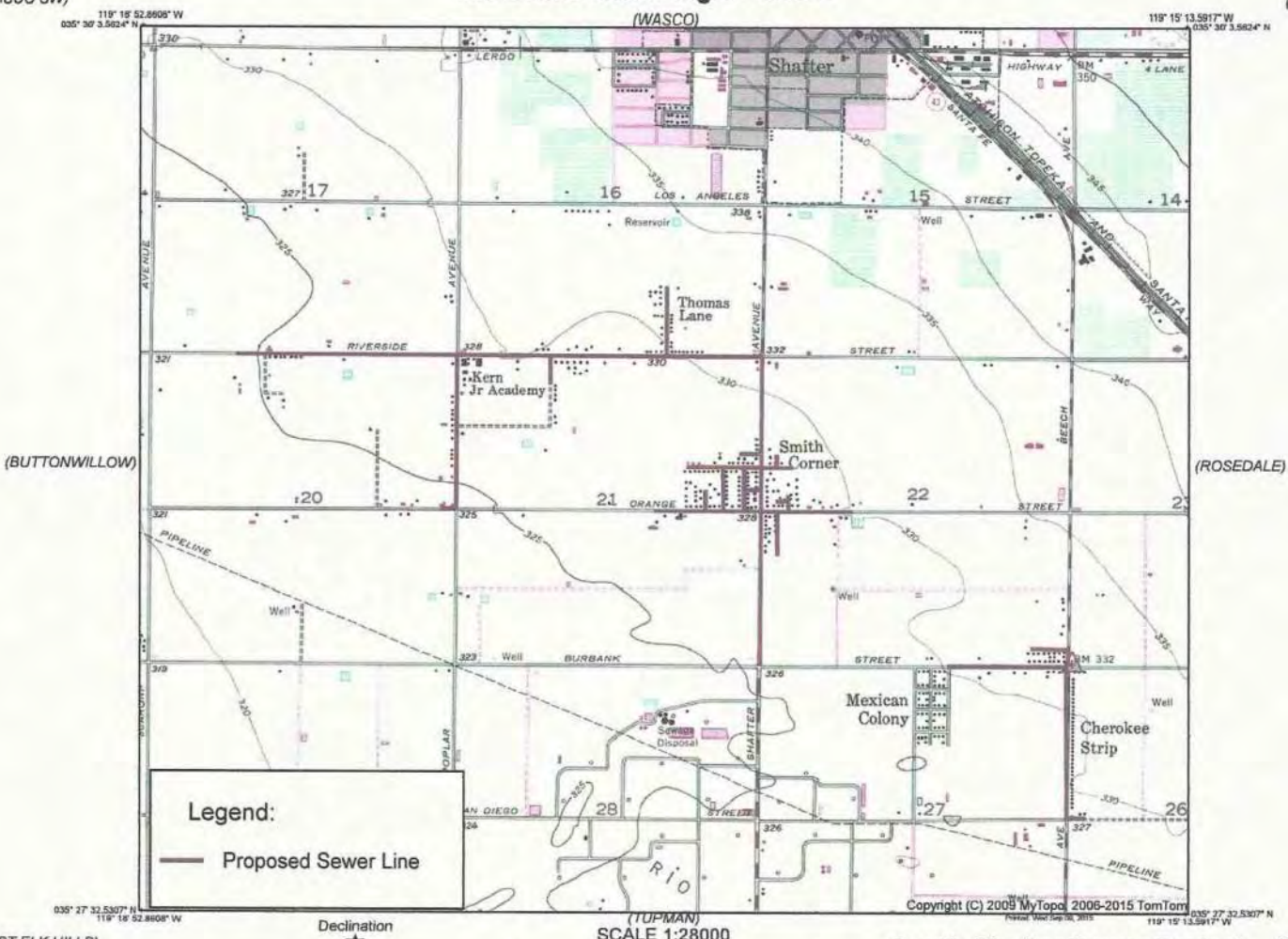
Sept. 2015

0 5 10 Miles



Designed By MDH Drawn By MDH Checked By YA		COUNTY OF KERN **PUBLIC WORKS DEPARTMENT** BAKERSFIELD, CALIFORNIA	*LOCATION MAP* *SOUTH SHAFTER SEWER PROJECT*

Rio Bravo Quadrangle - USGS



SCALE 1:28000

Declination
GN
GN 1.32° W
MN 12.75° E

0 1 MILE
0 1000 2000 YARDS

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM 1929

Kern County
Public Works
Department

South Shafter Sewer Project

Secs. 16, 17, 20, 21, 22, 26, & 27,
T28S/R25E, MDM

Sept. 2015

STATE OF CALIFORNIA Edmund G. Brown, Jr., *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

January 25, 2016

Michael Hollier
Public Works Department
2700 M Street, Suite 400
Bakersfield, CA 93301

Email to: holliermi@co.kern.ca.us

Re: South Shafter Sewer Project

Dear Mr. Hollier,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

Joshua Standing Horse
Associate Governmental Program Analyst

Native American Contact List
Kern County
January 25, 2016

Chumash Council of Bakersfield
Juanita Lomas
PO Box 902 — Chumash
Bakersfield , CA 93302
(805) 837-2133

Kern Valley Indian Council
Robert Robinson, Co-Chairperson
P.O. Box 401 — Tubatulabal
Weldon , CA 93283 — Kawaiisu
brobinson@iwvisp.com — Koso
(760) 378-4575 Home — Yokuts
(760) 549-2131 Work

Chumash Council of Bakersfield
Arianne Garcia, Chairperson
P.O. Box 902 — Chumash
Bakersfield , CA 93302
chumashtribe@sbcglobal.net
(661) 836-0486
(661) 836-0487

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street — Yowlumne
Bakersfield , CA 93305 — Kitanemuk
deedominguez@juno.com
(626) 339-6785

Kern Valley Indian Council
Julie Turner, Secretary
P.O. Box 1010 — Southern Paiute
Lake Isabella, CA 93240 — Kawaiisu
(661) 366-0497 — Tubatulabal
(661) 340-0032 Cell — Koso
Yokuts

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 — Fernandeño
Newhall , CA 91322 — Tataviam
tsen2u@hotmail.com — Serrano
Vanyume
(760) 885-0955 Cell — Kitanemuk

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed South Shafter Sewer Project, Kern County.

Native American Contact List
Kern County
January 25, 2016

San Manuel Band of Mission Indians
Daniel McCarthy, M.S., Director-CRM Dept.
26569 Community Center Drive — Serrano
Highland , CA 92346
dmccarthy@sanmanuel-nsn.gov
(909) 864-8933 Ext 3248

(909) 862-5152 Fax

Tejon Indian Tribe
Katherine Montes Morgan, Chairperson
1731 Hasti-acres Drive, Suite — Yowlumne
Bakersfield , CA 93309 — Kitanemuk
kmorgan@tejontribe.net — Kawaiisu
(661) 834-8566

(661) 834-8564 Fax

Santa Rosa Rancheria Tachi Yokut Tribe
Lalo Franco, Cultural Coordinator
P.O. Box 8 — Tachi
Lemoore , CA 93245 — Tache
(559) 924-1278 Ext. 5 — Yokut

(559) 924-3583 Fax

Tubatulabals of Kern Valley
Robert L. Gomez, Jr., Tribal Chairperson
P.O. Box 226 — Tubatulabal
Lake Isabella, CA 93240
(760) 379-4590

(760) 379-4592 Fax

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P.O. Box 8 — Tache
Lemoore , CA 93245 — Tachi
(559) 924-1278 — Yokut

(559) 924-3583 Fax

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokuts
Porterville , CA 93258
chairman@tulerivertribe-nsn.gov
(559) 781-4271

(559) 781-4610 Fax

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Native American Contact List
Kern County
January 25, 2016

Tule River Indian Tribe
Kerri Vera, Environmental Department
P.O. Box 589 Yokuts
Porterville , CA 93258
(559) 783-8892

(559) 783-8932 Fax

Tule River Indian Tribe
Joey Garfield, Tribal Archeological
P.O. Box 589 Yokuts
Porterville , CA 93258
(559) 783-8892

(559) 783-8932 Fax

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. Foothill Yokuts
Salinas , CA 93906 Mono
kwood8934@aol.com Wuksache
(831) 443-9702

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed South Shafter Sewer Project, Kern County.

KERN COUNTY
PUBLIC WORKS DEPARTMENT
CRAIG M. POPE, P.E., DIRECTOR

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

ADMINISTRATION & ACCOUNTING
OPERATIONS & MAINTENANCE
BUILDING & DEVELOPMENT
ENGINEERING

Phone: (661) 862-8850
FAX: (661) 862-8905
Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

Ref: 4-0.0 S. Shafter Sewer (19608486)
Environmental Files

February 29, 2015

Chumash Council of Bakersfield
ATTN: Juanita Lomas
P.O. Box 902
Bakersfield, CA 93302

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

Dear Ladies and Gentlemen,

The Kern County Public Works Department is conducting an environmental review in accordance with the National Environmental Policy Act and California Environmental Quality Act. Federal and State funds are proposed to install 34,500 feet of sewer trunk lines along Shafter Avenue, Poplar Avenue, Beech Avenue, Myrick Lane, Riverside Street, Orange Street, and Burbank Street., all in the unincorporated community of South Shafter (see attached maps). Construction activities would involve street demolition, trenching down to 12 feet, installation of PVC pipes and up to five lift stations, soil compaction, and asphalt paving within existing road rights-of-way and utility easements. This consultation is to ensure that the appropriate Native American tribes are consulted to determine if the proposed project has the potential to impact any archaeological places of religious or cultural significance.

Attached is the Native American Heritage Commission (NAHC) Sacred Lands Inventory search which did not identify any Native American traditional cultural places near the project site's Area of Potential Effect (APE). NAHC also identified your tribe as having specific knowledge of cultural places and sacred sites within or near the APE. If any archaeological places of religious or cultural significance are known to be within the APE and should be further evaluated, please contact me as soon as possible.

Your response will ensure that avoidance measures or appropriate mitigation can be implemented as part of the project. At this time, surface disturbance is limited to on-foot examinations of the project area and existing use by the general public. Construction of the project is anticipated to start in the spring of 2016. Should cultural resources be unearthed, County policy calls for all work to halt until a qualified archaeologist can be contacted to evaluate the nature and significance of the discovery.

Please provide your written response within 21 days of the date of this letter or this office will assume that you have no comments. No further solicitation for resource location will be made. If you require additional information to respond to this request, I can be reached at (661) 862-5027 or you may submit your comments by email to: holliermi@co.kern.ca.us. Thank you for your cooperation and assistance.

Sincerely,

Michael D. Hollier
Planner III

Enclosures: maps (3 pages)

KERN COUNTY
PUBLIC WORKS DEPARTMENT
CRAIG M. POPE, P.E., DIRECTOR

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

ADMINISTRATION & ACCOUNTING
OPERATIONS & MAINTENANCE
BUILDING & DEVELOPMENT
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Environmental Files

February 29, 2015

Chumash Council of Bakersfield
ATTN: Arianne Garcia, Chairperson
P.O. Box 902
Bakersfield, CA 93302

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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Michael D. Hollier
Planner III

Enclosures: maps (3 pages)

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CRAIG M. POPE, P.E., DIRECTOR

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

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Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

Ref: 4-0.0 S. Shafter Sewer (19608486)
Environmental Files

February 29, 2015

Kern Valley Indian Council
ATTN: Julie Turner, Secretary
P.O. Box 1010
Lake Isabella, CA 93240

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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CRAIG M. POPE, P.E., DIRECTOR

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BAKERSFIELD, CA 93301-2370

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February 29, 2015

Kern Valley Indian Council
ATTN: Robert Robinson, Co-Chairperson
P.O. Box 401
Weldon, CA 93283

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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Planner III

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KERN COUNTY
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CRAIG M. POPE, P.E., DIRECTOR

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

ADMINISTRATION & ACCOUNTING
OPERATIONS & MAINTENANCE
BUILDING & DEVELOPMENT
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FAX: (661) 862-8905
Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

Ref: 4-0.0 S. Shafter Sewer (19608486)
Environmental Files

February 29, 2015

Kitanemuk and Yowlumne Tejon Indians
ATTN: Delia Dominguez, Co-Chairperson
115 Radio Street
Bakersfield, CA 93305

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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Michael D. Hollier
Planner III

Enclosures: maps (5 pages)

KERN COUNTY
PUBLIC WORKS DEPARTMENT
CRAIG M. POPE, P.E., DIRECTOR

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

ADMINISTRATION & ACCOUNTING
OPERATIONS & MAINTENANCE
BUILDING & DEVELOPMENT
ENGINEERING

Phone: (661) 862-8850
FAX: (661) 862-8905
Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

Ref: 4-0.0 S. Shafter Sewer (19608486)
Environmental Files

February 29, 2015

San Fernando Band of Mission Indians
ATTN: John Valenzuela, Chairperson
P.O. Box 221838
Newhall, CA 91322

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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Michael D. Hollier
Planner III

Enclosures: maps (5 pages)

KERN COUNTY
PUBLIC WORKS DEPARTMENT
CRAIG M. POPE, P.E., DIRECTOR

ADMINISTRATION & ACCOUNTING
OPERATIONS & MAINTENANCE
BUILDING & DEVELOPMENT
ENGINEERING

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

Phone: (661) 862-8850
FAX: (661) 862-8905
Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

Ref: 4-0.0 S. Shafter Sewer (19608486)
Environmental Files

February 29, 2015

Santa Rosa Rancheria Tachi Yokut Tribe
ATTN: Lalo Franco, Cultural Coordinator
P.O. Box 8
Lemoore, CA 93245

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

Dear Ladies and Gentlemen,

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Sincerely,

Michael D. Hollier
Planner III

Enclosures: maps (3 pages)

KERN COUNTY
PUBLIC WORKS DEPARTMENT
CRAIG M. POPE, P.E., DIRECTOR

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

ADMINISTRATION & ACCOUNTING
OPERATIONS & MAINTENANCE
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Phone: (661) 862-8850
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Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

Ref: 4-0.0 S. Shafter Sewer (19608486)
Environmental Files

February 29, 2015

Santa Rosa Rancheria Tachi Yokut Tribe
ATTN: Rueben Barrios, Sr., Chairperson
P.O. Box 8
Lemoore, CA 93245

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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February 29, 2015

Tejon Indian Tribe
ATTN: Katherine Montes Morgan, Chairperson
1731 Hasti-acres Drive, Suite 108
Bakersfield, CA 93309

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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February 29, 2015

Tubatulabals of Kern Valley
ATTN: Robert L. Gomez, Jr., Tribal Chairperson
P.O. Box 226
Lake Isabella, CA 93240

RE: Cultural Resource Identification – South Shafter, Kern County, CA
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February 29, 2015

Tule River Indian Tribe
ATTN: Neil Peyron, Chairperson
P.O. Box 589
Porterville, CA 93258

RE: Cultural Resource Identification – South Shafter, Kern County, CA
(Sec. 16, 17, 20, 21, 22, 26, & 27 – Township 28 S., Range 25 E., Mount Diablo Meridian)

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ATTN: Kerri Vera, Environmental Department
P.O. Box 589
Porterville, CA 93258

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San Manuel Band of Mission Indians
ATTN: Daniel McCarthy, M.S., Director-CRM Dept.
26569 Community Center Drive
Highland, CA 92346

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February 29, 2015

Wuksache Indian Tribe/Eshom Valley Band
ATTN: Kenneth Woodrow, Chairperson
1179 Rock Haven Court
Salinas, CA 93906

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ATTN: Joey Garfield, Tribal Archeological
P.O. Box 589
Porterville, CA 93258

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Michael D. Hollier
Planner III

Enclosures: maps (3 pages)

Michael D Hollier - South Shafter Sewer Project response

From: Daniel McCarthy <DMcCarthy@sanmanuel-nsn.gov>
To: "'holliermi@co.kern.ca.us'" <holliermi@co.kern.ca.us>
Date: 03/03/2016 4:18 PM
Subject: South Shafter Sewer Project response

Hi Michael,

We received your letter, dated February 29, 2016, regarding the South Shafter Sewer Project. Thank you for the opportunity to review and respond. The proposed project is outside of the Tribe's ancestral territory, therefore we refer you to other tribes with ancestral territory that does include the project location.

Thank you,
Leslie Mouriquand MA, RPA

Daniel McCarthy, MS, RPA
Director
Cultural Resources Management Department
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346
Office: 909 864-8933 x 3248
Cell: 909 838-4175
dmccarthy@sanmanuel-nsn.gov
To ensure a rapid reply concerning all AB 52 Consultation correspondence please use: SMConsultation@sanmanuel-nsn.gov

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SOUTH SHAFTER SEWER PROJECT

AIR QUALITY AND GREENHOUSE GAS IMPACT REPORT

Prepared for

SWCA ENVIRONMENTAL CONSULTANTS

Prepared by

TERRY A. HAYES ASSOCIATES INC.

DECEMBER 2015

taha 2015-092

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AIR QUALITY AND GREENHOUSE GAS IMPACT REPORT

Prepared for

SWCA ENVIRONMENTAL CONSULTANTS

Prepared by

TERRY A. HAYES ASSOCIATES INC.
8522 National Boulevard, Suite 102
Culver City, CA 90232

December 2015

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APPENDIX A AIR QUALITY CALCULATIONS

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1.0 SUMMARY OF FINDINGS

Terry A. Hayes Associates Inc. (TAHA) completed an Air Quality and Greenhouse Gas (GHG) Impact Report for the South Shafter Sewer Project (proposed project). The air quality and GHG emissions analysis assessed construction and operational impacts associated with the proposed project in accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. As shown in **Table 1-1**, the proposed project would result in less-than-significant impacts to air quality and GHG emissions. In addition, project-related emissions would not exceed the General Conformity *de minimis* limits, and a detailed conformity analysis is not required.

TABLE 1-1: SUMMARY OF AIR QUALITY AND GREENHOUSE GAS EMISSIONS IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures	Significance After Mitigation
AIR QUALITY		
Would the project conflict with or obstruct implementation of the applicable air quality plan? **Less-Than-Significant Impact**	None Required	Less Than Significant
Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? **Less-Than-Significant Impact**	None Required	Less Than Significant
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? **Less-Than-Significant Impact**	None Required	Less Than Significant
Would the project expose sensitive receptors to substantial pollutant concentrations? **Less-Than-Significant Impact**	None Required	Less Than Significant
Would the project create objectionable odors affecting a substantial number of people? **Less-Than-Significant Impact**	None Required	Less Than Significant
GREENHOUSE GAS EMISSIONS		
Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? **Less-Than-Significant Impact**	None Required	Less Than Significant
Would the proposed project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? **Less-Than-Significant Impact**	None Required	Less Than Significant

SOURCE: TAHA, 2015.

2.0 INTRODUCTION

2.1 PURPOSE

The purpose of this report is to evaluate the potential for air quality impacts of the proposed project. The emissions analysis focuses on construction activity as no permanent sources of emissions are anticipated from the proposed project. The analysis has been prepared pursuant to CEQA and also complies with federal General Conformity requirements.

2.2 PROJECT DESCRIPTION

As Lead Agency, the Kern County Public Works Department (County), is proposing to install new sewer pipeline for the existing and growing population of City of Shafter. The purpose of the proposed project is to improve the sewage collection system by fixing sewer standby and charge availability. The proposed project involves constructing 34,500 linear feet (approximately 6.5 miles) of new 4-, 8-, and 12-inch sewer pipeline. These pipelines would be laid under multiple roadway segments including Riverside Street between Scaroni Avenue and Shafter Avenue, Polar Avenue between Burbank Street and Riverside Street, and Beach Avenue between Imperial Street and Orange Street.

2.2 CONSTRUCTION SCHEDULE AND PROCEDURES

Construction is anticipated to begin in March 2017 and take approximately 115 days (23 weeks) to complete, excluding weekends. Construction is anticipated to be completed in two stages. The first stage would involve trenching and pipeline installation and the second stage would involve paving of disturbed roadways. The two construction stages may occur simultaneously in the same day, but most likely would occur in multiple locations during varying times with different work crews as the project progresses.

It is anticipated that during the trenching and pipeline installation stage, 19 employees would work in two 9-person crews with 1 supervising foreman. Trenching and pipeline installation would proceed at a rate of 150 feet per day per crew. A 10-person crew would be used for paving. It is anticipated that paving would progress at a rate of 6,900 feet per day. Additionally, construction activity would include approximately 60 deliveries per day of asphalt from local batch plants. It is anticipated that these trip lengths would be 30 miles one way.

3.0 AIR QUALITY

This section examines the degree to which the proposed project may result in significant adverse changes to air quality. This analysis focuses on air pollution from the perspective of annual emissions. Emissions refer to the quantity of pollutant released into the air, measured in smaller scale in pounds per day, and in a larger scale in tons per year.

3.1 POLLUTANTS & EFFECTS

State and Federal Criteria Pollutants

Air quality is defined by ambient air concentrations of seven specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of the general public. These specific pollutants, known as "criteria air pollutants," are defined as pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include carbon monoxide (CO), ground-level ozone (O_3), nitrogen oxides (NO_X), sulfur oxides (SO_X), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter ten microns or less in diameter (PM_{10}), and lead (Pb). The following summarizes the pollutants of greatest importance in the San Joaquin Valley. For each air pollutant, there is a description of the physical properties, health and other effects, sources, and the extent of the problems. These pollutants are identified in District Rule 1020 (Definitions) and District Rule 2201 (New and Modified Stationary Source Review Rule) as Affected Pollutants.[1]

Carbon Monoxide (CO). CO is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels and is emitted directly into the air (unlike ozone). The main source of CO in the San Joaquin Valley is on-road motor vehicles. Additional CO sources in the Valley include other mobile sources, miscellaneous processes, and fuel combustion from stationary sources. Motor vehicles are by far the largest source of CO emissions. Emissions from motor vehicles have been declining since 1985, despite increases in vehicle miles.

Ozone (O_3). O_3 is a reactive gas consisting of three atoms of oxygen. In the troposphere, it is a product of the photochemical process involving the sun's energy. It is a secondary pollutant that is formed when nitrogen oxides (NO_X) and volatile organic compounds (VOC) react in the presence of sunlight. O_3 at the earth's surface causes numerous adverse health effects and is a criteria pollutant. It is a major component of smog. In the stratosphere, O_3 exists naturally and shields Earth from harmful incoming ultraviolet radiation.

High concentrations of ground-level O_3 can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments. O_3 also damages natural ecosystems such as forests and foothill communities, agricultural crops, and some man-made materials, such as rubber, paint, and plastics.

Reactive Organic Gases (ROG), Total Organic Compounds (TOG) and Volatile Organic Compounds (VOC) are reactive chemicals and compounds that contribute to the formation of ground-level O_3. Example sources include gasoline, alcohol, and the solvents used in paints.

Nitrogen Dioxide (NO_2). NO_2 is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N_2) and oxygen (O_2) in air under conditions of high temperature and pressure which are generally present during combustion of fuels (e.g., motor vehicles); NO reacts rapidly with the oxygen in air to form NO_2. NO_2 is responsible for the brownish

[1]APCD, *Guidance for Assessing and Mitigating Air Quality Impacts*, March 19, 2015.

tinge of polluted air. The two gases, NO and NO_2, are referred to collectively as NO_X. In the presence of sunlight, NO_2 reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. More recent studies have found associations between NO_2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms and emergency room asthma visits. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O_3 exposure increases when animals are exposed to a combination of O_3 and NO_2.

Sulfur Dioxide (SO_2). SO_2 is a colorless, irritating gas with a "rotten egg" smell formed primarily by the combustion of sulfur-containing fossil fuels. The SJVAB is in attainment of both the federal and State standards for SO_2. However, like airborne NO_X, suspended SO_X particles contribute to the poor visibility that sometimes occurs in the Valley. These SO_X particles can also combine with other pollutants to form $PM_{2.5}$. The prevalence of low-sulfur fuel use in the Valley has minimized problems from this pollutant.

Particulate Matter (PM). PM, also known as particle pollution, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. USEPA is concerned about particles that are 10 micrometers in diameter or smaller because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. USEPA groups particle pollution into three categories based on their size and where they are deposited:

- Inhalable coarse particles (PM_{10}), such as those found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. PM_{10} is deposited in the thoracic region of the lungs.

- Fine particles ($PM_{2.5}$), such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.

- Ultrafine particles (UFP) are very small particles less than 0.1 micrometers in diameter largely resulting from the combustion of fossils fuels, meat, wood and other hydrocarbons. While UFP mass is a small portion of $PM_{2.5}$, its high surface area, deep lung penetration, and transfer into the bloodstream can result in disproportionate health impacts relative to their mass.

PM_{10}, $PM_{2.5}$, and UFP include primary pollutants (emitted directly to the atmosphere) as well as secondary pollutants (formed in the atmosphere by chemical reactions among precursors).

Generally speaking, $PM_{2.5}$ and UFP are emitted by combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM_{10} sources include these same sources plus roads and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust in the Valley.

Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, coughing, bronchitis, and respiratory illnesses in children.

Lead (Pb). Lead is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. The health effects of lead poisoning include loss of appetite, weakness, apathy, and miscarriage; it can also cause lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract.

Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of lead have dropped dramatically.

State-Only Criteria Pollutants

Visibility-Reducing Particles. These are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. Visibility-Reducing Particles are regulated to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Sulfates. Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, due to the fact that they are usually acidic, can harm ecosystems and damage materials and property. Data collected in the SJVAB demonstrate levels of sulfates significantly less than the health standards.

Hydrogen Sulfide (H_2S). Hydrogen sulfide is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. Hydrogen sulfide is extremely hazardous in high concentrations; especially in enclosed spaces (800 ppm can cause death).

Vinyl Chloride. This is a colorless gas that does not occur naturally. It is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Air Toxics

Air toxics are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. Air toxics are also defined as an air pollutant that may increase a person's risk of developing cancer

and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Other factors, such as the amount of the chemical; its toxicity, and how it is released into the air, the weather, and the terrain, all influence whether the emission could be hazardous to human health.

Air toxics are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as PM_{10} and $PM_{2.5}$ or as vapors (gases). Air toxics include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources.

The emission of toxic substances into the air can be damaging to human health and to the environment. Human exposure to these pollutants at sufficient concentrations and durations can result in cancer, poisoning, and rapid onset of sickness, such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems. Pollutants deposited onto soil or into lakes and streams affect ecological systems and eventually human health through consumption of contaminated food. The carcinogenic potential of air toxics is a particular public health concern because many scientists currently believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer.

According to the 2006 California Almanac of Emissions and Air Quality, the majority of the estimated health risks from air toxics can be attributed to relatively few compounds, the most important being PM from the exhaust of diesel-fueled engines (diesel PM). Diesel PM differs from other air toxics in that it is not a single substance, but rather a complex mixture of hundreds of substances.

Diesel exhaust is composed of two phases, gas and particle, and both phases contribute to the health risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra fine diesel particulates are of the greatest health concern, and may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines; the on-road diesel engines of trucks, buses and cars and the off-road diesel engines that include locomotives, marine vessels and heavy duty equipment. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

The most common exposure to diesel PM is breathing the air that contains diesel PM. The fine and ultrafine particles are respirable (similar to $PM_{2.5}$), which means that they can avoid many of the human respiratory system defense mechanisms and enter deeply into the lung. Exposure to diesel PM comes from both on-road and off-road engine exhaust that is either directly emitted from the engines or lingering in the atmosphere.

Diesel exhaust causes health effects from both short-term or acute exposures, and long-term chronic exposures. The type and severity of health effects depends upon several factors including the amount of chemical exposure and the duration of exposure. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, some neurological effects such as lightheadedness. Acute exposure may also elicit a cough or nausea as well as exacerbate asthma. Chronic exposure to diesel PM in experimental animal inhalation studies have shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings.

3.2 REGULATORY SETTING

Federal

Clean Air Act (CAA). The CAA governs air quality in the United States, and is enforced by the USEPA. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in States other than California. Automobiles sold in California must meet stricter emission standards established by California Air Resources Board (CARB).

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. Primary standards set limits to protect public health, including the health of at-risk populations such as people with pre-existing heart or lung disease (such as asthmatics), children, and older adults. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for primary standards based on whether the NAAQS have been achieved. The primary federal standards are summarized in **Table 3-1**. The USEPA has classified the San Joaquin Valley Air Basin (Basin) as attainment/unclassified for SO_2, CO, Pb, and NO_2, maintenance for PM_{10}, nonattainment for $PM_{2.5}$, and non-attainment/extreme for O_3.

In addition to the criteria pollutants, the air toxics provisions of the CAA require USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112 of the CAA, USEPA establishes National Emission Standards for Hazardous Air Pollutants. The list of hazardous air pollutants (HAPs) or “air toxics” includes specific compounds that are known or suspected to cause cancer or other serious health effects.

TABLE 3-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SAN JOAQUIN VALLEY AIR BASIN

		California		Federal	
Pollutant	**Averaging Period**	**Standards**	**Attainment Status**	**Standards**	**Attainment Status**
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	Nonattainment	0.075 ppm (147 µg/m^3)	Nonattainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Nonattainment	150 µg/m^3	Maintenance
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	12.0 µg/m^3	Nonattainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment
	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	30 ppb (57 µg/m^3)	Attainment	53 ppb (100 µg/m^3)	Attainment
	1-hour	0.18 ppm (338 µg/m^3)	Attainment	100 ppb (188 µg/m^3	Attainment
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m^3)	Attainment
	24-hour	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	3-hour	--	--	75 ppb (196 µg/m^3)	--
	1-hour	0.25 ppm (655 µg/m^3)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	1.5 µg/m^3	No Designation
Visibility Reducing Particles	8-hour	Extinction of 0.07 per kilometer	n/a	No Federal Standards	
Sulfates	24-hour	25 µg/m^3	Attainment		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	n/a		

n/a = not available
SOURCE: San Joaquin Valley APCD, *Ambient Air Quality Standards and Valley Attainment Status*, available at: https://www.valleyair.org/aqinfo/attainment.htm, accessed: October 1, 2015.

General Conformity Rule. Section 176(c) of the CAA states that a federal agency cannot support an activity unless the agency determines that the activity will conform to the most recent USEPA-approved State Implementation Plan (SIP). Therefore, projects using federal funds or requiring federal approval must not: (1) cause or contribute to any new violation of a NAAQS; (2) increase the frequency or severity of any existing violation; or (3) delay the timely attainment of any standard, interim emission reduction, or other milestone.

On April 5, 2010, the USEPA revised the General Conformity Regulations (40 Code of Federal Regulations Parts 51 and 93.153). The revisions were intended to clarify, streamline, and improve conformity determination and review processes, and provide transition tools for making conformity determinations for new NAAQS standards.

Based on the current General Conformity Rule and attainment status of the Basin, a federal action would conform to the State Implementation Plan (SIP) if its annual emissions remain below 100 tons of CO or $PM_{2.5}$ (or any of the $PM_{2.5}$ precursors: NO_X, SO_2, VOC, or ammonia), 100 tons of PM_{10}, or 100 tons of NO_X or VOC. The thresholds are compared to the net change in emissions relative to the NEPA baseline. If the proposed action exceeds one or more of the *de minimis* thresholds, a more rigorous conformity determination is the next step in the conformity evaluation process.

State

In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). In California, the CCAA is administered by the CARB at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CARB, which became part of the California Environmental Protection Agency (Cal/EPA) in 1991, is responsible for meeting the State requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The State standards are summarized in **Table 3-1**.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the Kern County portion of the Basin is designated as a nonattainment or maintenance area for O_3, $PM_{2.5}$, and PM_{10}.[2]

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. CARB's statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In selecting substances for review, CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community" [Health and Safety Code Section 39666(f)]. The Toxic Air Contaminant Identification and Control Act also requires CARB to use available information gathered from the Air Toxics "Hot Spots" Information and Assessment Act program to include in the prioritization of compounds.

[2]San Joaquin Valley APCD, *Ambient Air Quality Standards and Valley Attainment Status*, available at: https://www.valleyair.org/aqinfo/attainment.htm, accessed: October 1, 2015.

California has established a two-step process of risk identification and risk management to address the potential health effects from air toxic substances and protect the public health of Californians. During the first step (identification), CARB and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified as a TAC in California. During this process, CARB and the OEHHA staff draft a report that serves as the basis for this determination. CARB staff assesses the potential for human exposure to a substance and the OEHHA staff evaluates the health effects. After CARB and the OEHHA staff hold several comment periods and workshops, the report is then submitted to an independent, nine-member Scientific Review Panel (SRP), who reviews the report for its scientific accuracy. If the SRP approves the report, they develop specific scientific findings which are officially submitted to CARB. CARB staff then prepares a hearing notice and draft regulation to formally identify the substance as a TAC. Based on the input from the public and the information gathered from the report, the CARB Board decides whether to identify a substance as a TAC. In 1993, the California Legislature amended the Toxic Air Contaminant Identification and Control Act by requiring CARB to identify federal HAPs as State TACs.

Local

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The San Joaquin Valley Unified Air Pollution Control District (APCD) is the regional agency responsible for the regulation and enforcement of federal, State, and local air pollution control regulations in Basin. The APCD is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the Basin portion of Kern.

The Basin, which is approximately 250 miles long and averages 35 miles in width, is the second largest air basin in the state. The Basin is defined by the Sierra Nevada mountains on the east (8,000–14,000 feet above sea level), the Coast Range on the west (averaging 3,000 feet above sea level), and the Tehachapi mountains on the south (6,000–8,000 feet above sea level). The San Joaquin Valley is generally flat with a slight downward gradient to the northwest. It opens to the sea at the Carquinez Straits, where the Delta empties into San Francisco Bay. The San Joaquin Valley could therefore be considered a "bowl" open only to the north (**Figure 3-1**).

The APCD operates monitoring stations, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The APCD's air quality management plans include control measures and strategies to be implemented to attain State and federal ambient air quality standards. The APCD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

Rule 4101 (Visible Emissions)

Rule 4101 prohibits emissions of visible air contaminants from any potential source of air contaminants. The rule prohibits air contaminants, other than water vapor, that are a certain level of darkness or opacity from being discharged for a combined period of more than three minutes of any hour.

Rule 4102 (Nuisance)

Rule 4102 is to protect the public health and prohibits any person from discharging such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.



LEGEND:

- Project Location- Shafter
- San Joaquin Valley Air Basin
- Kern County Boundary

Approx. Scale

0 15 30 60 Miles

N

SOURCE: San Joaquin Valley Unified Air Pollution Control District, 2015.

taha 2015-092

South Shafter Sewer Project
Air Quality & Greenhouse Gas Impact Report
KERN COUNTY PUBLIC WORKS DEPARTMENT

FIGURE 3-1

SAN JOAQUIN VALLEY AIR BASIN

Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving, and Pollutants)

Asphalt paving operations will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt, and emulsified asphalt for paving and maintenance operations.

Rule 4202 (Particulate Matter - Emission Rate)

The purpose of this rule is to limit particulate matter emissions by establishing allowable emission rates. The calculation methods for determining the emission rate based on process weight are specified.

Regulation VIII (Fugitive PM_{10} Prohibition) – Rules 8011, 8021, 8031, 8041, 8051, 8061, and 8071

The rules under Regulation VIII are intended to reduce ambient concentrations of fine particulate matter (PM_{10} or larger) and have been developed pursuant to USEPA guidance for Serious PM_{10} Nonattainment Areas. These rules are applicable to specified anthropogenic fugitive dust sources. Administrative requirements, such as recordkeeping requirements and test methods, apply.

- Rule 8011: General Requirements
- Rule 8021: Construction, Demolition Excavation, Extraction, and Other Earthmoving Activities
- Rule 8031: Bulk Materials
- Rule 8041: Carryout and Trackout
- Rule 8051: Open Areas
- Rule 8061: Paved and Unpaved Roads
- Rule 8071: Unpaved Vehicle/Equipment Traffic Areas

3.3 EXISTING AIR QUALITY

The San Joaquin Valley's topography and meteorology provide ideal conditions for trapping air pollution for long periods of time and producing harmful levels of air pollutants, including ozone and particulate matter. Low precipitation levels, cloudless days, high temperatures, and light winds during the summer in the Valley are conducive to high ozone levels resulting from the photochemical reaction of NOx and VOC. Inversion layers in the atmosphere during the winter can trap emissions of directly emitted $PM_{2.5}$ and $PM_{2.5}$ precursors (such as NO_X and sSO_2) within the Valley for several days, accumulating to unhealthy levels. The information provided below was obtained from the APCD.[3]

3.3.1 Climate

The Valley is in a Mediterranean Climate Zone. Mediterranean Climates Zones occur on the west coast of continents at 30 to 40 degrees latitude and are influenced by a subtropical high-pressure cell most of the year. Mediterranean Climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100 degrees Fahrenheit (°F) in the Valley.

[3]APCD, *Guidance for Assessing and Mitigating Air Quality Impacts*, March 19, 2015.

The subtropical high-pressure cell is strongest during spring, summer and fall and produces subsiding air, which can result in temperature inversions in the Valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet).

Winter-time high pressure events can often last many weeks with surface temperatures often lowering into the 30°F. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet.

3.3.2 Wind Patterns

Wind speed and direction play an important role in dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing and by transporting the pollution to other locations.

Especially in summer, winds in the Valley most frequently blow from the northwesterly direction. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the Valley. Marine air can flow into the basin from the San Joaquin River Delta and over Altamont Pass and Pacheco Pass, where it can flow along the axis of the valley, over the Tehachapi pass, into the Southeast Desert Air Basin. The Coastal Range is a barrier to air movement to the west and the High Sierra Nevada range is a significant barrier to the east (the highest peaks in the southern Sierra Nevada reach almost halfway through the Earth's atmosphere). Many days in the winter are marked by stagnation events where winds are very weak. Transport of pollutants during winter can be very limited. A secondary but significant summer wind pattern is from the southeasterly direction and can be associated with nighttime drainage winds, prefrontal conditions and summer monsoons.

Two significant diurnal wind cycles that occur frequently in the Valley are the sea breeze and mountain-valley upslope and drainage flows. The sea breeze can accentuate the northwest wind flow, especially on summer afternoons. Nighttime drainage flows can accentuate the southeast movement of air down the valley. In the mountains during periods of weak synoptic scale winds, winds tend to be upslope during the day and downslope at night. Nighttime and drainage flows are especially pronounced during the winter when flow from the easterly direction is enhanced by nighttime cooling in the Sierra Nevada. Eddies can form in the valley wind flow and can re-circulate a polluted air mass for an extended period. Such an eddy occurs in the Fresno area during both winter and summer.

3.3.3 Temperature, Sunlight, and Ozone Production

Solar radiation and temperature are particularly important in the chemistry of ozone formation. The Basin averages over 260 sunny days per year. Photochemical air pollution (primarily ozone) is produced by the atmospheric reaction of organic substances (such as volatile organic compounds) and nitrogen dioxide under the influence of sunlight. Ozone concentrations are very dependent on the amount of solar radiation, especially during late spring, summer and early fall. Ozone levels typically peak in the afternoon. After the sun goes down, the chemical reaction between nitrous oxide and ozone begins to dominate. This reaction tends to scavenge the ozone in the metropolitan areas through the early morning hours, resulting in the lowest ozone levels, possibly reaching zero at sunrise in areas with high nitrogen oxides emissions. At sunrise, nitrogen oxides tend to peak, partly due to low levels of ozone at this time and also due to the morning commuter vehicle emissions of nitrogen oxides.

Generally, the higher the temperature, the more ozone formed, since reaction rates increase with temperature. However, extremely hot temperatures can lift or break the inversion layer. Typically, if the inversion layer doesn't lift to allow the buildup of contaminants to be dispersed, the ozone levels will peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, the ozone will peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the Basin.

Ozone levels are low during winter periods when there is much less sunlight to drive the photochemical reaction.

3.3.4 Temperature Inversions

The vertical dispersion of air pollutants in the Valley can be limited by persistent temperature inversions. Air temperature in the lowest layer of the atmosphere typically decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. The height of the base of the inversion is known as the mixing height. This is the level to which pollutants can mix vertically. Mixing of air is minimized above and below the inversion base. The inversion base represents an abrupt density change where little air movement occurs.

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually encountered 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the Valley floor.

3.3.5 Precipitation, Humidity, and Fog

Precipitation and fog may reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog can block the required solar radiation.

Wet fogs can cleanse the air during winter as moisture collects on particles and deposits them on the ground. Atmospheric moisture can also increase pollution levels. In fogs with less water content, the moisture acts to form secondary ammonium nitrate particulate matter. This ammonium nitrate is part of the Valleys $PM_{2.5}$ and PM_{10} problem.

3.3.6 Local Climate

The average wind speed recorded near the project site at the Bakersfield Monitoring Station, is approximately six miles per hour, with calm winds occurring 4.0 percent of the time. Wind in the vicinity of the proposed alignment predominately blows from the northwest.[4]

The annual average temperature in the project area is 64.1°F.[5] The project area experiences an average winter temperature of 48.8°F and an average summer temperature of 80.1°F. Total precipitation in the project area averages approximately 5.8 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Rainfall

[4]San Joaquin Valley Air Pollution Control District, Meteorological Data for Bakersfield, available at: http://www.valleyair.org/busind/pto/tox_resources/2013_Modeling/bakersfield.htm, accessed: November 19, 2015.

[5]Western Regional Climate Center, *Historical Climate Information,* available at http://www.wrcc.dri.edu, accessed November 19, 2015.

averages 2.9 inches during the winter, 1.9 inches during the spring, 0.9 inches during the fall, and less than one inch during the summer.[6]

3.3.7 Air Monitoring Data

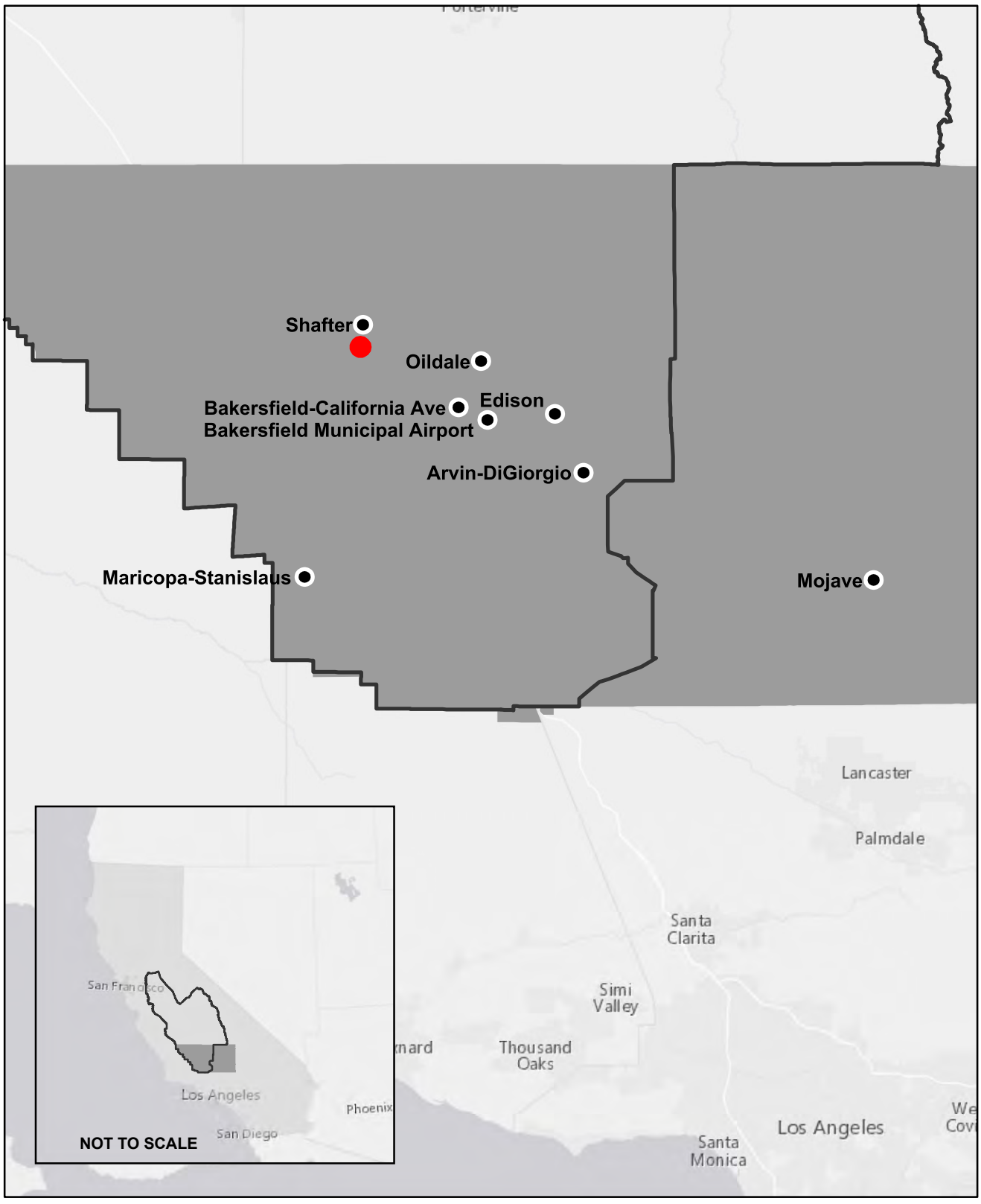
The APCD monitors air quality conditions at various locations throughout the Air Basin. The proposed alignment is located in APCD's Shafter Kern County Air Monitoring Subregion, which is served by the Walker Street Monitoring Station, and is approximately 2.6 miles away from the project site. Walker Street Monitoring Station only measures 1-hour ozone and nitrogen dioxide, and is located on 578 Shafter Street. The next closest air monitoring station is California Avenue Air Monitoring Station in Bakersfield located approximately 14 miles away from the project site, and measures 8-hour ozone, PM_{10}, and $PM_{2.5}$. The California Avenue Monitoring Station is located on 5558 California Avenue (**Figure 3-2**). Historical data from the Shafter-Walker Street and Bakersfield-California Avenue Monitoring Stations were used to characterize existing conditions in the vicinity of the project area. Criteria pollutants monitored at the Bakersfield-California Avenue Monitoring Station include O_3, NO_2, PM_{10}, $PM_{2.5}$. CO and SO_2 are not monitored at this station, an indicator that these pollutants are not a regional or local concern at the project site. **Table 3-2** shows pollutant levels, the State and federal standards, and the number of exceedances recorded at the Bakersfield-California Avenue Monitoring Station from 2012 to 2014.

TABLE 3-2: AMBIENT AIR QUALITY DATA

Pollutant	Pollutant Concentration & Standards	2012	2013	2014
Ozone (O_3)	Maximum 1-hr Concentration (ppm)	0.103	0.112	0.100
	Days > 0.09 ppm (State 1-hr standard)	5	1	2
	Maximum 8-hr Concentration (ppm)	0.096	0.099	0.093
	Days > 0.07 ppm (State 8-hr standard)	83	47	39
	Days > 0.075 ppm (National 8-hr standard)	56	22	20
Nitrogen Dioxide (NO_2)	Maximum 1-hr Concentration (ppm)	0.052	0.059	0.059
	Days > 0.18 ppm (State 1-hr standard)	0	0	0
	Days > 0.100 ppm (National 1-hr standard)	0	0	0
Respirable Particulate Matter (PM_{10})	Maximum 24-hr concentration ($\mu g/m^3$)	99.6	120.7	430.1
	Days > 50 $\mu g/m^3$ (State 24-hr standard)	55	16	69
	Days > 150 $\mu g/m^3$ (National 24-hr standard)	0	n/a	n/a
Fine Particulate Matter ($PM_{2.5}$)	Maximum 24-hr concentration ($\mu g/m^3$)	86.5	111.7	101.9
	Exceed State Standard (12 $\mu g/m^3$)	Yes	Yes	Yes
	Days > 35 $\mu g/m^3$ (National 24-hr standard)	22	44	37

'n/a' = not available
SOURCE: CARB, Air Quality Data Statistics, *Top 4 Summary*, http://www.arb.ca.gov/adam/topfour/topfour1.php, accessed November 19, 2015.

[6]Western Regional Climate Center, *Historical Climate Information,* available at: http://www.wrcc.dri.edu, accessed November 19, 2015.



LEGEND:

- Air Monitoring Sation
- Project Location- Shafter
- San Joaquin Valley Air Basin
- Kern County Boundary

Approx. Scale: 0 10 20 40 Miles

N

SOURCE: TAHA, 2015.

taha 2015-092

South Shafter Sewer Project
Air Quality & Greenhouse Gas Impact Report
KERN COUNTY PUBLIC WORKS COUNTY

FIGURE 3-2

AIR MONITORING LOCATIONS

3.3.8 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors.[7]

Sensitive receptors near the project site are existing single-family residences located approximately within 50 feet vicinity of the sewer pipeline to the north and south of Riverside Street, Burbank Street, and Orange Street, and to the east and west of Polar Avenue, Beach Avenue, and Shafter Avenue.

3.4 METHODOLOGY AND SIGNIFICANCE CRITERIA

3.4.1 Methodology

The method of the analysis follows recommendations published in the APCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) (APCD, March 19, 2015). Construction emissions for equipment exhaust were estimated using the emissions factors and emission rates obtained from Appendix D - the Data Tables used by California Emissions Estimator Model (CalEEMod) version 2013.2.2. **Table 3-3** shows equipment that would be used during construction activity. Additionally, there would be approximately 60 deliveries per day of asphalt from local batch plants, which were assumed to be located 30 miles from the project site. The emission factors obtained from EMFAC2014 were used for calculation of emissions from on-road vehicles, and USEPA AP-42 Emission Factors for reentrained road dust.

TABLE 3-3: PROPOSED LIST OF CONSTRUCTION EQUIPMENT

Equipment	Number of Equipment
Trenching and Pipe Laying Phase	**Duration: 115 days**
D9 Pipe CAT Dozers (474 hp)	4
CAT 320 Excavators (164 hp)	2
Case 580N Backhoe (90 hp)	2
5-ton Trucks	6
2-ton Pickup Trucks	2
Paving Phase	**Duration: 5 days**
Terex CR652 Pavers (260 hp)	2
12-ton Rollers (137 hp)	3
Water Truck (5,000 gal)	1
2-ton Pickup Trucks	2
Asphalt Delivery Truck	10

SOURCE: TAHA, 2015.

[7] APCD, *Guidance for Assessing and Mitigating Air Quality Impacts*, March 19, 2015.

3.4.2 Significance Thresholds

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Create objectionable odors affecting a substantial number of people.

Upon completion of the proposed pipeline, the proposed project will not include operational activities that would generate criteria pollutant emissions. Therefore, the following thresholds and associated analysis focuses on construction emissions. Based on the APCD's regulatory role in the Basin, the proposed project would have a significant impact related to construction activity if:

- The proposed project would not be consistent with APCD air quality plans;
- Annual regional construction emissions were to exceed the APCD emission thresholds presented in **Table 3-4**;
- The proposed project would generate carcinogenic emissions that exceed a Maximally Exposed Individual risk of 20 in one million, the acute hazard index exceeds 1, of the chronic hazard index exceed 1; and/or
- The proposed project would create an odor nuisance.

TABLE 3-4: APCD ANNUAL CONSTRUCTION EMISSIONS THRESHOLDS

Criteria Pollutant	Regional Emissions (tpy)
Reactive Organic Gases (ROG)	10
Nitrogen Oxides (NO_X)	10
Carbon Monoxide (CO)	100
Sulfur Oxides (SO_X)	27
Fine Particulates ($PM_{2.5}$)	15
Particulates (PM_{10})	15

SOURCE: APCD, Guidance for Assessing and Mitigating Air Quality Impacts, March 2015.

3.5 ENVIRONMENTAL IMPACTS

3.5.1 Would the proposed project conflict with or obstruct implementation of the applicable air quality plan? (Less-Than-Significant Impact)

Impact Analysis

The APCD is tasked with implementing programs and regulations required by the CAA and CCAA. In that capacity, the APCD has prepared plans to attain federal and State ambient air quality standards. The APCD has established thresholds of significance for criteria pollutant emissions, which are based on New Source Review offset requirements for stationary sources. Stationary sources are subject to some of the toughest regulatory requirements in the nation.

Emission reductions achieved through implementation of the APCD offset requirements are a major component of the local air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants can be determined to not conflict or obstruct implementation of the APCD air quality plans.

Construction emissions were estimated based on construction information provided by the County. Detailed information, including equipment activity, truck trips, and worker vehicle trips are provided in the methodology and Appendix A. The appendix also includes emission rates for off- and on-road equipment. **Table 3-5** shows the annual construction emissions associated with each construction phase including pipe trenching and laying phase, and paving phases. Construction emissions would be less than the thresholds of significance. In addition, the proposed project would comply with all APCD regulations to control fugitive dust, including Regulation VIII. Therefore, the proposed project would not conflict or obstruct implementation of the APCD air quality.

TABLE 3-5: ANNUAL CONSTRUCTION EMISSIONS BY PHASE

	Tons Per Year					
Construction Phase	**ROG**	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$**	**PM_{10}**
Pipe Trenching and Laying Phase	1	7	5	<1	<1	<1
Paving Phase	<1	<1	<1	<1	<1	<1
Total Overlapping Emissions	1	7	5	<1	<1	<1
APCD THRESHOLDS OF SIGNIFICANCE	**10**	**10**	**100**	**27**	**15**	**15**
Exceed Threshold?	No	No	No	No	No	No

SOURCE: TAHA, 2015.

Mitigation

Impacts would be less than significant, and no mitigation measures are required.

3.5.2 Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Less-Than-Significant Impact)

Impact Analysis

Determination of whether project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. If project emissions would not exceed State and federal ambient air quality standards at the project's property boundaries, the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The need to perform an air quality dispersion modeling analysis for projects is determined on a case-by-case basis depending on the level of emissions associated with the proposed project.

The quantity of criteria pollutant emissions is proportionate to the size of the construction project. For small construction projects, compliance with APCD Regulation VIII and Rule 9510 would typically reduce project specific construction emissions to below the thresholds of significance. The APCD recommends that an ambient air quality analysis be performed when emissions of any criteria pollutant related to construction activities exceed the 100 pounds per day, or 10 tons per year, screening level for PM_{10} or NO_X. As shown in **Table 3-5**, above, the

proposed project would not exceed the APCD thresholds. Dispersion modeling is not necessary to demonstrate that construction emissions would not exceed the State and federal ambient air quality standards. Construction activities would not generate pollutant hot-spots. Therefore, the proposed project would result in a less-than-significant impact related to violating any air quality standard or contribute substantially to an existing or projected air quality violation

Mitigation Impacts would be less than significant, and no mitigation measures are required.

3.5.3 Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Less-Than-Significant Impact)

Impact Analysis

Because the Basin is designated as in State and/or federal nonattainment or maintenance for O_3, $PM_{2.5}$, PM_{10}, there is an ongoing regional cumulative impact associated with these pollutants. An individual project can emit these pollutants without significantly contributing to this cumulative impact depending on the magnitude of emissions. The APCD has indicated that the project-level thresholds of significance may be used as an indicator defining if project emissions contribute to the regional cumulative impact. As discussed above, emissions would not exceed the APCD regional significance thresholds, and the proposed project would not contribute to a cumulative impact. Therefore, the proposed project would result in a less-than-significant impact related to cumulative emissions.

Mitigation

Impacts would be less than significant, and no mitigation measures are required.

3.5.4 Would the proposed project expose sensitive receptors to substantial pollutant concentrations? (Less-Than-Significant Impact)

Impact Analysis

Construction activity would generate TAC and HAP emissions, including diesel particulate matter. The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC and HAP emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the OEHHA, health risk assessments, which determines the exposure of sensitive receptors to TAC and HAP emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed project.

The use of construction equipment would be limited to an approximate total duration of 6 months. In addition, local exposure would be much shorter than the total duration of construction since the construction crew would not reside any location for more than a few days; construction activity would not occur with intensity and duration to significantly increase health risk. Although elevated cancer rates can result from exposure periods of less than 70 years, acute exposure (i.e., exposure periods of less than a year) to diesel exhaust typically does not typically result in significant health risks. In addition, APCD does not consider cancer risks associated with

operation of diesel-powered construction equipment to be an issue because of the short-term nature of construction activities. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations related to construction emissions.

Installation of the sewer pipeline may result in temporary closure of one or two lanes of traffic. However, the proposed project would not increase traffic congestion in the rural project area. In addition, construction activities would be limited to short segments of public roads at one time to minimize long-term traffic disruption. Therefore, the proposed project would result in a less-than-significant impact related to localized traffic concentrations.

3.5.5 Would the proposed project create objectionable odors affecting a substantial number of people? (Less-Than-Significant Impact)

Impact Analysis

While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often resulting in citizen complaints to local governments and the APCD. Project should be evaluated to determine the likelihood that the project would result in nuisance odors. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact. Nuisance odors may be assessed qualitatively taking into consideration of project design elements and proximity to off-site receptors that potentially would be exposed objectionable odors.

Potential sources that may emit odors during construction activities include equipment exhaust and asphalt paving. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The proposed project would utilize typical construction techniques (e.g., diesel-fueled heavy-duty equipment), and the odors would be typical of most construction sites and temporary in nature. Therefore, the proposed project would result in a less-than-significant impact related to construction odors.

The APCD has listed example of land uses than generate objectionable odors during operating activities. A sewer pipeline for residences is not included as an example project. The APCD has included wastewater treatment facilities a potential source of odors. The proposed pipeline would handle a fraction of wastewater typically handled at a wastewater treatment facility. The pipeline would be constructed to industry standards common to residential areas. Sewage pipelines exist along most residential streets without causing odor nuisances. It is not anticipated that the proposed project would result in odor nuisances. Therefore, the proposed project would result in a less-than-significant impact related to operational odors.

Mitigation

Impacts would be less than significant, and no mitigation measures are required.

3.6 CUMULATIVE IMPACTS

Refer to Impact 3.5-3, above, for a discussion of the cumulative impacts.

3.7 CONFORMITY STATEMENT

Section 176 (c) of the CAA (42 United States Code [USC] Section 7506(c)) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable SIP required under Section 110 (a) of the CAA (42 USC Section 7410(a)) before the action is otherwise approved. In this context, conformity means that such federal actions must

be consistent with a SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency, and that is subject to the regulations implementing the conformity requirements, will conform to the applicable SIP. The general conformity regulations incorporate a stepwise process, beginning with an applicability analysis. According to USEPA guidance, before any approval is given for a federal action to go forward, the regulating federal agency must apply the applicability requirements found at 40 CFR Section 51.853(b) to the federal action and/or determine the regional significance of the federal action pursuant to 40 CFR Section 51.853(j) to evaluate whether, on a pollutant-by-pollutant basis, a determination of general conformity is required. If the regulating federal agency determines that the general conformity regulations do not apply to the federal action, no further analysis or documentation is required. If the general conformity regulations do apply to the federal action, the regulating federal agency must next conduct a conformity evaluation in accord with the criteria and procedures in the implementing regulations, publish a draft determination of general conformity for public review, and then publish the final determination of general conformity.

As part of the environmental review of the federal action, a general conformity evaluation has been completed pursuant to APCD Regulation IX, Rule 9110 and 40 CFR Part 51. The general conformity regulations apply because the portion of the Basin where the project is situated is a nonattainment area for ozone and $PM_{2.5}$, an attainment area for NO_2, SO_2, and CO, and maintenance for PM_{10}. The calculated federal action emissions are compared to the general conformity *de minimis* thresholds. The federal actions for this evaluation included construction emissions for the South Shafter Sewer Project. No operational emissions would be generated at the project site.

Emissions were estimated using the same methodology as discussed above. As shown in **Table 3-6**, the emissions associated with the federal action would be less than the general conformity *de minimis* thresholds. Therefore, the federal action conforms to the purpose of the approved SIP and would be consistent with all applicable requirements.

TABLE 3-6: GENERAL CONFORMITY EMISSIONS – PROPOSED PROJECT

Pollutant	Federal Status (Attainment, Nonattainment, Maintenance, or Unclassified)	Nonattainment Rates (i.e., Moderate, Serious, Severe, or Extreme)	Thresholds of Significance for Project Air Basin (If Applicable)	Construction Emissions (Tons/Year)	Operation Emissions (Tons/Year) /c/
Ozone (O_3) /a/	Nonattainment	Extreme	NA	N/A	N/A
Carbon Monoxide (CO)	Attainment	Unclassified	100	5	N/A
Nitrogen Oxides (NO_X)	Attainment	--	10	7	N/A
Reactive Organic Gases (ROG)	N/A	N/A	NA	1	N/A
Volatile Organic Compounds (VOC)	N/A	N/A	10	1	N/A
Lead (Pb)	No Designation	No Designation	25	NA	N/A
Fine Particulates ($PM_{2.5}$) – direct emissions and precursors /b/	Nonattainment	Moderate	100	<1	N/A
Particulates (PM_{10})	Maintenance	Serious	100	<1	N/A
Sulfur Dioxide(SO_2)	Attainment	--	100	<1	N/A

/a/ There is no *de minis* threshold for direct emissions of ozone.
/b/ The $PM_{2.5}$ precursors in the region include SOx, NOx, VOC and ammonia.
/c/ The proposed project does not have operational emissions.
SOURCE: USEPA, *de Minimis* Levels, http://www.epa.gov/oar/genconform/deminimis.html, accessed October 25, 2015.

4.0 GREENHOUSE GAS EMISSIONS

The purpose of this section is to discuss describe how the proposed project would affect regional GHG emissions. GHG emissions refer to airborne pollutants that are generally believed to affect global climate conditions. These pollutants have the effect of trapping heat in the atmosphere, thereby altering weather patterns and climatic conditions.

4.1 POLLUTANTS & EFFECTS

The standard definition of GHG includes six substances: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6).[8] Tropospheric ozone (O_3), a short-lived, not-well-mixed gas, and black carbon are also important climate pollutants. CO_2 is undoubtedly the most important GHG, and collectively CO_2, CH_4, and N_2O amount to 80 percent of the total radiative forcing from well-mixed GHGs.

CO_2, CH_4, and N_2O concentrations have increased in the atmosphere since pre-industrial times, and this increase is the main driver of climate change. Globally, CO_2 increased by 40 percent from 278 ppm circa 1750 to 390.5 ppm in 2011.[9] During the same time interval, CH_4 increased by 150 percent, from 722 ppb to 1,803 ppb, and N_2O by 20 percent, from 271 ppb to 324.2 ppb in 2011. The increase of CO_2, CH_4, and N_2O is caused by anthropogenic emissions from the use of fossil fuel as a source of energy, fertilizer usage, and from land use and land use change—in particular, agriculture.

For each GHG, a global warming potential (GWP) has been calculated to reflect how long emissions remain in the atmosphere and how strongly it absorbs energy on a per-kilogram basis relative to CO_2. GWP is a metric that indicates the relative climate forcing of a kilogram of emissions when averaged over the period of interest (both 20-year and 100-year horizons are used for the GWPs shown in **Table 4-1**. Other important climate-forcing species large human sources are tropospheric ozone and particulate matter (PM, including black carbon and other absorbing organic carbon aerosols).

TABLE 4-1: GLOBAL WARMING POTENTIAL FOR SELECTED GREENHOUSE GASES

Pollutant	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide	100	1	1
Nitrous Oxide	121	264	265
Nitrogen Triflouride	500	12,800	16,100
Sulfur Hexaflouride	3,200	17,500	23,500
Perflourocarbons	3,000-50,000	5,000-8,000	7,000-11,000
Black Carbon	days to weeks	270-6,200	100-1,700
Methane	12	84	28
Hydroflourocarbons	Uncertain	100-11,000	100-12,000

SOURCE: California Air Resources Board, *Proposed First Update to the Climate Change Scoping Plan*, February 2014.

The primary effect of rising global concentrations of atmospheric GHG levels is a rise in the average global temperature of approximately 0.2 degrees Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using emission rates shows that further warming is likely to occur given the expected rise in

[8] CARB, *Proposed First Update to the Climate Change Scoping Plan*, February 2014.
[9] *Ibid*.

global atmospheric GHG concentrations from innumerable sources of GHG emissions worldwide, which would induce further changes in the global climate system during the current century.[10] Adverse impacts from global climate change worldwide and in California include:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;[11]
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets;[12]
- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;[13]
- Declining Sierra Mountains snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years;[14]
- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25 to 85 percent (depending on the future temperature scenario) in high O_3 areas located in the Southern California area and the San Joaquin Valley by the end of the 21st Century;[15] and
- Increasing the potential for erosion of California's coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.[16]

Scientific understanding of the fundamental processes responsible for global climate change has improved over the past decade. However, there remain significant scientific uncertainties. For example, in predictions of local effects of climate change, occurrence of extreme weather events, and effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the climate system, the uncertainty surrounding the implications of climate change may never be completely eliminated. Because of these uncertainties, there continues to be significant debate as to the extent to which increased concentrations of GHGs have caused or will cause climate change, and with respect to the appropriate actions to limit and/or respond to climate change. In addition, it may not be possible to link specific development projects to future specific climate change impacts, though estimating project-specific impacts is possible

4.2 REGULATORY SETTING

Federal

Supreme Court Ruling. The U.S. Supreme Court ruled in *Massachusetts v. Environmental Protection Agency, 127 S. Ct. 1438 (2007)*, that CO_2 and other GHGs are pollutants under the CAA, which the USEPA must regulate if it determines they pose an endangerment to public health or welfare. On December 7, 2009, the USEPA Administrator made two distinct findings:

[10]USEPA, Draft Endangerment Finding, 74 Fed. Reg. 18886, 18904, April 24, 2009.
[11]*Ibid*.
[12]Intergovernmental Panel on Climate Change, *Climate Change,* 2007.
[13]*Ibid*.
[14]Cal/EPA, Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, 2006.
[15]*Ibid*.
[16]*Ibid*.

(1) the current and projected concentrations of the six key GHGs in the atmosphere (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) threatens the public health and welfare of current and future generations; and (2) the combined emissions of these GHGs from motor vehicle engines contribute to GHG pollution which threatens public health and welfare.

State

Executive Order (E.O.) S-3-05. On June 1, 2005, E.O. S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The E.O. establishes State GHG emission targets of 1990 levels by 2020 (the same as Assembly Bill 32) and 80 percent below 1990 levels by 2050. It calls for the Secretary of Cal/EPA to be responsible for coordination of State agencies and progress reporting.

In response to the E.O., the Secretary of the Cal/EPA created the Climate Action Team (CAT). California's CAT originated as a coordinating council organized by the Secretary for Environmental Protection. It included the Secretaries of the Natural Resources Agency, the Department of Food and Agriculture, and the Chairs of the Air Resources Board, Energy Commission, and Public Utilities Commission. The original council was an informal collaboration between the agencies to develop potential mechanisms for reductions in GHG emissions in the State. The council was given formal recognition in E.O. S-3-05 and became the CAT.

The original mandate for the CAT was to develop proposed measures to meet the emission reduction targets set forth in the executive order. The CAT has since expanded and currently has members from 18 State agencies and departments. The CAT also has ten working groups, which coordinate policies among their members. The working groups and their major areas of focus are as follows:

- *Agriculture:* Focusing on opportunities for agriculture to reduce GHG emissions through efficiency improvements and alternative energy projects, while adapting agricultural systems to climate change
- *Biodiversity:* Designing policies to protect species and natural habitats from the effects of climate change
- *Energy:* Reducing GHG emissions through extensive energy efficiency policies and renewable energy generation
- *Forestry:* Coupling GHG mitigation efforts with climate change adaptation related to forest preservation and resilience, waste to energy programs and forest offset protocols
- *Land Use and Infrastructure:* Linking land use and infrastructure planning to efforts to reduce GHG from vehicles and adaptation to changing climatic conditions
- *Oceans and Coastal:* Evaluating the effects sea level rise and changes in coastal storm patterns on human and natural systems in California
- *Public Health:* Evaluating the effects of GHG mitigation policies on public health and adapting public health systems to cope with changing climatic conditions
- *Research:* Coordinating research concerning impacts of and responses to climate change in California
- *State Government:* Evaluating and implementing strategies to reduce GHG emissions resulting from State government operations
- *Water:* Reducing GHG impacts associated with the State's water systems and exploring strategies to protect water distribution and flood protection infrastructure

Assembly Bill 32 (AB 32). In September 2006, the California Global Warming Solutions Act of 2006, also known as AB 32, was signed into law. AB 32 focuses on reducing GHG emissions in California and requires the CARB to adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020. The CARB initially determined that the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit was 427 million metric tons of CO_2e. The 2020 target reduction was estimated to be 174 million metric tons of CO_2e.

To achieve the goal, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the equivalent of 1990, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the CEC to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.[17] On October 25, 2007, CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing PFCs emissions from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing SF_6 emissions from the non-electricity sector.

The CARB AB 32 Scoping Plan (Scoping Plan) contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by CARB with input from the CAT and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing GHG emissions to 1990 levels by 2020 include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a Statewide renewable electricity standard of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout the State, and pursuing policies and incentives to achieve those targets; and
- Adopting and implementing measures to reduce transportation sector emissions.

[17]CARB, *Proposed Early Action Measures to Mitigate Climate Change in California*, April 20, 2007.

CARB released the Proposed First Update to the Climate Change Scoping Plan.[18] This update identifies the next steps for California's leadership on climate change. The first update to the initial AB 32 Scoping Plan describes progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. It also frames activities and issues facing the State as it develops an integrated framework for achieving both air quality and climate goals in California beyond 2020. Specifically, the update covers a range of topics, including the following:

- An update of the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants.
- A review of progress-to-date, including an update of Scoping Plan measures and other State, federal, and local efforts to reduce GHG emissions in California.
- Potential technologically feasible and cost-effective actions to further reduce GHG emissions by 2020.
- Recommendations for establishing a mid-term emissions limit that aligns with the State's long-term goal of an emissions limit 80 percent below 1990 levels by 2050.
- Sector-specific discussions covering issues, technologies, needs, and ongoing State activities to significantly reduce emissions throughout California's economy through 2050.

As discussed above, in December 2007, CARB approved a total statewide GHG 1990 emissions level and 2020 emissions limit of 427 million metric tons of CO_2e. As part of the update, CARB is proposing to revise the 2020 Statewide limit to 431 million metric tons of CO_2e, an approximately one percent increase from the original estimate. The 2020 business-as-usual (BAU) forecast in the update is 509 million metric tons of CO_2e. The State would need to reduce those emissions by 15 percent to meet the 431 million metric tons of CO_2e 2020 limit.

CEQA Guidelines Amendments. SB 97 required the Governor's OPR to develop CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." The CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. Noteworthy revisions to the CEQA Guidelines include the following:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;
- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

[18]CARB, *Proposed First Update to the Climate Change Scoping Plan*, February 10, 2014.

Regional

Kern Council of Governments and Kern County General Plan do not provide any climate change actions or plans relevant to the context of the proposed project.

Local

On December 17, 2009, the APCD Governing Board adopted the District Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. The District's Governing Board also approved the guidance document: Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA. In support of the policy and guidance document, District staff prepared a staff report: Addressing Greenhouse Gas Emissions Under the California Environmental Quality Act. These documents adopted in December of 2009 continue to be the relevant policies to address GHG emissions under CEQA. The District staff has released a staff report, Addressing Greenhouse Gas Emissions under the California Environmental Quality Act. The staff report provides a summary of background information on Global Climate Change, the current regulatory environment surrounding GHG emissions, and the various concepts in addressing the potential impacts of Global Climate Change. The report also evaluates different approaches for estimating impacts, and summarizes potential GHG emission reduction measures.

4.3 EXISTING SETTING

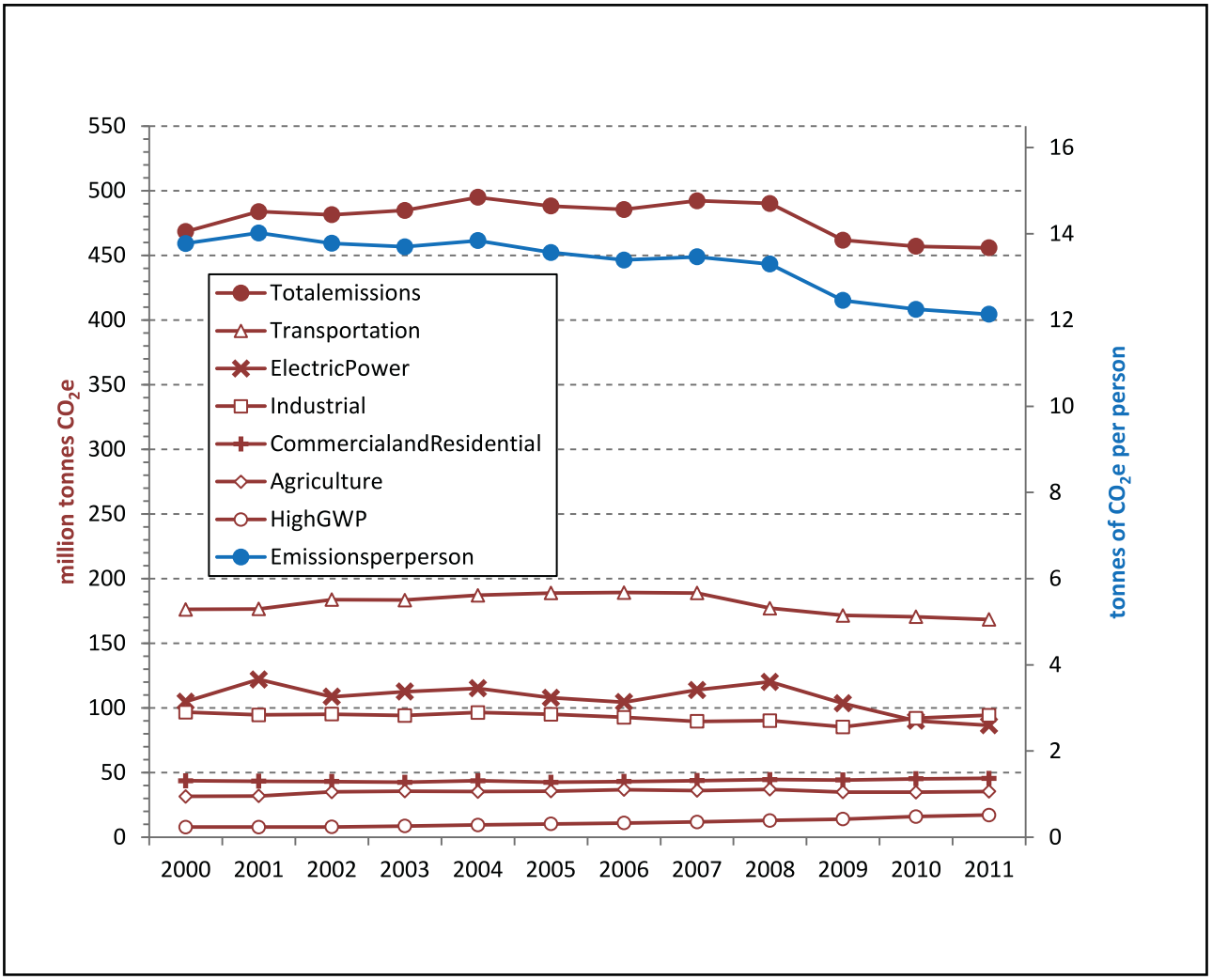
Figure 4-1 shows the California GHG emissions inventory for years 2000 to 2011.[19] Over the last decade, the Statewide GHG emissions decreased from 468 million metric tons (MMT) CO_2e in 2000 to 456 MMT CO_2e in 2011—a decrease of 2.7 percent. The emissions in 2011 are the lowest of the 12-year period, while 2004 had the highest emissions, with 495 MMT CO_2e. During the same period, California's population grew by 10.5 percent. As a result, California's per capita GHG emissions have decreased by 11.9 percent between 2000 and 2011. The recent recession had a major impact on GHG emissions between 2008 and 2009, when emissions decreased by almost 6 percent.

On May 3, 2011, the Kern County Board of Supervisors signed a memorandum of understanding (MOU) with the APCD to develop a communitywide GHG emission inventory for the County of Kern. The MOU required a GHG emissions inventory be developed for a base year and forecasted year. The agencies agreed that 2005 would be the base year and 2020 would be used as the forecast year. The GHG emissions inventories were estimated for nine primary sectors (Electricity Production and Consumption, Residential/ Commercial/ Industrial Combustion, Transportation, Fossil Fuels Industry, Industrial Processes, Waste Management, Agriculture, Forestry and Land Use, and Other Sources).

The 2005 base year GHG emissions inventory was estimated to be 27 million metric tons of CO_2e of which the Fossil Fuel Industry sector represents 40 percent followed by the Electricity Consumption sector at 22 percent. The 2020 forecasted GHG emissions inventory was estimated to be 27 million metric tons of CO_2e of which the Electricity Consumption sector represents 31 percent followed by the Fossil Fuel Industry sector at 26 percent.

The 2005 and the 2020 CO_2e emission inventories are projected to be similar. This particular outcome is due to a projected decrease in heavy oil production between years 2005 and 2020 resulting in a GHG emissions reduction that offsets the projected increase of GHG emissions related to the County's population growth. If emissions from petroleum production are excluded from the inventory, the remaining sectors would show a 27 percent increase in emissions from 2005 (16,117,791 metric tons CO_2e) to 2020 (20,473,713 metric tons CO_2e).

[19]CARB, *First Update to the Climate Change Scoping Plan*, May 15, 2014.



SOURCE: California Air Resources Board, Proposed First Update to the Climate Change Scoping Plan: Building on the Framework. Feb 2014.

FIGURE 4-1

CALIFORNIA GHG EMISSIONS 2000-2011

4.4 METHODOLOGY AND SIGNIFICANCE THRESHOLDS

4.4.1 Methodology

The methodology used to estimate GHG emissions was identical to the methods described above for estimating criteria pollutant emissions. Construction emissions were estimated using the emissions factors and emission rates obtained from Appendix D - the Data Tables used by CalEEMod version 2013.2.2. The emission factors used within CalEEMod were obtained from the OFFROAD model for equipment exhaust and EMFAC2011 for on-road vehicles. Refer to Section 3.4.1, above, for a discussion of project-related equipment and truck activity.

4.4.2 Significance Criteria

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to air quality if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The APCD has adopted guidance to assist lead agencies in assessing and reducing the impacts of GHG on global climate change.[20] The guidance relies on the use of Best Performance Standard (BPS) to assess significance of GHG emissions on global climate change during the environmental review process, as required by CEQA. Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions from business-as-usual is required to determine that a project would have a less than cumulatively significant impact. The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project related impacts on global climate change.

The BPS listed by the APCD applies to operational activities associated with land use development projects. The BPS do not apply to projects that only generate construction emissions, such as the proposed project, except for limiting idling of construction trucks. In addition, the 29 percent reduction in GHG emissions from business-as-usual requirement is designed for land use development projects and typically demonstrated through reductions in operational vehicle miles traveled and energy emissions. This also does not apply to projects that only generate construction emissions. In the absence of relevant local thresholds, the Lead Agency has assessed the potential for GHG impacts based on the contribution of project emissions to the County's GHG emission inventory and compliance with the BPS that limits idling.

[20]APCD, *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*, December 17, 2009.

4.5 ENVIRONMENTAL IMPACTS

4.5.1 Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less-Than-Significant Impact)

Impact Analysis

GHG emissions would be generated by equipment exhaust, truck trips, and worker commute trips. As shown in **Table 4-2**, the proposed project would generate 555 metric tons of GHG emissions. The County emissions inventory is presented in annual emissions.[21] The County emissions inventory was generated for years 2005 and 2020. Total County emissions were estimated to be 27,045,617 metric tons in 2005 and 27,272,709 metric tons in 2020. Assuming linear growth, 2017 emissions would be 27,227,291 metric tons. Off-road diesel emissions are accounted for in the Industrial-Oil emissions inventory, and were estimated to be 92,836 metric tons in 2005 and 104,513 metric tons in 2020. Assuming linear growth, 2017 emissions would be 102,178 metric tons.

TABLE 4-2: ANNUAL GREENHOUSE GAS EMISSIONS

Construction Activity	Carbon Dioxide Equivalent (Metric Tons per Year)
Pipe Trenching and Laying Phase	513
Paving Phase	42
Total Construction GHG Emissions	**555**

SOURCE: TAHA, 2015.

Project emissions would be approximately 0.002 percent of the total County GHG emissions inventory of 27,272,709 metric tons per year. Project emissions would represent approximately 0.5 percent of off-road diesel emissions associated with industrial sources. In addition, the proposed project would comply with the State mandate to limit idling from trucks to less than 5 minutes. Additional Best Management Practices implemented by the Kern County Public Works Department include eliminating unnecessary equipment idling and traffic management to reduce congestion on roadways experiencing construction activities. Based on this analysis, the proposed project would not result in a significant contribution to the County emissions inventory and would implement control measures that would contribute to controlling GHG emissions. Therefore, the proposed project would result in a less-than-significant impact related to GHG emissions.

Mitigation

Impacts would be less than significant, and no mitigation measures are required.

4.5.2 Would the proposed project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less-Than-Significant Impact)

Impact Analysis

Regarding compliance with State plans, policies, and regulations, the First Update to the Climate Change Scoping Plan includes nine key economic sectors related to accomplishing

[21]Kern County, *Communitywide Greenhouse Gas Emission Inventory 2005 Baseline Year - 2020 Forecast*, May 2012.

Statewide goals.[22] They include energy, transportation, agriculture, water, waste management, annual and working lands (forests), short-lived climate pollutants, green buildings, and cap-and-trade regulations. The Update includes recommended actions the State should take in each of the sectors to meet climate change goals. None of the recommended actions are related to construction emissions. The proposed project would not generate operational emissions. Therefore, there is no potential for the proposed project to interfere with implementation of the First Update to the Climate Change Scoping Plan. The County has not developed a Climate Action Plan or established GHG regulations related to the proposed project. As discussed above, the proposed project would not generate emissions that would be consistent with the County's emissions inventory. The proposed project would not conflict with State or local climate change goals. Therefore, the proposed project would result in a less-than-significant impact related to consistency with applicable plans, policies, and regulations.

4.6 CUMULATIVE IMPACTS

According to the APCD, it is widely recognized that no single project could generate enough GHG emissions to noticeably change the global climate temperature. However, the combination of GHG emissions from past, present and future projects could contribute substantially to global climate change. Thus, project specific GHG emissions should be evaluated in terms of whether or not they would result in a cumulatively significant impact on global climate change. GHG emissions, and their associated contribution to climate change, are inherently a cumulative impact issue. Therefore, project-level impacts of GHG emissions are treated as one-in-the-same as cumulative impacts. Based on the above analysis, the proposed project would not contribute to a cumulatively considerable GHG impact.

[22]CARB, *First Update to the Climate Change Scoping Plan*, May 15, 2014.

Appendix A

Air Quality Calculations

Summary of Emission Calculations

Localized Emissions (lb/day)

	TOG	ROG	CO	NOX	SO2	Total PM2.5	Total PM2.5	CO2	CH4	N2O	CO2e
Pipe trenching and laying crew & equipment	12.11	10.17	85.28	111.87	0.08	5.91	4.99	8,453	2.6	0.3	8,590.4
Paving crew & equipment	3.65	3.07	18.72	39.97	0.05	1.69	1.56	4,798	1.5	0.2	4,876.4

Regional Emissions (lb/day)

	TOG	ROG	CO	NOX	SO2	Total PM2.5	Total PM2.5	CO2	CH4	N2O	CO2e
Pipe trenching and laying crew & equipment	12.26	10.30	86.26	115.40	0.09	6.14	5.07	9,690	2.6	0.3	9,839.1
Paving crew & equipment	5.40	4.52	25.94	82.24	0.18	4.01	2.33	18,320	1.6	0.6	18,517.6
Total (with overlap)	17.66	14.83	112.19	197.64	0.27	10.14	7.40	28,011	4.2	0.9	28,356.8

Regional Emissions (tons/yr)

	TOG	ROG	CO	NOX	SO2	Total PM2.5	Total PM2.5	CO2	CH4	N2O	CO2e	MT
Pipe trenching and laying crew & equipment	1	1	5	7	0	0	0	557	0.1	0.018	565.7	513.2
Paving crew & equipment	0	0.0	0.1	0.2	0	0	0	46	0.0	0.001	46.3	42.0
Total	1	1	5	7	0	0	0	603	0.2	0.020	612.0	555.2

Calculation of Emissions for Trenching and Pipe Laying

Year	2017	
No of Hour per Day	8	
Truck Hauling Material Density	2400	lb/cu.yd
Total Number of Days	115	

g/hp-hr

Equipment	CalEEMod Equipment Category	Horsepower	LoadFactor	Year	No of Equipment	#hr per da	# of days	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4
D9 Pipe CAT Dozers	RubberTiredDozers	474	0.4	2017	4	8	115	0.787455	0.6617	5.52569	7.33345	0.0049	0.3407	0.3134	505.8493	0.155
CAT 320 Excavators	Excavators	164	0.38	2017	2	8	115	0.397029	0.3336	3.15091	3.69967	0.0049	0.182	0.1675	498.5222	0.1527
/Trenching and Material Handling Emissions/						8	115									
Case 580N Backhoe	Tractors/Loaders/Backhoes	90	0.37	2017	2	8	115	0.595595	0.5005	3.7818	4.8087	0.0049	0.3616	0.3327	502.7952	0.1541
				Total:	8											

g/mile

Location	No of Miles Round Trip	#Trips per day	# of days	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4
5-ton Trucks (Supervising foreman)	50	6	115	0.21632	0.180121	0.845276	5.245443	0.01584	0.136721	0.073428	1663.278	0.012724
2-ton Pickup Truck (19 crew)	50	3	115	0.041987	0.03015	1.258788	0.165641	0.004179	0.046448	0.019314	416.542	0.00247

Calculation of Emissions for Trenching and Pipe Laying

Year	2017	
No of Hour per Day	8	
Truck Hauling Material Density	2400	lb/cu.yd
Total Number of Days	115	

lb/day

Equipment	CalEEMod Equipment Category	Horsepower	LoadFactor	Year	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
D9 Pipe CAT Dozers	RubberTiredDozers	474	0.4	2017	10.5	8.9	73.9	98.1	0.1	4.6	4.2	-	-	4.6	4.2	6,766.2	2.1
CAT 320 Excavators	Excavators	164	0.38	2017	0.9	0.7	6.9	8.1	0.0	0.4	0.4	-	-	0.4	0.4	1,095.9	0.3
/Trenching and Material Handling Emissions/										0.5	0.0	-	-	0.5	0.0	-	-
Case 580N Backhoe	Tractors/Loaders/Backhoes	90	0.37	2017	0.7	0.6	4.4	5.6	0.0	0.4	0.4	-	-	0.4	0.4	590.6	0.2
				Total:	**12.1**	**10.2**	**85.3**	**111.9**	**0.1**	**5.9**	**5.0**	**-**	**-**	**5.9**	**5.0**	**8,452.7**	**2.6**

lb/day **Re-entrained Dust**

Location	TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
5-ton Trucks (Supervising foreman)	0.1	0.1	0.6	3.5	0.0	0.1	0.0	0.10	0.01	0.2	0.1	1100.1	0.0
2-ton Pickup Truck (19 crew)	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.02	0.003	0.0	0.0	137.7	0.0
	0.2	0.1	1.0	3.5	0.0	0.1	0.1	0.1	0.0	0.2	0.1	1237.8	0.0

Regional Emissions (lb/day)

12.26	10.30	86.26	115.40	0.09	6.02	5.05	0.12	0.02	6.14	5.07	9,690.49	2.60

Lozlized Emissions (lb/day)

12.1	10.2	85.3	111.9	0.1	5.9	5.0	-	-	5.9	5.0	8,452.7	2.6

Calculation of Emissions for Trenching and Pipe Laying

Year	2017	
No of Hour per Day	8	
Truck Hauling Material Density	2400	lb/cu.yd
Total Number of Days	115	

lb/phase

Equipment	CalEEMod Equipment Category	Horsepower	LoadFactor	Year		TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
D9 Pipe CAT Dozers	RubberTiredDozers	474	0.4	2017		1,211.3	1,017.8	8,499.8	11,280.5	7.5	524.1	482.1	-	-	524.1	482.1	778,111.7	238.4
CAT 320 Excavators	Excavators	164	0.38	2017		100.4	84.3	796.6	935.3	1.2	46.0	42.3	-	-	46.0	42.3	126,027.2	38.6
/Trenching and Material Handling Emissions/						-	-	-	-	-	61.2	5.0	-	-	61.2	5.0	-	-
Case 580N Backhoe	Tractors/Loaders/Backhoes	90	0.37	2017		80.5	67.6	510.9	649.6	0.7	48.8	44.9	-	-	48.8	44.9	67,918.5	20.8
				Total:	**-**	1,392.1	1,169.8	9,807.2	12,865.4	9.4	680.2	574.3	-	-	680.2	574.3	972,057.3	297.8

lb/project

Location	TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
5-ton Trucks (Supervising foreman)	16.5	13.7	64.3	399.0	1.2	10.4	5.6	11.2	1.7	21.6	7.3	126,508.2	1.0
2-ton Pickup Truck (19 crew)	1.6	1.1	47.9	6.3	0.2	1.8	0.7	2.2	0.3	4.0	1.1	15,841.0	0.1
	18.0	14.8	112.2	405.3	1.4	12.2	6.3	13.4	2.0	25.5	8.3	142,349.2	1.1

Regional Emissions (lb/phase)

TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
1,410.16	1,184.64	9,919.34	13,270.63	10.80	692.32	580.64	13.36	2.00	705.68	582.64	1,114,406.50	298.91

Localized Emissions (lb/phase)

TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
1,392.1	1,169.8	9,807.2	12,865.4	9.4	680.2	574.3	-	-	680.2	574.3	972,057.3	297.8

Calculation of Emissions for Paving Phase

Year	2017	
No of Hour per Day	8	
Truck Hauling Material Density	2400	lb/cu.yd
Total Number of Days	5	

g/hp-hr

Equipment	CalEEMod Equipment Category	Horsepower	LoadFactor	Year	No of Equipment	#hr per day	# of days	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4
Terex CR652 Pavers	PavingEquipment	260	0.36	2017	4	8	5	0.342633	0.2879	1.333	4.12109	0.0049	0.1415	0.1302	498.7323	0.1528
12-ton Rollers	Rollers	137	0.38	2017	2	8	5	0.373471	0.3138	2.98069	3.87384	0.0049	0.1804	0.1659	497.9088	0.1526
Case 580N Backhoe	Tractors/Loaders/Backhoes	90	0.37	2017	2	8	5	0.595595	0.5005	3.7818	4.8087	0.0049	0.3616	0.3327	502.7952	0.1541
				Total:	8											

g/mile

Location	No of Miles Round Trip	#Trips per day	# of days	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4
Truck, Semi, Tractor	60	60	5	0.21632	0.180121	0.845276	5.245443	0.01584	0.136721	0.073428	1663.278	0.012724
Water Truck (5,000 gal)	50	1	5	0.21632	0.180121	0.845276	5.245443	0.01584	0.136721	0.073428	1663.278	0.012724
2-ton Pickup Truck (10 crew)	50	3	5	0.041987	0.03015	1.258788	0.165641	0.004179	0.046448	0.019314	416.542	0.00247

Calculation of Emissions for Paving Phase

Year	2017	
No of Hour per Day	8	
Truck Hauling Material Density	2400	lb/cu.yd
Total Number of Days	5	

lb/day

Equipment	CalEEMod Equipment Category	Horsepower	LoadFactor	Year	TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
Terex CR652 Pavers	PavingEquipment	260	0.36	2017	2.3	1.9	8.8	27.2	0.0	0.9	0.9	-	-	0.9	0.9	3,293.3	1.0
12-ton Rollers	Rollers	137	0.38	2017	0.7	0.6	5.5	7.1	0.0	0.3	0.3	-	-	0.3	0.3	914.3	0.3
Case 580N Backhoe	Tractors/Loaders/Backhoes	90	0.37	2017	0.7	0.6	4.4	5.6	0.0	0.4	0.4	-	-	0.4	0.4	590.6	0.2
				Total:	**3.6**	**3.1**	**18.7**	**40.0**	**0.0**	**1.7**	**1.6**	**-**	**-**	**1.7**	**1.6**	**4,798.2**	**1.5**

lb/day **Re-entrained Dust**

Location	TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
Truck, Semi, Tractor	1.7	1.4	6.7	41.6	0.1	1.1	0.6	1.17	0.17	2.3	0.8	13200.9	0.1
Water Truck (5,000 gal)	0.0	0.0	0.1	0.6	0.0	0.0	0.0	0.02	0.00	0.0	0.0	183.3	0.0
2-ton Pickup Truck (10 crew)	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.02	0.003	0.0	0.0	137.7	0.0
	1.8	1.5	7.2	42.3	0.1	1.1	0.6	1.2	0.2	2.3	0.8	13521.9	0.1

Regional Emissions (lb/day)

TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
5.40	4.52	25.94	82.24	0.18	2.81	2.15	1.20	0.18	4.01	2.33	18,320.16	1.57

Lozlized Emissions (lb/day)

TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
3.6	3.1	18.7	40.0	0.0	1.7	1.6	-	-	1.7	1.6	4,798.2	1.5

Calculation of Emissions for Paving Phase

Year	2017	
No of Hour per Day	8	
Truck Hauling Material Density	2400	lb/cu.yd
Total Number of Days	5	

lb/phase

Equipment	CalEEMod Equipment Category	Horsepower	LoadFactor	Year	TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
Terex CR652 Pavers	PavingEquipment	260	0.36	2017	11.3	9.5	44.0	136.1	0.2	4.7	4.3	-	-	4.7	4.3	16,466	5.0
12-ton Rollers	Rollers	137	0.38	2017	3.4	2.9	27.4	35.6	0.0	1.7	1.5	-	-	1.7	1.5	4,572	1.4
Case 580N Backhoe	Tractors/Loaders/Backhoes	90	0.37	2017	3.5	2.9	22.2	28.2	0.0	2.1	2.0	-	-	2.1	2.0	2,953	0.9
				Total: #	18.2	15.3	93.6	199.9	0.2	8.5	7.8	-	-	8.5	7.8	23,991	7.4

lb/project

Location	TOG	ROG	CO	NOX	SO2	PM10 (EX+BTW)	PM2.5 (EX+BTW)	PM10 (Reentrained)	PM2.5 (Reentrained)	PM2.5 Total	PM2.5Total	CO2	CH4
Truck, Semi, Tractor	8.6	7.1	33.5	208.2	0.6	5.4	2.9	5.8	0.9	11.3	3.8	66,004	0.5
Water Truck (5,000 gal)	0.1	0.1	0.5	2.9	0.0	0.1	0.0	0.1	0.0	0.2	0.1	917	0.0
2-ton Pickup Truck (10 crew)	0.1	0.0	2.1	0.3	0.0	0.1	0.0	0.1	0.0	0.2	0.0	689	0.0
	8.8	7.3	36.1	211.3	0.6	5.6	3.0	6.0	0.9	11.6	3.9	67,610	0.5

Regional Emissions (lb/phase)													
	27.01	22.62	129.68	411.20	0.88	14.03	10.76	6.00	0.90	20.03	11.66	91,601	7.87
Lozlized Emissions (lb/phase)													
	18.2	15.3	93.6	199.9	0.2	8.5	7.8	-	-	8.5	7.8	23,991	7.4

Trenching and Material Handling Fugitive Dust Emissions

		Construction Activity
Excavation Schedule	**1**	**day**

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[e]	Mean Wind Speed (mph)[f]	Moisture Content (%)[g]	Dirt Handled (cy)[h]	Dirt Handled (lbs./day)
0.35	6.04	2	300	750,000

Dragline Parameters

Drop Height (feet)	Moisture Content	PM_{10} Scaling Factor	$PM_{2.5}$ Scaling Factor
3	2	0.75	0.017

Incremental Increase in Fugitive Dust Emissions from Construction Activities

Equations:

Material Handling[j]: PM10 Emissions (lb/day) = (k=0.35)x(0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton)
(1 - control efficiency)

Material Handling[j]: PM2.5 Emissions (lb/day) = (k=0.053)x(0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton)
(1 - control efficiency)

Dragline Equation for PM_{10} Emissions[o] (lbs/day) = 0.75 x [((0.0021) x (drop height)^$^{0.7}$) / (moisture content)^$^{0.3}$] x Dirt Handled x (1-Control Efficiency)

Dragline Equation for $PM_{2.5}$ Emissions[o] (lbs/day) =0.017 x [((0.0021) x (drop height)$^{1.1}$) / (moisture content)$^{0.3}$] x Dirt Handled x (1 - Control Efficiency)

Description	Control Efficiency[k] %	PM10 lb/day	PM2.5 lb/day
Material Handling	61	0.209	0.032
Dragline	61	0.323	0.011
Total		**0.53**	**0.043**

Excavation		Square Feet[a]

Notes:

a) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Corection Factors Applicable to the Predictive Emission Factor Equations
b) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993
c) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph.
d) Assumed storage piles are 0.02 acres in size
e) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggretate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm
f) Mean wind speed at the Bakersfield Wind Monitoring Station.
g) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, equation 2-13, p 2-28.
h) Obtained from the project team.
I) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggretate Handling and Storage Piles, Equation 1
j) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12.
l) Source: USEPA, AP-42, Emission Factor Equations for Uncontrolled Dust Sources at Western Surface Coal Mines, Table 11.9-1, Dragline calculations for PM_{10} and $PM_{2.5}$.
k) Includes watering at least three times a day per Rule 403 (61% control efficiency).

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: San Joaquin
Calendar Year: 2017
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	CO2_RUNEX	PM10_RUNEX	PM10_PMTW	PM10_PMBW	PM2_5_RUNEX	PM2_5_PMTW	PM2_5_PMBW	SOx_RUNEX
San Joaquin	2017	HHDT	Aggregatec	Aggregatec	GAS	34.71935	4635.18	694.6648	0.599	0.858	33.449	3.694	1,820.692	0.001	0.020	0.062	0.001	0.005	0.026	0.019
San Joaquin	2017	HHDT	Aggregatec	Aggregatec	DSL	7326.85	1103696	0	0.178	0.214	0.708	5.252	1,662.617	0.040	0.036	0.061	0.039	0.009	0.026	0.016
San Joaquin	2017	LDA	Aggregatec	Aggregatec	GAS	282799	11198745	1770890	0.021	0.030	0.904	0.091	309.472	0.002	0.008	0.037	0.002	0.002	0.016	0.003
San Joaquin	2017	LDA	Aggregatec	Aggregatec	DSL	2087.37	91639.49	12755.65	0.031	0.035	0.288	0.226	292.064	0.021	0.008	0.037	0.020	0.002	0.016	0.003
San Joaquin	2017	LDA	Aggregatec	Aggregatec	ELEC	1822.95	102099.2	11847.37	-	-	-	-	-	-	0.008	0.037	-	0.002	0.016	-
San Joaquin	2017	LDT1	Aggregatec	Aggregatec	GAS	26592.22	882549.5	158878.5	0.072	0.097	2.587	0.276	362.258	0.004	0.008	0.037	0.003	0.002	0.016	0.004
San Joaquin	2017	LDT1	Aggregatec	Aggregatec	DSL	42.27205	977.9095	209.2908	0.187	0.213	1.345	1.346	390.503	0.149	0.008	0.037	0.142	0.002	0.016	0.004
San Joaquin	2017	LDT1	Aggregatec	Aggregatec	ELEC	21.56728	720.5559	133.1725	-	-	-	-	-	-	0.008	0.037	-	0.002	0.016	-
San Joaquin	2017	LDT2	Aggregatec	Aggregatec	GAS	98437.83	3841421	615619.5	0.030	0.042	1.260	0.166	416.604	0.002	0.008	0.037	0.002	0.002	0.016	0.004
San Joaquin	2017	LDT2	Aggregatec	Aggregatec	DSL	92.48568	4619.97	591.666	0.016	0.019	0.127	0.086	364.548	0.008	0.008	0.037	0.008	0.002	0.016	0.003
San Joaquin	2017	LHDT1	Aggregatec	Aggregatec	GAS	8598.035	264565.5	128097.9	0.131	0.187	2.448	0.527	854.047	0.003	0.008	0.076	0.003	0.002	0.033	0.009
San Joaquin	2017	LHDT1	Aggregatec	Aggregatec	DSL	8616.944	292346.3	108390.3	0.228	0.259	1.083	4.625	590.335	0.046	0.012	0.076	0.044	0.003	0.033	0.006
San Joaquin	2017	LHDT2	Aggregatec	Aggregatec	GAS	1061.313	37416.55	15811.98	0.091	0.131	1.721	0.408	955.214	0.003	0.008	0.089	0.002	0.002	0.038	0.010
San Joaquin	2017	LHDT2	Aggregatec	Aggregatec	DSL	2233.332	84937.45	28092.51	0.191	0.218	0.880	3.295	658.731	0.036	0.012	0.089	0.034	0.003	0.038	0.006
San Joaquin	2017	MCY	Aggregatec	Aggregatec	GAS	15048.38	117620.5	30093.76	2.479	2.961	25.431	1.220	166.575	0.002	0.004	0.012	0.002	0.001	0.005	0.002
San Joaquin	2017	MDV	Aggregatec	Aggregatec	GAS	94341.97	3131641	583034	0.055	0.077	2.019	0.289	554.932	0.002	0.008	0.037	0.002	0.002	0.016	0.006
San Joaquin	2017	MDV	Aggregatec	Aggregatec	DSL	760.3555	34475.59	4762.111	0.019	0.022	0.208	0.104	490.071	0.013	0.008	0.037	0.012	0.002	0.016	0.005
San Joaquin	2017	MH	Aggregatec	Aggregatec	GAS	2380.246	19282.98	238.1198	0.300	0.394	8.381	0.992	1,304.971	0.003	0.012	0.130	0.003	0.003	0.056	0.013
San Joaquin	2017	MH	Aggregatec	Aggregatec	DSL	623.1482	5453.098	62.31482	0.161	0.184	0.622	6.819	1,067.593	0.184	0.016	0.130	0.176	0.004	0.056	0.010
San Joaquin	2017	MHDT	Aggregatec	Aggregatec	GAS	680.897	32846.41	13623.39	0.263	0.369	6.248	1.227	1,291.986	0.002	0.012	0.130	0.002	0.003	0.056	0.013
San Joaquin	2017	MHDT	Aggregatec	Aggregatec	DSL	6173.336	299926	0	0.317	0.361	0.844	4.492	1,224.865	0.143	0.012	0.130	0.137	0.003	0.056	0.012
San Joaquin	2017	OBUS	Aggregatec	Aggregatec	GAS	294.2061	17255.64	5886.476	0.114	0.163	2.670	0.710	1,289.944	0.001	0.012	0.130	0.001	0.003	0.056	0.013
San Joaquin	2017	OBUS	Aggregatec	Aggregatec	DSL	100.1896	8192.663	0	0.187	0.212	0.566	5.622	1,441.449	0.046	0.012	0.130	0.044	0.003	0.056	0.014
San Joaquin	2017	SBUS	Aggregatec	Aggregatec	GAS	64.55018	3344.273	258.2007	0.209	0.306	4.950	1.050	671.227	0.002	0.008	0.745	0.002	0.002	0.319	0.007
San Joaquin	2017	SBUS	Aggregatec	Aggregatec	DSL	271.7441	10365.28	0	0.195	0.222	0.514	8.688	1,309.396	0.079	0.012	0.745	0.075	0.003	0.319	0.012
San Joaquin	2017	UBUS	Aggregatec	Aggregatec	GAS	70.00136	10770.64	280.0054	1.216	1.634	20.586	3.484	1,717.364	0.005	0.012	0.130	0.004	0.003	0.056	0.018
San Joaquin	2017	UBUS	Aggregatec	Aggregatec	DSL	181.1422	27767.68	724.5689	1.074	3.572	10.460	17.991	2,237.176	0.338	0.012	0.842	0.323	0.003	0.361	0.013

		5-ton Truck	HHDT						0.1801	0.2163	0.8453	5.2454	1,663.2781	0.0401	0.0355	0.0611	0.0384	0.0089	0.0262	0.0158
		2-ton Pickup Truck	LDT2						0.0302	0.0420	1.2588	0.1656	416.5420	0.0017	0.0080	0.0368	0.0016	0.0020	0.0158	0.0042
		Crew	LDTA,LDT1, LDT2						0.0262	0.0362	1.0713	0.1190	335.8348	0.0019	0.0080	0.0368	0.0017	0.0020	0.0158	0.0034

CalEEMod Default Load Factors

OFFROADEquipmentType	Horsepower	LoadFactor
AerialLifts	63	0.31
AirCompressors	78	0.48
Bore/DrillRigs	206	0.5
CementandMortarMixers	9	0.56
Concrete/IndustrialSaws	81	0.73
Cranes	226	0.29
CrawlerTractors	208	0.43
Crushing/Proc.	85	0.78
Dumpers/Tenders	16	0.38
Excavators	163	0.38
Forklifts	89	0.2
GeneratorSets	84	0.74
Graders	175	0.41
Off-HighwayTractors	123	0.44
Off-HighwayTrucks	400	0.38
OtherConstructionEquipment	172	0.42
OtherGeneralIndustrialEquipment	88	0.34
OtherMaterialHandlingEquipment	167	0.4
Pavers	126	0.42
PavingEquipment	131	0.36
PlateCompactors	8	0.43
PressureWashers	13	0.3
Pumps	84	0.74
Rollers	81	0.38
RoughTerrainForklifts	100	0.4
RubberTiredDozers	255	0.4
RubberTiredLoaders	200	0.36
Scrapers	362	0.48
SignalBoards	6	0.82
SkidSteerLoaders	65	0.37
SurfacingEquipment	254	0.3
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	98	0.37
Trenchers	81	0.5
Welders	46	0.45

RESPONSE TO COMMENTS

COMMENT #1 – September 19, 2016

SOUTHERN CALIFORNIA GAS COMPANY, Letter from Estefania Sanchez, Program Assistant 3. The utility reviewed the project and identified a high pressure pipeline within the vicinity of the project. The following comments were provided:

- Southern California Gas Company (SoCalGas), Gas Transmission Department, operates and maintains high-pressure natural gas transmission pipeline 7000 in the vicinity of your project.
- The SoCalGas Distribution Department may have other gas facilities within your project area. To assure no conflict with the SoCalGas' distribution pipeline system, please call (818) 701-3448.
- As the project plans are developed, you must notify SoCalGas-Gas Transmission Department regarding the improvements that are proposed near our pipeline(s) and within our easement(s) before you begin any construction, including potholing. .

  RESPONSE: California Government Code (CGC) 4216 requires any person planning to conduct any excavation shall contact the appropriate regional notification center, at least two working days, but not more than 14 calendar days, prior to commencing that excavation. In order to ensure that compliance with CGC 4216 does not result in the delay of the project the County will add measure HAZ-02 to the Negative Declaration and Mitigation Measure Monitoring Program.

  HAZ-02: Prior to the final approval of the construction plans, the County shall notify the SoCalGas-Gas Transmission Department regarding the proposed improvements.

COMMENT #2 – September 29, 2016

SOUTHERN CALIFORNIA GAS COMPANY, Letter from James Chuang, Senior Environmental Specialist. The utility reviewed the project and identified the presence of a high pressure pipeline and medium pressure distribution pipelines within the vicinity of the project.

The following comments were provided:

- SoCalGas has medium pressure distribution pipelines running along the majority of proposed sewer trunk line locations and one high pressure transmission pipeline running along Beech Avenue.
- SoCalGas recommends that the project proponent call Underground Service Alter at 811 at least two business days prior to performing any excavation work for the proposed project. Underground Service Alter will coordinate with SoCalGas and other Utility owners in the area to mark the locations of buried utility owned lines.

  RESPONSE: California Government Code (CGC) 4216 requires any person planning to conduct any excavation shall contact the appropriate regional notification center, at least two working days, but not more than 14 calendar days, prior to commencing that excavation. In order to ensure that compliance with CGC 4216 does not result in the delay of the project the County will add measure HAZ-02 to the Negative Declaration and Mitigation Measure Monitoring Program.

COMMENT #3 – October 6, 2016

STATE WATER RESOURCES CONTROL BOARD, an email from Parmdeep (Eric) Uppal, Water Resource Control Engineer. The board reviewed the project and provided the following comments:

- There is a typo on page 17 of 58, there is a typo in the paragraph titled Special-Status Plant Species which reads: "No suitable habitat for thses species occurs within the Project Impact Area (PIA)." Did the lead agency mean "these"?
- The draft does not provide clarification on if a survey for federally listed species was conducted, or what the protection status of the special status species with a potential to

occur within the project area.

- A copy of the biological report should be provided so the biological details missing from the Initial Study can be clarified.
- A copy of the cultural resources report should be provided so the cultural resources details missing from the Initial Study can be clarified.

RESPONSE: The typo has been correct and the requested studies have been sent. No further response required.

KERN COUNTY
PUBLIC WORKS DEPARTMENT
CRAIG M. POPE, P.E., DIRECTOR

ADMINISTRATION & ACCOUNTING
OPERATIONS & MAINTENANCE
BUILDING & DEVELOPMENT
ENGINEERING

2700 "M" STREET
BAKERSFIELD, CA 93301-2370

Phone: (661) 862-8850
FAX: (661) 862-8905
Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

October 16, 2016

Commenting Agencies (see address list)

Re: RESPONSE TO COMMENTS
Mitigated Negative Declaration for Standard Street Secondary Access

Thank you for commenting on the above-referenced project. Enclosed is our response to all comments submitted to our office regarding this project. A revised Mitigated Negative Declaration to be considered by the Board of Supervisors for approval.

To further comment on this project, a public meeting has been scheduled before the Kern County Board of Supervisors on November 8, 2016, at 2:00 p.m. The Board of Supervisors Chambers is located on the 1st Floor of the Kern County Administrative Center at 1115 Truxtun Avenue, Bakersfield, California.

Thank you for your participation in the environmental process for this project. All environmental documents are available in the Public Works Department at the address above. Please contact Michael Dillenbeck for assistance at (661) 862-8913 or by email at dillenbeckm@co.kern.ca.us.

Very truly yours,

Craig M. Pope
Director

By:_____
Michael Dillenbeck
WM Specialist III

MD
Enclosure
COMMENTING AGENCIES:
Dept. of Conservation Division of Oil, Gas, and Geothermal Resources, State Water Resources Control Board, San Joaquin Valley Air Pollution Control District, Southern California Gas Company.

COMMENTING AGENCIES

1. Southern California Gas Company (SoCalGas)
   Estefania Sanchez, Program Assistant 3
   9400 Oakdale Blvd
   Chatsworth, CA 91311

2. Department of Conservation
   Division of Oil, Gas, and Geothermal Resources
   Michael Toland, Senior Oil and Gas Engineer
   4800 Stockdale Hwy, Suite 100

3. Southern California Gas Company (SoCalGas)
   James Chuang, Senior Environmental Specialist
   555 Fifth Street, Los Angeles, CA. 90013
   Bakersfield, CA 93309

4. State Water Resources Control Board
   Division of Financial Assistance
   Parmdeep (Eric) Uppal, Water Resource Control Engineer
   1616 Capital Avenue, 2nd Floor, Sacramento, CA 95814
   (Sent & Received Via Email)

5. San Joaquin Valley Air Pollution Control District
   Arnaud Marjollet, Director of Permit Services
   1990 E. Gettysburg Ave
   Fresno, CA 93726

RESPONSE TO COMMENTS

COMMENT #1 – September 19, 2016

SOUTHERN CALIFORNIA GAS COMPANY, Letter from Estefania Sanchez, Program Assistant 3. The utility reviewed the project and identified a high pressure pipeline within the vicinity of the project. The following comments were provided:

- Southern California Gas Company (SoCalGas), Gas Transmission Department, operates and maintains high-pressure natural gas transmission pipeline 7000 in the vicinity of your project.
- The SoCalGas Distribution Department may have other gas facilities within your project area. To assure no conflict with the SoCalGas' distribution pipeline system, please call (818) 701-3448.
- As the project plans are developed, you must notify SoCalGas-Gas Transmission Department regarding the improvements that are proposed near our pipeline(s) and within our easement(s) before you begin any construction, including potholing. .

  RESPONSE: California Government Code (CGC) 4216 requires any person planning to conduct any excavation shall contact the appropriate regional notification center, at least two working days, but not more than 14 calendar days, prior to commencing that excavation. In order to ensure that compliance with CGC 4216 does not result in the delay of the project the County will add measure HAZ-02 to the Negative Declaration and Mitigation Measure Monitoring Program.

HAZ-02: UTILITY NOTIFICATION: Prior to the final approval of the construction plans, the County shall notify the SoCalGas-Gas Transmission Department regarding the proposed improvements.

COMMENT #2 – September 17, 2013

DEPARTMENT OF CONSERVATION, DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES, Letter from Michael Toland, Senior Oil & Gas Engineer. The department reviewed the project and identified by map three plugged and abandoned wells within the project area. The following comments were provided:

- The project is situated outside the administrative boundaries of any oil field.
- There are three dry holes located within the project boundaries, having been drilled, plugged and abandoned in 1942, 1952, and 1958 respectively; none were abandoned to the current Division standards (locations were provided).
- No structures be built over or in proximity to an abandoned well location.
- The Division can require re-abandonment of a previously abandoned well when construction of any structure over or in proximity of a well could be a hazard, the cost of which, would be the responsibility of the county.

RESPONSE: The project area and well map has been reviewed, and although the three wells are located within the Project Area, no sewer lines are proposed to be constructed within 50' to the wells identified on the provided maps.

COMMENT #3 – September 29, 2016

SOUTHERN CALIFORNIA GAS COMPANY, Letter from James Chuang, Senior Environmental Specialist. The utility reviewed the project and identified the presence of a high pressure pipeline and medium pressure distribution pipelines within the vicinity of the project.

The following comments were provided:

- SoCalGas has medium pressure distribution pipelines running along the majority of proposed sewer trunk line locations and one high pressure transmission pipeline running along Beech Avenue.
- SoCalGas recommends that the project proponent call Underground Service Alter at 811 at least two business days prior to performing any excavation work for the proposed project. Underground Service Alter will coordinate with SoCalGas and other Utility owners in the area to mark the locations of buried utility owned lines.

RESPONSE: California Government Code (CGC) 4216 requires any person planning to conduct any excavation shall contact the appropriate regional notification center, at least two working days, but not more than 14 calendar days, prior to commencing that excavation. In order to ensure that compliance with CGC 4216 does not result in the delay of the project the County will add measure HAZ-02 to the Negative Declaration and Mitigation Measure Monitoring Program.

COMMENT #4 – October 6, 2016

STATE WATER RESOURCES CONTROL BOARD, an email from Parmdeep (Eric) Uppal, Water Resource Control Engineer. The board reviewed the project and provided the following comments:

- There is a typo on page 17 of 58, there is a typo in the paragraph titled Special-Status Plant Species which reads: “No suitable habitat for thses species occurs within the Project Impact Area (PIA).” Did the lead agency mean “these”?
- The draft does not provide clarification on if a survey for federally listed species was conducted, or what the protection status of the special status species with a potential to occur within the project area.
- A copy of the biological report should be provided so the biological details missing from the Initial Study can be clarified.
- A copy of the cultural resources report should be provided so the cultural resources details missing from the Initial Study can be clarified.

RESPONSE: The typo has been correct and the requested studies have been sent. No further response required.

COMMENT #5 – October 11, 2016

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, a letter from Sharla Yang, for Brian Clements, for Arnaud Marjollet, Director of Permit Services. The district reviewed the project and provided the following comments:

- Per the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), the District recommends that an ambient air quality analysis be performed when emissions of any criteria pollutant exceed the 100 pounds per day screening level after implementation of all enforceable mitigation measures. As such, the District recommends that the reference to the 10 tons per year screening level for PM10 and NOx be deleted because it is incorrect. The Project is subject to Rule 9510, due to it exceeding 9,000 square feet of other space.
- If approval of this project is the last discretionary approval by the Board of Supervisors, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees be made a condition of project approval.
- The proposed Project may be subject to District Rules and Regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.
- The District recommends that a copy of the District's comments be provided to the project proponent.

RESPONSE: The statement that "Ambient air quality analysis only need to be performed when emissions of any criteria pollutant exceed the 100 pounds per day screening level after implementation of all enforceable mitigation measures" has been corrected to reflect the appropriate thresholds. Additionally, the statement on page 13 of the Mitigated Negative Declaration stating that Rule 9510 does not apply has been corrected.

The current project is still in its early design phase and will require additional discretionary actions after the initial adoption of this document. In order to ensure compliance with the Air District Rules, the following mitigation measure Air-03 has been added to the final Mitigated Negative Declaration and Mitigation Measure Monitoring Program:

AIR-03: DISTRICT PERMITS: Prior to receiving final discretionary approval, the construction contractor shall provide verification to the Kern County Public Works Department that they are in full compliance with Rule 9510

APPENDIX 2

47 1st Street, Suite 1
Redlands, CA 92373-4601
(909) 915-5900

May 5, 2019

Tom Dodson
Tom Dodson & Associates
2150 North Arrowhead Avenue
San Bernardino, CA 92405

RE: Biological Resources Assessment
South Shafter Sewer, Trunk Line Sewer & Lift Station Project
Unincorporated community of South Shafter, Kern County

Dear Tom:

Jericho Systems, Inc. (Jericho) is pleased to provide the results of the general biological resources assessment (BRA) and Jurisdictional Waters Delineation (JD) report for the Kern County Public Works Department 's (County's) South Shafter Sewer, Trunk Line Sewer & Lift Station Project (Project) located in the unincorporated community of South Shafter, Kern County, CA.

This report is designed to address potential effects of the proposed Project to designated Critical Habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA), or species designated as sensitive by the California Department of Fish and Wildlife (CDFW), or the California Native Plant Society (CNPS). Attention was focused on sensitive biological resources known to occur locally (within a 3-mile radius of the Project area boundaries). This report also addresses resources protected under the Coastal Barriers Resources Act, Coastal Zone Management Act, Magnuson-Stevens Fishery Conservation and Management Act, the Protection of Wetlands – Executive Order 11990, Migratory Bird Treaty Act and Wild and Scenic Rivers Act.

The Project involves State Revolving Funds administered by the State Water Resources Control Board (SWRCB), the biological resources assessment was conducted in accordance with a process termed as CEQA-Plus (California Environmental Quality Act (CEQA)).

PROJECT LOCATION

The Project is located 0.25 miles south of the City of Shafter in the unincorporated area of South Shafter in Kern County, California, along an approximately 6.53-mile long corridor that follows the road rights-of-way (ROW) and waterline easements of Shafter Avenue, Poplar Avenue, Beech Avenue, Myrik Lane, Riverside Street, Orange Street, Burbank Street and intersecting roads and alleys that included Ratzlaffe Lane, Thomas Lane, Eliot Street, Richland Avenue, Gossiper Lane, Smith Lane, and Alfalfa Lane. The Project area is depicted on the *Rio Bravo* quadrangle of the United

States Geological Survey's (USGS) 7.5-minute topographic map series within 16, 17, 20, 21, 22, 26, 27, and 28 Township 28 South, Range 25 East, Mount Diablo Base and Meridian.

PROJECT DESCRIPTION

The Kern County Public Works Department (County) proposes to construct approximately 34,500 linear feet of sewer trunk line (consisting of 4-, 8- and 12-inch polyvinyl chloride [PVC] pipes) with associated manholes for access within existing road rights-of-way (ROW) and water line easements. Where possible the sewer lines and manholes will be located in the road shoulders, but due to some existing utilities within the ROW, some lines may be placed under the paved road surface.

These sewer lines will connect to the Shafter/North of the River Wastewater Treatment Facilities (S/NOR WWTF), located approximately 4 miles southwest of the project sites, at the northeast corner of 7th Standard Road and Palm Avenue, 5 1/2 miles west of Highway 43 (Enos Lane). The S/NOR WWTF has the ability and capacity to handle the increased waste generated by the project. Up to five sewer lift stations to serve the lines will be installed on vacant lots outside of the ROW. Three lift stations operating in series are included; one at Southwest Shafter; one near Thomas Lane; and one at Smith Corner. Two independent lift stations connecting to the lift station at Smith Corner are also included; one at Smith Corner and one at Burbank Street.

The Project components will occur adjacent to property classified as Prime, Farmland of Statewide Importance, Semi-agricultural and Rural Commercial, Rural Residential, Urban and Built-up, and Vacant/Disturbed.

SPECIAL STATUS SPECIES AND HABITAT

As stated above, the objective of this document is to determine whether the Project area supports special status or otherwise sensitive species and/ or their habitat, and to address the potential effects associated with the Proposed project on those resources. The species and habitats addressed in this document are based on database information and field investigation.

Prior to conducting the field study, species and habitat information was gathered from the reports related to the specific project and relevant databases for the *Rio Bravo* USGS quadrangle to determine which species and/or habitats would be expected to occur on site. These sources include:

- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USFWS Information for Planning and Consultation System (IPaC);
- California Natural Diversity Database (CNDDB) *Rarefind 5*);
- CNDDB Biogeographic Information and Observation System (BIOS);
- California Native Plant Society Electronic Inventory (CNPSEI) database;
- Calflora Database;
- USDA Natural Resources Conservation Service (NRCS) Web Soil Survey;
- USFWS National Wetland Inventory;
- Environmental Protection Agency (EPA) Water Program "My Waters" data layers
- Biological Resources Technical Memorandum prepared by SWCA dated February 10, 2016

According to the database queries, 19 sensitive species have been documented to occur in the *Rio Bravo* USGS 7.5-minute series quadrangle. Of the 19 sensitive species identified, 11 are State and/or federally listed as threatened or endangered. Table 1 below represents a compiled list of results from IPaC,

CNDDB and CNPS databases of listed species which have been documented within this quad and provides a potential to occur assessment based on the field investigation of the Project area and surveyor's knowledge of the species and local ecology (See attached database results)

Table 1:
State and Federally Listed Species Occurrence Potential within the Project Area

Scientific Name	Common Name	Federal / State Status	Habitat	Potential to Occur
Mammals				
Sorex ornatus relictus	Buena Vista Lake Ornate Shrew	Endangered/ None	Habitat essential for the shrew contains riparian and wetland vegetation communities with an abundance of leaf litter and dense herbaceous cover . They are most commonly found in close proximity to a reliable body of water. Moist soil in areas with an overstory of willows or cottonwoods appears to be favored, but may not be an essential habitat feature	Suitable habitat for this species does not exist within the Action Area. The potential for this species to occur is **none.**
Dipodomys ingens	Giant Kangaroo Rat	Endangered/ None	This species inhabits annual grassland communities with few or no shrubs, well drained, sandy-loam soils located on gentle slopes (less than 11 percent) in areas with about 6.3 inches or less of annual precipitation. Associated with San Joaquin kit fox, blunt-nosed leopard lizards, San Joaquin antelope squirrel and California jewelflower.	The Project area is in a developed area with road ways, and residential and agricultural uses. Suitable habitat for this species does not exist within the Project area. The potential for this species to occur is **low.**
Dipodomys nitratoides nitratoides	Tipton Kangaroo Rat	Endangered/ Endangered	Open areas with flat terrain not subject to flooding is essential for permanent occupancy by Tipton kangaroo rats.	The Project area is in a developed area with road ways, and residential and agricultural uses. Suitable habitat for this species does not exist within the Project area. The potential for this species to occur is **low.**
Vulpes macrotis mutica	San Joaquin Kit Fox	Endangered/ Theatened	Kit fox are an arid-land-adapted species and typically occur in desert-like habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure in alkali scrub/shrub and arid grasslands. The kit fox is associated with areas having open, level, sandy ground hat is relatively stone-free.	Typical habitat associated with this species is not present in or adjacent to the project area. This species was not observed during survey. The potential for this species to occur is **low**.
Reptiles				
Gambelia silus	Blunt-nosed Leopard Lizard	Endangered/ Endangered	Typically inhabits open, sparsely vegetated areas of low relief on the San Joaquin Valley floor and in the surrounding foothills. They are most commonly found in as Nonnative Grassland and Valley Sink Scrub communities, but are also found in Valley Needlegrass Grassland, Alkali Playa, and Atriplex Grassland	Suitable habitat for this species does not exist within the Project. Species was not observed during survey. The potential for this species to occur is **low**.

Scientific Name	Common Name	Federal / State Status	Habitat	Potential to Occur
Thamnophis gigas	Giant Garter Snake	Threatened/ None	Occurs in marshes, sloughs, ponds, small lakes, low gradient streams and other waterways and agricultural wetlands. Habitat for the giant garter snake consists of (1) adequate water during the snake's active season, (2) emergent herbaceous wetland vegetation for escape and foraging habitat, (3) grassy banks and openings in waterside vegetation for basking, and (4) higher elevation upland habitat for cover and refuge from flooding.	The Project area is in a developed area with road ways, and residential and agricultural uses. Suitable habitat for this species does not exist within the Project area. The potential for this species to occur is **none**.
Amphibians				
Rana draytonii	California Red-legged Frog	Threatened/ None	Breeding sites of the California red-legged frog are in aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons. Additionally, California red-legged frogs frequently breed in artificial impoundments such as stock ponds	The Project area is in a developed area with road ways, and residential and agricultural uses. Suitable habitat for this species does not exist within the Project area. The potential for this species to occur is **none**.
Fish				
Hypomesus transpacificus	Delta Smelt	Threatened/ None	This is an aquatic species.	The Project area is in a developed area with road ways, and residential and agricultural uses. Suitable habitat for this species does not exist within the Project area. The potential for this species to occur is **none**.
Crustaceans				
Branchinecta lynchii	Vernal Pool Fairy Shrimp	Threatened/ None	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	Suitable habitat for this species does not exist within the Action Area. The potential for this species to occur is **none.**
Plants				
Caulanthus californicus	California jewelflower	Endangered/ Endangered	Occurs Upper Sonoran Subshrub Scrub, and Cismontane Juniper Woodland and Scrub communities at an elevation range of 230 - 3,280 feet.	Suitable habitat for this species does not exist within the Action Area. Species was not observed during survey. The potential for this species to occur is **low**.
Eremalche parryi ssp. kernensis	Kern mallow	Endangered/ None	The species occurs on alkali flats and eroded hillsides of the southern San Joaquin Valley and adjacent areas of California. It is often found growing under and around *Atriplex spinifera* (spiny saltbush), and *A. polycarpa* (common saltbush) or *Ephedra californica* (desert tea);at higher	Suitable habitat for this species does not exist within the Action Area. Species was not observed during survey.The potential for this species to occur is **low**.

Scientific Name	Common Name	Federal / State Status	Habitat	Potential to Occur
			elevations (up to 5000 feet) it grows at the base of *Juniperus californicus* (California juniper) in the juniper scrub community It typically grows in areas where shrub cover is less than 25 percent and average herbaceous cover ranges from 48 to 80 percent.	

Critical Habitat

The Project area is not located within or directly adjacent to any designated Critical Habitat.

EXISTING CONDITION – AFFECTED ENVIRONMENT

The community of Shafter is situated in Kern County at the southern end of the San Joaquin Valley, and is bound by the Coast Range to the west, the Transverse Range (San Emigdio Mountains) to the south, and the Sierra Nevada (including the Tehachapi Mountains) to the east. Elevation of the project area is between 460 and 520 feet above mean sea level. Prior development activities have altered the current environment and native plants have for the most part been removed as a result. The climate here is arid.

On April 16, 2019 , Ecologist Shay Lawrey conducted a field survey of the Project area with focus on potential habitat for federally listed species and migratory birds. Ms. Lawrey is a qualified biologist with advanced degrees in Biology and 25 years of experience surveying for the sensitive species known to in California. She surveyed the Project area on a calm weather day, during peak animal activity, between 7:00 a.m. and 4:30 p.m. General wildlife species were detected during field surveys by sight, calls, tracks, scat, or other signs. In addition to species observed, expected wildlife usage of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. Ms. Lawrey assessed the Project area for habitat type structure, species composition/association, condition and human disturbances. The main focus of the surveys was to identify sensitive species and habitat including jurisdictional waters and to evaluate the potential for sensitive species to occur within the Project area.

The project will take place along existing paved roadways within a residential and agricultural community. Based on the survey results, the conditions within the Project area completely developed with roads, houses and crops in production. There is no native habitat within, adjacent to or in general proximity to the Project area. Vegetation consists of ornamental trees and shrubs, orchard trees and other crops.

The habitat conditions within and adjacent to the Project area are not suitable to support for any sensitive habitat and/or any species listed or proposed for listing under the federal ESA or CESA, or species designated as sensitive by the CDFW, or CNPS.

EFFECTS ANALYSIS

Federal Endangered Species Act (ESA)

The USFWS administers the federal ESA of 1973. The ESA provides a legal mechanism for listing species as either threatened or endangered, and a process of protection for those species listed. Section 9

of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Take" can include adverse modification of habitats used by a threatened or endangered species during any portion of its life history. Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act. Take authorization can be obtained under Section 7 or Section 10 of the act.

No federally listed species were observed during the field survey nor are any expected to occur. No impact to federally protected species or habitats will result from implementation of the proposed Project.

California Endangered Species Act (CESA)

The CDFW administers the State CESA. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species soon, in the absence of special protection or management. And a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species applies to California native plants. Further, all raptors and their nests are protected under Section 3503.5 of the California Fish and Game Code (FGC). Species of Special Concern (SSC) is an informal designation used by CDFW for some declining wildlife species that are not proposed for listing as threatened or endangered. This designation does not provide legal protection but signifies that these species are recognized as sensitive by CDFW.

No State listed species, or other sensitive species were observed during the field survey nor are any expected to occur. No impact to species protected by the State will result from implementation of the proposed Project.

Coastal Barriers Resources Act Resources

The Coastal Barrier Resources Act (CBRA) was passed by Congress in 1982 to encourage conservation of hurricane-prone, biologically rich coastal barriers. CBRA prohibits most new federal expenditures that encourage development or modification of coastal barriers. CBRS boundaries are shown on maps that were originally adopted by Congress and are maintained by the USFWS.

Currently, the coastal barrier resource systems are located along the Atlantic and Gulf Coasts of the United States and the shore areas of the Great Lakes. Therefore, the Project is not located in a Coastal Barriers Resources Act area.

Coastal Zone Management Act Resources

Coastal Zone Management Act was passed by Congress in 1972 and is administered by National Oceanic and Atmospheric Administration, (NOAA). It provides for the management of the nation's coastal resources, including the Great Lakes. The goal is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

The Project is not located in a Coastal Zone where the provisions of this Act would be applicable.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law governing marine fisheries management in U.S. federal waters. First passed in 1976, the Magnuson-Stevens Act fosters long-term biological and economic sustainability of our nation's marine fisheries out to 200 nautical miles from shore. The goals of the act include: prevent overfishing; rebuild overfished stocks; increase long-term economic and social benefits; use reliable data and sound science; conserve essential fish habitat; ensure a safe and sustainable supply of seafood.

The Project is not located 200 nautical miles from shore, nor does it impact any essential fish habitat that would impact regulated areas 200 nautical miles from shore.

Protection of Wetlands – Executive Order 11990

Protection of Wetlands – Executive Order 11990: The purpose of Executive Order (EO) 11990 is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands". To meet these objectives, the Order requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. The procedures require the determination of whether or not the proposed project will be in or will affect wetlands. If so, a wetlands assessment must be prepared that describes the alternatives considered. The procedures include a requirement for public review of assessments. The evaluation process follows the same 8 steps as for EO 11988, Floodplain Management.

Wetlands are the at transition between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands have one or more of the following three attributes: 1) at least periodically, the land supports predominantly hydrophytes; 2) soils are undrained; and 3) the substrate is saturated with water or covered by shallow water at some time during the growing season of each year. Under current guidelines, a federal jurisdictional wetland must display all three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. In California however, a jurisdictional wetland needs to meet only one of these parameters.

No drainages or indications of wetlands, hydric soils, naturally occurring indicator plant species were observed during the field survey nor are any expected to occur. There are no jurisdictional wetlands within or immediately adjacent to any of the Project components identified in the Project description. No impact to wetland areas will result from implementation of the proposed Project.

Migratory Bird Treaty Act (MBTA)

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711) provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. The USFWS, in coordination with the CDFW administers the MBTA. CDFW's authoritative nexus to MBTA is provided in FGC Sections 3503.5 which protects all birds of prey and their nests and FGC Section 3800 which protects all non-game birds that occur naturally in the State.

Vegetation suitable for nesting birds does exist adjacent to the Project area. As discussed, most birds are protected by the MBTA. In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally January/February to

August/September, and by conducting a worker environmental awareness training. However, if all work cannot be conducted outside of nesting season, a Project-specific Nesting Bird Management Plan can be prepared to determine suitable buffers.

Preconstruction Nesting Bird Surveys are recommended prior to the commencement of any Project activities that may occur within the nesting season (February to September), to avoid any potential Project-related impacts to nesting birds within the Project area.

Wild and Scenic Rivers Act.

Wild and Scenic Rivers Act. The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection. Rivers may be designated either a federal or state agency. As of 2019, there were 22 water body sections have a wild and scenic river designation in California.

The Project is not located within a water body that is designated by the Wild and Scenic Rivers Act.

CONCLUSION

The proposed Project will not affect any State or federally listed endangered, threatened, or species of special concern, because there is no habitat to support these species within, adjacent to, or in the broader vicinity of the Project area. Implementation of this Project will not result in adverse impacts to listed species either directly or indirectly. In addition, the proposed Project will not adversely affect Critical Habitat as none exists within the Project area.

The Project area supports vegetation that has the potential to provide nestable habitat to migratory birds protected under the MBTA. Therefore, pre-construction surveys are warranted and recommended should project implementation occur during the bird nesting season.

Thank you for asking us to assist you with this project. If you have any questions or need any clarifications, contact me at (909) 915-5900 or at shay@jericho-systems.com.

Sincerely,



Shay Lawrey, President
Ecologist/Regulatory Specialist

Attachments:
- Photos
- Figures
- Database Search Results

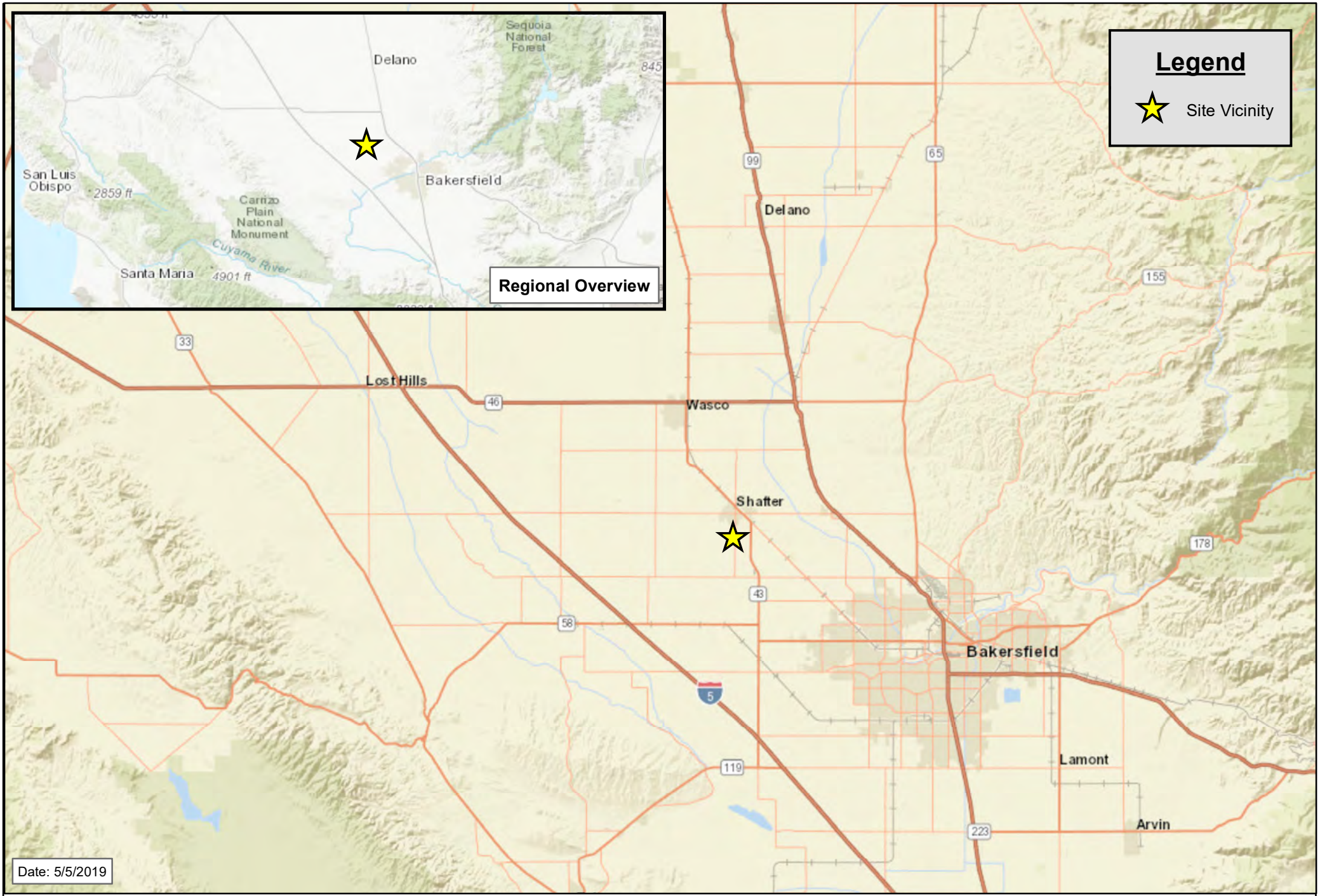
Tom Dodson
South Shafter BRA
May 2019
Site Photos



Photo 1. Typical view of sewer pipeline alignment conditions. Photo taken along Riverside Avenue.



Photo 4. Typical view of intersecting alley conditions.

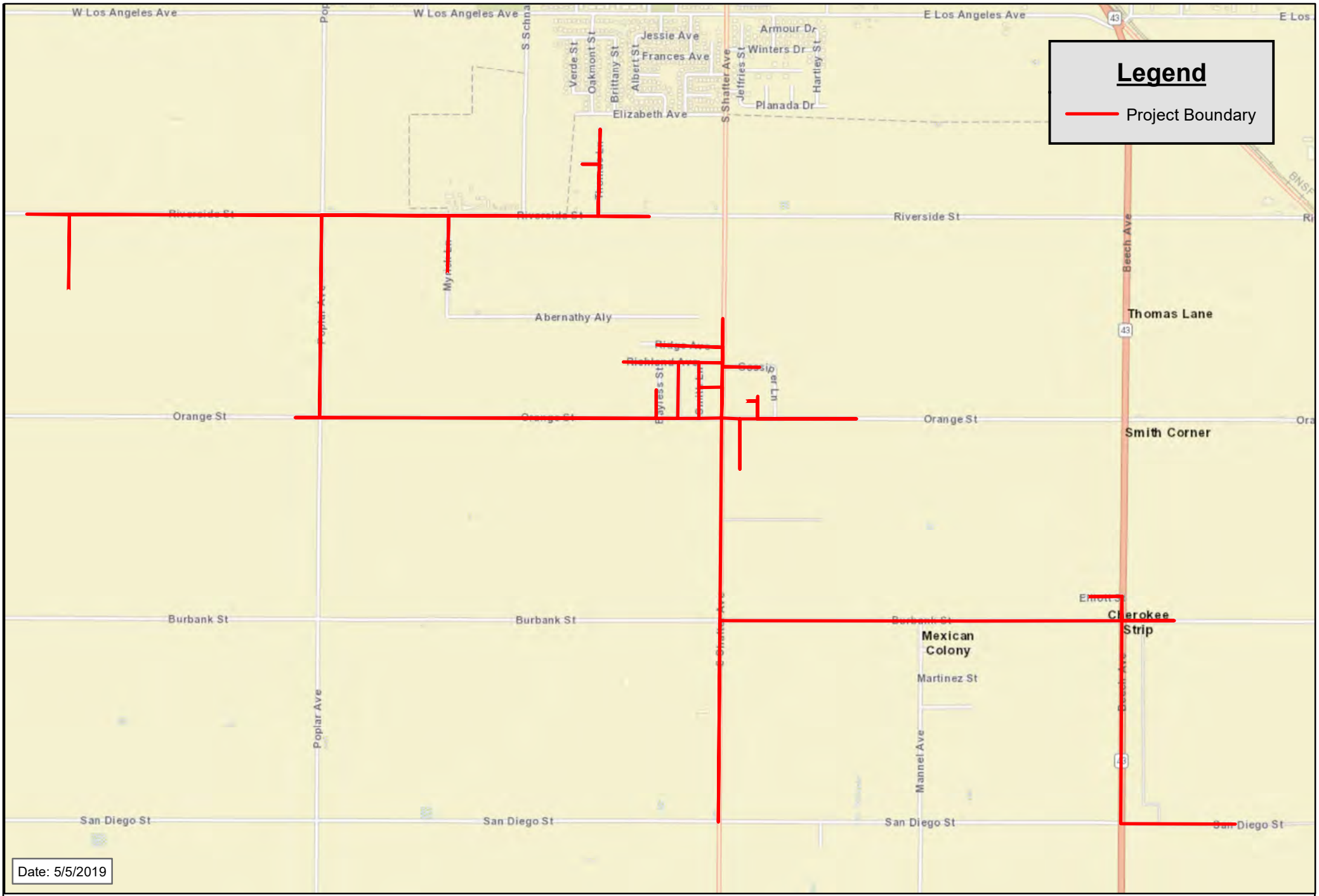


Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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Figure 1 - Regional Overview Site Vicinity

Kern County Public Works Department
Shafter, California

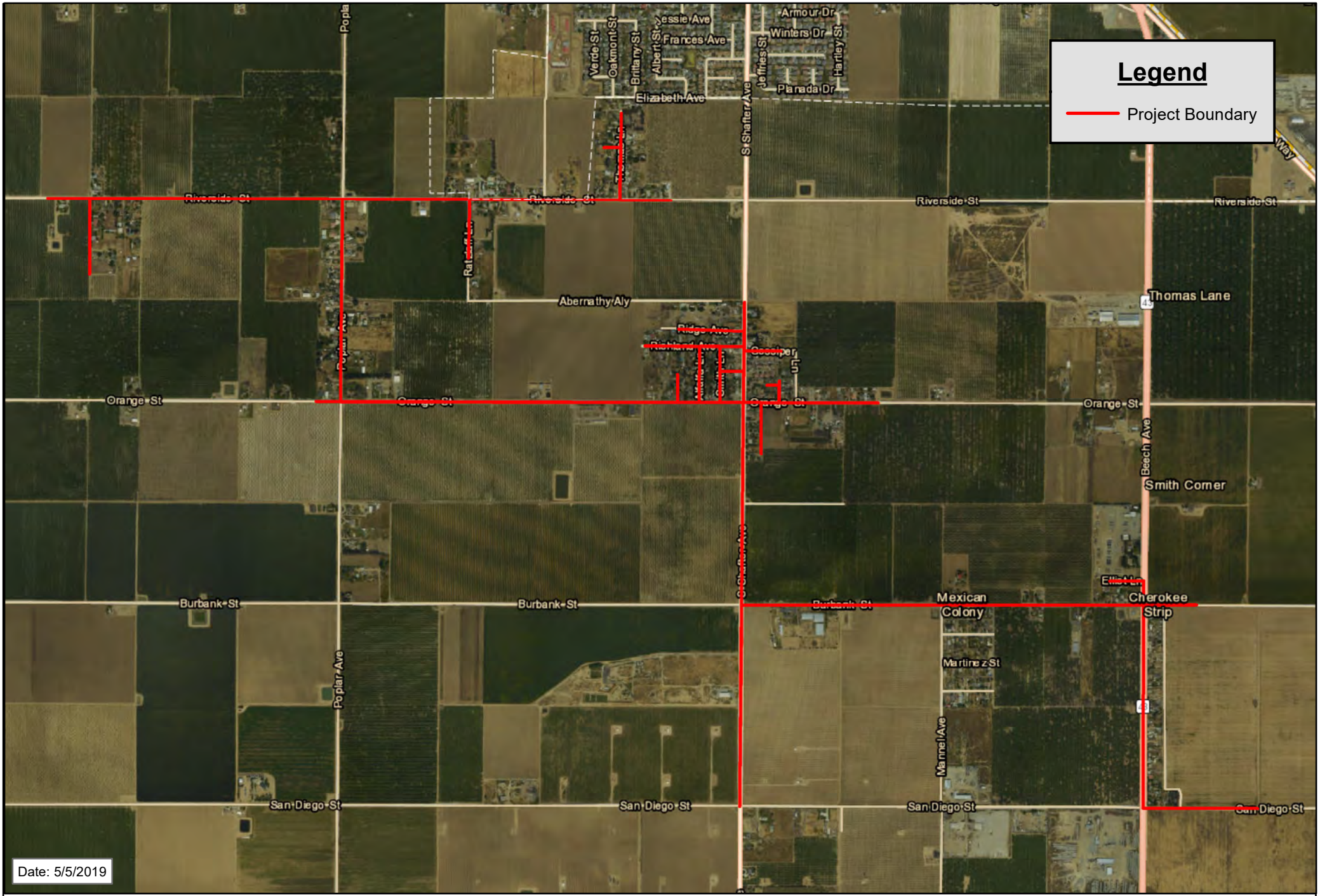


Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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Figure 2
Site Location

Kern County Public Works Department
South Shafter Sewer Trunk Replacement Project

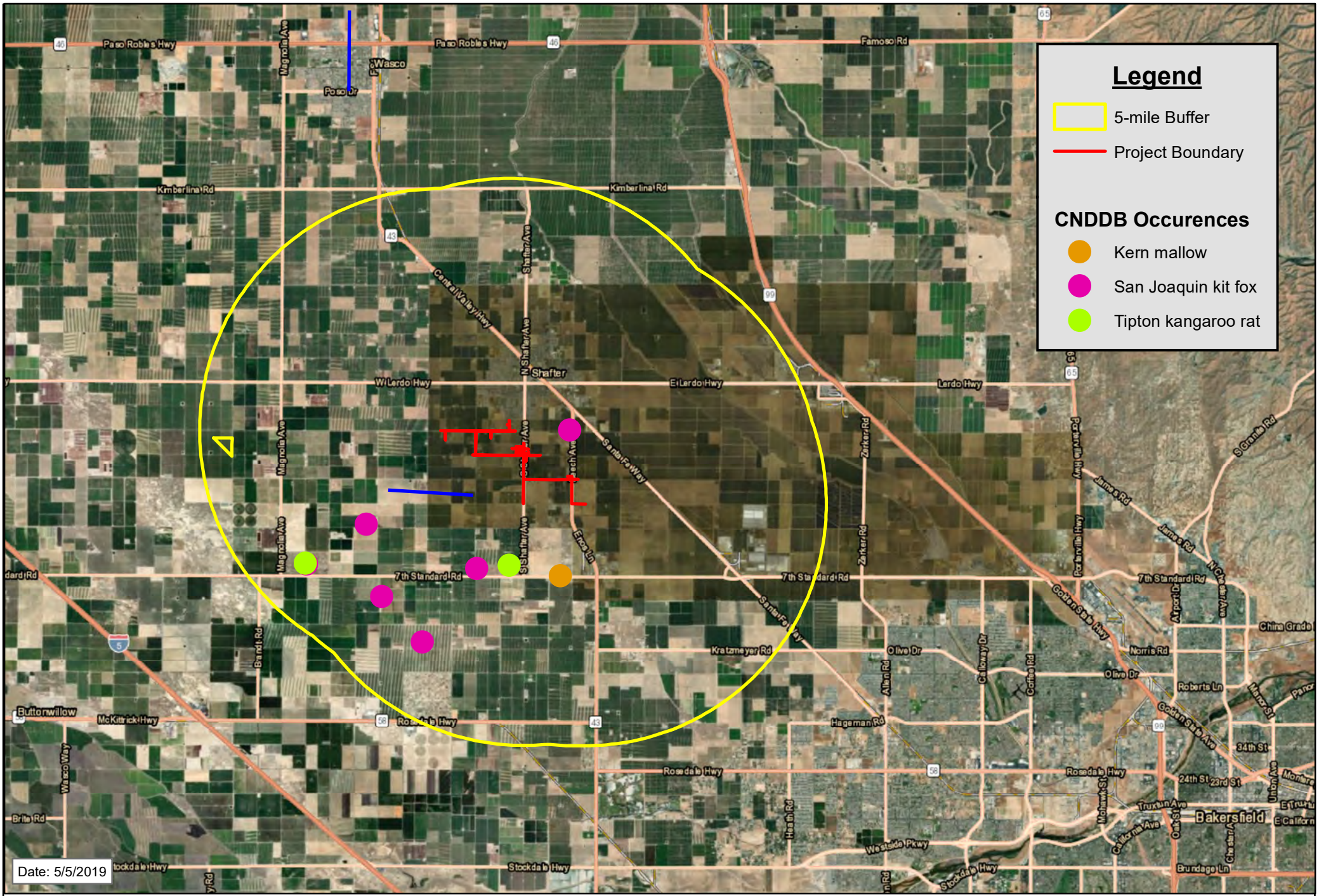


Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

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Figure 3
Site Location

Kern County Public Works Department
South Shafter Sewer Trunk Replacement Project



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

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Figure 4
5 Mile CNDDB Occurences

Kern County Public Works Department
South Shafter Sewer Trunk Replacement Project

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: May 04, 2019
Consultation Code: 08ESMF00-2019-SLI-1832
Event Code: 08ESMF00-2019-E-05893
Project Name: Kern County Public Works Department Sewer Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-1832

Event Code: 08ESMF00-2019-E-05893

Project Name: Kern County Public Works Department Sewer Project

Project Type: WASTEWATER PIPELINE

Project Description: South Shafter Sewer Project

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/35.4760040464855N119.27858927575461W



Counties: Kern, CA

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Buena Vista Lake Ornate Shrew Sorex ornatus relictus There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1610	Endangered
Giant Kangaroo Rat Dipodomys ingens No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox Vulpes macrotis mutica No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat Dipodomys nitratoides nitratoides No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7247 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/40/office/11420.pdf	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard Gambelia silus No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake Thamnophis gigas No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Kern Mallow Eremalche kernensis No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1731	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Rio Bravo (3511943))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
blunt-nosed leopard lizard *Gambelia sila*	ARACF07010	Endangered	Endangered	G1	S1	FP
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
California glossy snake *Arizona elegans occidentalis*	ARADB01017	None	None	G5T2	S2	SSC
coast horned lizard *Phrynosoma blainvillii*	ARACF12100	None	None	G3G4	S3S4	SSC
Crotch bumble bee *Bombus crotchii*	IIHYM24480	None	None	G3G4	S1S2	
Hoover's eriastrum *Eriastrum hooveri*	PDPLM03070	Delisted	None	G3	S3	4.2
Kern mallow *Eremalche parryi ssp. kernensis*	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
San Joaquin kit fox *Vulpes macrotis mutica*	AMAJA03041	Endangered	Threatened	G4T2	S2	
San Joaquin Pocket Mouse *Perognathus inornatus*	AMAFD01060	None	None	G2G3	S2S3	
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
Valley Saltbush Scrub *Valley Saltbush Scrub*	CTT36220CA	None	None	G2	S2.1	

Record Count: 11

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

3 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 3511953

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Lifeform	Blooming Period	Habitats	Federal Listing Status	State Listing Status	CA Rare Plant Rank
Caulanthus californicus	California jewelflower	annual herb	Feb-May	• Chenopod scrub • Pinyon and juniper woodland • Valley and foothill grassland	FE	CE	1B.1
Delphinium recurvatum	recurved larkspur	perennial herb	Mar-Jun	• Chenopod scrub • Cismontane woodland • Valley and foothill grassland			1B.2
Eremalche parryi ssp. kernensis	Kern mallow	annual herb	Jan,Mar,Apr,May(Feb)	• Chenopod scrub • Pinyon and juniper woodland • Valley and foothill grassland	FE		1B.2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 04 May 2019].

Search the Inventory
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The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Questions and Comments
rareplants@cnps.org

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APPENDIX 3

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

July 3, 2019

Tom Dodson, President
Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405

Re: Update and Addendum to Cultural Resources Survey
South Shafter Sewer Project
Near the City of Shafter, Kern County, California
CRM TECH Contract No. 3474

Dear Mr. Dodson:

At your request, CRM TECH has completed a supplementary cultural resources study on the Area of Potential Effects (APE) for the South Shafter Sewer Alignments and Laterals Project near the City of Shafter, Kern County, California. The study was designed and conducted as an update as well as an addendum to a 2015 study for the same undertaking (Romani 2015). The 2015 study covered the sewer trunk line alignments as delineated at that time, which extended approximately 6.53 linear miles (34,500 feet) in total length along various public roadways in and near the unincorporated communities of Thomas Lane, Smith Corner, and Cherokee Strip (*ibid.*:1).

The subject of this study is the updated and revised APE for the undertaking, with some segments of the original sewer trunk line alignments removed and other segments added. In addition, the current APE also includes the maximum extent of ground disturbance required for the installation of laterals from the trunk lines to individual buildings along the project route, most of them single-family residences. The buildings to be served by the laterals were not included in the APE since the undertaking has little potential to alter their existing condition, appearance, or integrity. The entire APE lies within Sections 16, 17, 20-22, 26, and 27 of T28S R25E, Mount Diablo Baseline and Meridian (Figures 1, 2).

The purpose of the study is to assist the Kern County Public Works Department and the State of California Water Resources Control Board in determining whether the proposed undertaking would have an effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources," as defined by Calif. PRC §5020.1(j), that may exist within the APE, in compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA). In order to accomplish this objective, CRM TECH conducted a cultural resources records search, historical and geoarchaeological background research, Native American consultations, and a systematic field survey. A summary of the methods, results, and final conclusions of these research procedures is presented below.

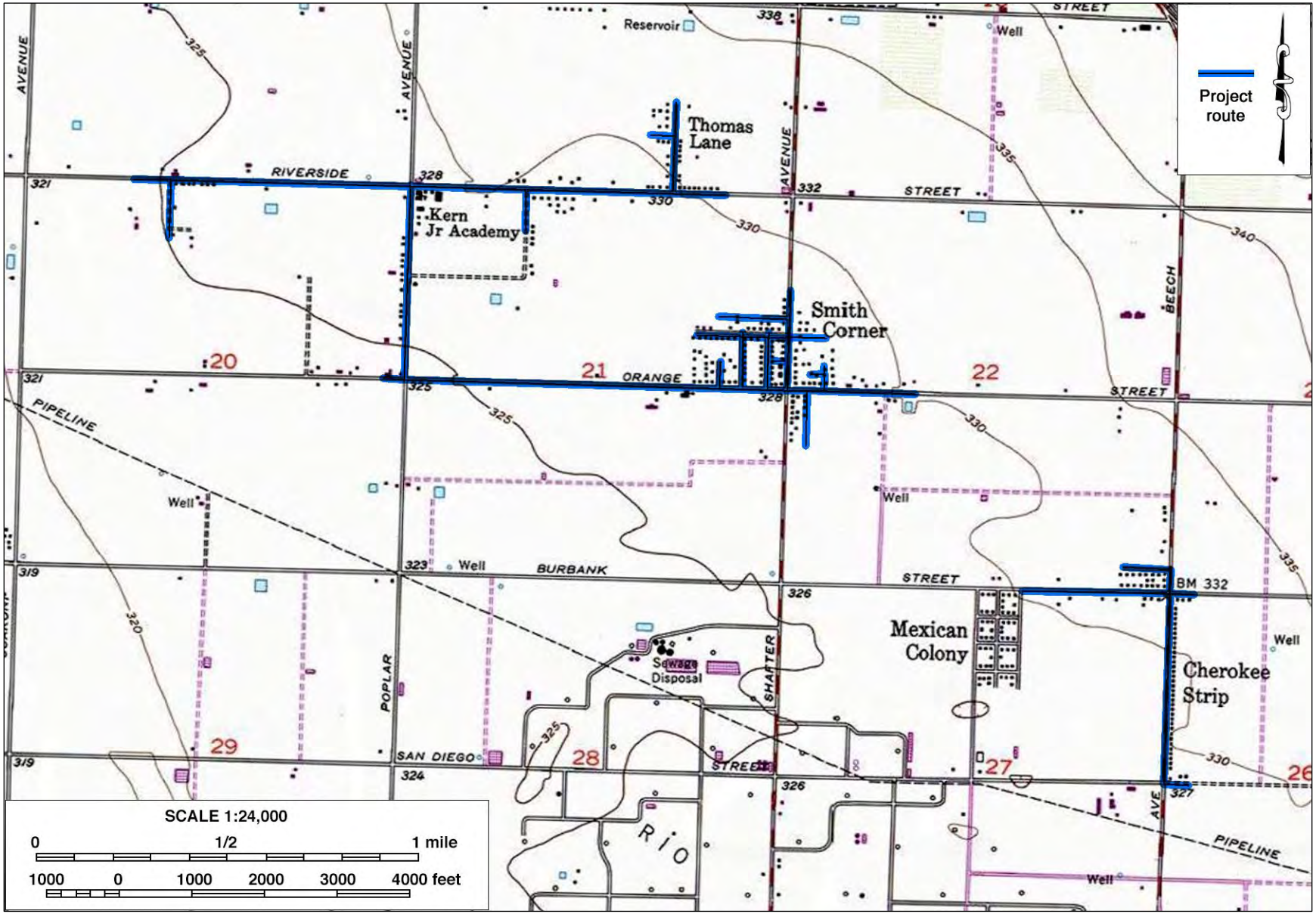


Figure 1 Project location. (Based on USGS Rio Bravo, Calif., 7.5' quadrangle [USGS 1973])

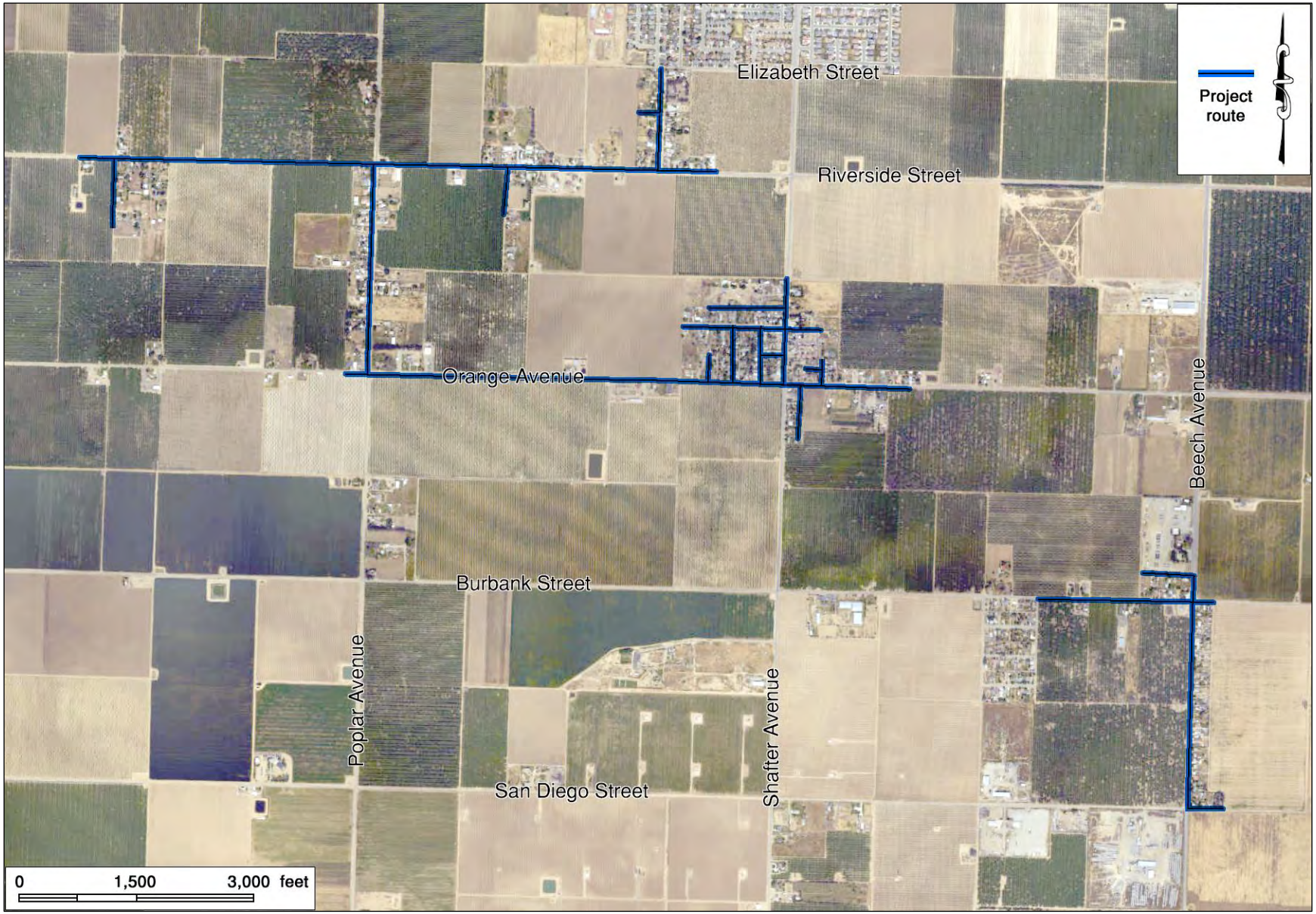


Figure 2. Aerial view of the project vicinity.

RECORDS SEARCH

On May 6, 2019, Celeste M. Thomson, coordinator of the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield, completed the records search for this study. The records search results indicate that since the completion of the 2015 study, two linear surveys that traversed across the current APE have been reported to the SSJVIC, and a third survey has occurred within a half-mile radius (Thomson 2019:1; cf. Romani 2015:4). Neither of the two surveys across the APE, however, identified any cultural resources in the vicinity.

While a historic-period building was the only cultural resource identified within the half-mile radius during the records search in 2015 (Romani 2015:4), SSJVIC records now list five additional buildings (Thomson 2019:1), one of them in close proximity to a portion of the APE near Thomas Lane (see Appendix 1). Located at 30336 Riverside Street, this building was originally recorded in 1989 and subsequently designated Site 15-008532 in the California Historical Resources Inventory (OHP 2013:56), but the records of the SCCIC offer no further historical or architectural information on the building.

In any event, SCCIC records indicate that Site 15-008532 was previously determined not to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources (OHP 2013:56). The other four buildings, like the one identified in 2015, were all recorded well outside the APE (see Appendix 1). Therefore, they require no further consideration in connection to this undertaking.

HISTORICAL BACKGROUND RESEARCH

Historical background research for this study was conducted by CRM TECH principal investigator/ historian Bai "Tom" Tang (see Appendix 2 for qualifications). Sources consulted during the research included published literature in local and regional history, U.S. General Land Office (GLO) land survey plat maps dated 1855, U.S. Geological Survey (USGS) topographic maps dated 1912-1973, and aerial photographs taken in 1952-2018. The historic maps are collected at the Science Library of the University of California, Riverside, and the California Desert District of the U.S. Bureau of Land Management, located in Moreno Valley. The aerial photographs are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

The historic maps suggest that the area around the APE was first settled in the early 20th century (GLO 1855; USGS 1912-1942). Prior to that, no man-made features were noted in the immediate vicinity of the APE in 1853-1855, and a few winding roads were the only ones observed in 1907-1910 (GLO 1855; USGS 1912). By 1928, in contrast, all of the major roads along the project route today were in place, lined by the occasional buildings (USGS 1931). Also present with the buildings by then were a large number of water reservoirs (*ibid.*), indicating widespread agricultural operations around the APE.

During the 1930s-1950s, growth accelerated around the APE, as demonstrated by the emergence of the communities of Thomas Lane, Smith Corner, Cherokee Strip, and Mexican Colony by the early post-WWII era (USGS 1942; 1954). In 1952, the landscape around the APE was characterized

primarily by patches of agricultural fields under cultivation, which were dotted with scattered buildings or clusters of them at the communities mentioned above (NETR Online 1952). Since then, the number of buildings has gradually increased over the years, but the overall land use pattern in the vicinity has remained unchanged (NETR Online 1952-2014; USGS 1973).

GEOARCHAEOLOGICAL ANALYSIS

As a part of the research procedures, CRM TECH archaeologist Ben Kerridge (see Appendix 2 for qualifications) pursued geoarchaeological analysis to assess the APE's potential for the deposition and preservation of subsurface cultural deposits from the prehistoric period, which cannot be detected through a standard surface archaeological survey. Sources consulted for this purpose included primarily topographic and geologic maps and reports pertaining to the surrounding area. Findings from these sources were used to develop a geomorphologic history of the APE and address geoarchaeological sensitivity of the vertical APE, which may reach a maximum depth of six feet below the ground surface.

Among the sources consulted, Smith (1964) identified the surface sediments in the entire APE as quaternary nonmarine terrace deposits, while Haydon and Hayhurst (2011) identified the surface sediments as Holocene-age alluvial fan deposits in the northwestern portion of the APE and Holocene to Late Pleistocene alluvial fan deposits in the southeastern portion. Nevertheless, regardless of the origin and age of the native sediments, the entire APE lies within the rights-of-way of paved public roadways or on developed land occupied by existing buildings, where the surface soils have been extensively disturbed by past construction activities, including the installation of subsurface utility lines. Therefore, the vertical APE appears to be relatively low in sensitivity for buried deposits of intact, potentially significant archaeological remains of prehistoric origin.

NATIVE AMERICAN CONSULTATION

On April 23, 2019, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. In response, the NAHC reported in a letter dated May 13, 2019, that the Sacred Lands File identified no Native American cultural resources in the APE but recommended that local Native American groups be contacted for further information. For that purpose, the NAHC provided a list of potential contacts in the region (see Appendix 3).

Upon receiving the NAHC's reply, CRM TECH contacted all three tribal representatives on the referral list, both in writing and by telephone, between May 15 and June 12, 2019 (see Appendix 3). As of this time, only one of the three tribes contacted has responded. On June 13, 2019, Dakota Jeff with the Cultural Resources Department of the Santa Rosa Rancheria Tachi-Yokut Tribe returned the telephone call and stated that the tribe would defer to the Tejon Indian Tribe in Bakersfield. Meanwhile, Ms. Jeff requested to be notified if any Native American cultural resources were found during the proposed undertaking.

FIELD SURVEY

On May 10, 2019, CRM TECH field director Daniel Ballester and project archaeologist Cynthia Morales (see Appendix 2 for qualifications) carried out the field survey of the APE. The portions of

the APE where no laterals are proposed, all of them within the rights-of-way of paved public roads and most of them previously surveyed in 2015 (Romani 2015:9-10), were surveyed at a reconnaissance level through a "windshield" inspection. The portions of the APE containing the proposed lateral alignments were surveyed at an intensive level by walking along either side of the roadbeds and closely inspecting the exposed ground surface within the public rights-of-way.

The segments of the lateral alignments on private properties, to which full access has not been obtained, were inspected visually for any evidence of cultural remains dating to the prehistoric or historic period (i.e., 50 years or older) whenever possible. Ground visibility was general good to excellent (80-100%) except where the surface was obscured by pavement, gravel-lined driveways, or landscaping features (Figure 3).

Throughout the course of the field survey, no potential "historic properties"/"historical resources" were observed within the APE. While a large number of buildings near the APE, namely those to be served by the proposed sewer laterals, appear to date to the historic period, none of them is subject to any impact or alterations as a result of the undertaking, either directly or indirectly. Therefore, none of them was included in the APE, as stated above.



Figure 3. Typical landscape within the APE, view to the east along Orange Avenue. (Photograph taken on May 10, 2019)

CONCLUSION

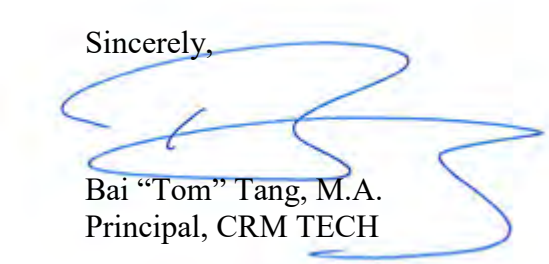
In summary of the research results presented above, no potential "historic properties"/"historical resources" have been identified within the updated APE for the proposed undertaking, and the subsurface sediments within the vertical extent of the APE appear to be relatively low in

archaeological sensitivity. Outside the APE but in close proximity, Site 15-008532, presenting a residential building of historical origin at 30336 Riverside Street, was previously recorded into the California Historical Resources Inventory but was determined not to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. Therefore, it does not meet the definition or a "historic property" or a "historical resource."

Based on these findings, CRM TECH considers the original conclusion of the 2015 study—that the proposed undertaking will have no effect or impact on any "historic properties" or "historical resources" (Romani 2015:10)—to remain valid and appropriate. No further cultural resources investigation will be necessary for this undertaking unless project plans undergo such changes as to include areas not covered by the 2015 study or the current survey. However, if buried cultural materials are discovered during earth-moving operations associated with the undertaking, all work in the immediate area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the find.

Thank you for this opportunity to be of service. If you have any questions or need additional information, please do not hesitate to contact me at (909) 824-6400 or ttang@crmtech.us.

Sincerely,



Bai "Tom" Tang, M.A.
Principal, CRM TECH

REFERENCES CITED

GLO (General Land Office, U.S. Department of the Interior)
1855 Plat Map: Township No. XXVIII South Range No. XXV East, Mount Diablo Meridian; surveyed in 1853-1855.

Haydon, Wayne D., and Cheryl A. Hayhurst
2011 Geologic Map of the Quaternary Surficial Deposits in Southern California, East Half of the Taft 30'x60' Quadrangle. California Geological Survey, Sacramento.

Laurie, Leroy, and Heather Gibson
2016 Improvements to Shafter Avenue from Riverside Street to 7th Standard Road: Archaeological Survey Report. Report prepared by SWCA Environmental Consultants, San Luis Obispo, California, for Kern County Public Works Department, Bakersfield.

NETR Online
1952-2014 Aerial photographs of the project vicinity; taken in 1952, 1968, 1994, 2005, 2009, 2010, 2012, and 2014. http://www.historicaerials. com.

OHP (Office of Historic Preservation, State of California)
2013 Directory of Properties in the Historic Property Data File for Kern County. On file, Southern San Joaquin Valley Information Center, California State University, Bakersfield.

Palm-Leach, Laura, Paul Brandy, Jay King, Pat Mikkelsen, Libby Seil, Lindsay Hartman, Jill Bradeen, Bryan Larson, Joseph Freeman, Julia Costello, Jeffrey Rosenthal, and Deborah Jones
2010 Cultural Resources Inventory of Caltrans District 6 Rural Conventional Highways in Fresno, Western Kern, Kings, Madera, and Tulare Counties: Summary of Methods and Findings. Report prepared by Far Western Anthropological Research Group, Inc., Davis, California, for Caltrans District 6, Fresno.

Romani, Gwen
2015 Archaeological Survey Report for the South Shafter Sewer Project, Kern County Public Works Department. Report prepared by Compass Rose Archaeological, Inc., Northridge, California, for Kern County Public Works Department, Bakersfield.

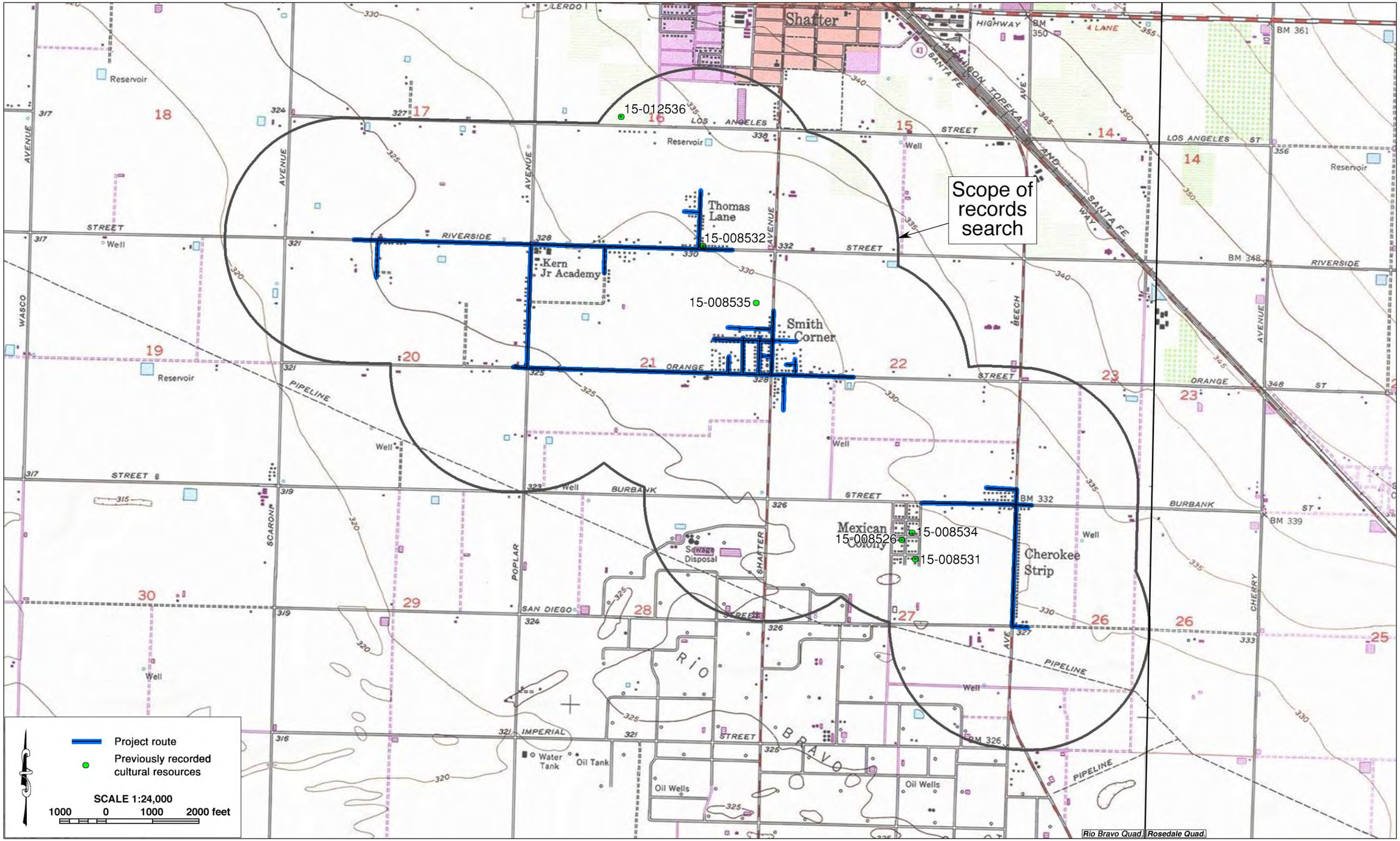
Smith, Arthur R.
1964 Geologic Map of California, Olaf P. Jenkins Edition; Bakersfield Sheet (1:250,000). State of California Division of Mines and Geology, Sacramento.

Thomson, Celeste M.
2019 3474 South Shafter Sewer Alignments and Laterals, Records Search File No. 19-162. Report prepared by Southern San Joaquin Valley Information Center, Bakersfield, for CRM TECH, Colton.

USGS (United States Geological Survey, U.S. Department of the Interior)
1912 Map: Buena Vista Lake, Calif. (30', 1:125,000); surveyed in 1907-1910.
1931 Map: Rio Bravo, Calif. (1:31,680); surveyed in 1928.
1942 Map: Buttonwillow, Calif. (15', 1:62,500); aerial photographs taken in 1937.
1954 Map: Rio Bravo, Calif. (7.5', 1:24,000); aerial photographs taken in 1952, field-checked in 1954.
1973 Map: Rio Bravo, Calif. (7.5', 1:24,000); 1954 edition photorevised in 1968, photoinspected in 1973.

APPENDIX 1

LOCATIONS OF KNOWN CULTURAL RESOURCES WITHIN THE SCOPE OF THE RECORDS SEARCH


Shafter
15-012536
15-008532
15-008535
15-008534
15-008526
15-008531
Scope of records search
Thomas Lane
Kern Jr Academy
Smith Corner
Mexican Colony
Cherokee Strip
Project route
Previously recorded cultural resources
SCALE 1:24,000
1000 0 1000 2000 feet
Rio Bravo Quad.
Rosedale Quad.

APPENDIX 2
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR/HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, UC Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, UC Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, UC Riverside.
1988-1993	Research Assistant, American Social History, UC Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST
Michael Hogan, Ph.D., RPA*

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	Section 106—National Historic Preservation Act: Federal Law at the Local Level. UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands.
1992-1998	Assistant Research Anthropologist, University of California, Riverside
1992-1995	Project Director, Archaeological Research Unit, U. C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U. C. Riverside.
1984-1998	Archaeological Technician, Field Director, and Project Director for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Author and co-author of, contributor to, and principal investigator for numerous cultural resources management study reports since 1986.

Memberships

* Register of Professional Archaeologists; Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST
Ben Kerridge, M.A.

Education

2014	Archaeological Field School, Institute for Field Research, Kephallenia, Greece.
2010	M.A., Anthropology, California State University, Fullerton.
2009	Project Management Training, Project Management Institute/CH2M HILL, Santa Ana, California.
2004	B.A., Anthropology, California State University, Fullerton.

Professional Experience

2015-	Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2015	Teaching Assistant, Institute for Field Research, Kephallenia, Greece.
2009-2014	Publications Delivery Manager, CH2M HILL, Santa Ana, California.
2010-	Naturalist, Newport Bay Conservancy, Newport Beach, California.
2006-2009	Technical Publishing Specialist, CH2M HILL, Santa Ana, California.
2002-2006	English Composition/College Preparation Tutor, various locations, California.

Papers Presented

- Geomorphological Survey of Tracts T126–T151 to Support Archaeological Shoreline Research Project. Institute for Field Research, Kephallenia, Greece, 2014.
- The Uncanny Valley of the Shadow of Modernity: A Re-examination of Anthropological Approaches to Christianity. Graduate Thesis, California State University, Fullerton, 2010.
- Ethnographic Endeavors into the World of Counterstrike. 74th Annual Conference of the Southwestern Anthropological Association, 2003.
-

Cultural Resources Management Reports

Co-author and contributor to numerous cultural resources management reports since 2013.

Memberships

Society for California Archaeology; Pacific Coast Archaeological Society.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
Daniel Ballester, M.S.

Education

2013	M.S., Geographic Information System (GIS), University of Redlands, California.
1998	B.A., Anthropology, California State University, San Bernardino.
1997	Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994	University of Puerto Rico, Rio Piedras, Puerto Rico.
2002	"Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

Professional Experience

2002-	Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist, CRM TECH, Riverside, California.
1998-1999	Field Crew, K.E.A. Environmental, San Diego, California.
1998	Field Crew, A.S.M. Affiliates, Encinitas, California.
1998	Field Crew, Archaeological Research Unit, University of California, Riverside.

PROJECT ARCHAEOLOGIST
Cynthia Morales, B.A.

Education

2014	B.A., Anthropology (*cum laude*; concentration in Archaeology), California State University, San Bernardino.

Professional Experience

2014-	Project Archaeologist, CRM TECH, Colton, California.
2014	Paleontological Field Assistant, HKA Enterprises, Santa Ana, California.
2012	Museum Studies Intern, San Bernardino County Museum, Redlands, California.

Honors and Awards

Winter-Spring, 2014 Dean's list, California State University, San Bernardino.

Memberships

Delta Epsilon Iota Academic Honor Society; National Society of Collegiate Scholars; Student Conservation Association.

APPENDIX 3

CORRESPONDENCE WITH NATIVE AMERICAN REPRESENTATIVES*

* Three local Native American representatives were contacted during this study; a sample letter is included in the appendix.

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916)373-3710
(916)373-5471 (Fax)
nahc@nahc.ca.gov

Project: Proposed South Shafter Sewer Laterals Project (CRM TECH No. 3474)

County: Kern

USGS Quadrangle Name: Rio Bravo, Calif.

Township 28 South **Range** 25 East MD **BM; Section(s)** 16, 17, 20, 21,22, 26, and 27

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA **Zip:** 92324

Phone: (909) 824-6400 **Fax:** (909) 824-6405

Email: ngallardo@crmtech.us

Project Description: The primary component of the project is to install pipelines and laterals that will connect residential lots to the South Shafter sewer system. The APE is located in an unincorporated area near the City of Shafter, Kern County, California.

December 6, 2018

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

May 13, 2019

Nina Gallardo
CRM TECH

VIA Email to: ngallardo@crmtech.us

RE: South Shafter Sewer Laterals Project (CRM TECH No. 3474), Kern County.

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Katy.sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

KATY SANCHEZ
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
5/6/2019

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P.O. Box 8
Lemoore ,CA 93245
(559) 924-1278
(559) 924-3583 Fax

Tache
Tachi
Yokut

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville ,CA 93258
neil.peyron@tulerivertribe-nsn.gov
(559) 781-4271
(559) 781-4610 Fax

Yokuts

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas ,CA 93906
kwood8934@aol.com
(831) 443-9702

Foothill Yokuts
Mono
Wuksache

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed: South Shafter Laterals Project CRM TECH No. 3474), Kern County.

May 15, 2019

Rueben Barrios, Sr., Chairperson
Santa Rosa Indian Community of the Santa Rosa Rancheria
P.O. Box 8
Lemoore, CA 93245

RE: South Shafter Sewer Laterals Project
Approximately 6.5 Linear Miles of Pipeline Alignment
Near the City of Shafter, Kern County, California
CRM TECH Contract #3474

Dear Mr. Barrios:

I am writing to bring your attention to an ongoing CEQA-Plus study for the proposed undertaking referenced above, which entails the installation of 6.5 linear miles of new sewer mains and laterals that will connect residential lots to the South Shafter sewer system. The Area of Potential Effects (APE) for the undertaking is confined to the existing road rights-of-way and water line easements in and around several the unincorporated communities immediately to the south of the City of Shafter. The accompanying map, based on the USGS Rio Bravo and Rosedale, Calif., 7.5' quadrangles, depict the APE in Sections 16, 17, 20, 21, 22, 26, and 27, T28S R25E, MDBM.

In a letter dated May 13, 2019, the Native American Heritage Commission reports that the sacred lands record search identified no Native American cultural resources within the APE but recommends that local Native American groups be contacted for further information (see attached). Therefore, as part of the cultural resources study for this undertaking, I am writing to request your input on potential Native American cultural resources in or near the APE.

Please respond at your earliest convenience if you have any specific knowledge of sacred/religious sites or other sites of Native American traditional cultural value in or near the APE, or any other information to consider during the cultural resources investigations. Any information or concerns may be forwarded to CRM TECH by telephone, e-mail, facsimile, or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agency, namely the State Water Resources Control Board.

We would also like to clarify that, as the cultural resources consultant for the undertaking, CRM TECH is not involved in the AB 52-compliance process or in government-to-government consultations. The purpose of this letter is to seek any information that you may have to help us determine if there are cultural resources in or near the APE that we should be aware of and to help us assess the sensitivity of the APE. Thank you for your time and effort in addressing this important matter.

Respectfully,

Nina Gallardo
Project Archaeologist/Native American liaison
CRM TECH
Email: ngallardo@crmtech.us

Encl.: NAHC response letter and project location map

TELEPHONE LOG

Name	Tribe/Affiliation	Telephone Contacts	Note
Rueben Barrios, Sr., Chairperson	Santa Rosa Rancheria Tachi-Yokut Tribe	1:47 pm, May 29, 2019; 1:56 pm, June 12, 2019; 10:10 am, June 13, 2019	Dakota Jeff of the Cultural Resources Department stated that the tribe would defer to the Tejon Indian Tribe in Bakersfield but requested to be notified if any Native American cultural resources were found during the undertaking.
Neil Peyron, Chairman	Tule River Indian Tribe	1:52 pm, May 29, 2019; 2:10 pm, June 12, 2019	Left messages; no response to date.
Kenneth Woodrow, Chairperson	Wuksache Indian Tribe/Esohm Valley Band	1:55 pm, May 29, 2019; 2:14 pm, June 12, 2019	Left messages; no response to date.

APPENDIX 4

San Joaquin Valley Unified Air Pollution Control District (APCD)

Thresholds of Significance: Construction projects are considered to have an air quality impact if they cause the following annual emissions to be exceeded (tons/year):

CO	-	100
NOx	-	10
ROG	-	10
SOx	-	27
PM-10	-	15
PM-2.5	-	15

408 laterals x 75 feet x 4 feet = 2.8 acres disturbance
10 laterals per day

Modeled:

10 tractor/loader/backhoes	per day
10 compactors	per day
5 concrete saws	per day

Tons/Yr	CO	NOx	ROG	SOx	PM-10	PM-2.5
Project	**0.93**	**0.90**	**0.11**	**<0.01**	**0.07**	**0.06**
Threshold	100	10	10	27	15	15

South Shafter

Kern-San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	2.80	User Defined Unit	2.80	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	3			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.8 acres total, 10 laterals per day

Construction Phase - 41 days total

Off-road Equipment - 10 loader/backhoes, 10 compactors, 5 concrete saws (for 10 daily laterals)

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.00	2.80
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1086	0.9004	0.9303	1.4800e-003	0.0104	0.0575	0.0679	2.7600e-003	0.0549	0.0577	0.0000	128.3426	128.3426	0.0229	0.0000	128.9138
Maximum	**0.1086**	**0.9004**	**0.9303**	**1.4800e-003**	**0.0104**	**0.0575**	**0.0679**	**2.7600e-003**	**0.0549**	**0.0577**	**0.0000**	**128.3426**	**128.3426**	**0.0229**	**0.0000**	**128.9138**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1086	0.9004	0.9303	1.4800e-003	0.0104	0.0575	0.0679	2.7600e-003	0.0549	0.0577	0.0000	128.3425	128.3425	0.0229	0.0000	128.9137
Maximum	**0.1086**	**0.9004**	**0.9303**	**1.4800e-003**	**0.0104**	**0.0575**	**0.0679**	**2.7600e-003**	**0.0549**	**0.0577**	**0.0000**	**128.3425**	**128.3425**	**0.0229**	**0.0000**	**128.9137**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	1/1/2019	2/26/2019	5	41	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Tractors/Loaders/Backhoes	10	8.00	97	0.37
Trenching	Plate Compactors	10	8.00	8	0.43
Trenching	Concrete/Industrial Saws	5	8.00	81	0.73

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	25	63.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Trenching - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1031	0.8966	0.8928	1.3700e-003		0.0574	0.0574		0.0548	0.0548	0.0000	118.4847	118.4847	0.0226	0.0000	119.0489
Total	**0.1031**	**0.8966**	**0.8928**	**1.3700e-003**		**0.0574**	**0.0574**		**0.0548**	**0.0548**	**0.0000**	**118.4847**	**118.4847**	**0.0226**	**0.0000**	**119.0489**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4700e-003	3.8300e-003	0.0375	1.1000e-004	0.0104	8.0000e-005	0.0105	2.7600e-003	7.0000e-005	2.8300e-003	0.0000	9.8579	9.8579	2.8000e-004	0.0000	9.8650
Total	**5.4700e-003**	**3.8300e-003**	**0.0375**	**1.1000e-004**	**0.0104**	**8.0000e-005**	**0.0105**	**2.7600e-003**	**7.0000e-005**	**2.8300e-003**	**0.0000**	**9.8579**	**9.8579**	**2.8000e-004**	**0.0000**	**9.8650**

3.2 Trenching - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1031	0.8966	0.8928	1.3700e-003		0.0574	0.0574		0.0548	0.0548	0.0000	118.4845	118.4845	0.0226	0.0000	119.0487
Total	**0.1031**	**0.8966**	**0.8928**	**1.3700e-003**		**0.0574**	**0.0574**		**0.0548**	**0.0548**	**0.0000**	**118.4845**	**118.4845**	**0.0226**	**0.0000**	**119.0487**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4700e-003	3.8300e-003	0.0375	1.1000e-004	0.0104	8.0000e-005	0.0105	2.7600e-003	7.0000e-005	2.8300e-003	0.0000	9.8579	9.8579	2.8000e-004	0.0000	9.8650
Total	**5.4700e-003**	**3.8300e-003**	**0.0375**	**1.1000e-004**	**0.0104**	**8.0000e-005**	**0.0105**	**2.7600e-003**	**7.0000e-005**	**2.8300e-003**	**0.0000**	**9.8579**	**9.8579**	**2.8000e-004**	**0.0000**	**9.8650**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.466291	0.031960	0.164877	0.131500	0.023119	0.007290	0.020969	0.142348	0.001645	0.001858	0.006120	0.000997	0.001026

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
Unmitigated	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
Total	**0.0000**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
Total	**0.0000**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation