

**APPENDIX B2**  
**JURISDICTIONAL DELINEATION**

June 29, 2022

JN 189002

**QUINN COMMUNITIES, LLC**

Attn: *Stefan LaCasse*

364 2<sup>nd</sup> Street, #5

Encinitas, California 92024

**SUBJECT: Delineation of State and Federal Jurisdictional Waters for the proposed Coronado Condos Project – City of Menifee, County of Riverside, California**

Dear Mr. LaCasse:

Michael Baker International (Michael Baker) has prepared this report to document the results of a detailed literature review and formal delineation of State and federal jurisdictional waters, including wetlands, that was conducted for the proposed Coronado Condos Project (project or project site) located in the City of Menifee, Riverside County, California. Specifically, the delineation was conducted to identify and document the extent of aquatic and other hydrologic features within the project site that potentially fall under the jurisdictional authority of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). This report summarizes the methodology utilized throughout the course of the delineation, defines the jurisdictional authority of the regulatory agencies, and documents the findings made by Michael Baker. This report presents Michael Baker's determination of jurisdictional boundaries based on the most up-to-date regulations, written policy, and guidance approved by the regulatory agencies. However, please note that only the regulatory agencies can make a final determination of jurisdictional limits.

**PROJECT LOCATION**

The project site is located within the City of Menifee, generally to the north of Newport Road, south of the San Jacinto River, east of State Route 74, and west of Interstate 215 (refer to Figure 1, *Regional Vicinity*, provided in Attachment A). The project site is depicted in Section 20, Township 5 South, Range 3 West, on the U.S. Geological Survey's (USGS) *Romoland, California 7.5-minute quadrangle map* (refer to Figure 2, *Project Vicinity*). Specifically, the project site is composed of assessor's parcel number (APN) 335-440-001, APN 335-440-002, and a portion of right-of-way along Esther Lane, and totals approximately 10.02 acres located to the south of Thornton Avenue, east of Uppercrest Court, and west of Murrieta Road (refer to Figure 3, *Project Site*).

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## **PROJECT DESCRIPTION**

The proposed project includes the development of up to 78 multi-family condominium units on an approximately 9.70 gross acres/6.50 net acre site. A total of 210 parking spaces are proposed and divided between dedicated garage parking and open parking stalls. The proposed project also includes one open space area and two water quality retention basins; one of the basins is located at the center of the project site and the other on the southeast corner.

## **STATE AND FEDERAL REGULATIONS**

There are three key agencies that regulate activities within inland lakes, streams, wetlands, and riparian areas in California. The USACE regulates activities that result in the discharge of dredged or fill material into waters of the U.S. (WoUS), including wetlands, pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the RWQCB regulates discharges to waters of the State, including wetlands, pursuant to Section 401 of the CWA and Section 13263 of the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and the CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq.* of the California Fish and Game Code (CFGC).

## **LITERATURE REVIEW**

Prior to conducting the field delineation, Michael Baker conducted a thorough review of relevant literature and materials to obtain a general understanding of the environmental setting and preliminarily identify features/areas within the project site that may fall under the jurisdiction of the regulatory agencies. Refer to the subsections below for a summary of relevant materials, databases, technical reports, and guidance documents that were obtained/reviewed by Michael Baker. In addition, a complete list of references is provided as Attachment G to this report.

### **San Jacinto River Watershed**

The project site is located within the Menifee Hydrologic Subarea (HSA 802.12) of the Perris Hydrologic Area (HA 802.10), which in turn is located within the San Jacinto Valley Hydrologic Unit (HU 802.0) of the larger San Jacinto River Watershed (HUC 18070202). The watershed covers approximately 765 square miles within western Riverside County and is tributary to the Santa Ana River through Lake Elsinore and Temescal Wash. Dominant hydrologic features in the watershed include the San Jacinto River, Salt Creek, Perris Valley Storm Drain, Mystic Lake, Perris Reservoir, Canyon Lake, and Lake Elsinore.

### **Soils**

According to the *Custom Soil Resources Report for Western Riverside Area, California* (U.S. Department of Agriculture [USDA] 2022a), the project site is underlain by two soil map units: Garretson Very Fine Sandy Loam, 2 to 8 Percent Slopes (GaC); and Porterville Clay, 0 to 8 Percent Slopes (PoC). Michael Baker also reviewed the *Hydric Soils List for California* (USDA 2022b) to preliminarily verify whether any of the

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soil map units listed above were classified as a “hydric soil” in the Western Riverside Area. According to the aforementioned list, none of the soil map units occurring within the project site are listed as hydric.

### **National Wetlands Inventory**

Based on a review of the U.S. Fish and Wildlife Service’s (USFWS) National Wetlands Inventory (USFWS 2022), a small wetland feature runs through the existing residential development to the west before terminating near the existing Hillman Street Storm Drain (HSSD) Channel in the southwest portion of the project site (refer to Attachment B). This wetland feature falls within the riverine system and is described as an intermittent streambed with a seasonally flooded water regime (R4SBC).

### **Flood Zone**

Based on a review of the Federal Emergency Management Agency’s (FEMA) National Flood Hazard Layer Viewer (FEMA 2022), the project site is located within Flood Insurance Rate Map (FIRM) Panel Number 06065C2055H. Specifically, the project site is located in Zone X and described as an area of minimal flood hazard (refer to Attachment C).

### **National Hydrography Dataset**

Based on a review of the National Hydrography Dataset Advanced Viewer (USGS 2022b), two aquatic features occur within the project site. The first feature has been identified as a canal/ditch and appears to have been mapped in association with the existing HSSD Channel in the southern portion of the project site, while the second feature has been identified as an unnamed ephemeral drainage and appears to flow in northwest to southeast direction before discharging into the HSSD Channel near the southern boundary of the project site (refer to Attachment D).

## **FIELD METHODOLOGY**

Michael Baker wetland delineators Tom Millington and April Nakagawa conducted a jurisdictional delineation/field survey of the project site on April 7, 2022, using the most recent, agency approved methodology, to identify and map the extent of State and federal jurisdictional features (i.e., wetland and non-wetland WoUS, waters of the State, streambed, riparian vegetation) located within the boundaries of the project site. Based on the project’s location, potential State and federal wetlands were delineated in accordance with the methods and guidance provided in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Arid West Regional Supplement; USACE 2008), and the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Water Resources Control Board 2019).

While in the field, jurisdictional features were recorded on an aerial photograph at a scale of 1" = 120' using topographic contours and visible landmarks as guidelines. Data points were recorded in the field using a Garmin GPS Map 64 Global Positioning System (GPS) to identify specific widths and length of

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jurisdictional features and the location of any ordinary high water mark (OHWM) indicators, photograph points, soil pits, and other pertinent site characteristics. These data were then uploaded as a .shp file and confirmed/refined to ensure accuracy and consistency with hardcopy notes and aerial mapping completed in the field. Michael Baker then used ESRI ArcGIS Pro software to calculate the total acreage of jurisdictional features and prepare final project figures.

## **RESULTS**

### **Non-Wetland Features**

The HSSD collects/transportes municipal stormwater from the adjacent residential development and surrounding foothills before discharging into an earthen flood control channel located near the western boundary of the project site (refer to Attachment E, *Site Photographs*). The HSSD Channel is maintained by the Riverside County Flood Control & Water Conservation District (RCFCD) and extends in a northwest to southeast direction for approximately 285 linear feet through the southwest corner of the project site before terminating at Esther Lane. Based on the results of the field survey, surface water exiting the HSSD Channel appears to flow along/across Esther Lane as unconfined/overland sheet flow and ultimately fanout and infiltrate on the southern portion of the project site. No surface water was observed within the channel during the field survey. However, evidence of an OHWM was observed via a natural line impressed on the bank, change in particle size distribution, presence of a wrack line, and shelving.

Due to ongoing maintenance by RCFCD, a majority (approximately 75%) of the channel is devoid of vegetation and consists of heavily compacted soils. However, there are some areas at the downstream end of the channel that appear to not be maintained which has allowed some vegetation to establish/persist. Plant species observed within the downstream portion of the channel were mostly non-native and included short-pod mustard (*Hirschfeldia incana*, UPL), London rocket (*Sisymbrium irio*, UPL), common fiddleneck (*Amsinckia menziesii*, UPL), bicolor lupine (*Lupinus bicolor*, UPL), foxtail barley (*Hordeum murinum*, FACU), red brome (*Bromus rubens*, UPL), ripgut brome (*Bromus diandrus*, UPL), wild oats (*Avena fatua*, UPL), as well as a small patch (4 individuals) of African sumac (*Searsia lancea*, NI), Mexican fan palm (*Washingtonia robusta*, FACW), salt cedar (*Tamarix ramosissima*, FAC), and Goodding's black willow (*Salix gooddingii*, FACW).

### **Wetland Features**

In order to confirm the presence/absence of wetlands within the project site, two soil pits (SP1 and SP2) were dug in areas where wetland hydrology or hydrophytic vegetation was observed. SP1 was located in an area where urban runoff and stormwater from surrounding residential development flows along Thornton Avenue via curb and gutter and eventually collects/infiltrates on the northwest corner of the project site. Plant species in this location included a mixture of the upland disturbance-tolerant non-native plant species and native hydrophytic vegetation including red brome (UPL), ripgut brome (UPL), burclover (*Medicago polymorpha*, FACU), annual yellow sweetclover (*Melilotus indicus*, FACU), southern cattail (*Typha domingensis*, OBL), seep monkeyflower (*Erythranthe guttata*, OBL), spike rush (*Eleocharis parishii*,

FACW), and tall flatsedge (*Cyperus eragrostis*, FACW). SP1 was excavated to a depth of approximately 7 inches; suspected concrete or bedrock below the terminal point of the pit made it difficult to excavate further. Soils exhibited a loamy/clayey texture and displayed a matrix color of 10YR 3/4 when moist. Redoximorphic features displaying a color of 7.5YR 4/4 were observed consistently throughout the entire matrix confirming the presence of hydric soils. However, due to the absence of hydrophytic vegetation, it was determined that SP1 two (hydric soils and wetland hydrology) of the three required parameters, and thus did not qualify as a wetland (refer to Attachment F, *Wetland Determination Data Forms*).

SP2 was located within the HSSD Channel due to the presence of Goodding’s black willow (FACW) and Mexican fan palm (FACW) and both primary and secondary hydrology indicators (i.e., surface soil cracks, sediment deposits, drift deposits, saturation visible on aerial imagery). SP2 was excavated to a depth of approximately 16 inches. Soils exhibited a sandy texture and displayed a matrix color of 10YR 3/3 when moist with no redoximorphic features observed. Due to the absence of hydric soils, it was determined that SP2 only met two (hydrophytic vegetation and hydrology) of the three required parameters, and thus did not qualify as a wetland (refer to Attachment F, *Wetland Determination Data Forms*).

## FINDINGS

The HSSD Channel occurs within the southwest portion of the project site and exhibits a surface hydrologic connection to the Salt Creek Channel (Relatively Permanent Water) and ultimately Canyon Lake (Traditional Navigable Water). Therefore, the HSSD Channel would qualify as WoUS and fall under the regulatory authority of the USACE, RWQCB, and CDFW. Based on the results of the field delineation, approximately 0.07 acre (285 linear feet) of USACE/RWQCB jurisdiction (non-wetland WoUS) and approximately 0.19 acre (285 linear feet) of CDFW jurisdiction (streambed) occurs within the project site (refer to Table 1 below).

**Table 1: State and Federal Jurisdictional Resources**

Feature Name	Cowardin Class	Class of Aquatic Feature	Acreage (Linear Feet)			
			USACE/RWQCB		CDFW	
			Non-Wetland WoUS	Wetland WoUS	Streambed	Riparian
HSSD Channel	Riverine	Non-Wetland	0.07 (285)	0.00 (0)	0.19 (285)	0.00 (0)
<b>TOTAL*</b>			<b>0.07 (285)</b>	<b>0.00 (0)</b>	<b>0.19 (285)</b>	<b>0.00 (0)</b>

\*Total may not equal to sum due to rounding.

## CONCLUSIONS AND RECOMMENDATIONS

The USACE regulates discharge of dredged or fill material into WoUS pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Based on a review of the conceptual site plan, approximately 0.07 acre (285 linear feet) of USACE jurisdiction (non-wetland WoUS) occurs within the project site and would potentially be impacted by the proposed project. Therefore, it would be necessary for the project proponent to obtain a Section 404 permit from the USACE prior to impacts occurring within USACE

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jurisdictional areas. Since impacts to USACE jurisdiction are anticipated to be less than 0.50 acre, it is anticipated that the proposed project could be authorized via a Section 404 Nationwide Permit (NWP), specifically NWP No. 29: *Residential Developments*.

The RWQCB regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the California Porter-Cologne Water Quality Control Act. Based on a review of the conceptual site plan, approximately 0.07 acre (285 linear feet) of RWQCB jurisdiction (non-wetland WoUS) occurs within the project site and would potentially be impacted by the proposed project. Therefore, it would be necessary for the project proponent to obtain a Section 401 Water Quality Certification (WQC) from the RWQCB prior to impacts occurring within RWQCB jurisdictional areas.

The CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq.* of the CFGC. Based on a review of the conceptual site plan, approximately 0.19 acre (285 linear feet) of CDFW jurisdiction (streambed) occurs within the project site and would potentially be impacted by the proposed project. Therefore, it would be necessary for the project proponent to obtain a Section 1602 Streambed Alteration Agreement (SAA) from the CDFW prior to impacts occurring within CDFW jurisdictional areas.

Please do not hesitate to contact me at (949) 246-7004 or [tommillington@mbakerintl.com](mailto:tommillington@mbakerintl.com) should you have any questions or require further information.

Sincerely,



Tom Millington  
Senior Biologist/Regulatory Specialist  
Natural Resources & Environmental Services

Attachments:

- A. *Project Figures*
- B. *USFWS National Wetlands Inventory Map*
- C. *FEMA Flood Insurance Rate Map*
- D. *USGS National Hydrography Dataset Advanced Viewer Map*
- E. *Site Photographs*
- F. *Wetland Determination Data Forms*
- G. *References*

## **Attachment A**

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Project Figures



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CORONADO CONDOS PROJECT  
 DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS  
**Regional Vicinity**

Figure 1

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**Legend**

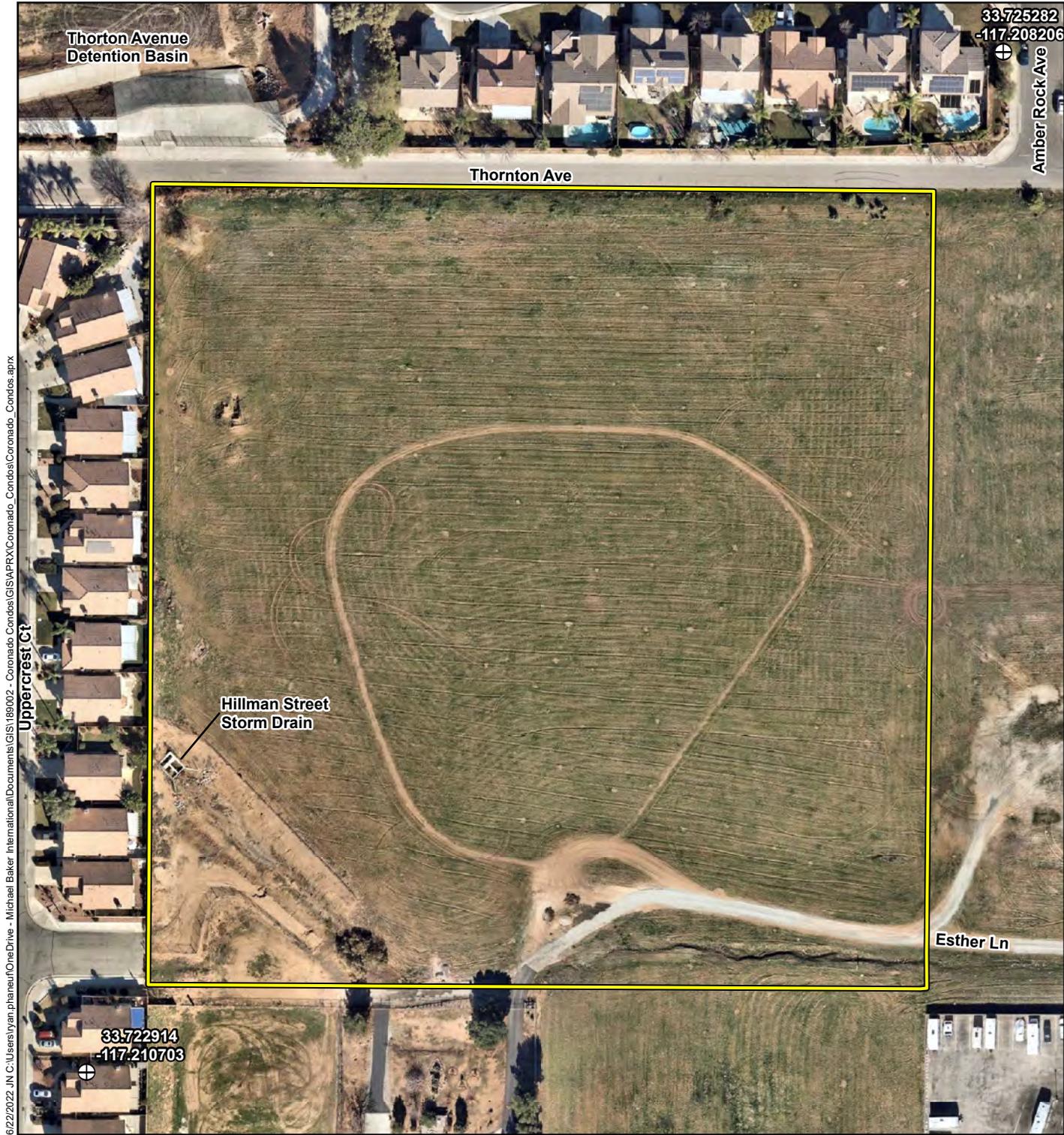
 Project Site (10.02 acres)



CORONADO CONDOS PROJECT  
 DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS  
**Project Vicinity**

Source: USGS 7.5-Minute topographic quadrangle maps: Perris, California (2021), Lake Elsinore, Romoland, and Steele Peak, California (2022)

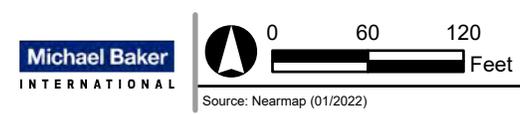
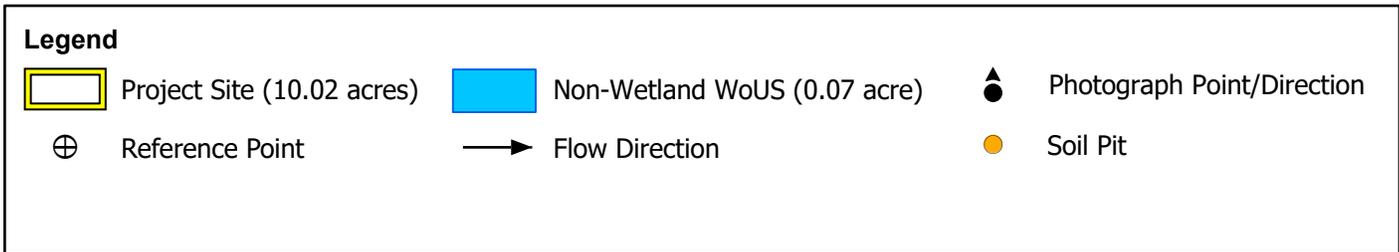
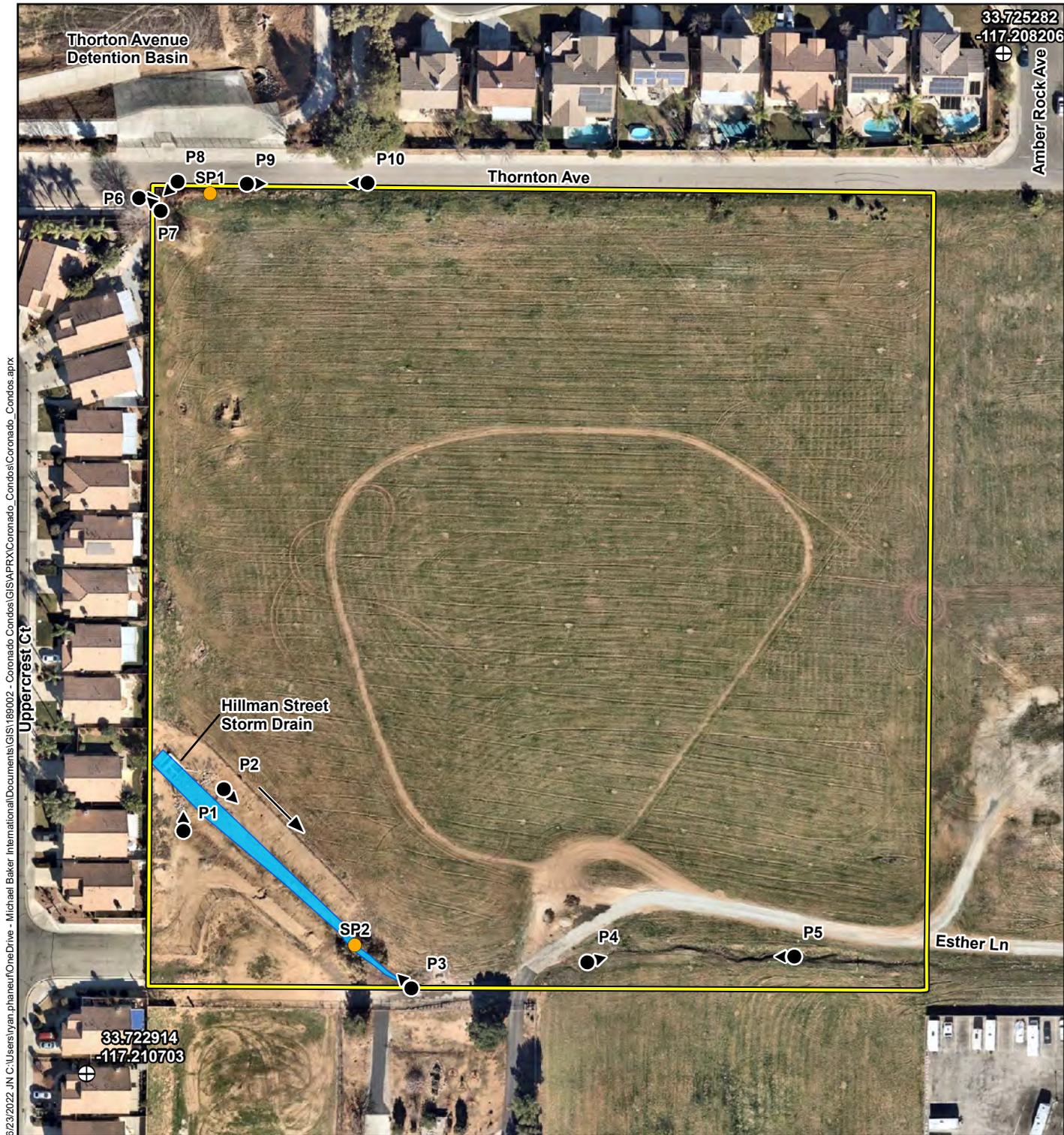
Figure 2



**Legend**

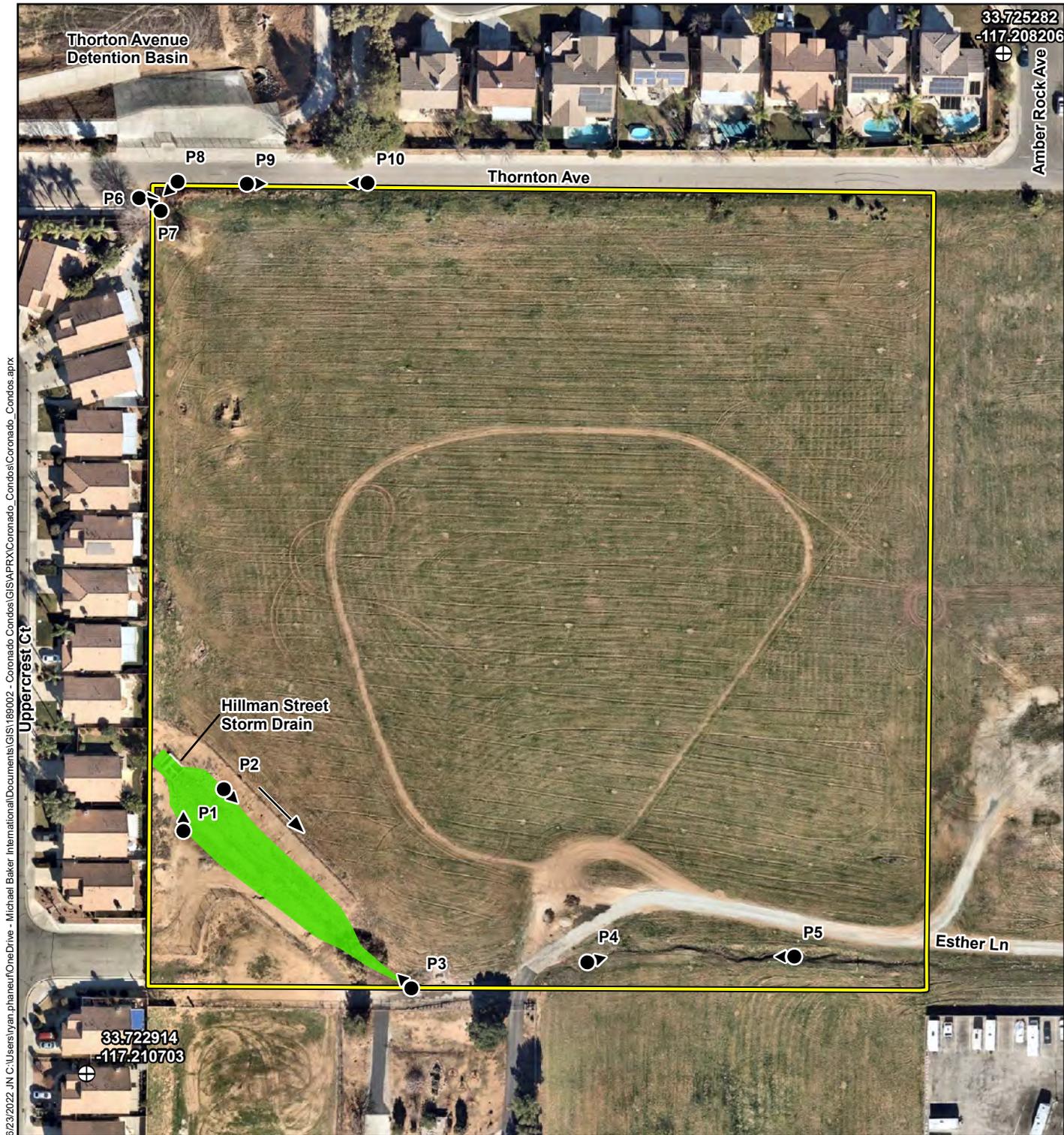
 Project Site (10.02 acres)

 Reference Point



CORONADO CONDOS PROJECT  
 DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS  
**USACE/RWQCB Jurisdiction**

Figure 4



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**Legend**

	Project Site (10.02 acres)		Streambed (0.19 acre)		Photograph Point/Direction
	Reference Point		Flow Direction		




Source: Nearmap (01/2022)

CORONADO CONDOS PROJECT  
 DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS  
**CDFW Jurisdiction**

Figure 5

**Attachment B**

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USFWS National Wetlands Inventory Map



U.S. Fish and Wildlife Service

# National Wetlands Inventory



June 23, 2022

## Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

**Attachment C**

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FEMA Flood Insurance Rate Map

# National Flood Hazard Layer FIRMette

117°12'50"W 33°43'40"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**



0.2% Annual Chance Flood Hazard, Areas of 1% annual chance Flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*



**OTHER AREAS OF FLOOD HAZARD**

NO SCREEN *Zone X*  
 Area of Minimal Flood Hazard *Zone X*  
 Effective LOMR *Zone D*  
 Area of Undetermined Flood Hazard *Zone D*

**OTHER AREAS**

**GENERAL STRUCTURES**  
 Channel, Culvert, or Storm Sewer  
 Levee, Dike, or Floodwall

20.2  
 17.5  
 Cross Sections with 1% Annual Chance Water Surface Elevation  
 Coastal Transect  
 Base Flood Elevation Line (BFE)  
 Limit of Study

**OTHER FEATURES**

Jurisdiction Boundary  
 Coastal Transect Baseline  
 Profile Baseline  
 Hydrographic Feature

Digital Data Available  
 No Digital Data Available  
 Unmapped

**MAP PANELS**

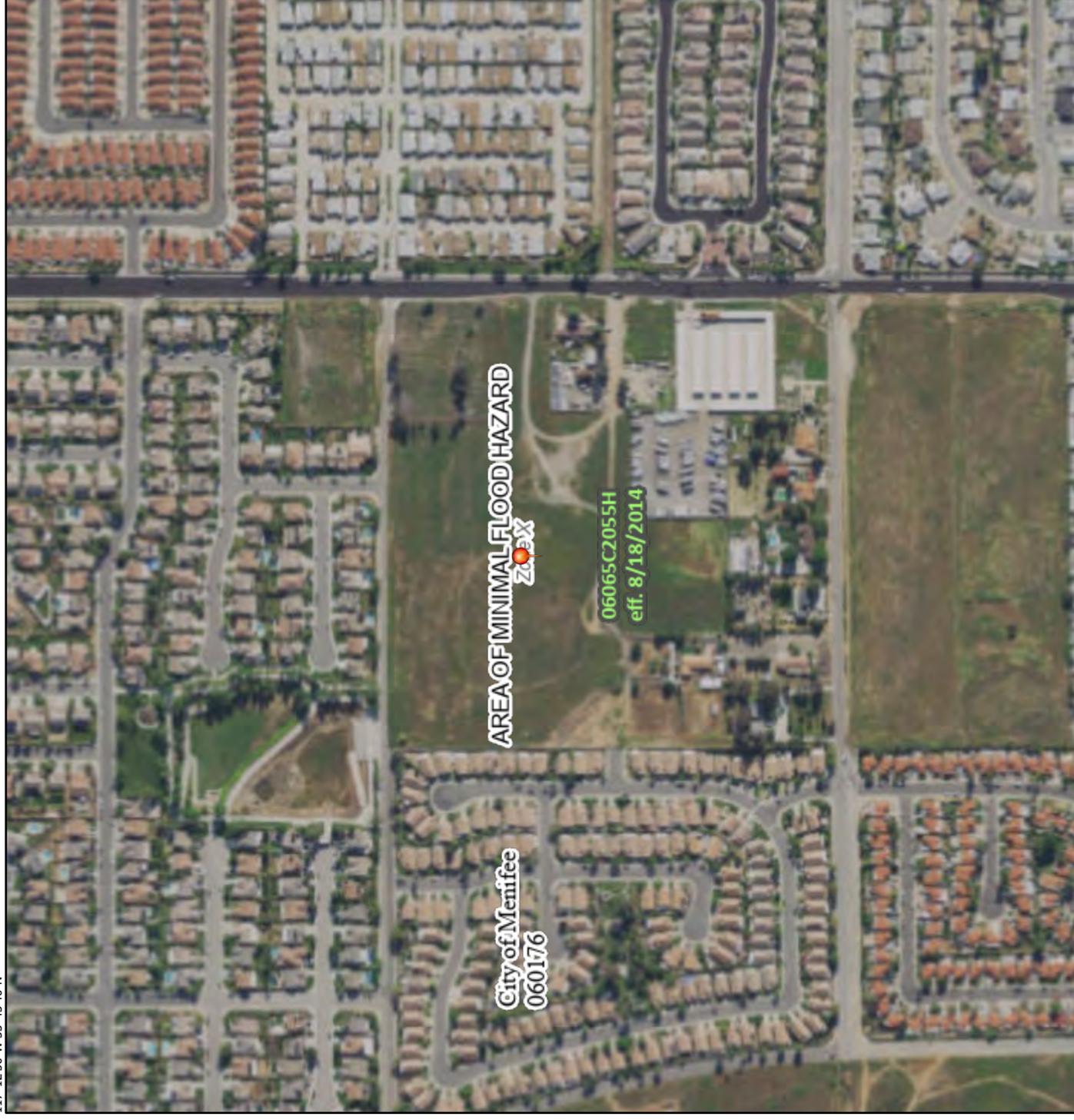


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/24/2022 at 2:20 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



117°12'13"W 33°43'11"N



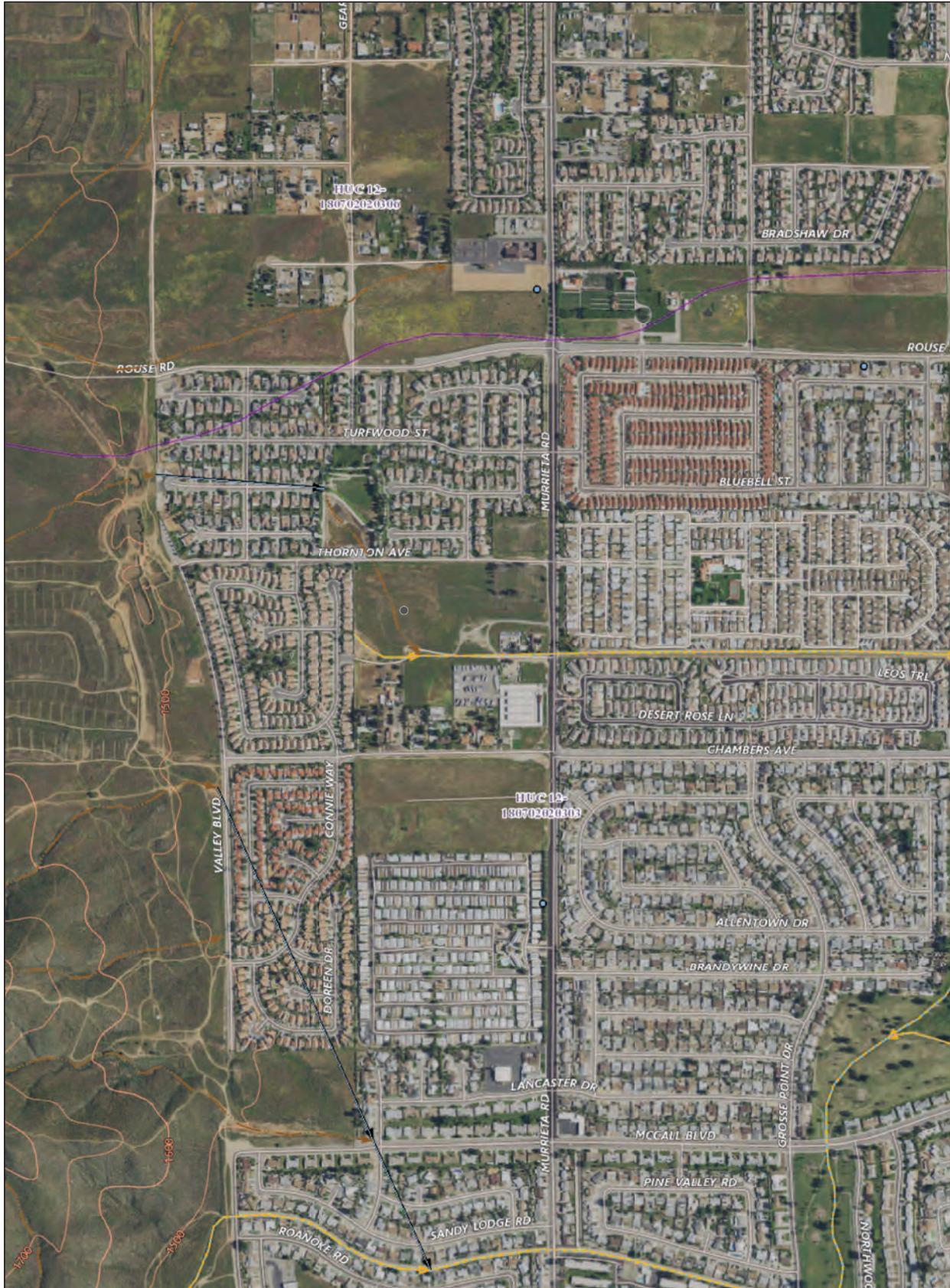
Basemap: USGS National Map; Orthoimagery: Data refreshed October, 2020

**Attachment D**

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USGS National Hydrography Dataset Advanced Viewer Map

# The National Map Advanced Viewer

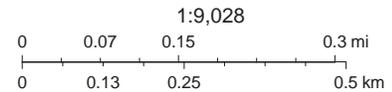


4/6/2022, 8:10:35 PM

Waterbody - Large Scale Area - Large Scale

- |             |                          |
|-------------|--------------------------|
| Estuary     | Area of Complex Channels |
| Ice Mass    | Area to be Submerged     |
| Lake Pond   | BayInlet                 |
| Playa       | Bridge                   |
| Reservoir   | CanalDitch               |
| Swamp Marsh | DamWeir                  |
|             | Flume                    |

- |                  |                        |
|------------------|------------------------|
| Foreshore        | StreamRiver            |
| Hazard Zone      | Submerged Stream       |
| Inundation Area  | Wash                   |
| Lock Chamber     | Water IntakeOutflow    |
| Rapids           | Flowline - Large Scale |
| SeaOcean         | Perennial              |
| Special Use Zone | Intermittent           |
| Spillway         | Ephemeral              |



USGS The National Map: Orthoimagery and US Topo. Data refreshed January, 2022.  
 USGS The National Map: National Hydrography Dataset. Data refreshed January, 2022.  
 USGS WBD - Watershed Boundary Dataset. Data refreshed

**Attachment E**

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Site Photographs



**Photograph 1:** View of the Hillman Street Storm Drain (HSSD) outlet located near the western boundary of the project site, facing north (upstream).



**Photograph 2:** View from northern slope/bank of HSSD Channel in the southwest corner of the project site, facing southeast (downstream).



**Photograph 3:** View of downstream terminus of the HSSD Channel and patch of non-native trees (i.e., tamarisk, African sumac), facing northwest (upstream).



**Photograph 4:** View of swale feature to the east/south of Esther Lane that lacked evidence of a continuous OHWM or defined bed and bank, facing east.



**Photograph 5:** View of non-native grasses and other upland plant species near the southeast corner of the project site, facing west.



**Photograph 6:** View of surface water flowing east along Thornton Avenue to the northwest corner of the project site where flows pond/infiltrate, facing east.



**Photograph 7:** View of hydrophytic vegetation observed in the northwest corner of the project site due to urban runoff from Thornton Avenue, facing northwest.



**Photograph 8:** View of small strip of hydrophytic vegetation along the northern boundary of the project site where it meets Thornton Avenue, facing southwest.



**Photograph 9:** View of along the northern boundary of the project site and absence of hydrophytic vegetation, facing east.



**Photograph 10:** View of non-native grasses and other upland plant species along the northern boundary of the project site and Thornton Avenue, facing west.

**Attachment F**

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Wetland Determination Data Forms

Project/Site: Coronado Condos Project City/County: Menifee / Riverside Sampling Date: 04/07/22  
 Applicant/Owner: Quinn Communities, LLC State: CA Sampling Point: SP1  
 Investigator(s): T. Millington and A. Nakagawa Section, Township, Range: Section 20, Township 5 South, Range 3 West  
 Landform (hillside, terrace, etc.): Roadside Ditch/Swale Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR): LRR C Lat: 33.724938 ° Long: -117.210373 ° Datum: WGS84  
 Soil Map Unit Name: Garretson Very Fine Sandy Loam, 2 to 8 Percent Slopes (GaC) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:  
 Significant drought conditions present. Thornton Avenue to north, vacant land that is routinely disked/maintained and dominated by various upland/non-native species to south and east, and residential development to west.

**VEGETATION – Use scientific names of plants.**

Tree Stratum	(Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 feet</u> )				
1.					
2.					
3.					
4.					
5.					
=Total Cover					
Herb Stratum	(Plot size: <u>5 feet</u> )				
1.	<u><i>Bromus madritensis</i></u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u><i>Typha domingensis</i></u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
3.	<u><i>Bromus diandrus</i></u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
4.	<u><i>Elocharis parishii</i></u>	<u>15</u>	<u>No</u>	<u>FACW</u>	
5.	<u><i>Medicago polymorpha</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
6.	<u><i>Cyperus eragrostis</i></u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
7.	<u><i>Erythranthe guttata</i></u>	<u>4</u>	<u>No</u>	<u>OBL</u>	
8.	<u><i>Melilotus indicus</i></u>	<u>1</u>	<u>No</u>	<u>FACU</u>	
=Total Cover					
Woody Vine Stratum	(Plot size: <u>30 feet</u> )				
1.					
2.					
=Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>			

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across All Strata: 3 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of:                      Multiply by:  
 OBL species 24                      x 1 = 24  
 FACW species 20                      x 2 = 40  
 FAC species 0                        x 3 = 0  
 FACU species 6                        x 4 = 24  
 UPL species 50                        x 5 = 250  
 Column Totals: 100 (A)                      338 (B)  
 Prevalence Index = B/A = 3.38

**Hydrophytic Vegetation Indicators:**  
 Dominance Test is >50%  
 Prevalence Index is ≤3.0<sup>1</sup>  
 Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:  
 Plot size and shape constrained by the topography of the ditch and the presence of Thornton Avenue (paved roadway) to the north. Clear and rapid transition from hydrophytic to upland/non-hydrophytic plant species.

**SOIL**

Sampling Point: SP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 7	10YR 3/4	93	7.5YR 4/4	7	C	M	Loamy/Clayey	Faint redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: <u>Suspected Concrete/Bedrock</u> Depth (inches): <u>7</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:  
 Single layer of soil, consistent throughout. Redox concentrations visible throughout entire matrix. Soil formed a long ribbon in the hand and felt gritty.

**HYDROLOGY**

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Saturation Present?        Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 N/A

Remarks:  
 Surface water observed flowing downslope of impervious residential development and road to the west with water actively collecting along the curb/gutter system and discharging directly into subject feature before percolating into ground and dissipating. No inlet, outlet, or culvert observed - feature appears to be supported entirely by urban runoff from Thornton Road and adjacent residential development.

Project/Site: Coronado Condos Project City/County: Menifee / Riverside Sampling Date: 04/07/22  
 Applicant/Owner: Quinn Communities, LLC State: CA Sampling Point: SP2  
 Investigator(s): T. Millington and A. Nakagawa Section, Township, Range: Section 20, Township 5 South, Range 3 West  
 Landform (hillside, terrace, etc.): Earthen Channel Invert Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion (LRR): LRR C Lat: 33.723226 ° Long: -117.209939 ° Datum: WGS84  
 Soil Map Unit Name: Porterville Clay, 0 to 8 Percent Slopes (PoC) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:  
 Significant drought conditions present. Unimproved flood control channel extending to the southeast from Hillman Street Storm Drain concrete culvert/outlet. Channel comprised of earthen invert/banks and is routinely maintained by RCFCD.

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Tamarix ramosissima</u>	45	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
2. <u>Salix gooddingii</u>	25	Yes	FACW	
3. <u>Searsia lancea</u>	25	Yes	UPL	
4. <u>Washingtonia robusta</u>	5	No	FACW	
100 =Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of:                      Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>45</u> x 3 = <u>135</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>25</u> x 5 = <u>125</u> Column Totals: <u>100</u> (A) <u>320</u> (B) Prevalence Index = B/A = <u>3.20</u>
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ =Total Cover				
Herb Stratum (Plot size: <u>5 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ =Total Cover				
Woody Vine Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
_____ =Total Cover				
% Bare Ground in Herb Stratum <u>100</u> % Cover of Biotic Crust <u>0</u>				

Remarks:  
 Patch of 4 individual trees (75% non-native). Tamarisk (Tamarix ramosissima), African sumac (Searsia lancea), Mexican fan palm (Washingtonia robusta), and black willow (Salix gooddingii).

**SOIL**

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 16	10YR 3/3	100					Sandy	Single Layer; No Redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	

<b>Restrictive Layer (if observed):</b> Type: <u>N/A</u> Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:  
Single soil layer consistent throughout. Tree roots encountered around 12.5" but dug around. Soil failed to form a ball in hand when wet. No evidence of redox features, hydrogen sulfide, or other hydric soil indicators observed.

**HYDROLOGY**

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
N/A

Remarks:  
Numerous secondary indicators met. Surface soil cracks noted throughout upstream portion of channel, including near the Hillman Street Storm Drain culvert/outlet.



**Photograph F-1:** View of SP1 soil pit taken within the northwest corner of the project site.



**Photograph F-2:** View of SP2 soil pit taken within invert of the Hillman Street Storm Drain (HSSD) Channel.

## **Attachment G**

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