# DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION AND EQUIVALENCY FINDINGS FOR THE BEAUMONT MDP LINE 2 PROJECT BEAUMONT, CALIFORNIA

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# SECTION 1.0 – INTRODUCTION

## 1.1 PURPOSE

Chambers Group, Inc. (Chambers Group) was retained by EXP (Client) to prepare a Determination of Biologically Equivalent or Superior Preservation (DBESP) and equivalency findings to document that the Beaumont Master Drainage Plan (MDP) Line 2 Project (Project) is consistent with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP 2025), Riverside County Integrated Project (RCIP 2025).

The purpose of the DBESP report is to discuss the functions and values of the riparian/riverine areas and species habitat in the Project area, to describe the proposed Project, and to provide a finding that, through a combination of project design, mitigation measures and avoidance, the Project would achieve an equivalent or superior preservation of the riparian/riverine areas of the site as compared to the Project site being left undisturbed.

## 1.2 PROJECT LOCATION

The Project is located along the existing right-of-way (ROW) 1) along 6$^{th}$ Street from Chestnut to Pennsylvania Avenue; 2) along Pennsylvania Avenue from 6th Street to 1st Street; and 3) along 1$^{st}$ Street from Pennsylvania to an existing earthen channel, within the City of Beaumont (City), in Riverside County. The Project is located in the U.S. Geological Survey (USGS) *Beaumont*, California 7.5-minute topographic quadrangle. Land uses around the proposed Project consist of developed and undeveloped parcels, as well as open space. East 6th Street is lined with commercial development. Pennsylvania Avenue features commercial and open spaces, with I-10 and the Union Pacific Railroad on the north end. East 1st Street consists of open spaces, commercial properties, and single-family residences. The elevation at the Project site ranges from 2,550 to 2,610 feet above mean sea level (amsl). Maps of the Project Location and Project Vicinity are provided in Figure 1.

## 1.3 PROJECT DESCRIPTION

Riverside County Flood Control and Water Conservation District (RCFC) has partnered with the City to provide funding for the design and construction of the Project. In July 1983, RCFC developed a MDP for the Beaumont area (titled "Master Drainage Plan for the Beaumont Area Zone Five"). As discussed in the MDP, the City has experienced flooding over the years, and as the undeveloped areas become urbanized, flooding damage is expected to increase. Therefore, the installation of drainage systems is required to safely convey storm runoff through the concerned areas with minimal interruption to public services. Particularly, the installation of a channel would eliminate flood concerns for properties between 1st Street and Interstate 10 (I-10).

The construction of approximately 5,000 linear feet of reinforced concrete pipe (RCP) would begin at East 6th Street and Chestnut and terminate at East 1st Street and Berkshire Avenue where it would connect to an existing RCP that discharges out of an existing earthen channel immediately east of Berkshire Avenue. Manholes would be constructed for maintenance access at intervals of no more than 500 feet at the end of each line. Additional components to be installed include inlets and outlets to facilitate efficient entry and exit from the system. The RCP would feature grated openings to prevent the accumulation of debris.




Project Location

**Figure 1**
Beaumont MDP Line 2
Project Location and Vicinity

N

0 250 500 1,000
Feet

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# SECTION 2.0 – METHODS

## 2.1 MSHCP ASSESSMENT

The study was initiated with a review of relevant literature and previous environmental documents conducted in the region describing the biological resources within and adjacent to the Project site. As required by the Multiple Species Habitat Conservation Plan (MSHCP), and during the initial property assessment process, all Project site APNs were searched using the online Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Tool to determine if the property falls within a "Criteria Area" and if additional surveys for narrow endemic/criteria area plant species or wildlife not adequately covered by the MSHCP may be required. In addition, regional floral and faunal field guides were utilized in the identification of species.

## 2.2 LITERATURE REVIEW

Chambers Group conducted a literature review of previous reports, aerial photographs, and topographic maps of the Project location and surrounding areas. Aerial maps were reviewed prior to conducting general surveys in order to locate and inspect any potential natural drainage features and water bodies that may be considered riparian/riverine habitat. The MSHCP (RCA 2025) was referenced for the APNs associated with the Project site. In addition, Chambers Group reviewed the Biological Resources and Jurisdictional Delineation for the Beaumont MDP Line 2 Project Report (CGI 2025) prepared for this Project.

## 2.3 FIELD RECONNAISSANCE

The Project site was surveyed in January 2025, by Chambers Group biologists Heather Madera and Austin Burke. Weather conditions included temperatures ranging from 46 to 58 degrees Fahrenheit, with 0 percent cloud cover, and no precipitation. Wind speeds ranged from 12 to 20 miles per hour. The purpose of the field survey was to document the existing habitat conditions, obtain plant and animal species information, view the surrounding uses, assess the potential for state and federal waters, and assess the potential for sensitive species and nesting habitat. The entire Project site was surveyed. All species observed were recorded. Global Positioning System (GPS) waypoints were taken to delineate specific habitat types, species locations, and any other information that would be useful for the assessment of the property.

## 2.4 MSHCP PLAN REQUIREMENTS

Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas, riparian bird species, vernal pools, and fairy shrimp species will occur within the MSHCP Area. Regardless of whether the site is located within any Criteria Cells, Narrow Endemic Plant Species Survey Areas, or proposed Conservation Areas, and whether it is subject to the focused species surveys associated with those areas, all projects within the MSHCP area require an evaluation of potential impacts on riparian/riverine areas and vernal pools and the protected species associated with those habitats. Riparian/riverine areas and vernal pools are defined in the MSHCP as follows:

- Riparian/riverine areas include lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens which occur close to, or which depend upon soil

moisture from a nearby freshwater source; or areas with freshwater flow during all or a portion of the year.

- Vernal pools are seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season, but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetland plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.

When a site supports suitable riparian/riverine areas and/or vernal pool habitats for the wildlife species covered by the MSHCP listed below, focused surveys are required to determine their presence or absence from the site.

**Vernal Pool Invertebrates**

- Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)
- vernal pool fairy shrimp (*Branchinecta lynchi*)

**Riparian Birds**

- least Bell's vireo (*Vireo bellii pusillus*)
- southwestern willow flycatcher (*Empidonax traillii extimus*)
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

# SECTION 3.0 – EXISTING CONDITIONS

## 3.1 MSHCP ASSESSMENT

The Project site is located within the San Timoteo and Badlands Unit, of the Pass Area Plan, and is not within a Criteria Area Cell (Figure 2). Therefore, a subsequent Habitat Evaluation and Acquisition Negotiation Strategy (HANS process) or Joint Project Review (JPR) are not required. Furthermore, the site is not in an amphibian survey area or a mammal survey area. The site does fall within a burrowing owl survey area and narrow endemic plant survey area which includes Marvin's onion (*Allium marvinii*) and Many-stemmed dudleya (*Dudleya multicaulis*) (RCA 2025). Therefore, additional surveys for these species may be required.

### 3.1.1 Burrowing Owl

The Project site lies within a burrowing owl (*Athene cunicularia hypugaea*) survey area. This California species of special concern is one of the 146 species covered by RCA's MSHCP. Nesting in underground burrows typically abandoned by other animals such as ground squirrels, the burrowing owl prefers open, flat, grassland habitat, a factor that has led to declining numbers in the last 20 years as development has progressed. Owls also tend to nest in the same general location each year (RCA 2025). Under federal laws protecting migratory birds, both the owls and their burrows are protected. Mitigation includes relocating birds that have been displaced and allowing birds to relocate into new burrows in a safe location.

## 3.2 TOPOGRAPHY

The Project site is relatively flat and has an average elevation of 2,580 feet amsl. The surrounding land consists of developed and undeveloped parcels, as well as open space. East 6th Street is lined with commercial developments. Pennsylvania Avenue features commercial and open spaces, with I-10 and the Union Pacific Railroad on the north end. East 1st Street consists of open spaces, commercial properties, and single-family residences. Land uses in the vicinity include open space, residential, walkways, and transportation.

Four Vegetation Communities and Other Areas were mapped within the Project site, including Disturbed California Buckwheat Scrub, Disturbed Fremont Cottonwood Series, Ornamental Landscaping, Ruderal, Bare Ground, and Developed. Maps of the vegetation communities can be found in Figure 3. A complete list of plant species observed during the survey effort is provided in Appendix A.

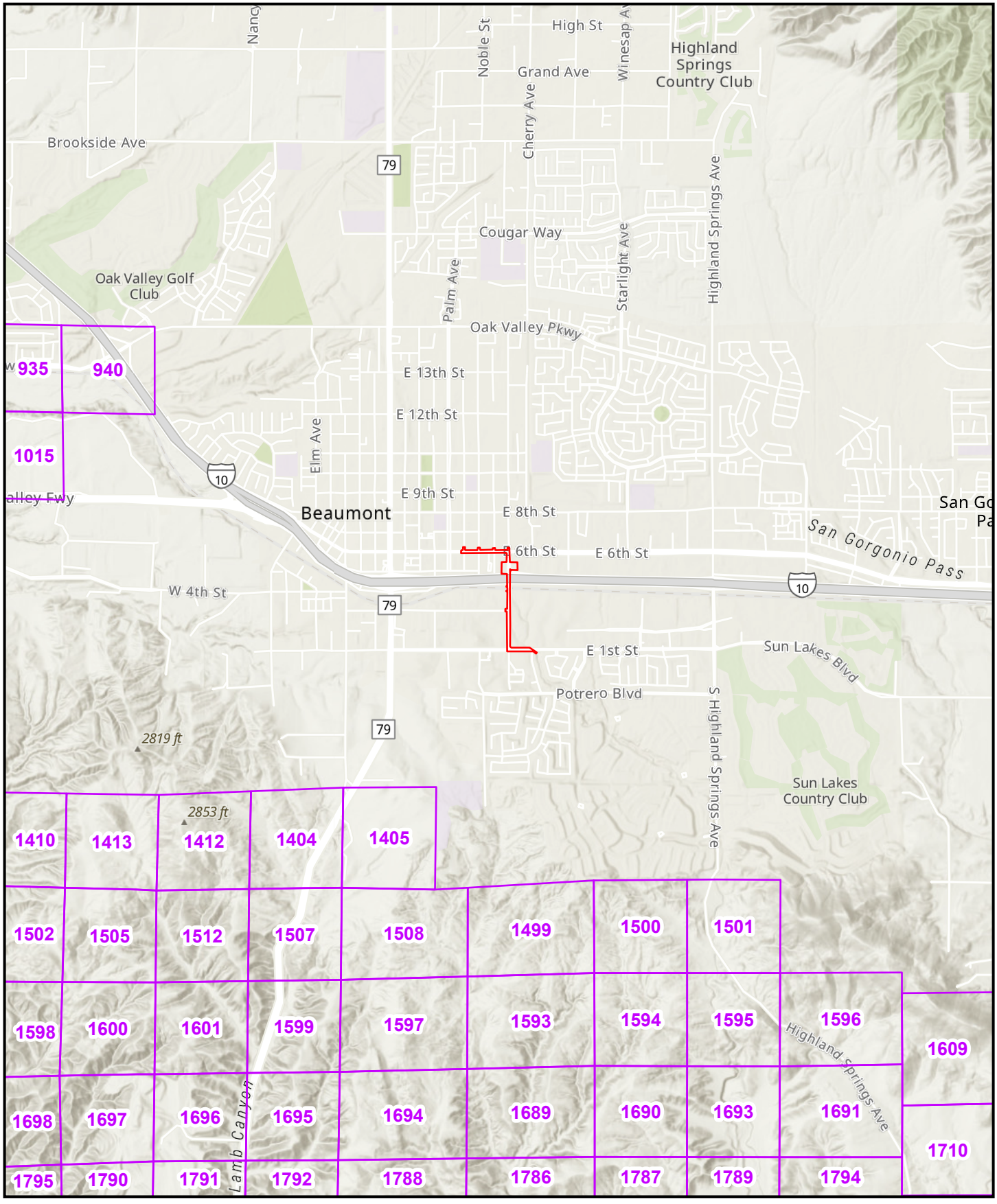



**Figure 2**
Beaumont MDP Line 2
RCA Western Riverside County Criteria Area Cells




Project Location

**Figure 3**
Beaumont MDP Line 2
Vegetation Communities

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### 3.2.1 Disturbed California Buckwheat Scrub

California Buckwheat Scrub is found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline (Sawyer et al. 2009). Stands do well on rocky sites and in shallow soils, and they establish after disturbance by fire or flood or after heavy grazing. In southern coastal California, this alliance is usually one of the first of the coastal scrubs to establish in mechanically disturbed areas such as road cuts or slope failures, and it persists in areas with light to moderate grazing (Sawyer et al. 2009). In this vegetation community, California buckwheat (*Eriogonum fasciculatum*) or yucca (*Hesperoyucca whipplei*) is dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), sticky monkeyflower (*Diplacus aurantiacus*), brittlebush sunflower (*Encelia californica*), brittlebush (*Encelia farinosa*), coast goldenbush (*Isocoma menziesii*), deerweed (*Acmispon glaber*), white sage (*Salvia apiana*), or black sage (*Salvia mellifera*). Herbaceous layer is variable and may be grassy (Sawyer et al. 2009). Disturbed communities are characterized by factors that have degraded the habitat quality such as human activities (OHV use, trash, disking or mowing), fire, and/or a cover of non-native species that is greater than or equal to 25 percent of the overall cover.

Areas with Disturbed California Buckwheat Scrub are present within 0.04 acres of the Project site surrounding the hillsides around the culvert located on the southern end of the Survey Area. The area looks to be regularly maintained and mowed. Native plant species found on the Project site typical of this vegetation community included: California buckwheat, deerweed, and cudweed (*Pseudognaphalium* sp.). Non-native species included: ripgut grass (*Bromus diandrus*), wild oat (*Avena fatua*) and shortpod mustard (*Hirschfeldia incana*).

### 3.2.2 Disturbed Fremont Cottonwood Series

The Fremont Cottonwood Series, as described by Sawyer and Keeler-Wolf (1995), is dominated by the Fremont cottonwood (*Populus fremontii*), forming an open, intermittent or continuous canopy of trees that are typically less than 85 feet in height. This series often exists along the banks and terraces of riparian corridors and floodplains subject to high-intensity flooding and low-gradient soil deposition.

Areas with Disturbed Fremont Cottonwood Series vegetation are present within 0.01 acres of the Project site surrounding the culvert on the southern end of the Survey Area. This area is heavily disturbed with an excess amount of sediment and debris from flooding events. Native plant species found on the Project site typical of this vegetation community included: Fremont cottonwood, mule fat (*Baccharis salicifolia*), and California buckwheat. Non-native species included: giant reed (*Arundo donax*), Russian thistle (*Salsola australis*), ripgut grass, wild oat, and shortpod mustard.

### 3.2.3 Ruderal

Areas classified as Ruderal tend to be dominated by pioneering herbaceous species that readily colonize disturbed ground and that are typically found in temporary, often frequently disturbed habitats (Barbour et al. 1999). The soils in Ruderal areas are typically characterized as heavily compacted or frequently disturbed. The vegetation in these areas are adapted to living in compact soils where water does not readily penetrate the soil. Often, Ruderal areas are dominated by species of the *Centaurea*, *Brassica*, *Malva*, *Salsola*, *Eremocarpus, Amaranthus*, and *Atriplex* genera.

Areas with Ruderal vegetation are present within 3.35 acres of the Project site in the open space vacant lot and on either side of the sidewalks located along Pennsylvania Avenue and E 1st Street. Non-native species included: shortpod mustard, Russian-thistle, ripgut grass, Bermuda grass (*Cynodon dactylon*), tocalote (*Centaurea melitensis*) and yellow star-thistle (*Centaurea solstitialis*). Native plant species found sparsely scattered throughout included: turkey-mullein, telegraph weed (*Heterotheca grandiflora*), and jimson weed (*Datura wrightii*).

### 3.2.4 Ornamental

Ornamental Landscaping includes areas where the vegetation is dominated by non-native horticultural plants (Gray and Bramlet 1992). Typically, the species composition consists of introduced trees, shrubs, flowers and turf grass.

Ornamental Landscaping is present along the middle of E 1st Street and a small portion along the sidewalk located near the culvert that exits the Project site. Plant species found on the Project site typical of this community include star jasmine (*Trachelospermum jasminoides*) and Indian hawthorn (*Rhaphiolepis indica*). There are 0.09 acres of Ornamental Landscaping present within the Project site.

### 3.2.5 Bare Ground

Bare ground areas are generally devoid of vegetation but do not contain any form of pavement or developed structures. Bare ground is present in the vacant lot located on the west side of Pennsylvania Avenue. This vacant lot mapped as Bare Ground covers approximately 1.32 acres of the Project site.

### 3.2.6 Developed

Developed areas are areas that have been altered by humans and now display man-made structures such as houses, paved roads, buildings, parks, and other maintained areas.

Developed areas are present within the Project site and make up approximately 7.74 acres. The Project site encompasses E 6th Street, Pennsylvania Avenue, and E 1st street which are paved roads that run parallel with the proposed construction activities, along with sidewalks.

## 3.3 WILDLIFE SPECIES

Eight species of wildlife were documented on site or within the vicinity of the site during the field effort (Appendix B). None of the wildlife species covered by the MSHCP were found within the Project site or immediate vicinity during the survey. Furthermore, no sign or active burrows for burrowing owl were observed during the site visit.

## 3.4 SOILS

None of the soils present near the riparian areas found at the Project site are classified as hydric soils. The Project site contains four soil types (USDA 2025):

- Ramona sandy loam (RaB2), 2 to 5 percent slopes
- Ramona sandy loam (RaB3), 0 to 5 percent slopes
- Ramona sandy loam (RaC3), 5 to 8 percent slopes

- Terrace escarpments (TeG)

## 3.5 HYDROLOGY AND HYDROLOGIC CONNECTIVITY

The Project is located within the Potrero Creek Watershed (HUC 12- 180702020201) of the Upper Santa Ana Valley groundwater basin (USGS 2025a) in Riverside County, California (Figures 4, Figure 5). The Potrero Creek Watershed in Beaumont is bordered to the north by the San Bernardino Mountains and to the south by the San Jacinto Mountains, to the west by the San Gabriel and Santa Ana Mountains, and to the east by the Little San Bernardino Mountains. Potrero Creek flows south/southwest for 5 miles until it joins the San Jacinto River near California State Route 79, which ultimately drains into Lake Elsinore. The headwaters of the San Jacinto River are in the San Bernardino Mountains. Figure 6 provides the location of the flood zones identified by the Federal Emergency Management Agency (FEMA). A Special Flood Hazard Area (SFHA) runs through the Survey Area. The SFHA is designated as Zone AO (areas that have a 1 percent annual chance of flooding or 100-year flood) and Zone X (areas having a 0.2 percent annual chance of flooding or 500-year flood).

A feature mapped in the NWI as an ephemeral drainage runs through the southern end of the Project site as shown in Figure 7, Waters Databases Map (USFWS 2025). The field delineation confirmed the presence of the drainage. Figure 8 provides the location of the water feature delineated within the Survey Area following the field investigations. A total of 277 linear feet of ephemeral drainage was mapped within the Survey Area. The drainage enters a culvert on the north side of 1$^{st}$ Street and goes underground through the Survey Area for 262 feet when it exits the culvert on the south side of the street. The drainage remains above ground for 15 more feet until it exits the Project site and flows above ground for approximately 0.65 miles until emptying into Potrero Creek, where it continues to flow south/southwest eventually terminating in the San Jacinto River, a TNW. The drainage flows via surface hydrology primarily from road runoff and flooding during seasonal rainfall, as well as nuisance water from the surrounding residential neighborhood. Although there was no water present during the field survey, several indicators of hydrology were present at the time of the field delineation. Hydrological characteristics within the drainage included: break in the bank slope, mud cracks, exposed roots, and vegetation matted down or bent. The limits of the OHWM were delineated visually by change in break in slope and change of vegetation within the drainage. The OHWM measured approximately 21 feet wide, and bank-to-bank measured 106 feet wide, both narrowing as they exit the Project boundary flowing downstream. In addition, hydrophytic vegetation was present within and outside of the Survey Area. However, hydric soils could not be confirmed within the drainage (i.e., presence of excess sediment and debris buildup from flood events surrounding the culvert); therefore, the Project site contains two wetland parameters.

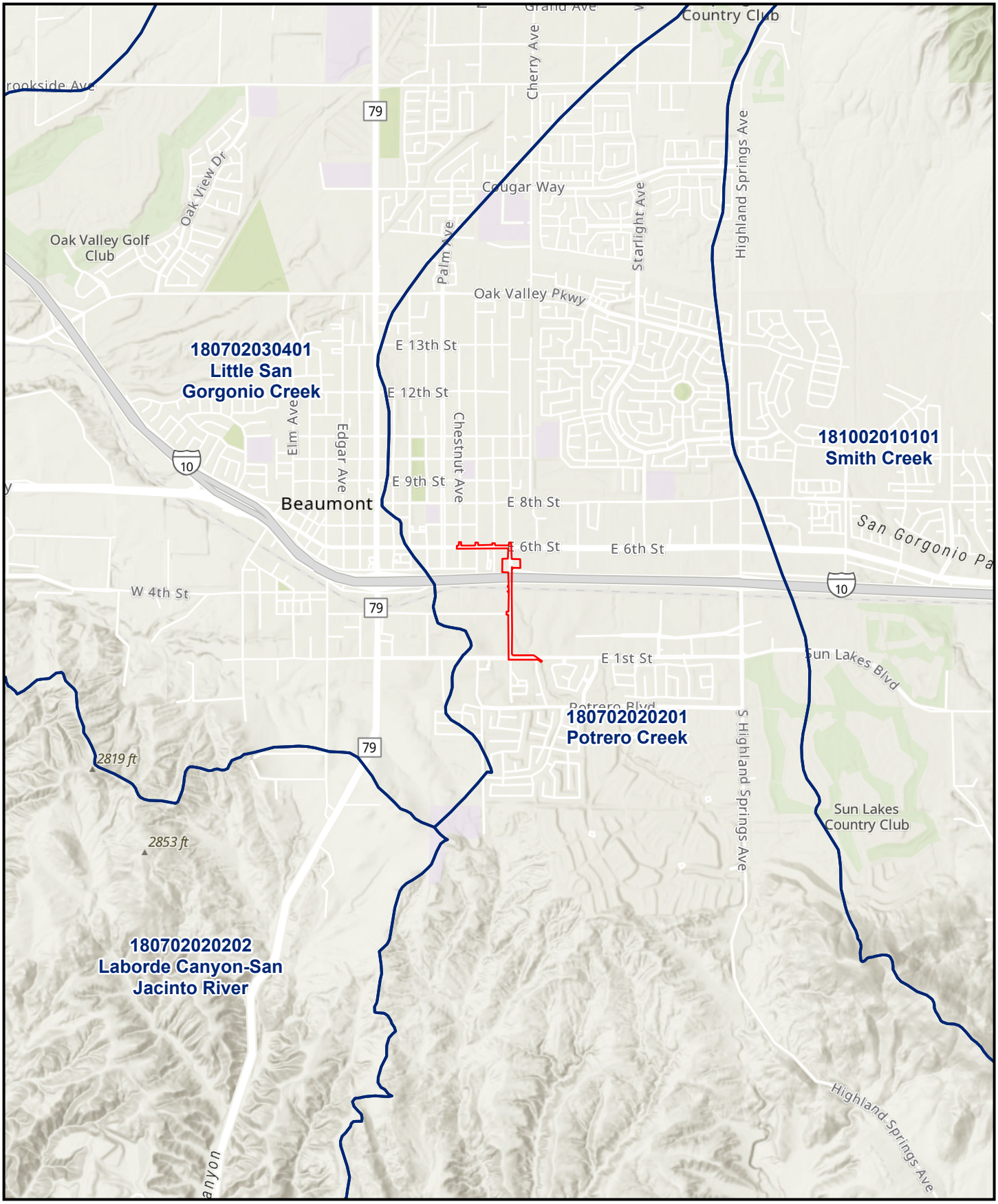
## 3.6 CDFW/MSHCP RIPARIAN HABITAT

No NWI mapped wetlands were identified within the Project site. However, Disturbed Fremont Cottonwood Series vegetation community occurs within a small portion of the Project site just outside of the culvert and downstream of the Survey Area. This area is heavily disturbed with a buildup of sediment and debris. The vegetation in the area consists of Fremont cottonwood, mule fat, giant reed, California buckwheat, and other non-native species. Several soil test pits were dug during the survey within the riparian area. The portion of the drainage within the Project boundary is directly below the outlet of the culvert and thus contains an excessive buildup of sediment and debris. While several soil pits were taken in the area, no hydric soils were observed within the Project boundary. In addition, no hydric soils were identified during the database soil search. Although the presence of hydric soils could not be confirmed, hydrophytic vegetation is present and evidence of hydrology was observed; therefore, the area can be

considered a wetland under CDFW jurisdiction with only two of the three wetland parameters present. Thus, this riparian area may be considered to be a wetland area with problematic soils.

Because Riparian vegetation occurs within the channel, the drainage meets the MSHCP definition of Riverine. While the drainage does eventually connect to the San Jacinto River with portions considered a MSHCP Critical Habitat area, the Project site is 1.8 miles from a designated MSHCP conservation area and several miles north of San Jacinto River. The portion of the drainage that falls within the Project site is very small and the native vegetation within the Project boundaries is of marginal quality. Therefore, while flow from the drainage may contribute to the support of downstream habitat, the riparian vegetation within the site likely does not contribute to the overall biological functions and values of downstream habitat for covered species within the MSHCP Conservation Area. In addition, the riparian vegetation that occurs within the drainage onsite lacks the mature trees and dense vegetation required by the species listed in Section 6.1.2 of the MSHCP. None of these species were observed during the survey and they are not expected to occur within the Project area.

Because the Project site contains evidence of hydrology and riparian vegetation, this area would be considered under CDFW jurisdiction and an MSHCP Riparian area.




Project Location

Watershed (HUC-12)

N

0 0.25 0.5 1

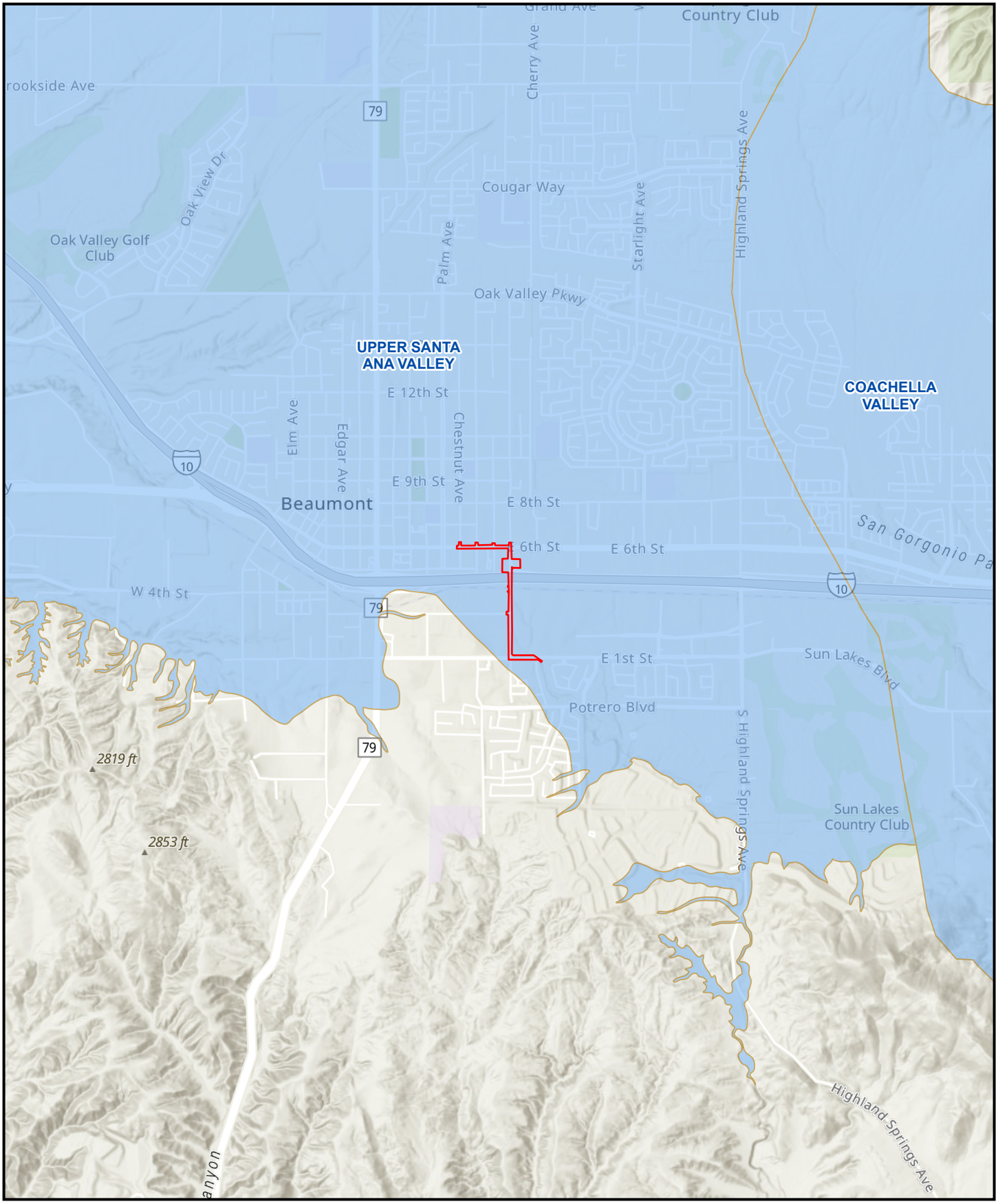
Miles

**Figure 4**

Beaumont MDP Line 2
Watersheds

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Project Location

Groundwater Basin

N

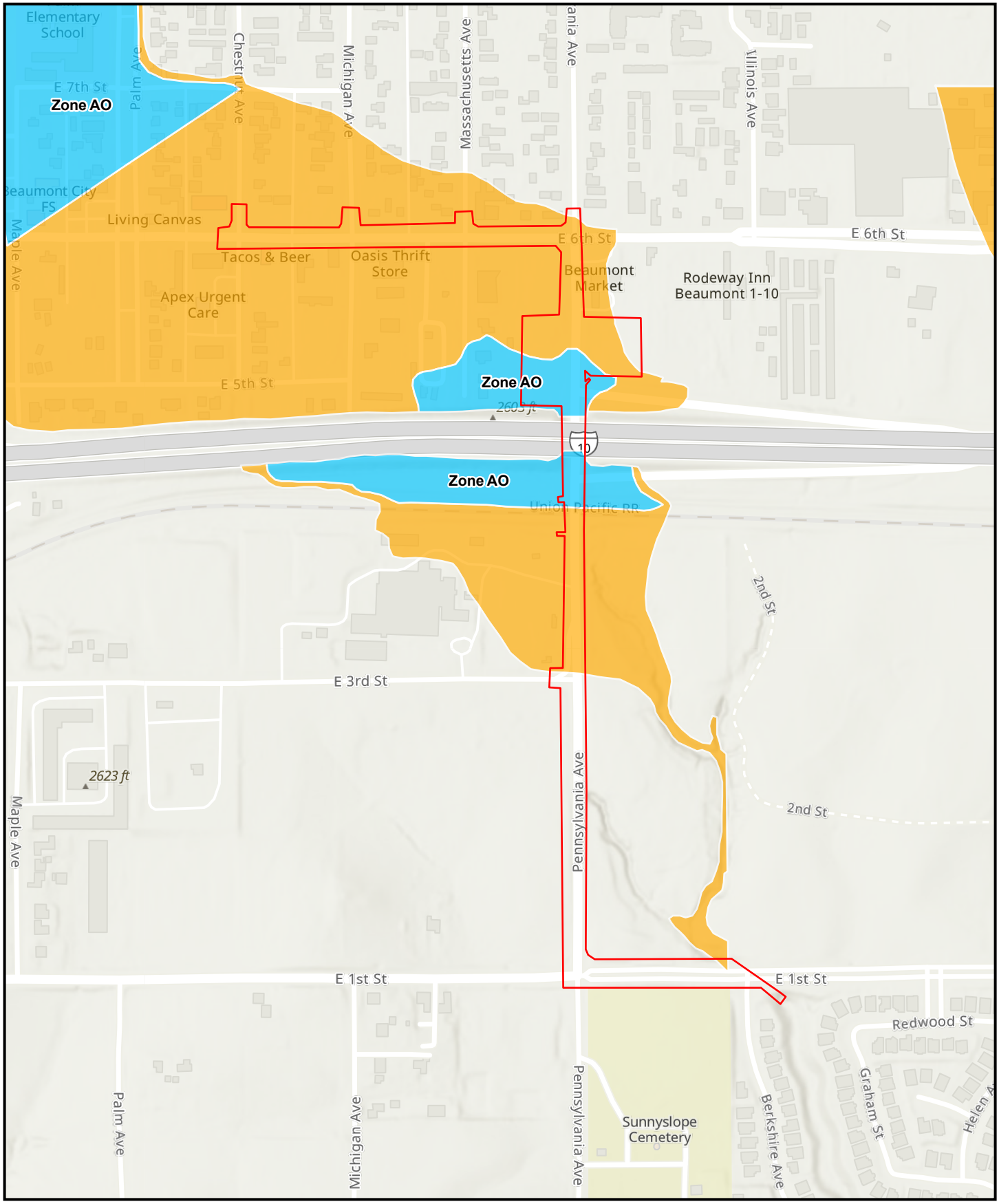
0 0.25 0.5 1

Miles

**Figure 5**
Beaumont MDP Line 2
Groundwater Basins

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Project Location

**FEMA Flood Hazard Zones**

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard

N

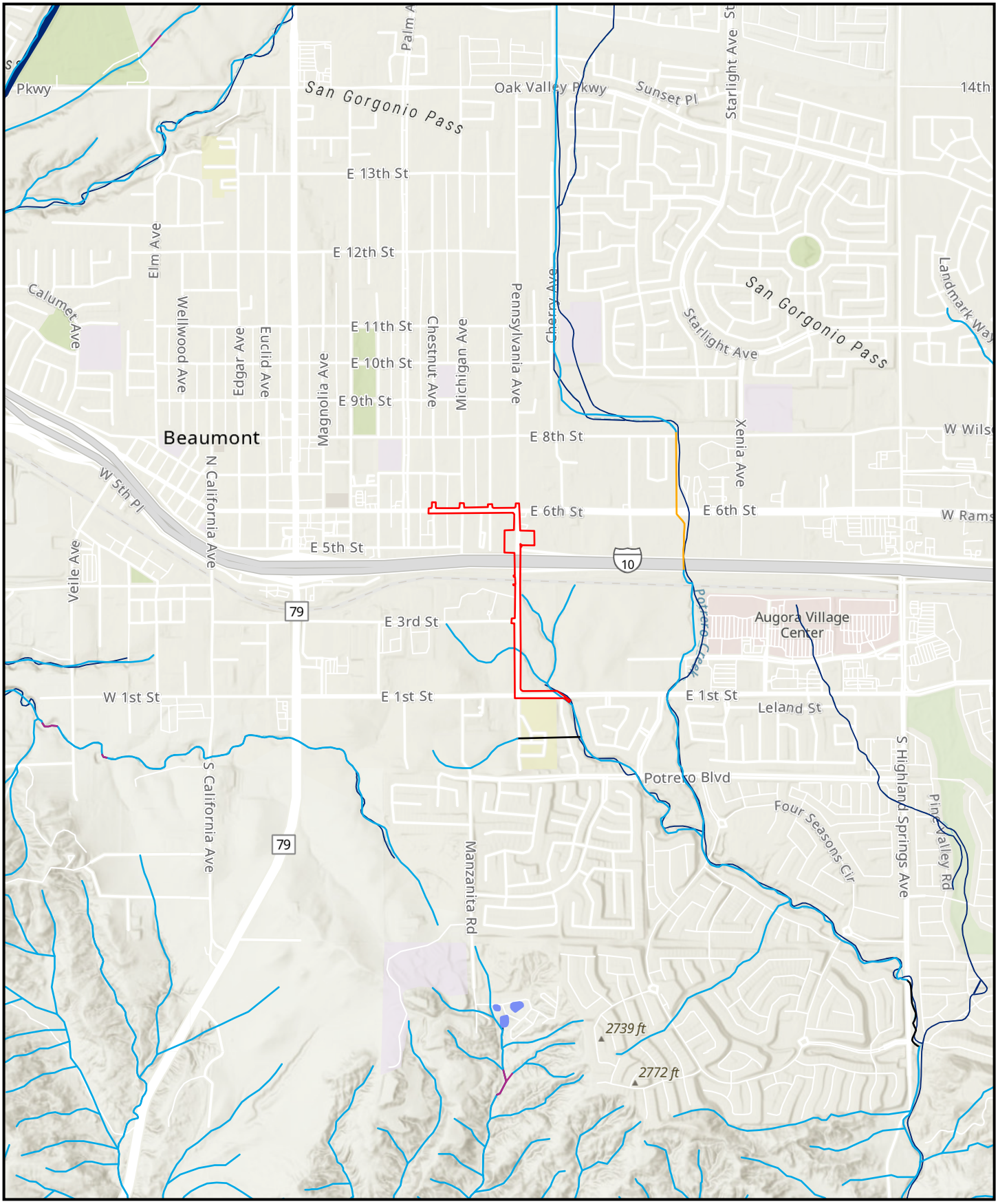
0 250 500 1,000

Feet

**Figure 6**
Beaumont MDP Line 2
FEMA Flood Hazard Zones

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Project Location

**NHD**

- Connector
- CanalDitch
- StreamRiver
- ArtificialPath

**NWI**

- Freshwater Pond
- Riverine

N

0 800 1,600 3,200

Feet

**Figure 7**
Beaumont MDP Line 2
Waters Database

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**Figure 8**
Beaumont MDP Line 2
Jurisdictional Delineation Results

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## SECTION 4.0 – RIPARIAN/RIVERINE IMPACT ANALYSIS

The Project site contains an ephemeral drainage that has riparian vegetation; however, the Project has been designed to leave most of the RCP in place to avoid and minimize impacts by Project activities. If these areas are impacted by Project activities, they may be subject to USACE, RWQCB, and CDFW jurisdiction. The results of the Jurisdictional Delineation for the Beaumont MDP Line 2 Project can be found in Appendix C. Table 1 provides a summary of acreages of Jurisdictional Waters and the potential impacts to waters that occur within the Project site.

**Table 1. Summary of Acreages of Potential Jurisdictional Waters that Occur Within the Impact Areas of the Project Site**

| Potential Jurisdictional Waters | Permanent Impact (Ac) | Permanent Impact (Sq ft) |
|---|---|---|
| **USACE Jurisdiction** | | |
| *Total Non-Wetland Waters of the US* | 0.005 | 217.8 |
| *Total Wetland Waters of the US* | NA | NA |
| **RWQCB Jurisdiction** | | |
| *Total Non-Wetland Waters of the State* | 0 | 0 |
| *Total Wetland Waters of the State* | 0.005 | 217.8 |
| **CDFW Jurisdiction** | | |
| *Total Non-Wetland Waters* | 0.033 | 217.9 |
| *Total Wetland Waters* | 0.005 | 1,437.48 |
| **MSHCP Riparian** | | |
| *Total MSHCP Riparian* | 0.038 | 1,655.28 |

### 4.1 POTENTIAL USACE JURISDICTION

The USACE asserts jurisdiction over the San Jacinto River as a TNW. Therefore, USACE will likely take jurisdiction over the drainage that exits the Project site. The site lacks all three wetland parameters (i.e., no hydric soils). Therefore, the site does not support a wetland under the jurisdiction of the USACE. For individual impacts, refer to Table 1. Total USACE jurisdictional acreage for the Project, as defined by the OHWMs, amounts to 0.005 acre of permanent impacts. A Clean Water Act (CWA) Section 404 Permit may be required for this Project.

### 4.2 POTENTIAL RWQCB JURISDICTION

RWQCB jurisdiction includes all USACE jurisdictional areas, OHWMs, and any other features that influence surface or subsurface water quality within California. The RWQCB would have jurisdiction over surface waters, which may be identified as ephemeral waters, including those indicated by a change in the average sediment texture, a change in vegetation cover, and/or a break in bank slope. The Project site contains two of the three wetland parameters. Therefore, a total of 0.005 acre of wetland waters of the State under the potential jurisdiction of the RWQCB occur in the Project site. The limits of RWQCB jurisdiction were

defined by the OHWM and indicator features within the Project site. Therefore, a 401 Water Quality Certification may be required from the RWQCB for this Project.

### 4.3 POTENTIAL CDFW JURISDICTION

There are 0.005 acre that have wetland vegetation and 0.033 acre within the Project site that have upland vegetated bank to bank within the Project site that are potentially regulated by CDFW's Lake and Streambed Alteration Agreement program. CDFW's jurisdiction extends from the top of bank to top of bank and any adjacent wetlands or riparian canopies. The drainage provides surface waters when water is present and would be considered State waters. Due to the presence of both hydrophytic vegetation and evidence of hydrology within this area, this drainage area would be considered a wetland. Direct impacts to the wetland vegetation is not expected, however if impacts occur as a result of Project activities, a Lake and Streambed Alteration Agreement (LSAA) would be required from CDFW for this Project.

### 4.4 MSHCP RIPARIAN

A total of 0.038 acre of vegetated streambed was mapped within the Project impact area. The riparian vegetation is heavily disturbed, lacking the mature forest and canopy required by the riparian species listed in Section 6.1.2 of the MSHCP. However, the drainage may help support native riparian vegetation south of the Project site. The drainage has connectivity to downstream MSHCP Conservation areas, thus may contribute to the biological functions and values of downstream habitat for covered species within the MSHCP Conservation Area. Although the species listed in Section 6.1.2 of the MSHCP are not present and are not expected to occur within the Project area, the City, as a Permittee to the MSHCP, has determined that this DBESP is warranted for this Project.

## SECTION 5.0 – PROJECT DESIGN FEATURES AND MITIGATION MEASURES TO PROTECT RIPARIAN/RIVERINE RESOURCES

The overall goal of the Project is to improve the drainage systems along the road to reduce flooding hazards to the surrounding properties of the Project site. In order to meet the goal and purpose of the Project, approximately 0.038 acre of vegetated streambed consisting of disturbed riparian vegetation will be removed. Therefore, complete avoidance of the riparian/riverine resources are not feasible.

The onsite drainage primarily functions to convey water from urban runoff and during heavy rain and flood events. Because the riverine habitat within the drainage feature contains disturbed riparian vegetation and lacks the mature trees and dense vegetation, it does not provide suitable habitat for species listed under the MSHCP Section 6.1.2 including least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, or fairy shrimp. The loss of the onsite riverine habitat will not impact these species or their populations.

Direct impacts to the disturbed riparian area are anticipated to occur as a result of the Project. While the drainage does eventually connect to the San Jacinto River with portions considered a MSHCP Critical Habitat area, the Project site is 1.8 miles from a designated MSHCP conservation area and several miles north of San Jacinto River. The portion of the drainage that falls within the Project site is very small and the vegetation within the Project boundaries is of marginal quality. Therefore, while flow from the drainage may contribute to the support of downstream habitat, the riparian vegetation within the site likely does not contribute to the overall biological functions and values of downstream habitat. Project designs will also allow for the riparian area to continue to receive the same amount of flow after improvements and the riparian area will continue to receive runoff and nuisance flow from the surrounding area. Therefore, no direct or indirect impacts are anticipated to occur to the MSHCP Riparian area outside of the Project site as a result of Project activities.

Although the functions and values of the existing drainage will be altered, the avoidance, minimization, and/or mitigation measures identified in this DBESP will provide biologically equivalent or superior functions and values in areas that will be protected by a conservation easement or other similar agreement. Potential downstream effects to existing or proposed conservation lands and/or conserved species are not expected when proposed mitigation measures are considered in conjunction with the Project. In addition, the Project is designed to avoid and minimize water pollution and erosion that occurs during heavy storm events, increase flood protection, and a net gain of surface water, which would result in an overall improvement to downstream habitat. The mitigation measures are described in detail below.

<u>Mitigation Measure 1 –Riverine</u>

The applicant will obtain all appropriate permits for impacts on USACE, RWQCB, and CDFW jurisdictional areas. Total USACE jurisdictional acreage for the Project, as defined by the OHWMs, amounts to 0.005 acre of permanent impacts. A Clean Water Act (CWA) Section 404 Permit may be required for this Project. A total of 0.005 acre of wetland waters of the State under the potential jurisdiction of the RWQCB occur in the Project site. Therefore, a 401 Water Quality Certification may be required from the RWQCB for this Project. There are 0.005 acre that have wetland vegetation and 0.033 acre within the Project site that have upland vegetated bank to bank within the Project site that are potentially regulated by CDFW's Lake and Streambed Alteration Agreement program. Therefore, a Streambed Alteration Agreement (LSAA) is likely to be required from CDFW for this Project.

Mitigation Measure 2 – Construction Mitigation Measures

The following Construction Minimization Measures (Section 7.5.3 of the MSHCP) will be implemented during Project construction to minimize impacts on riparian/riverine resources and/or impacts on biological resources during construction: Plans for water pollution and erosion control will be prepared. The plans will describe sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and use of plant material for erosion control.

- Avoid work in riparian areas during most active breeding season; typically designated as March 1 to June 30 by the CDFW/MSHCP Guidelines. Disturbance is restricted to a minimum of 300 feet away from any active nest.
- Sediment and erosion control measures will be implemented until such time soils are determined to be successfully stabilized.
- Short-term stream diversions, if needed, will be accomplished by use of sandbags or other methods that will result in minimal instream impacts. Short-term diversions will consider effects on wildlife.
- Silt fencing or other sediment trapping materials will be installed at the downstream end of
- construction activities to minimize the transport of sediments off-site.
- Settling ponds where sediment is collected will be cleaned in a manner that prevents sediment from re-entering the stream or damaging/disturbing adjacent areas. Sediment from settling ponds will be removed to a location where sediment cannot re-enter the stream or surrounding drainage area. Care will be exercised during removal of silt fencing to minimize release of debris or sediment into streams.
- No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks.
- The footprint of disturbance will be minimized to the maximum extent feasible. Access to sites will occur on pre-existing access routes to the greatest extent possible.
- Equipment storage, fueling and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.
- The limits of disturbance, including the upstream, downstream and lateral extents, will be clearly defined and marked in the field. Monitoring personnel will review the limits of disturbance prior to initiation of construction activities.
- During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by covered species that are outside of the Project footprint will be avoided.
- Exotic species removed during construction will be properly handled to prevent sprouting or regrowth.
- Training of construction personnel will be provided.
- Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of best management practices.
- When work is conducted during the fire season (as identified by the Riverside County Fire Department) adjacent to vegetation, appropriate firefighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of Project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods shall be used during grinding, welding, and other spark-inducing activities.

Personnel trained in fire hazards, preventative actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.

- Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.
- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the proposed grading limits of the Project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.
- No waste, dirt, rubble, or trash shall be deposited in the Conservation Area or on native habitat.

Mitigation Measure 3 – MSHCP Standard Best Management Practices

The following Best Management Practices will be implemented during Project construction to minimize impacts on riparian/riverine resources and/or impacts on biological resources during construction:

- A qualified biologist shall conduct a training session for project personnel prior to construction activities. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via preexisting access routes to the greatest extent possible.
- The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
- Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
- Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian bird species identified in MSHCP Global Species Objective No. 7.
- When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal in stream impacts. Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities

including but not limited to applicable jurisdictional city, USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

- Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
- The qualified project biologist shall monitor construction activities when working in identified BUOW habitat and any other sensitive areas to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
- The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to preexisting contours and revegetated with appropriate native species.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

The City shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

## SECTION 6.0 – MITIGATION MEASURES TO PROTECT MSHCP COVERED SPECIES

Although the functions and values of existing habitat will be altered, the avoidance, minimization, and/or mitigation measures identified in this DBESP will provide biologically equivalent or superior functions and values in areas that will be protected by a conservation easement or other similar agreement. Potential impacts to conserved species are not expected when proposed mitigation measures are considered in conjunction with the Project. The mitigation measures are described in detail below.

Mitigation Measure 4 – Construction Mitigation Measures

The following Construction Minimization Measures (Section 7.5.3 of the MSHCP) will be implemented during Project construction to minimize impacts to MSHCP covered species and/or impacts on habitat during construction:

- A pre-construction survey for burrowing owl (BUOW) shall be conducted within 30 days prior to ground disturbance to reevaluate the locations of active burrowing owl burrows located adjacent to or within the Project limits and to avoid direct take of BUOW (MSHCP Species Specific Objective 6). If BUOWs are identified on site, avoidance measures will be developed in compliance with the MSHCP and in coordination with the CDFW and/or RCA. These measures would include the following as well as any others developed in coordination with CDFW and/or RCA:
- A biologist with knowledge of BUOW and its habitat will be retained to function as a biological monitor.
- The biological monitor will develop and implement a contractor education program with regard to the BUOW to be provided to all personnel (including temporary contractors and subcontractors) before beginning work on the Project.
- The biological monitor will be present during vegetation clearing, grading, and construction, to monitor occupied BUOW burrows and any construction-related impacts.
- Prior to any ground disturbance, all limits of Project construction will be delineated and marked to be clearly visible to personnel on foot and in heavy equipment. All construction-related activities (e.g., vegetation removal, grading, equipment lay-down and storage, and contractor parking) will occur inside the limits of construction and designated staging areas. Construction staging and equipment storage will be located outside any occupied BUOW burrow locations.
- All movement of contractors, subcontractors, or their agents and equipment will be restricted to the limits of construction and staging areas.
- A qualified biologist will conduct any necessary BUOW passive relocation that may be required to avoid Project effects to BUOW.
- If BUOW must be moved away from the disturbance area, passive relocation techniques would be used rather than actual avian trapping. At least one or more weeks would be necessary to accomplish this and allow the birds to acclimate to alternate burrows.
- The Project would provide funding for long-term management and monitoring of the protected lands acquired for BUOW impacts. This monitoring would include an annual report submittal to the CDFW.
- Timing of construction activities will consider seasonal requirements for breeding birds and migratory non-resident species. Habitat clearing will be avoided during species active breeding season defined as March 1 to June 30.
- A qualified biologist should conduct an environmental training session for project personnel prior to construction activities. The training shall include a description of the species of concern and its

habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.

- During construction, the placement of equipment within upland Habitats occupied by Covered Species that are outside of the project footprint will be avoided.
- Crews should avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
- Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.
- Waste, dirt, rubble, or trash shall not be deposited in the Conservation Area or on native habitat.

Mitigation Measure 5 – MSHCP Standard Best Management Practices

The following Best Management Practices (Appendix C of the MSHCP) will be implemented during Project construction to minimize impacts on covered species and/or impacts on habitat during construction:

- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- Storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

## SECTION 7.0 – DETERMINATION OF BIOLOGICALLY SUPERIOR EQUIVALENT OR PRESERVATION

The Project is consistent with the Riparian/Riverine, Vernal Pool, and Fairy Shrimp Requirements (Section 6.1.2) of the Western Riverside County MSHCP. A habitat assessment conducted for this Project indicated the area would not support any of the MSHCP-covered avian species (least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo), and no focused surveys for these species are required. In addition, the site does not support vernal pools or other seasonal wetland habitats; therefore, focused surveys for Santa Rosa Plateau fairy shrimp, Riverside fairy shrimp, and vernal pool fairy shrimp are also not required.

The Project is consistent with the Species Survey Requirements (Sections 6.1.3 and 6.3.2) of the Western Riverside County MSHCP. Project mitigation measures are provided for BUOW. The Project is located within a narrow endemic plant survey area, which includes Marvin's onion and Many-stemmed dudleya (RCA 2025). However, the Project site does not contain suitable habitat required by these two species; thus, these species are not anticipated to be found within the Project site. Therefore, focused protocol-level surveys are not required. The Project is consistent with Urban/Wildlife interface Guidelines (Section 6.1.4) and Reserve Assembly Requirements within the Criteria Area (Section 3). The Project is not located within any Criteria Cells or proposed Conservation Areas.

Based on the analysis provided in this report, no purchase of offsite rehabilitation credits is required at this time and the recommended mitigation measures will result in an equal habitat function and value as with pre-project conditions.

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# APPENDIX A – PLANT SPECIES LIST

## APPENDIX A – PLANT SPECIES OBSERVED

| Scientific Name | Common Name |
|---|---|
| **ANGIOSPERMS (EUDICOTS)** | |
| **APOCYNACEAE** | **DOGBANE FAMILY** |
| *Trachelospermum jasminoides** | star jasmine |
| **ASTERACEAE** | **SUNFLOWER FAMILY** |
| *Ambrosia psilostachya* | western ragweed |
| *Artemisia californica* | California sagebrush |
| *Baccharis pilularis* | coyote brush |
| *Baccharis salicifolia subsp. salicifolia* | mule fat |
| *Baccharis sarothroides* | broom baccharis |
| *Centaurea melitensis** | tocalote |
| *Centaurea solstitialis** | yellow star-thistle |
| *Erigeron canadensis* | horseweed |
| *Heterotheca grandiflora* | telegraph weed |
| *Stephanomeria pauciflora* | wire lettuce |
| *Pseudognaphalium sp.* | cudweed |
| **BRASSICACEAE** | **MUSTARD FAMILY** |
| *Hirschfeldia incana** | shortpod mustard |
| **CHENOPODIACEAE** | **GOOSEFOOT FAMILY** |
| *Salsola australis** | Russian-thistle |
| **EUPHORBIACEAE** | **SPURGE FAMILY** |
| *Euphorbia sp.** | euphorbia |
| *Croton setiger* | turkey-mullein |
| **FABACEAE** | **LEGUME FAMILY** |
| *Acmispon glaber* | deerweed |
| **LAMIACEAE** | **MINT FAMILY** |
| *Salvia apiana* | white sage |
| *Salvia columbariae* | chia |
| *Salvia mellifera* | black sage |
| **NAMACEAE** | **NAMA FAMILY** |
| *Eriodictyon crassifolium* | thick-leaved yerba santa |
| **POLYGONACEAE** | **BUCKWHEAT FAMILY** |
| *Eriogonum fasciculatum* | California buckwheat |
| **ROSACEAE** | **ROSE FAMILY** |
| *Rhaphiolepis indica** | Indian hawthorn |
| **SALICACEAE** | **WILLOW FAMILY** |
| *Populus fremontii subsp. fremontii* | fremont cottonwood |
| **SAPINDACEAE** | **SOAPBERRY FAMILY** |
| *Acer macrophyllum* | big-leaf maple |
| **SOLANACEAE** | **NIGHTSHADE FAMILY** |

| | |
|---|---|
| *Datura wrightii* | jimson weed |
| **ANGIOSPERMS (MONOCOTS)** | |
| **POACEAE** | **GRASS FAMILY** |
| *Arundo donax** | giant reed |
| *Avena fatua** | wild oat |
| *Bromus diandrus** | ripgut grass |
| *Cynodon dactylon** | Bermuda grass |
| **GYMNOSPERMS** | |
| **PINACEAE** | **PINE FAMILY** |
| *Pinus sp.* | pine |

*Non-Native Species

# APPENDIX B – WILDLIFE SPECIES LIST

## APPENDIX B – WILDLIFE SPECIES OBSERVED OR DETECTED

| Scientific Name | Common Name |
|---|---|
| **CLASS AVES** | **BIRDS** |
| **ACCIPITRIDAE** | **HAWKS, KITES, EAGLES** |
| *Buteo jamaicensis* | red-tailed hawk |
| **COLUMBIDAE** | **PIGEONS & DOVES** |
| *Columba livia* | rock pigeon |
| **CORVIDAE** | **JAYS & CROWS** |
| Corvus corax | common raven |
| **FRINGILLIDAE** | **FINCHES** |
| *Carpodacus mexicanus* | house finch |
| ***ICTERIDAE*** | **BLACKBIRDS** |
| *Sturnella neglecta* | western meadowlark |
| ***PASSERELLIDAE*** | **NEW WORLD SPARROWS** |
| *Melospiza melodia* | song sparrow |
| ***PASSERIDAE*** | **OLD WORLD SPARROWS** |
| *Passer domesticus* | house sparrow |
| ***TYRANNIDAE*** | **TYRANT FLYCATCHERS** |
| *Sayornis saya* | Say's phoebe |

**APPENDIX C – BEAUMONT MDP LINE 2 BIOLOGICAL RESOURCES AND JURISDICTIONAL DELINEATION REPORT**

# BIOLOGICAL RESOURCES AND JURISDICTIONAL DELINATION REPORT FOR THE BEAUMONT MDP LINE 2 PROJECT BEAUMONT, CALIFORNIA

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**February 2025**

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## SECTION 1.0 – SUMMARY

This Biological Resources and Jurisdictional Delineation Report has been completed by Chambers Group, Inc. (Chambers Group) to determine the potential for impacts to biological resources associated with construction of the Beaumont Master Drainage Plan (MDP) Line 2 Project (Project). The Project would construct approximately 5,000 linear feet of reinforced concrete pipe (RCP) within the existing right-of-way (ROW) 1) along 6th Street from Chestnut to Pennsylvania Avenue; 2) along Pennsylvania Avenue from 6th Street to 1st Street; and 3) along 1st Street from Pennsylvania to an existing earthen channel in the City of Beaumont (City). The Project location as depicted in Figure 1 is referred to throughout this report as the Survey Area. The Survey Area for the reconnaissance-level survey, vegetation mapping, and preliminary jurisdictional delineation includes all areas within the Project boundaries.

Chambers Group biologists Heather Madera and Austin Burke conducted a reconnaissance-level survey and jurisdictional delineation within the Survey Area to identify the potential for occurrence of special status species, vegetation communities, and habitats that could support special status wildlife species. All plant species, wildlife species, and vegetation communities observed within the Survey Area were recorded.

Results from the survey documented developed and bare ground areas, including four vegetation communities within the Survey Area. No special status plants were observed within the Survey Area. No burrowing owls or active burrows with signs, including cough pellets and whitewash, were observed within the Survey Area. Potential jurisdictional water features were observed throughout the Survey Area. The boundaries of the hydrological feature were mapped and distinguished by the respective Agencies' jurisdiction, based on current Agency guidance documents.




Project Location

**Figure 1**
Beaumont MDP Line 2
Project Location and Vicinity

N

0 250 500 1,000
Feet

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# SECTION 2.0 – INTRODUCTION, PROJECT DESCRIPTION, LOCATION, SETTING

## 2.1 INTRODUCTION

Chambers Group was retained by EXP (Client) to conduct a literature review, reconnaissance-level biological resources survey, and jurisdictional waters delineation for the Project. The survey identified vegetation communities, potential for the occurrence of special status species or habitats that could support special status wildlife species, and recorded all plants and animals observed or detected within the Project boundary. This Biological Recourses and Jurisdictional Delineation (JD) Report has been prepared for the City to document that the Project is consistent with the Western Riverside County Regional Conservation Authority (RCA) Multiple Species Habitat Conservation Plan (MSHCP). Information contained in this document is in accordance with accepted scientific and technical standards that are consistent with the requirements of the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). The consistency analysis requires project proponents to evaluate a project's adherence to the MSHCP and Implementing Agreement (IA) guidelines and requirements. The Project is located outside of the mapped criteria area, as such, it is only required to comply with "Other Plan Requirements" discussed further in Section 4.2.

## 2.2 PROJECT DESCRIPTION

Riverside County Flood Control and Water Conservation District (RCFC) has partnered with the City to provide funding for the design and construction of the Project. In July 1983, RCFC developed a MDP for the Beaumont area (titled "Master Drainage Plan for the Beaumont Area Zone Five"). As discussed in the MDP, the City has experienced flooding over the years, and as the undeveloped areas become urbanized, flooding damage is expected to increase. Therefore, the installation of drainage systems is required to safely convey storm runoff through the concerned areas with minimal interruption to public services. Particularly, the installation of a channel would eliminate flood concerns for properties between 1st Street and Interstate 10 (I-10).

The construction of approximately 5,000 linear feet of RCP would begin at East 6th Street and Chestnut and terminate at East 1st Street and Berkshire Avenue where it would connect to an existing RCP that discharges out of an existing earthen channel immediately east of Berkshire Avenue. Manholes would be constructed for maintenance access at intervals of no more than 500 feet at the end of each line. Additional components to be installed include inlets and outlets to facilitate efficient entry and exit from the system. The RCP would feature grated openings to prevent the accumulation of debris.

The Project would include traffic control measures such as signs, barriers, and flaggers to ensure safety and maintain vehicle and pedestrian access along the right-of-way. Best management practices (BMPs) would include basins and silt fences to address soil erosion and protect water quality during construction. The affected right-of-way would be restored after installation of the RCP. The RCP would be installed at a depth no greater than 25 feet to allow for future construction and improvements in the area.

## 2.3 PROJECT LOCATION AND SETTING

The City of Beaumont is located within the northwestern area of Riverside County, bounded by Calimesa to the north/northwest, Banning to the east, and San Jacinto to the south. The Project consists of 3 segments as follows:

- East 6th Street between Chestnut Avenue and Pennsylvania Avenue
- Pennsylvania Avenue between East 6th Street and East 1st Street; and
- East 1st Street between Pennsylvania Avenue and approximately 100 feet east of Berkshire Avenue.

Land uses around the Project consist of developed and undeveloped parcels, as well as open space. East 6th Street is lined with commercial development. Pennsylvania Avenue features commercial and open spaces, with I-10 and the Union Pacific Railroad on the north end. East 1st Street consists of open spaces, commercial properties, and single-family residences.

The Project is located in the U.S. Geological Survey (USGS) *Beaumont*, California 7.5-minute topographic quadrangle. The elevation at the Project site ranges from 2,610 to 2,550 feet above mean sea level (amsl). Maps of the Project Location and Project Vicinity are provided in Figure 1.

## SECTION 3.0 – JURISDICTIONAL WATERS REGULATORY OVERVIEW

The limits of jurisdictional waters regulated by the US. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) and CDFW were delineated for the Project site. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife.

On September 12, 2019, the Environmental Protection Agency (EPA) and Department of the Army signed a final rule to repeal the 2015 Clean Water Rule (2015 Rule) and re-codify the regulatory text defining "waters of the United States" that existed prior to the 2015 Rule. The new regulations went into effect on December 23, 2019. One of the proposed changes includes ephemeral features that contain water only during or in response to rainfall would no longer be considered “waters of the United States” under the jurisdiction of the USACE. On August 28, 2019, the Office of Administrative Law approved the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to “waters of the State”. The procedures went into effect on May 28, 2020. Under these new regulations, the State Water Resources Control Board and its nine RWQCBs will assert jurisdiction over all existing “waters of the United States”, and all waters that would have been considered “waters of the United States” under the 2015 Rule.

The EPA and USACE are in receipt of the U.S. District Court for the District of Arizona’s August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. On October 22, 2019, the EPA and USACE published a final rule to repeal the 2015 Clean Water Rule: Definition of “Waters of the United States” (“2015 Rule”), which amended portions of the Code of Federal Regulations (CFR), and to restore the regulatory text that existed prior to the 2015 Rule. The final “Revised Definition of ‘Waters of the United States’” rule (the “2023 Rule”) became effective on March 20, 2023. Subsequently, the Conforming 2023 Rule took into account the *Sackett v. Environmental Protection Agency* and its implications to the definition of Waters of the United States. Therefore, this JD is consistent with the 2023 Conforming Rule and includes measurement of the Ordinary High-Water Mark (OHWM) to determine Waters of the United States (WoUS).

Evaluation of the state jurisdiction follows guidance from the same jurisdictional areas as USACE. In addition, the JD study area was reviewed for resources potentially regulated under the Porter-Cologne Act (i.e., isolated features).

CDFW regulates impacts or alterations to streambeds, including any obstruction or diversion to the natural flow of a stream, substantial change or use of material from a stream, or a deposit or disposal of any debris into a stream as part of Fish and Game Code Sections 1600-02. CDFW jurisdiction includes water features with a defined bed and bank. Features were delineated by measuring the outer width and length boundaries, consisting of either the top of bank (TOB) measurement or the extent of associated riparian or wetland vegetation (whichever is greater).

The Western Riverside County MSHCP requires that project sites be evaluated for a number of factors to assess how they meet MSHCP criteria. The jurisdictional delineation for the Project includes assessments for Riparian/Riverine areas (and associated species) and vernal pools (and associated species) pursuant to

MSHCP Section 6.1.2; urban/wildlands interface issues pursuant to MSHCP Section 6.1.4; and areas under the jurisdictions of the USACE and/or the CDFW as discussed in MSHCP Section 6.1.2. MSHCP Riparian/Riverine areas are defined as:

"*those lands which contain habitat dominated by trees, shrubs, persistent emergent, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year*" (MSHCP 2025).

Additional discussion of the regulatory framework is provided in Appendix A.

# SECTION 4.0 – BIOLOGICAL RESOURCES EVALUATION

## 4.1 METHODS

Chambers Group conducted a literature review, reconnaissance-level survey, and preliminary jurisdictional waters delineation for the Project. The methods used by Chambers Group are outlined below. The following geographies were evaluated in determining the potential for special status species to occur:

- Literature search for special status species occurrences: USGS quadrangles containing and surrounding the Survey Area and occurrences within a 5-mile buffer around the Survey Area as shown on Figure 2
- Reconnaissance-level survey: Project location (Survey Area) as shown on Figure 1
- Jurisdictional delineation: Described in Section 5.3
- Vegetation mapping: Described in Section 5.5

### 4.1.1 Literature Review

Prior to performing the reconnaissance-level survey and preliminary jurisdictional waters delineation, existing documentation relevant to the Survey Area was reviewed. The most recent records of the California Natural Diversity Database (CNDDB) managed by the CDFW (CDFW 2025), the USFWS Critical Habitat Mapper (USFWS 2025), the National Wetlands Inventory (NWI; USFWS 2025), the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2025), and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2025) were reviewed for the following quadrangles containing and surrounding the Survey Area: *Beaumont, Yucaipa, Forest Falls, San Gorgonio Mountain, El Casco, Cabazon, Lakeview, San Jacinto,* and *Lake Fulmor,* California USGS 7.5-minute quadrangles. These databases contain records of reported occurrences of federally and state listed as endangered or threatened species, proposed endangered or threatened species, California Species of Special Concern (SSC), or otherwise special status species or habitats that have been reported to occur within or in the immediate vicinity (i.e., 5 miles) of the Survey Area. A map of special status species occurrences within 5 miles of the Survey Area is included as Figure 2.

## 4.2 MSHCP OTHER PLAN REQUIREMENTS

Regardless of whether the site is located within any Criteria Cells, Narrow Endemic Plant Species Survey Areas, or proposed Conservation Areas, and whether it is subject to the focused species surveys associated with those areas, all projects within the MSHCP area require an evaluation of potential impacts on riparian/riverine areas and vernal pools and the protected species associated with those habitats. Riparian/riverine areas and vernal pools are defined in the MSHCP as follows:

> Riparian/riverine areas include lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens which occur close to, or which depend upon soil moisture from a nearby freshwater source; or areas with freshwater flow during all or a portion of the year. Vernal pools are seasonal wetlands that occur in depression areas that have wetland

indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetland plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.

When a site supports suitable riparian/riverine areas and/or vernal pool habitats for the wildlife species covered by the MSHCP listed below, focused surveys are required to determine their presence or absence from the site.

**Vernal Pool Invertebrates**

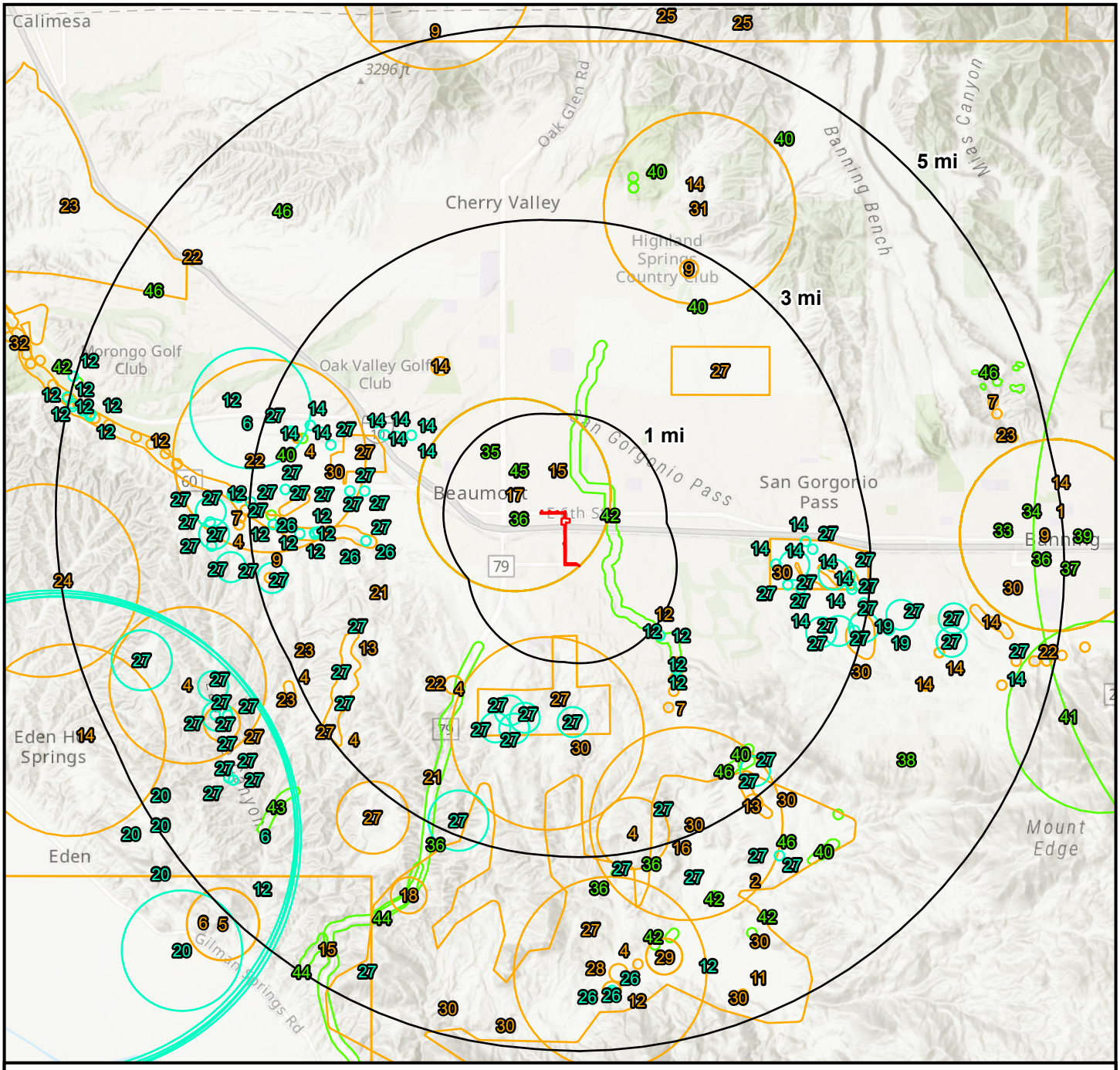
Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*)
Riverside fairy shrimp (*Streptocephalus woottoni*)
vernal pool fairy shrimp (*Branchinecta lynchi*)

**Riparian Birds**

least Bell's vireo (*Vireo bellii pusillus*)
southwestern willow flycatcher (*Empidonax traillii extimus*)
western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

### 4.2.1 Soils

Before conducting the survey, soil maps for Riverside County were referenced online to determine the types of soils found within the Project site and surrounding Survey Area. Soils were determined in accordance with categories set forth by the USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2025).




**Animals**

1. American badger
2. burrowing owl
3. California horned lark
4. coast horned lizard
5. coastal cactus wren
6. coastal California gnatcatcher
7. coastal whiptail
8. Cooper's hawk
9. Crotch's bumble bee
10. ferruginous hawk
11. golden eagle
12. least Bell's vireo
13. loggerhead shrike
14. Los Angeles pocket mouse
15. orange-throated whiptail
16. pallid bat
17. purple martin
18. red-diamond rattlesnake
19. Riverside fairy shrimp
20. San Bernardino kangaroo rat
21. San Diego desert woodrat
22. Southern California legless lizard
23. southern California rufous-crowned sparrow
24. southern grasshopper mouse
25. southern rubber boa
26. southwestern willow flycatcher
27. Stephens' kangaroo rat
28. Townsend's big-eared bat
29. tricolored blackbird
30. western spadefoot
31. western yellow bat
32. yellow warbler

**Plants**

33. chaparral sand-verbena
34. Coachella Valley milk-vetch
35. Horn's milk-vetch
36. Jaeger's milk-vetch
37. mesa horkelia
38. Mojave tarplant
39. narrow-leaf sandpaper-plant
40. Parry's spineflower
41. Payson's jewelflower
42. smooth tarplant
43. Southern Coast Live Oak Riparian Forest
44. Southern Cottonwood Willow Riparian Forest
45. spiny-hair blazing star
46. Yucaipa onion

Project Location

USFWS Occurrences

**CNDDB Occurrences**

Animals

Plants

N

0 0.75 1.5 3

Miles

**Figure 2**

Beaumont MDP Line 2

Special Status Species

Occurrences Within 5 Miles

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### 4.2.2 Jurisdictional Waters

Chambers Group biologists Heather Madera and Austin Burke performed an assessment of jurisdictional waters potentially regulated by the USACE, RWQCB, and CDFW within the Survey Area on January 14, 2025.

Climate and flow frequency were considered when observing watermarks and drift lines. For the purpose of determining hydrologic connectivity to a Traditional Navigable Water (TNW), aerial photos, NWI and National Hydrography Dataset (NHD) maps, and USGS quadrangle maps were reviewed; and all features were inspected in the field on- and off-site for true connectivity. Potential USACE / RWQCB / CDFW jurisdictional areas identified during the literature search and aerial image analysis were field checked for the presence of definable channels, soils, wetland vegetation, riparian habitat, and hydrology. The biologists visually inspected all potential waters within the Survey Area for 100 percent coverage. Data was recorded for the presence or absence of fluvial activity, boundaries of geomorphic units, changes in plant species composition between different geomorphic units, soil types and textures, and mapping the watercourse and watercourse boundaries. Each of the hydrological features were examined in the field, and the channel banks were examined for signs of flow, terraces, drift deposits and other indicators that would determine the location of the OHWM. Average channel width and depth, substrate types, and vegetation within and/or along the banks were recorded. Data was collected using a combination of records entered into ESRI ArcGIS Collector© and hand-written field notes. Potential jurisdictional waters and riparian communities were mapped at a minimum scale of 1:6000, often down to 1:2000.

Potential wetland habitats were evaluated using the methodology set forth in the *1987 Corps of Engineers Wetlands Delineation Manual* (1987 Wetland Manual; USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (*version 2.0*) (2008 Arid West Supplement; USACE 2008). The methods set forth in the 1987 Wetland Manual and the 2008 Arid West Supplement involve the delineation of wetlands based on the presence of three wetland parameters: a predominance of hydrophytic vegetation, wetland hydrology, and hydric soils. These wetland parameters are discussed in greater detail below.

**Hydrophytic Vegetation**

Hydrophytic vegetation is defined as “the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content” (USACE 1987). The potential wetland areas within the survey area were surveyed by walking through the Project site and making observations of those areas exhibiting characteristics of jurisdictional wetlands.

Areas supporting plant life potentially indicative of wetlands were evaluated in the field according to current USACE wetland delineation procedures described in the 1987 Wetland Manual (USACE 1987) and the 2008 Arid West Supplement (USACE 2008). The dominant and subdominant plant species present in the sample pits of these potential wetland areas were identified and their wetland indicator status noted based on the current USACE National Wetland Plant List-Arid West Region (USACE 2022).

**Hydric Soils**

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (USACE 1987). Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese,

sulfur, or carbon compounds (USACE 2008) due to periods of anaerobic conditions in the soil. The hydric soil criterion is considered satisfied at a location if soils in the area can be inferred to have a high groundwater table, evidence of prolonged soil saturation, or any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile are present.

Potential hydric soils were investigated within the survey area. Sample soil pit locations were selected, and a hole was dug to a typical depth of 18 inches (unless prevented by some occluding material) or occasionally deeper to determine soil color, evidence of soil saturation, depth to shallow groundwater, and indicators of a reducing soil environment (e.g., redox concentrations or pore linings, gleyed soils, hydrogen sulfide odor). Soil matrix colors were classified using the Munsell Soil-Color Charts (Munsell Color 2009).

**Wetland Hydrology**

The presence of wetland hydrology indicators confirms that inundation or saturation has occurred on a site but may not provide information about the timing, duration, or frequency of the event. Hydrological features are generally the most ephemeral of the three wetland parameters (USACE 2008).

Hydrologic information for the site was obtained by reviewing USGS topographic maps and by directly observing hydrology indicators in the field. The wetland hydrology criterion is considered satisfied at a location if, based upon the conclusions inferred from the field observations, an area has a high probability of being periodically inundated or has soils saturated to the surface at some time during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987). If at least one primary indicator or at least two secondary indicators are found at a sample pit, the wetland hydrology criterion is considered satisfied.

### 4.2.3 Biological Reconnaissance-Level Survey

Chambers Group biologists Heather Madera and Austin Burke conducted a reconnaissance-level survey within the Survey Area to identify the potential for occurrence of special status species, vegetation communities, and habitats that could support special status wildlife species. The survey was conducted on foot throughout the Survey Area between 0800 and 1300 hours on January 14, 2025. All plant and wildlife species and vegetation communities observed within the Survey Area were recorded.

Weather conditions during the survey included temperatures ranging from 46 to 58 degrees Fahrenheit, with 0 percent cloud cover and no precipitation. Wind speeds ranged between 12 and 20 miles per hour (mph). Photographs of the Survey Area were recorded to document existing conditions (Appendix B).

**Vegetation**

All plant species and vegetation communities observed within the Survey Area during the reconnaissance-level survey were recorded. Vegetation communities within the Survey Area were identified, qualitatively described, and mapped onto an aerial photograph. The vegetation communities are described following *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual, Second Edition* (Baldwin et al. 2012). A comprehensive list of the plant species observed during the survey is provided in Appendix C.

**Wildlife**

All wildlife and wildlife sign observed and/or detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, during both surveys were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (trees were surveyed with binoculars for bird nests or avian activity) or in habitats with the potential to support federally and/or state listed or otherwise special status species. Notes were made on the general habitat types, species observed, and the conditions of the Survey Area. A comprehensive list of the wildlife species observed during the survey is provided in Appendix D.

# SECTION 5.0 – RESULTS

## 5.1 MSHCP CONSISTENCY DETERMINATION

### 5.1.1 Outside of MSHCP Criteria Area

The Project site is located within the San Timoteo and Badlands Unit, of the Pass Area Plan, and is not within a Criteria Area Cell (Figure 3). Because the site does not occur within a Criteria Area Cell, a Joint Project Review (JPR) is not required. The site is not within an amphibian survey area or a mammal survey area. However, the site is located within a designated burrowing owl survey area and narrow endemic plant survey area, which includes Marvin's onion (*Allium marvinii*) and Many-stemmed dudleya (*Dudleya multicaulis*)(RCA 2025). Therefore, additional surveys for these species may be required.

### 5.1.2 Vegetation

**Riverine/Riparian**

Disturbed Fremont Cottonwood Series vegetation community occurs within the southern portion of the Project site where waters exit the site through a concrete culvert. The primary source of water is this area is provided by seasonal rainfall and runoff. In addition, this area receives nuisance water from the surrounding residential neighborhood. This area is heavily disturbed with a buildup of sediment and debris. This disturbed riparian area is primarily vegetated with Fremont cottonwood (*Populus fremontii*), mule fat (*Baccharis salicifolia*), giant reed (*Arundo donax*), and other exotic species. Because of the presence of riparian vegetation, this area should be considered under an MSHCP Riparian area.

**Vernal Pools**

There were no Vernal Pools located within or adjacent to the Project site.

### 5.1.3 Wildlife

**Least Bell's Vireo** (*Vireo bellii pusillus*) **FE**, **SE**

The least Bell's vireo (nesting) is a federal- and state-listed endangered subspecies of the Bell's vireo. The least Bell's vireo typically nests in willows and other riparian trees or shrubs, and typically nests 3 to 6 feet above the ground. This species requires densely vegetated riparian habitat along streams and rivers during the spring and summer months to breed, and foraging in habitat adjacent to its nesting territory, which is typically riparian or chaparral. The Project site lacks the dense riparian habitat required by this species for nesting. Therefore, this species is not anticipated to occur within the site or be impacted by Project activities.

**Southwestern Willow Flycatcher** (*Empidonax traillii extimus*) **FE, SE**

The southwestern willow flycatcher (nesting) is a federally endangered subspecies of willow flycatcher whose summer breeding range includes southern California (from the Santa Ynez River south), Arizona, New Mexico, extreme southern portions of Nevada and Utah, extreme southwest Colorado, and western Texas (USGS 2024). This species is known to breed in a variety of riparian habitats with multi-tiered canopies and surface water and/or saturated soils, whether along streams in broad valleys, in canyon bottoms, around mountain-side seepages, or at the margins of ponds and lakes. Where willow species

dominate, high foliage-volume willow cover is preferred but with willow clumps separated by openings. Habitat types may include a variety of willow, cottonwood (*Populus* sp.), coast live oak, alder (*Alnus* sp.), and tamarisk (*Tamarix* sp.) woodlands. The Project site lacks suitable habitat required by this species; therefore, the southwestern willow flycatcher is not anticipated to occur within or adjacent to the Project site.

**Western Yellow-Billed Cuckoo** (*Coccyzus americanus occidentalis*) **FT, SE**

The western yellow-billed cuckoo (nesting) is a state-listed endangered species. The yellow-billed cuckoo is found primarily in the Eastern United States, but this subspecies is an extremely rare and localized summer resident of the southwestern U.S. Historically, it was found commonly throughout the Central Valley and California coastline until the early twentieth century. This species primarily inhabits mature, open riparian woodlands along the broad, lower flood-bottoms of larger river systems. Habitat features usually include some relatively open patches and intermixed low, dense, scrubby vegetation typical of these watercourses. In the southwestern U.S., the western yellow-billed cuckoo also occupies desert riparian woodlands composed of willows, cottonwoods, and dense mesquite (*Prosopis* sp.). It typically nests in willows and forages more so among the cottonwoods than other trees. The Project site lacks the mature and dense riparian habitat required by this species. Therefore, this species is not anticipated to occur within or adjacent to the Project site.

**Burrowing Owl** (*Athene cunicularia hypugaea*) SSC

The following APNs within the Project site are within a species survey area for burrowing owl: 418-160-007; 418-240-009, 011; 418-250-006, 009, 010; 418-341-009; 418-342-002; 418-360-003, 009; 419-630-001, 002, 003, 011, 012, 029, 030; 419-631-017; 419-772-001. This California species of special concern is one of the 146 species covered by RCA's MSHCP. Nesting in underground burrows typically abandoned by other animals such as ground squirrels, the burrowing owl prefers open, flat, grassland habitat, a factor that has led to declining numbers in the last 20 years as development has progressed. Under federal laws protecting migratory birds, both the owls and their burrows are protected. Mitigation includes relocating birds that have been displaced and allowing birds to relocate into new burrows in a safe location. Areas outside of the Project site within 500 feet of the site contain flat and open space consisting of disturbed and Ruderal vegetation. These areas have a low potential to support burrowing owls and require further surveys.

**Santa Rosa Plateau Fairy Shrimp** (*Linderiella santarosae*) **FT**

The only known population of this species occurs on a mesa underlain with basalt flows on the Santa Rosa Plateau, located within the Santa Rosa Ecological Reserve. However, this species is endemic to western Riverside County and could potentially exist in vernal pools with similar substrate. The Project site lacks the suitable habitat that is required by this species; therefore, this species is not anticipated to be impacted by Project activities.

**Riverside Fairy Shrimp** (*Streptocephalus woottoni*) **FE**

The Riverside Fairy Shrimp is a federally endangered species. It prefers moderately deep vernal or ephemeral ponds situated within coastal sage scrub or grassland. It is found in seasonally astatic pools filled by winter/spring rains. It is endemic to western Riverside and San Diego counties in areas of tectonic swales/earth slump basins that form playas, that are underlain by basalt flow and clay soils, including the Santa Rosa Plateau, Skunk Hollow, Murrieta, and the Lake Elsinore back basin areas of Riverside County.

No suitable habitat for this species occurs within the Project site. Therefore, this species is not anticipated to occur within the Project site.

**Vernal Pool Fairy Shrimp** (*Branchinecta lynchi*) **FT**

The vernal pool fairy shrimp is a federally threatened species and is endemic to California in Riverside County. This species occurs only in vernal pools and vernal pool-like habitats in alluvial fans and terraces, and will not occur in riverine, marine, or other permanent bodies of water (USFWS 2007). This species requires cool waters of 50 degrees Fahrenheit or cooler (USFWS 2007). No vernal pools were observed within the Project site. Therefore, this species is not anticipated to be impacted by Project activities.

## 5.2 SOILS

After review of USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2025), it was determined that the Project site is located within the Western Riverside Area CA679 (Figure 4: USDA Soils Map). Based on the results of the database search, four soil types were observed in the Project site:

**Ramona sandy loam (RaB2), 2 to 5 percent slopes** is a well-drained soil typically found on terraces and alluvial fans at elevations of 250 to 3,500 feet amsl. The soil profile is composed of sandy loam, sandy clay loam, and gravely sandy loam. These soils typically have low runoff when wet.

**Ramona sandy loam (RaB3), 0 to 5 percent slopes** is a well-drained soil typically found on terraces and alluvial fans at elevations of 250 to 3,500 feet amsl. The soil profile is composed of sandy loam, sandy clay loam, and gravely sandy loam. These soils typically have medium runoff when wet.

**Ramona sandy loam (RaC3), 5 to 8 percent slopes** is a well-drained soil typically found on terraces and alluvial fans at elevations of 250 to 3,500 feet amsl. The soil profile is composed of sandy loam, sandy clay loam, and gravely sandy loam. These soils typically have high runoff when wet.

**Terrace escarpments (TeG),** are steep slopes, that occur most often along waterways, that are easily disturbed and made of layers of various mixtures of sand, silt, gravel and/or clay. They are typically found on terraces and at a wide range of elevations.

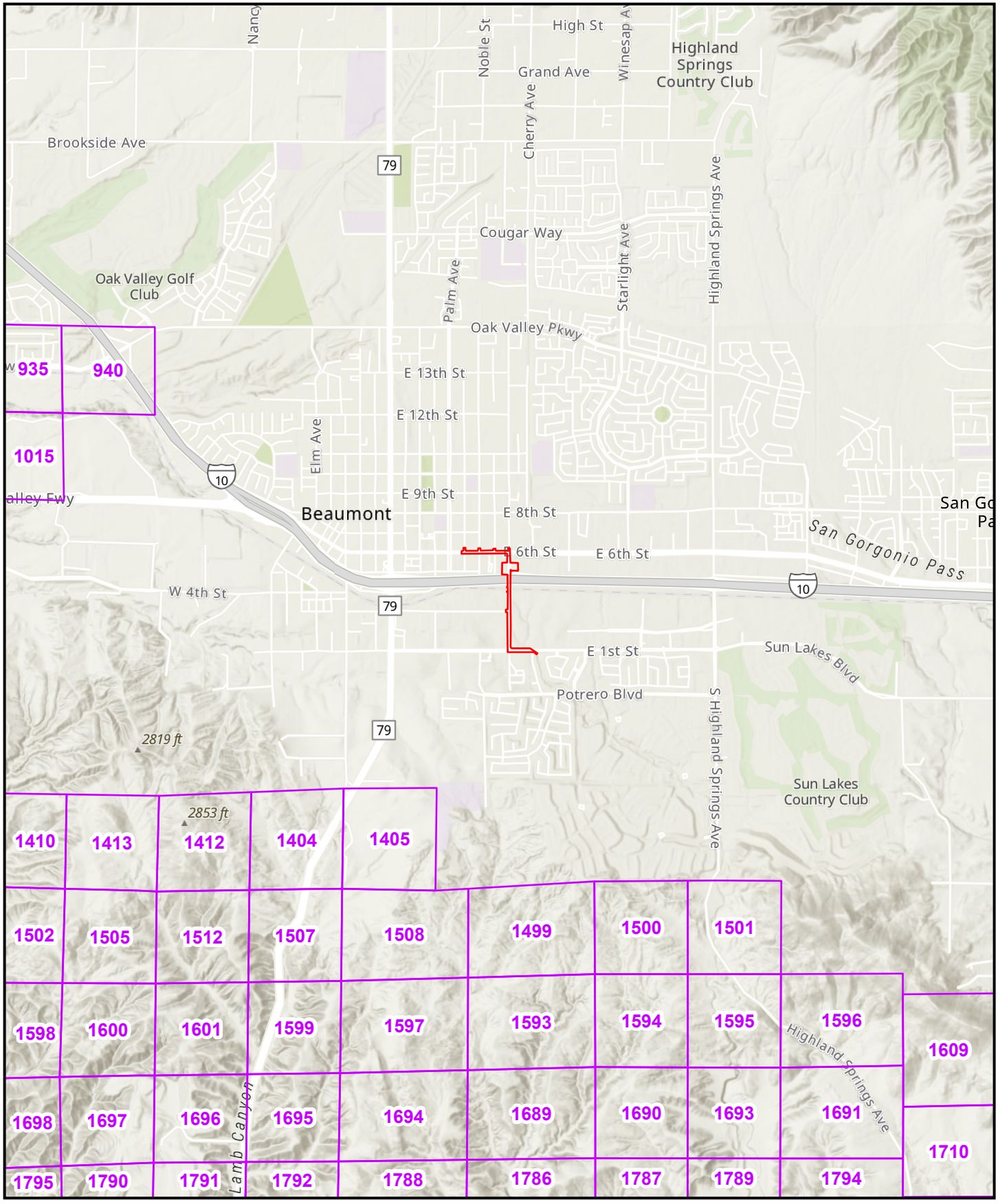



**Figure 3**
Beaumont MDP Line 2
RCA Western Riverside County Criteria Area Cells

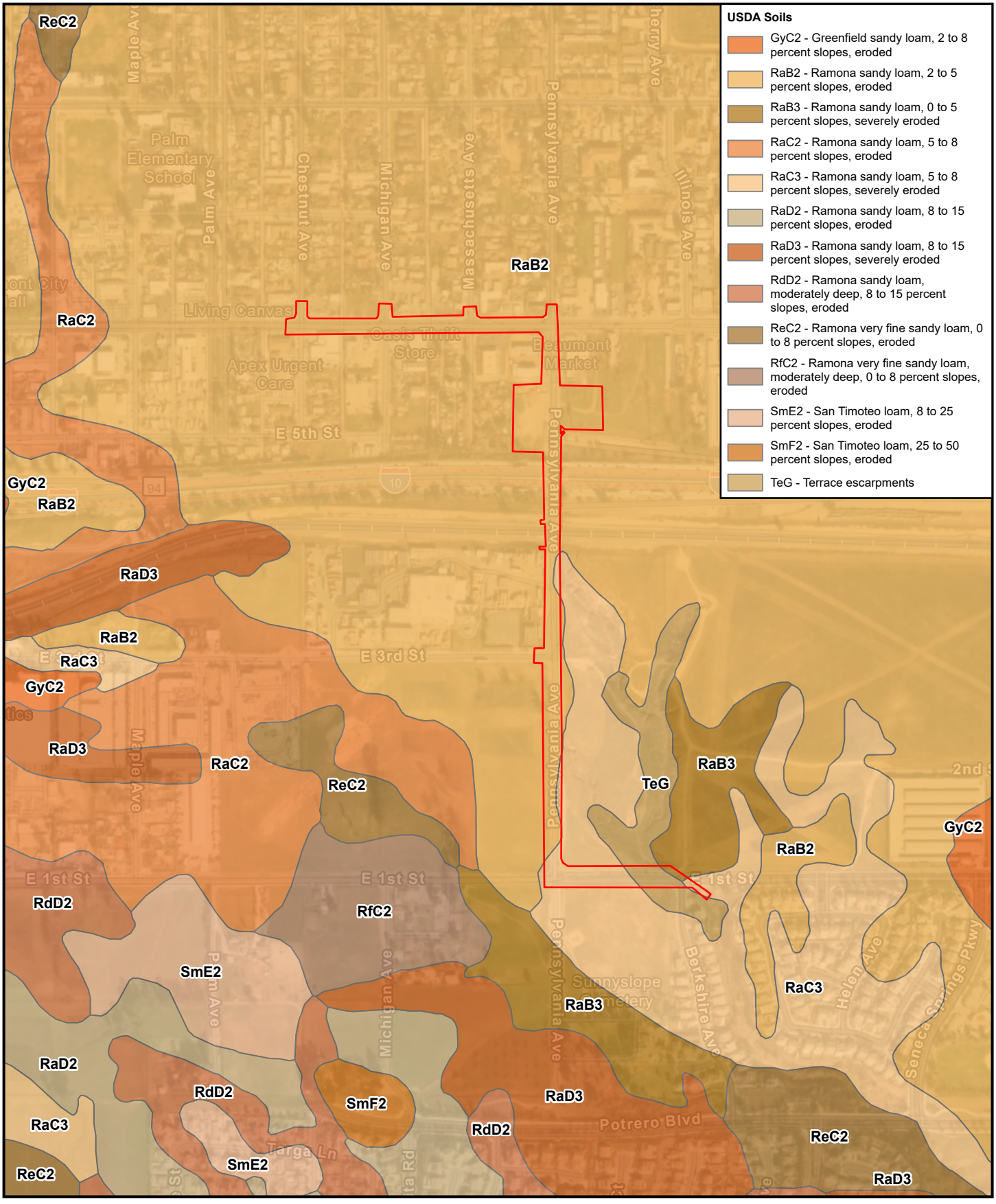



**Figure 4**
Beaumont MDP Line 2
USDA Soils

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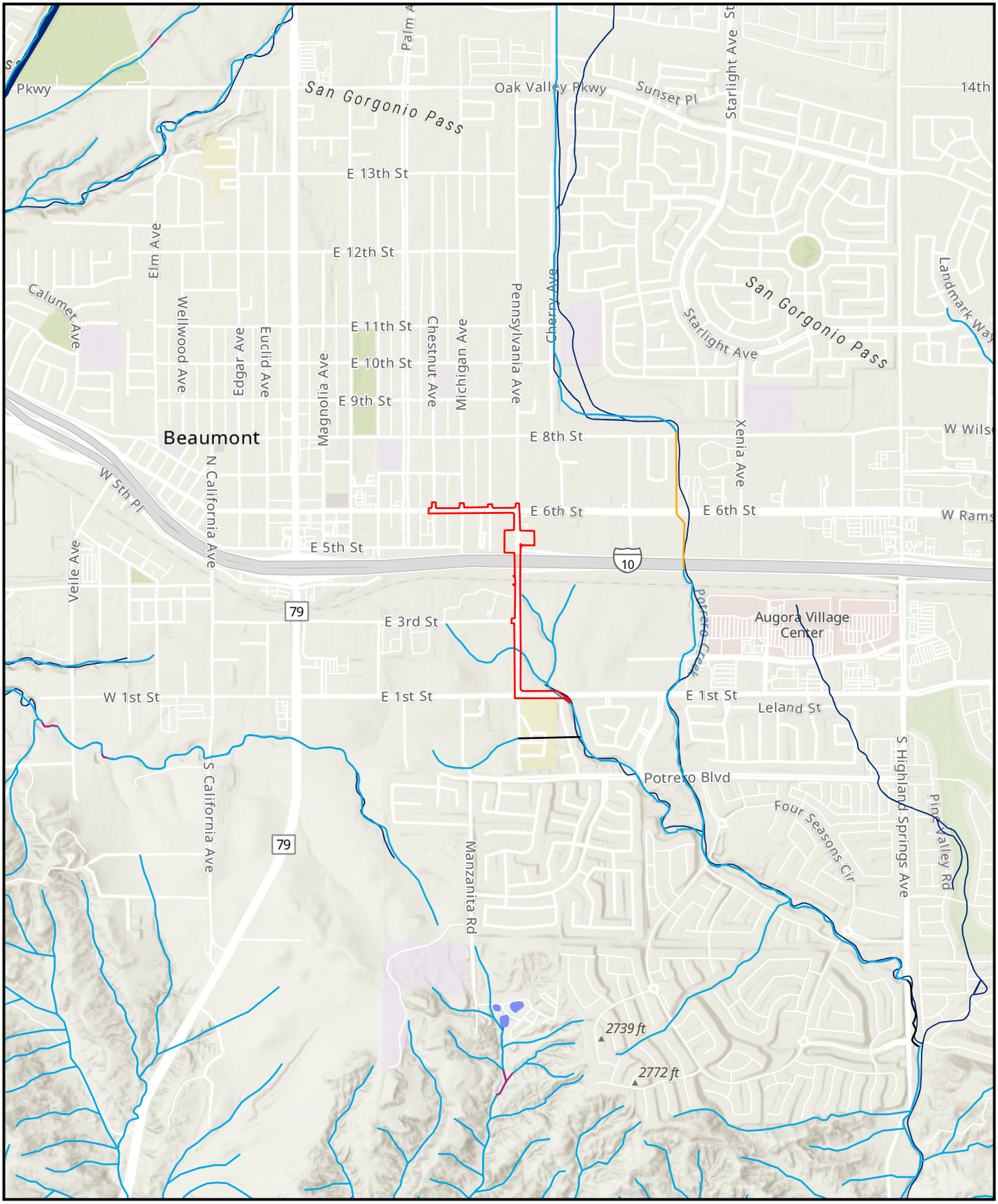
## 5.3 JURISDICTIONAL WETLANDS AND WATERWAYS

The Project site is located within the Potrero Creek Watershed and contains disturbed riparian vegetation. Although there was no flowing water and soils were problematic, this section of the creek may be subject to USACE, RWQCB, and CDFW jurisdiction. A JD survey was conducted and potential waters of the United States and waters of the State are described below.

**Hydrology and Connectivity**

A feature mapped in the NWI as an ephemeral drainage runs through the southern end of the Project site as shown in Figure 5, Waters Databases Map (USFWS 2025). The Survey Area is located within the Potrero Creek Watershed (HUC 12- 180702020201) of the Upper Santa Ana Valley groundwater basin (USDA 2025) in Riverside County, California (Figure 6). The Potrero Creek Watershed in Beaumont is bordered to the north by the San Bernardino Mountains and to the south by the San Jacinto Mountains, to the west by the San Gabriel and Santa Ana Mountains, and to the east by the Little San Bernardino Mountains. Potrero Creek flows south/southwest for 5 miles until it joins the San Jacinto River near California State Route 79, which ultimately drains into Lake Elsinore. The headwaters of the San Jacinto River are in the San Bernardino Mountains. Ephemeral water features within the Survey Area flow into Potrero Creek.

Figure 7 provides the groundwater basin containing the Survey Area (i.e., Upper Santa Ana Valley). Figure 8 provides the location of the flood zones identified by the Federal Emergency Management Agency (FEMA). A Special Flood Hazard Area (SFHA) runs through the Survey Area. The SFHA is designated as Zone AO (areas that have a 1 percent annual chance of flooding or 100-year flood) and Zone X (areas having a 0.2 percent annual chance of flooding or 500-year flood).




Project Location

**NHD**

- Connector
- CanalDitch
- StreamRiver
- ArtificialPath

**NWI**

- Freshwater Pond
- Riverine

N

0 800 1,600 3,200

Feet

**Figure 5**
Beaumont MDP Line 2
Waters Database

Name: 21501 Beaumont MDP Line 2
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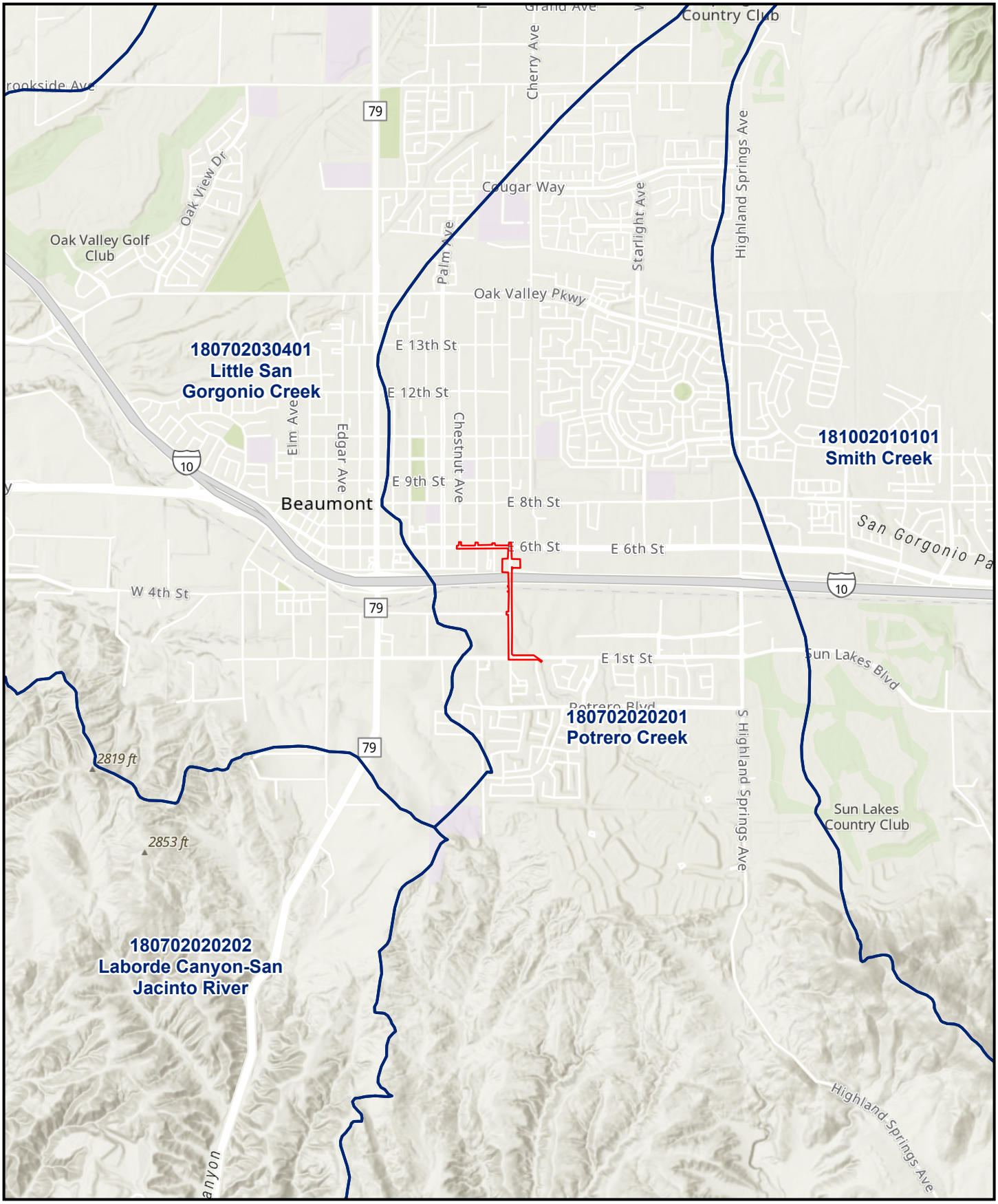
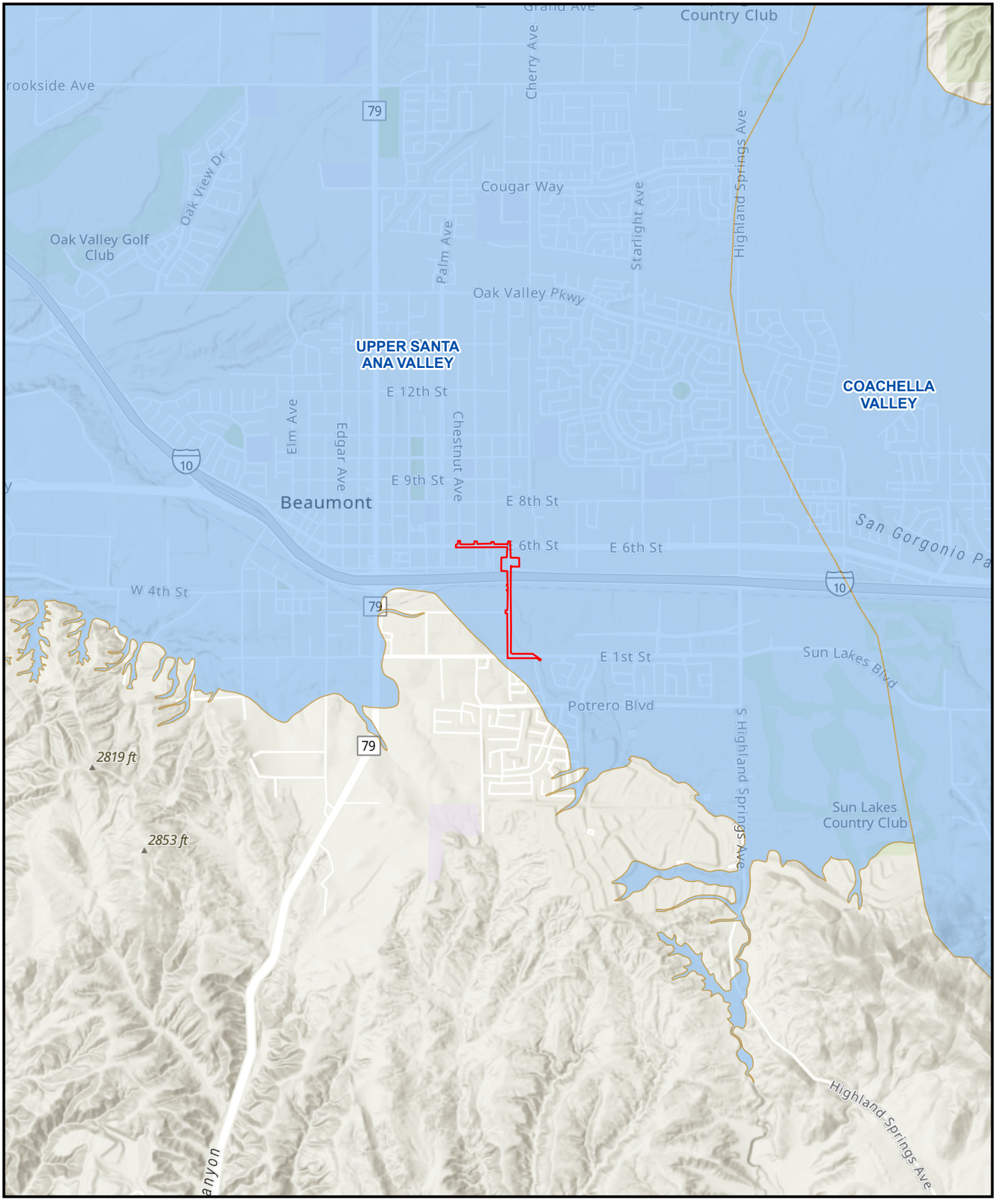



**Figure 6**
Beaumont MDP Line 2
Watersheds

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Project Location

Groundwater Basin

N

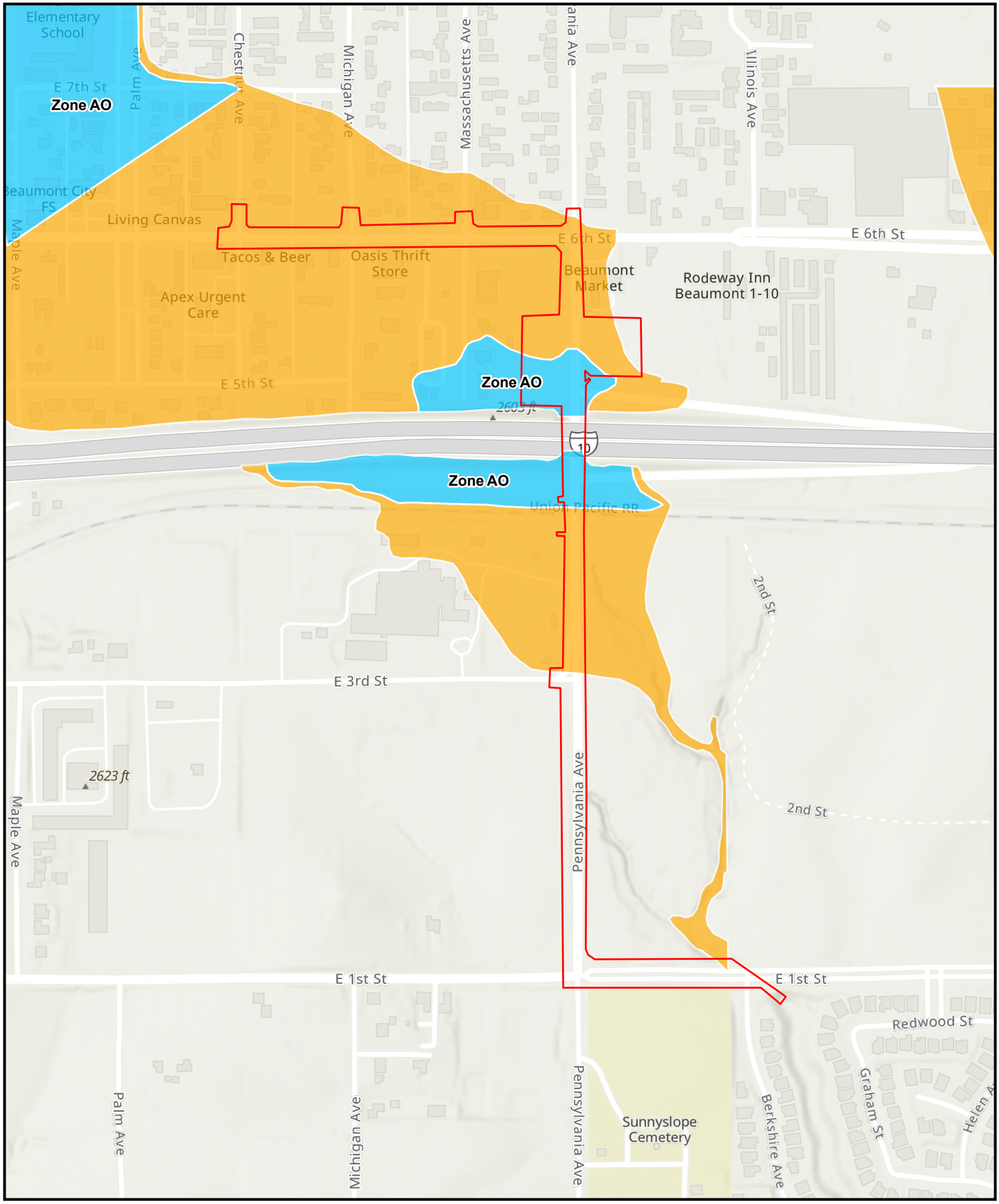
0 0.25 0.5 1

Miles

**Figure 7**
Beaumont MDP Line 2
Groundwater Basins

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Project Location

**FEMA Flood Hazard Zones**

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard

N

0 250 500 1,000

Feet

**Figure 8**
Beaumont MDP Line 2
FEMA Flood Hazard Zones

Name: 21501 Beaumont MDP Line 2
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### 5.3.1 Delineated Waters

Based on the NWI and NHD database search, a mapped blue-line riverine feature runs through the Survey Area of the Project. The field delineation confirmed the presence of the drainage. Figure 9 provides the location of the water feature delineated within the Survey Area following the field investigations. A total of 277 linear feet of ephemeral drainage was mapped within the Survey Area. The drainage enters a culvert on the north side of 1st Street and goes underground through the Survey Area for 262 feet when it exits the culvert on the south side of the street. The drainage remains above ground for 15 more feet until it exits the Project site and flows above ground for approximately 0.65 miles until emptying into Potrero Creek, where it continues to flow south/southwest eventually terminating in the San Jacinto River, a TNW. The drainage within the Survey Area may be subject to USACE, CDFW, and RWQCB jurisdiction. The drainage is described below and data recorded for the drainage within the Survey Area is presented in Table 1. Completed OHWM forms and wetland delineation forms representative of the water feature identified are provided in Appendix E. Reference photographs were taken during this survey and are included in Appendix B.

The drainage flows via surface hydrology primarily from road runoff and flooding during seasonal rainfall, as well as nuisance water from the surrounding residential neighborhood. Although there was no water present during the field survey, several indicators of hydrology were present at the time of the field delineation. Hydrological characteristics within the drainage included: break in the bank slope, mud cracks, exposed roots, and vegetation matted down or bent. The limits of the OHWM were delineated visually by change in break in slope and change of vegetation within the drainage. The OHWM measured approximately 21 feet wide, and bank-to-bank measured 106 feet wide, both narrowing as they exit the Project boundary flowing downstream. In addition, hydrophytic vegetation was present within and outside of the Survey Area. However, hydric soils could not be confirmed within the drainage (i.e., presence of excess sediment and debris buildup from flood events surrounding the culvert); therefore, the Project site contains two wetland parameters.

### 5.3.2 CDFW/MSHCP Riparian Habitat

No NWI mapped wetlands were identified within the Project site. However, Disturbed Fremont Cottonwood Series vegetation community occurs within a small portion of the Project site just outside of the culvert and downstream of the Survey Area. This area is heavily disturbed with a buildup of sediment and debris. The vegetation in the area contains Fremont cottonwood, mule fat, giant reed, California buckwheat (*Eriogonum fasciculatum*), and other exotic species. Several soil pits were dug during the survey. No hydric soils were observed within the Project boundary due to the presence of excess sediment and debris. Thus, the soil pits could not be dug deep enough to identify hydric soils. In addition, no hydric soils were identified during the database soil search. Although the presence of hydric soils could not be confirmed, hydrophytic vegetation is present and evidence of hydrology was observed, so the area can be considered a wetland under CDFW jurisdiction with only two of the three wetland parameters present. Therefore, this riparian area may be considered to be a wetland area with problematic soils.

Because Riparian vegetation occurs within the channel, the drainage meets the MSHCP definition of Riverine. While the drainage does eventually connect to the San Jacinto River with portions considered a MSHCP Critical Habitat area, the Project site is 1.8 miles from a designated MSHCP conservation area and several miles north of San Jacinto River. The portion of the drainage that falls within the Project site is very small and the vegetation within the Project boundaries is of marginal quality. Therefore, while flow from the drainage may contribute to the support of downstream habitat, the riparian vegetation within

the site likely does not contribute to the overall biological functions and values of downstream habitat for covered species within the MSHCP Conservation Area. In addition, the riparian vegetation that occurs within the drainage onsite lacks the mature trees and dense vegetation required by the species listed in Section 6.1.2 of the MSHCP. None of these species were observed during the survey and they are not expected to occur within the Project area.

Because the Project site contains evidence of hydrology and riparian vegetation, this area would be considered under CDFW jurisdiction and an MSHCP Riparian area.




**Figure 9**
Beaumont MDP Line 2
Jurisdictional Delineation Results

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## 5.4 SUMMARY OF JURISDICTIONAL FINDINGS

The Project site contains an ephemeral drainage that has riparian vegetation; however, the Project has been designed to leave most of the RCP in place to avoid and minimize impacts by Project activities. If these areas are affected by Project activities, they may be subject to USACE, RWQCB, and CDFW jurisdiction. The results of this JD document the investigation, best professional judgement, and conclusions of Chambers Group. However, this delineation would need to be verified and determined by the regulatory agencies. Table 1 provides a summary of acreages of Jurisdictional Waters and the potential impacts to waters that occur within the Project site if they were to be affected.

**Table 1: Summary of Acreages of Potential Jurisdictional Waters that Occur Within the Impact Areas of the Project Site**

| Potential Jurisdictional Waters | Permanent Impact (Ac) | Permanent Impact (Sq ft) |
|---|---|---|
| **USACE Jurisdiction** | | |
| *Total Non-Wetland Waters of the US* | 0.005 | 217.8 |
| *Total Wetland Waters of the US* | NA | NA |
| **RWQCB Jurisdiction** | | |
| *Total Non-Wetland Waters of the State* | 0 | 0 |
| *Total Wetland Waters of the State* | 0.005 | 217.8 |
| **CDFW Jurisdiction** | | |
| *Total Non-Wetland Waters* | 0.033 | 217.9 |
| *Total Wetland Waters* | 0.005 | 1,437.48 |
| **MSHCP Riparian** | | |
| *Total MSHCP Riparian* | 0.038 | 1,655.28 |

### 5.4.1 Potential USACE Jurisdiction

The USACE asserts jurisdiction over the San Jacinto River as a TNW. Therefore, USACE will likely take jurisdiction over the drainage that exits the Project site. The site lacks all three wetland parameters (i.e., no hydric soils). Therefore, the site does not support a wetland under the jurisdiction of the USACE. For individual impacts, refer to Table 1. Total USACE jurisdictional acreage for the Project, as defined by the OHWMs, amounts to 0.005 acre of permanent impacts. A Clean Water Act (CWA) Section 404 Permit may be required for this Project.

### 5.4.2 Potential RWQCB Jurisdiction

RWQCB jurisdiction includes all USACE jurisdictional areas, OHWMs, and any other features that influence surface or subsurface water quality within California. The RWQCB would have jurisdiction over surface waters, which may be identified as ephemeral waters, including those indicated by a change in the average sediment texture, a change in vegetation cover, and/or a break in bank slope. The Project site contains two of the three wetland parameters. Therefore, a total of 0.005 acre of wetland waters of the State under the potential jurisdiction of the RWQCB occur in the Project site. The limits of RWQCB jurisdiction were

defined by the OHWM and indicator features within the Project site. Therefore, a 401 Water Quality Certification may be required from the RWQCB for this Project.

### 5.4.3 Potential CDFW Jurisdiction

There are 0.005 acre that have wetland vegetation and 0.033 acre within the Project site that have upland vegetated bank to bank within the Project site that are potentially regulated by CDFW's Lake and Streambed Alteration Agreement program. CDFW's jurisdiction extends from the top of bank to top of bank and any adjacent wetlands or riparian canopies. The drainage provides surface waters when water is present and would be considered State waters. Due to the presence of both hydrophytic vegetation and evidence of hydrology within this area, this drainage area would be considered a wetland. Direct impacts to the wetland vegetation is not expected, however if impacts occur as a result of Project activities, a Lake and Streambed Alteration Agreement (LSAA) would be required from CDFW for this Project.

### 5.4.4 Potential MSHCP Jurisdiction

A total of 0.038 acre of vegetated streambed was mapped within the Project impact area. The riparian vegetation is heavily disturbed, lacking the mature forest and canopy required by the riparian species listed in Section 6.1.2 of the MSHCP. However, the drainage may help support native riparian vegetation south of the Project site. The drainage has connectivity to downstream MSHCP Conservation areas, thus may contribute to the biological functions and values of downstream habitat for covered species within the MSHCP Conservation Area. Although, the species listed in Section 6.1.2 of the MSHCP are not present and are not expected to occur within the Project area, the City, as a Permittee to the MSHCP, has determined that a Determination of Biologically Equivalent or Superior Preservation (DBESP) is warranted for this Project. The DBESP is being prepared under separate cover.

## 5.5 VEGETATION COMMUNITIES

Four vegetation communities were documented within the Survey Area: Disturbed California Buckwheat Scrub, Disturbed Fremont Cottonwood Series, Ruderal, and Ornamental. In addition, two other land types were present in the Survey Area: Bare Ground and Developed. The following sections summarize the principal characteristics of the vegetation communities and land types, including the general locations of these areas within the Project site. Total acreages for each habitat type are presented in Table 2, and mapped vegetation communities and land types within the Survey Area are depicted in Figure 10.




Project Location

**Figure 10**
Beaumont MDP Line 2
Vegetation Communities

Name: 21501 Beaumont MDP Line 2.Mxd
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### 5.5.1 Disturbed California Buckwheat Scrub

California Buckwheat Scrub is found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline (Sawyer et al. 2009). Stands do well on rocky sites and in shallow soils, and they establish after disturbance by fire or flood or after heavy grazing. In southern coastal California, this alliance is usually one of the first of the coastal scrubs to establish in mechanically disturbed areas such as road cuts or slope failures, and it persists in areas with light to moderate grazing (Sawyer et al. 2009). In this vegetation community, California buckwheat or yucca (*Hesperoyucca whipplei*) is dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), sticky monkeyflower (*Diplacus aurantiacus*), brittlebush sunflower (*Encelia californica*), brittlebush (*Encelia farinosa*), coast goldenbush (*Isocoma menziesii*), deerweed (*Acmispon glaber*), white sage (*Salvia apiana*), or black sage (*Salvia mellifera*). The herbaceous layer is variable and may be grassy (Sawyer et al. 2009). Disturbed communities are characterized by factors that have degraded the habitat quality such as human activities (OHV use, trash, disking or mowing), fire, and/or a cover of non-native species that is greater than or equal to 25 percent of the overall cover.

Areas with Disturbed California Buckwheat Scrub are present within 0.04 acres of the Project site surrounding the hillsides around the culvert located on the southern end of the Survey Area. The area looks to be regularly maintained and mowed. Native plant species found on the Project site typical of this vegetation community included: California buckwheat, deerweed, and cudweed (*Pseudognaphalium sp.*). Non-native species included: ripgut grass (*Bromus diandrus*), wild oat (*Avena fatua*) and shortpod mustard (*Hirschfeldia incana*).

### 5.5.2 Disturbed Fremont Cottonwood Series

The Fremont Cottonwood Series, as described by Sawyer and Keeler-Wolf (1995), is dominated by the Fremont cottonwood, forming an open, intermittent or continuous canopy of trees that are typically less than 85 feet in height. This series often exists along the banks and terraces of riparian corridors and floodplains subject to high-intensity flooding and low-gradient soil deposition.

Areas with Disturbed Fremont Cottonwood Series vegetation are present within 0.01 acres of the Project site surrounding the culvert on the southern end of the Survey Area. This area is heavily disturbed with an excess amount of sediment and debris from flooding events. Native plant species found on the Project site typical of this vegetation community included: Fremont cottonwood, mule fat, and California buckwheat. Non-native species included: giant reed, Russian thistle (*Salsola australis*), ripgut grass, wild oat, and shortpod mustard.

### 5.5.3 Ruderal

Areas classified as Ruderal tend to be dominated by pioneering herbaceous species that readily colonize disturbed ground and that are typically found in temporary, often frequently disturbed habitats (Barbour et al. 1999). The soils in Ruderal areas are typically characterized as heavily compacted or frequently disturbed. The vegetation in these areas are adapted to living in compact soils where water does not readily penetrate the soil. Often, Ruderal areas are dominated by species of the *Centaurea*, *Brassica*, *Malva*, *Salsola*, *Eremocarpus, Amaranthus*, and *Atriplex* genera.

Areas with Ruderal vegetation are present within 3.35 acres of the Project site in the open space vacant lot and on either side of the sidewalks located along Pennsylvania Avenue and E 1st Street. Non-native species included: shortpod mustard, Russian-thistle, ripgut grass, Bermuda grass (*Cynodon dactylon*), tocalote (*Centaurea melitensis*) and yellow star-thistle (*Centaurea solstitialis*). Native plant species found sparsely scattered throughout included: turkey-mullein, telegraph weed (*Heterotheca grandiflora*), and jimson weed (*Datura wrightii*).

### 5.5.4 Ornamental

Ornamental Landscaping includes areas where the vegetation is dominated by non-native horticultural plants (Gray and Bramlet 1992). Typically, the species composition consists of introduced trees, shrubs, flowers and turf grass.

Ornamental Landscaping is present along the middle of E 1st Street and a small portion along the sidewalk located near the culvert that exits the Project site. Plant species found on the Project site typical of this community include star jasmine (*Trachelospermum jasminoides*) and Indian hawthorn (*Rhaphiolepis indica*). There are 0.09 acres of Ornamental Landscaping present within the Project site.

### 5.5.5 Bare Ground

Bare ground areas are generally devoid of vegetation but do not contain any form of pavement or developed structures. Bare ground is present in the vacant lot located on the west side of Pennsylvania Avenue. This vacant lot mapped as Bare Ground covers approximately 1.32 acres of the Project site.

### 5.5.6 Developed

Developed areas are areas that have been altered by humans and now display man-made structures such as houses, paved roads, buildings, parks, and other maintained areas.

Developed areas are present within the Project site and make up approximately 7.74 acres. The Project site encompasses E 6th Street, Pennsylvania Avenue, and E 1st street which are paved roads that run parallel with the proposed construction activities, along with sidewalks.

Table 2 below summarizes the vegetation communities and other areas within the Survey Area and the acreage of each land type.

**Table 2: Vegetation Communities within the Survey Area**

| Vegetation Communities | Acres |
|---|---|
| Bare Ground | 1.32 |
| Developed | 7.74 |
| Disturbed California Buckwheat Scrub | 0.04 |
| Disturbed Fremont Cottonwood Series | 0.01 |
| Ornamental | 0.09 |
| Ruderal | 3.35 |
| Total | 12.55 |

## 5.6 SPECIAL STATUS SPECIES

The following information is a list of abbreviations used to help determine the significance of biological special status resources potentially occurring on the Project site.

**California Rare Plant Rank (CRPR)**

CRPR 1A = Plants presumed extinct in California.
CRPR 1B = Plants rare and endangered in California and throughout their range.
CRPR 2 = Plants rare, threatened or endangered in California but more common elsewhere in their range.
CRPR 3 = Plants about which we need more information, a review list.

**CRPR Extensions**

0.1 = Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2 = Fairly endangered in California (20-80 percent occurrences threatened).
0.3 = Not very endangered in California (less than 20 percent of occurrences threatened).

**Federal**

FE = Federally listed; Endangered
FT = Federally listed; Threatened

**State**

ST = State listed; Threatened
SE = State listed; Endangered
RARE = State-listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
SSC = California Species of Special Concern
FP = Fully Protected
WL = Watchlist

The following information was used to determine the significance of biological resources potentially occurring within the Project site. The criteria used to evaluate the potential for special status species to occur on the Project site are outlined in Table 3.

**Table 3: Criteria for Evaluating Special Status Species Potential for Occurrence (PFO)**

| PFO* | CRITERIA |
|---|---|
| **Absent:** | Species is restricted to habitats or environmental conditions that do not occur within the Project site. |

| PFO* | CRITERIA |
|---|---|
| **Low:** | Historical records for this species do not exist within the immediate vicinity (approximately 5 miles) of the Project site, and/or habitats or environmental conditions needed to support the species are of poor quality. |
| **Moderate:** | Either a historical record exists of the species within the immediate vicinity of the Project site (approximately 3 miles) and marginal habitat exists on the Project site, or the habitat requirements or environmental conditions associated with the species occur within the Project site, but no historical records exist within 5 miles of the Project site. |
| **High:** | Both a historical record exists of the species within the Project site or its immediate vicinity (approximately 1 mile), and the habitat requirements and environmental conditions associated with the species occur within the Project site. |
| **Present:** | Species was detected within the Project site at the time of the survey. |

* PFO: Potential for Occurrence

### 5.6.1 Special Status Plants

Current database searches (CDFW 2025 and CNPS 2025) resulted in a list of 59 federally and/or state listed threatened and endangered or otherwise special status plant species documented to occur within 5 miles of the Project site. After the literature review and the reconnaissance-level survey, it was determined that 42 of the 59 species are considered absent from the Survey Area based on the assessment of the various habitat types observed in the area of the site. 17 of the species are considered to have a low potential to be present in the site due to low quality and disturbed nature of the habitat. Factors used to determine the potential for occurrence included the quality of habitat, elevation, soil type, and the results of the reconnaissance survey. In addition, the location of prior CNDDB records of occurrence was used as additional data, but because the CNDDB is a positive-sighting database, these data were used only in support of the analysis from the previously identified factors.

The following 39 plant species are considered **absent** from the Project site due to lack of suitable habitat and/or the species are found outside of the elevational range on site:

- Cienega Seca oxytheca (*Acanthoscyphus parishii var. cienegensis*) – CRPR 1B.3
- Yucaipa onion (*Allium marvinii*) – CRPR 1B.2
- white-margined everlasting (*Antennaria marginata*) – CRPR 2B.3
- Southern California galium broomrape (*Aphyllon epigalium ssp. notocalifornicum*) – CRPR 1B.3
- rock sandwort (*Arenaria lanuginosa var. saxosa*) – CRPR 2B.3
- Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*) – **FE**, CRPR 1B.2
- San Jacinto Valley crownscale (*Atriplex coronata var. notatior*) – **FE**, CRPR 1B.1
- Parish's brittlescale (*Atriplex parishii*) – CRPR 1B.1
- Davidson's saltscale (*Atriplex serenana var. davidsonii*) – CRPR 1B.2
- Parish's rockcress (*Boechera parishii*) – CRPR 1B.2
- San Bernardino rockcress (*Boechera peirsonii*) – CRPR 1B.2
- scalloped moonwort (*Botrychium crenulatum*) – CRPR 2B.2
- California jewelflower (*Caulanthus californicus*) – **FE**, **SE** CRPR 1B.1
- white-bracted spineflower (*Chorizanthe xanti var. leucotheca*) – CRPR 1B.2

- slender-horned spineflower (*Dodecahema leptoceras*) – **FE**, **SE**, CRPR 1B.1
- many-stemmed dudleya (*Dudleya multicaulis*) – CRPR 1B.2
- Santa Ana River woollystar (*Eriastrum densifolium* subsp. *sanctorum*) – **FE**, **SE**, CRPR 1B.1
- southern alpine buckwheat (*Eriogonum kennedyi var. alpigenum*) – CRPR 1B.3
- San Jacinto Mountains bedstraw (*Galium angustifolium subsp. jacinticum*) – CRPR 1.B3
- Alvin meadow bedstraw (*Galium californicum subsp. primum*) – CRPR 1.B2
- San Bernardino gilia (*Gilia leptantha ssp. leptantha*) – CRPR 1.B3
- Parish's alumroot (*Heuchera parishii*) – CRPR 1B.3
- mesa horkelia (*Horkelia cuneata* var. *puberula*) – CRPR 1B.1
- pygmy hulsea (*Hulsea vestita* subsp. *pygmaea*) – CRPR 1B.3
- Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*) – CRPR 1B.1
- Hall's monardella (*Monardella macrantha* subsp. *hallii*) – CRPR 1B.3
- San Felipe monardella (*Monardella nana subsp. leptosiphon*) – CRPR 1B.2
- mud nama (*Nama stenocarpa*) – CRPR 2B.2
- spreading navarretia (*Navarretia fossalis*) – **FT**, CRPR 1B.1
- woolly mountain-parsley (*Oreonana vestita*) – CRPR 1B.3
- rock-loving oxytrope (*Oxytropis oreophila var. oreophila*) – CRPR 2B.3
- white rabbit-tobacco (*Pseudognaphalium leucocephalum*) – CRPR 2B.2
- Latimer's woodland-gilia (*Saltugilia latimeri*) – CRPR 1B.2
- Parish's checkerbloom (*Sidalcea hickmanii ssp. parishii*) – CRPR 1B.2
- salt spring checkerbloom (*Sidalcea neomexicana*) – CRPR 2B.2
- Krantz's catchfly (*Silene krantzii*) – CRPR 1B.2
- southern jewelflower (*Streptanthus campestris*) – CRPR 1B.3
- California screw-moss (*Tortula californica*) – CRPR 1B.2
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) – CRPR 2B.1

The following three plant species are considered **absent** from the Project site because surveys took place during each species' bloom period when they would have been conspicuous and identifiable and yet were not observed:

- chaparral sand-verbena (*Abronia villosa* var. *aurita*) – CRPR 1B.1
- Mojave tarplant (*Deinandra mohavensis*) – **SE**, CRPR 1B.3
- narrow-leaf sandpaper-plant (*Petalonyx linearis*) – CRPR 2B.3

The analysis of the literature review and the field survey resulted in 17 species with a **low** potential to occur in the Project site because of recorded historical observations within 5 miles of the site. However suitable habitat is heavily disturbed giving it a low potential. The following species have a low potential to occur:

- Horn's milk-vetch (*Astragalus hornii var. hornii*) – CRPR 1B.1
- Jaeger's milk-vetch (*Astragalus pachypus var. jaegeri*) – CRPR 1B.1
- thread-leaved brodiaea (*Brodiaea filifolia*) – **FT**, **SE**, CRPR 1B.1
- Palmer's mariposa-lily (*Calochortus palmeri var. palmeri*) – CRPR 1.B2
- San Bernardino Mountains owl's-clover (*Castilleja lasiorhyncha*) – CRPR 1B.2
- Smooth tarplant (Centromadia pungens ssp. laevis) – CRPR 1B.1
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) – CRPR 1B.1
- Fremont's gentian (*Gentiana fremontii*) – CRPR 2.B3
- California satintail (*Imperata brevifolia*) – CRPR 2B.1

- lemon lily (*Lilium parryi*) – CRPR 1B.2
- white bog adder's-mouth (*Malaxis monophyllos var. brachypoda*) – CRPR 2B.1
- spiny-hair blazing star (*Mentzelia tricuspis*) – CRPR 2B.1
- San Bernardino grass-of-Parnassus (*Parnassia cirrata var. cirrata*) – CRPR 1B.3
- Bear Valley checkerbloom (*Sidalcea malviflora ssp. dolosa*) – CRPR 1B.2
- fringed chocolate chip lichen (*Solorina spongiosa*) – CRPR 2B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR 1B.2
- California dandelion (*Taraxacum californicum*) – **FE**, CRPR 1B.1

### 5.6.2 Special Status Wildlife

A current database search (CNDDB 2025) resulted in a list of 49 federal- and/or state-listed endangered or threatened, Species of Concern, or otherwise special status wildlife species that may potentially occur within the Project site. After a literature review and the assessment of the various habitat types within the Project site, it was determined that 40 special status wildlife species were considered absent from the Project site and nine species have a low potential to occur within the Project site. Factors used to determine potential for occurrence included the quality of habitat and the location of prior CNDDB records of occurrence.

The following 40 wildlife species are considered **absent** from the Project site due to lack of suitable habitat present or because the species falls outside the elevation range found on the Project site.

- American badger (*Taxidea taxus*) – SSC
- Bell's sparrow (*Artemisiospiza belli belli*) – WL
- black swift (*Cypseloides niger*) – SSC
- California glossy snake (*Arizona elegans occidentalis*) – SSC
- coast patch-nosed snake (*Salvadora hexalepis virgultea*) – SSC
- coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) – SSC
- coastal California gnatcatcher (*Polioptila californica californica*) – **FT**, SSC
- Crotch's bumble bee (*Bombus crotchii*) – Candidate **SE**
- ferruginous hawk (*Buteo regalis*) – WL
- golden eagle (*Aquila chrysaetos*) – FP
- Le Conte's thrasher (*Toxostoma lecontei*) – SSC
- lesser long-nosed bat (*Leptonycteris yerbabuenae*) – SSC
- loggerhead shrike (*Lanius ludovicianus*) – SSC
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) – SSC
- pallid bat (*Antrozous pallidus*) – SSC
- Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*) – SSC
- purple martin (*Progne subis*) – SSC
- red-diamond rattlesnake (*Crotalus ruber*) – SSC
- San Bernardino flying squirrel (*Glaucomys oregonensis californicus*) – SSC
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*) – **FE**, **SE**, SSC
- San Diego desert woodrat (*Neotoma lepida intermedia*) – SSC
- Santa Ana speckled dace (*Rhinichthys osculus* ssp. *3*) – SSC
- southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) – WL
- southern grasshopper mouse (*Onychomys torridus ramona*) – SSC
- southern mountain yellow-legged frog (*Rana muscosa*) – **FE**, **SE**, WL
- southern rubber boa (*Charina umbratica*) – **ST**

- southwestern willow flycatcher (*Empidonax traillii extimus*) – **FE**, **SE**
- steelhead - southern California DPS (*Oncorhynchus mykiss irideus* pop. 10) – **FE**
- Stephens' kangaroo rat (*Dipodomys stephensi*) – **FT**, **ST**
- Swainson's hawk (*Buteo swainsoni*) – **ST**
- Townsend's big-eared bat (*Corynorhinus townsendii*) – SSC
- tricolored blackbird (*Agelaius tricolor*) – **ST**, SSC
- two-striped gartersnake (*Thamnophis hammondii*) – SSC
- western spadefoot (*Spea hammondii*) – SSC
- western yellow bat (*Lasiurus xanthinus*) – SSC
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) – **FT**, **SE**
- white-faced ibis (*Plegadis chihi*) – WL
- white-tailed kite (*Elanus leucurus*) – FP
- yellow breasted chat (*Icteria virens*) – SSC
- yellow-headed blackbird (*Xanthocephalus xanthocephalus*) – SSC

The analysis of the CNDDB search and field survey resulted in nine species with a **low** potential to occur on the Project site due to recent occurrences within 5 miles and/or low quality habitat:

- burrowing owl (*Athene cunicularia*) – SSC
- California horned lark (*Eremophila alpestris actia*) – WL
- coast horned lizard (*Phrynosoma blainvillii*) – SSC
- coastal whiptail (*Aspidoscelis tigris stejnegeri*) – SSC
- Cooper's hawk (*Accipiter cooperii*) – WL
- least Bell's vireo (*Vireo bellii pusillus*) – **FE**, **SE**
- orange-throated whiptail (*Aspidoscelis hyperythra*) – WL
- southern California legless lizard (*Anniella stebbinsi*) – SSC
- yellow warbler (*Setophaga petechia*) – SSC

### 5.7 GENERAL PLANTS

A total of 31 plant species were observed during the survey. Plant species observed or detected during the site survey were characteristic of the existing Survey Area conditions. No special status species were observed during the survey effort. A complete list of plants observed is provided in Appendix C.

### 5.8 GENERAL WILDLIFE

A total of 8 wildlife species were observed during the survey. Wildlife species observed or detected during the site survey were characteristic of the existing Survey Area conditions. No special status species were observed during the survey effort. A complete list of wildlife observed is provided in Appendix D.

## SECTION 6.0 – PROJECT IMPACTS AND RECOMMENDED MITIGATION

The Project will be in compliance with federal, state, and county ordinances protecting special status resources. The following sections provide a summary of the biological surveys, potential impacts based on current design, and recommended protection measures to avoid and minimize potential negative impacts to special status resources.

### 6.1 JURISDICTIONAL WATERS

One ephemeral drainage feature occurs within and adjacent to the Survey Area. Approximately 0.038 acres within the Survey Area may be subject to subject USACE, RWQCB, and CDFW jurisdiction if affected by Project activities. The drainage is a mapped NWI blue-line riverine that exhibits channelization and eventually connects to Potrero Creek which terminates into San Jacinto River (TNW).

To minimize impacts to the drainage, we recommend the following:

- A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to adjacent drainage features.
- Erosion protection and sediment control BMP's would be implemented in compliance with the General Construction General Permit.

#### 6.1.1 Federal Permits

The drainage delineated within the Survey Area is considered ephemeral and eventually connects to a TNW (San Jacinto River); therefore, based on the definition of WoUS, this drainage should be considered under USACE jurisdiction. However, if the Project design avoids the water feature that occurs within the site and temporary impacts can be avoided through the use of BMP's; no impacts to WoUS are anticipated to occur as a result of Project activities, and a Section 404 permit should not be required.

The agencies will review and verify the jurisdictional delineation and determine if permit and mitigation requirements are required for the Project.

#### 6.1.2 State Permits

The drainage exhibits channelization and bank to bank geomorphology within the Project site; therefore, the drainage should be considered under CDFW jurisdiction. However, if the Project design avoids the water feature that occurs within the site and temporary impacts are avoided through the use of BMP's; no impacts to drainages under CDFW jurisdiction are anticipated to occur as a result of Project activities. The Project plans to avoid associated banks and vegetation within the limits of the banks during Project activities and therefore, no permanent or temporary impacts are anticipated to occur, thus, a Streambed Alteration Agreement (SAA) should not be required from CDFW for this Project.

Based on this delineation, the drainage is considered under RWQCB jurisdiction. However, if the Project design avoids the water feature that occurs within the site and temporary impacts are avoided through

the use of BMP's; no impacts to drainages under waters of the state are anticipated to occur as a result of Project activities, and a 401 Certification should not be required.

The agencies will review and verify the jurisdictional delineation and determine if permit and mitigation requirements are required for the Project.

### 6.2 VEGETATION COMMUNITIES

Four vegetation communities were observed within the Survey Area: Disturbed California Buckwheat Scrub, Disturbed Fremont Cottonwood Series, Ruderal, and Ornamental. Bare ground and Developed areas were also identified within the Survey Area. All vegetation communities may be permanently impacted. The total acres of each vegetation community that will be impacted within the Survey Area are found in Table 2.

### 6.3 MSHCP RIPARIAN

A total of 0.038 acres of riparian vegetated streambed was mapped within the Project site. However, the riparian vegetation is lacking the mature forest and canopy required by the riparian species listed in Section 6.1.2 of the MSHCP. The site does not support vernal pools or other seasonal wetland habitats. Additionally, the site lacks the basalt soils and other suitable habitat required by Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, or vernal pool fairy shrimp. Therefore, the Project is not anticipated to result in impacts to these species.

### 6.4 SPECIAL STATUS PLANTS

After the literature review, the assessment of the various habitat types in the Project area, and the reconnaissance survey was conducted, it was determined that 41 of the 58 species with a potential to occur are considered absent from the Project site. 17 species are considered to have a low potential to be present at the Project site due to low quality and disturbed suitable habitat. The Project site is not within a Criteria Area Cell but is in a narrow endemic plant survey area which includes Marvin's onion and Many-stemmed dudleya. However, the Project site does not contain suitable habitat required by these two species; thus, these species are not anticipated to be found within the Project site or the associated buffer. Therefore, focused protocol-level surveys are not required.

### 6.5 SPECIAL STATUS WILDLIFE

Of the 49 special status wildlife species identified in the literature review, it was determined that 40 special status wildlife species were considered absent from the Project site and nine had a low potential to occur within the Project site. Least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo are not anticipated to nest within the Project site. Therefore, no impacts are anticipated to occur to these species and no additional mitigation is recommended. While not anticipated to occur, in order to minimize potential impacts to these species, a preconstruction survey should be conducted prior to the start of construction activities. If any of the above species are identified, measures to avoid or minimize impacts to these species should be submitted to resource agencies for approval prior to construction. Burrowing owl (BUOW) has a low potential to occur within the Project site. In addition, the site occurs in a MSHCP designated BUOW area; therefore, a BUOW focused survey is required in accordance with the MSHCP. A pre-construction focused survey for BUOW shall be conducted within 30 days prior to ground disturbance to reevaluate the locations of active burrowing owl burrows located

adjacent to or within the Project limits and to avoid direct take of BUOW (MSHCP Species Specific Objective 6). If BUOWs are identified on site, avoidance measures will be developed in compliance with the MSHCP and in coordination with the CDFW and/or Western Riverside County Regional Conservation Authority (RCA). These measures would include the following as well as any others developed in coordination with CDFW and/or RCA:

- A biologist with knowledge of BUOW and its habitat will be retained to function as a biological monitor.
- The biological monitor will develop and implement a contractor education program with regard to the BUOW to be provided to all personnel (including temporary contractors and subcontractors) before beginning work on the Project.
- The biological monitor will be present during vegetation clearing, grading, and construction, to monitor occupied BUOW burrows and any construction-related impacts.
- Prior to any ground disturbance, all limits of Project construction will be delineated and marked to be clearly visible to personnel on foot and in heavy equipment. All construction-related activities (e.g., vegetation removal, grading, equipment lay-down and storage, and contractor parking) will occur inside the limits of construction and designated staging areas. Construction staging and equipment storage will be located outside any occupied BUOW burrow locations.
- All movement of contractors, subcontractors, or their agents and equipment will be restricted to the limits of construction and staging areas.
- A qualified biologist will conduct any necessary BUOW passive relocation that may be required to avoid Project effects to BUOW.
- If BUOW must be moved away from the proposed work area, passive relocation techniques would be used rather than actual avian trapping. At least one or more weeks would be necessary to accomplish this to allow the birds to acclimate to alternate burrows.
- The Project would provide funding for long-term management and monitoring of the protected lands acquired for BUOW impacts. This monitoring would include an annual report submittal to the CDFW.

The agencies will make the final determination of avoidance, minimization, and mitigation measures.

### 6.6 MIGRATORY BIRD TREATY ACT, AS AMENDED (16 USC 703-711)

In compliance with the Migratory Bird Treaty Act (MBTA), any vegetation clearing should take place outside the general bird breeding season (February 1 to September 15), to the maximum extent practical. If this is not possible, a qualified biologist should conduct a nesting bird and raptor survey prior to ground-disturbing activities. The survey should occur no more than one week prior to initiation of Project activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the Project site should be delineated. Additional follow-up surveys may be required by the resource agencies. To the maximum extent practicable, a minimum buffer zone around occupied nests should be maintained during

physical ground-disturbing activities. The buffer zone should be sufficient in size to prevent impacts to the nest. Once nesting has ceased, the buffer may be removed.

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# APPENDIX A – REGULATORY FRAMEWORK

## 1.1 FEDERAL JURISDICTION

### 1.1.1 United States Army Corps of Engineers

Pursuant to Section 404 of the CWA, the United States Army Corps of Engineers (USACE) regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined by 33 Code of Federal Regulations (CFR) Part 328 and currently includes: (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all other waters (e.g., lakes, rivers, intermittent streams) that could affect interstate or foreign commerce, (4) all impoundments of waters mentioned above, (5) all tributaries to waters mentioned above, (6) the territorial seas, and (7) all wetlands adjacent to waters mentioned above. Waters of the United States do not include (1) waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act (CWA), and (2) prior converted cropland. Waters of the United States typically are separated into two types: (1) wetlands and (2) "other waters" (non-wetlands) of the United States.

Wetlands are defined by 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support … a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, USACE published a manual (1987 Wetland Manual) to guide its field personnel in determining jurisdictional wetland boundaries. This manual was amended in 2008 to the USACE 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (2008 Arid West Supplement). Currently, the 1987 Wetland Manual and the 2008 Arid West Supplement provide the legally accepted methodology for identification and delineation of USACE-jurisdictional wetlands in southern California.

In the absence of wetlands, the limits of USACE jurisdiction in nontidal waters, including intermittent Relatively Permanent Water (RPW) streams, extend to the Ordinary High Water Mark (OHWM), which is defined by 33 CFR 328.3(e) as:

> *… that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

On January 9, 2001, the U.S. Supreme Court ruled (in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*) (SWANCC) that USACE jurisdiction does not extend to previously regulated isolated waters, including but not limited to isolated ponds, reservoirs, and wetlands. Examples of isolated waters that are affected by this ruling include vernal pools, stock ponds, lakes (without outlets), playa lakes, and desert washes that are not tributary to navigable or interstate waters or to other jurisdictional waters. A joint legal memorandum by EPA and USACE was signed on January 15, 2003.

In May 2007, USACE and EPA jointly published and authorized the use of the *Jurisdictional Determination Form Instructional Guidebook* (USACE 2007). The form and guidebook define how to determine if an area is USACE jurisdictional and if a significant nexus exists per the Rapanos decision. A nexus must have more than insubstantial and speculative effects on the downstream TNW to be considered a significant nexus. This guidebook is updated by the 2008 Arid West Supplement, the 2010 *Updated Datasheet for the*

*Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*, and the 2011 *Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region*.

A joint guidance by EPA and USACE was issued on June 5, 2007, and revised on December 2, 2008, is consistent with the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (126 S. Ct. 2208 [2006]) (*Rapanos*), which addresses the jurisdiction over waters of the United States under the CWA (33 U.S.C. §1251 et seq.). A draft guidance was circulated in April 2011 to supercede both the 2003 SWANCC guidance and 2008 *Rapanos* decision; however, this guidance is not finalized and lacks the force of law.

USACE will continue to assert jurisdiction over Traditionally Navigable Waters (TNWs), wetlands adjacent to TNW, non-navigable tributaries of TNW that are Relatively Permanent Waters (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months), and wetlands that directly abut such tributaries.

USACE generally will not assert jurisdiction over swales or erosional features (e.g., gullies or small washes characterized by low volume, infrequent, or short duration flow) or nontidal drainage ditches (including roadside ditches) that are (1) excavated wholly in and draining only uplands and (2) that do not carry a relatively permanent flow of water. USACE defines a drainage ditch as:

> *A linear excavation or depression constructed for the purpose of conveying surface runoff or groundwater from one area to another. An "upland drainage ditch" is a drainage ditch constructed entirely in uplands* (*i.e., not in waters of the United States*) *and is not a water of the United States, unless it becomes tidal or otherwise extends the ordinary high water line of existing waters of the United States.*

Furthermore, USACE generally does not consider "[a]rtificially irrigated areas which would revert to upland if the irrigation ceased" to be subject to their jurisdiction. Such irrigation ditches are linear excavations constructed for the purpose of conveying agricultural water from the adjacent fields. Therefore, such agricultural ditches are not considered to be subject to USACE jurisdiction.

USACE will use fact-specific analysis to determine whether waters have a significant nexus with (1) TNW for nonnavigable tributaries that are not relatively permanent (non-RPW); (2) wetlands adjacent to nonnavigable tributaries that are not relatively permanent; and (3) wetlands adjacent to, but that do not directly abut, a relatively permanent nonnavigable tributary. According to USACE, *"a significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters,"* including consideration of hydrologic and ecologic factors. A primary component of this determination lies in establishing the connectivity or lack of connectivity of the subject drainages to a TNW.

## 1.2 STATE JURISDICTION

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA as well as the California Porter-Cologne Water Quality Control Act (Porter-Cologne; California Water Code, Division 7, §13000 et seq.). Waters of the State are defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water

Code Section 13050(e)). Waters of the State broadly includes all waters within the State's boundaries (public or private), including waters in both natural and artificial channels.

### 1.2.1 Regional Water Quality Control Board

Under Porter-Cologne, the State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Boards (RWQCB) regulate the discharge of waste into waters of the State. Discharges of waste include "fill, any material resulting from human activity, or any other 'discharge' that may directly or indirectly impact 'waters of the state.'" Porter-Cologne reserves the right for the State to regulate activities that could affect the quantity and/or quality of surface and/or groundwaters, including isolated wetlands, within the State. Wetlands were defined as waters of the State if they demonstrated both wetland hydrology and hydric soils. Waters of the State determined to be jurisdictional for these purposes require, if impacted, waste discharge requirements (WDRs).

When an activity results in fill or discharge directly below the OHWM of jurisdictional waters of the United States (federal jurisdiction), including wetlands, a CWA Section 401 Water Quality Certification is required. If a proposed project is not subject to CWA Section 401 certification but involves activities that may result in a discharge to waters of the State, the project may still be regulated under Porter-Cologne and may be subject to waste discharge requirements. In cases where waters apply to both CWA and Porter-Cologne, RWQCB may consolidate permitting requirements to one permit.

### 1.2.2 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations, Title 14, Section 1.72). The jurisdiction of CDFW may include areas in or near intermittent streams, ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams that are indicated on USGS maps, watercourses that may contain subsurface flows, or within the flood plain of a water body. CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW limits of jurisdiction typically include the maximum extents of the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

In a CDFW guidance of stream processes and forms in dryland watersheds (Vyverberg 2010), streams are identified as having one or more channels that may all be active or receive water only during some high flow event. Subordinate features, such as low flow channels, active channels, banks associated with secondary channels, floodplains, and stream-associated vegetation, may occur within the bounds of a single, larger channel. The water course is defined by the topography or elevations of land that confine a stream to a definite course when its waters rise to their highest level. A watercourse is defined as a stream with boundaries defined by the maximal extent or expression on the landscape even though flow may otherwise be intermittent or ephemeral.

Artificial waterways such as ditches (including roadside ditches), canals, aqueducts, irrigation ditches, and other artificially created water conveyance systems also may be under the jurisdiction of CDFW. CDFW may claim jurisdiction over these features based on the presence of habitat characteristics suitable to support aquatic life, riparian vegetation, and/or stream-dependent terrestrial wildlife. As with natural waterways, the limit of CDFW jurisdiction of artificial waterways includes the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

CDFW does not have jurisdiction over wetlands, but has jurisdiction to protect against a net loss of wetlands. CDFW supports the wetland criteria recognized by USFWS; one or more indicators of wetland conditions must exist for wetlands conditions to be considered present. The following is the USFWS-accepted definition of a wetland:

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the lands supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

In *A Clarification of the U.S. Fish and Wildlife Service's Wetland Definition* (Tiner 1989), the USFWS definition was further clarified "that in order for any area to be classified as wetland by the Service, the area must be periodically saturated or covered by shallow water, whether wetland vegetation and/or hydric soils are present or not; this hydrologic requirement is addressed in the first sentence of the definition." When considering whether an action would result in a net loss of wetlands, CDFW will extend jurisdiction to USFWS-defined wetland conditions where such conditions exist within the riparian vegetation that is associated with a stream or lake and does not depend on whether those features meet the three-parameter USACE methodology of wetland determination. If impacts to wetlands under the jurisdiction of CDFW are unavoidable, a mitigation plan will be implemented in coordination with CDFW to support the CDFW policy of "no net loss" of wetland habitat.

# APPENDIX B – SITE PHOTOGRAPHS

## APPENDIX B – SITE PHOTOGRAPHS



**Photo 1.**

Overview photo of E 6th Street. This area is fully developed with sidewalks on both sides of the highway. Photo is facing east.



**Photo 2.**

Overview photo of the vacant lot located on the west side of Pennsylvania Avenue. This area is primarily bare ground. Photo is facing southwest.



**Photo 3.**

Overview photo of the vacant lot located on the east side of Pennsylvania Avenue. This lot looks recently mowed/graded but is dominated by Ruderal vegetation. Photo is facing southeast.



**Photo 4.**

Overview photo of of Pennsylvania Avenue south of the 10 freeway. This area is developed with Ruderal vegetation growing along the east side of the road. Photo is facing northeast.



**Photo 5.**

Overview photo of the NWI mapped ephemeral drainage located east of Pennsylvania Avenue and outside of the Project site. The open space is dominated with Ruderal vegetation. Photo is facing south.



**Photo 6.**

Culvert located on the east side of Pennsylvania Avenue. This culvert facilitates storm runoff southeast into the mapped ephemeral drainage. Photo is facing north.



**Photo 7.**

Overview of the culvert located on the west side of Pennsylvainia Avenue. There is no evidence of hydrology on this side of the road. The area is dominated with Ruderal vegetation. Photo is facing west.



**Photo 8.**

Overview photo along E 1st Street. The north side of the road is dominated by Ruderal vegetation. The ephemeral drainage continues southeast and crosses the road underground through another culvert. Photo is facing west.



**Photo 9.**

Overview photo of E 1st Street and Berkshire Avenue. This area is developed with Ornamental Landscaping along the sidewalks and in the roads center divider. Photo is facing west.



**Photo 10.**

Overview photo of the culvert that is located on the southern side of E 1st Street. The area is heavily disturbed from mowing activities on the hillsides and has excess sediment and debris that terminates from the culvert. Photo is facing northwest.



**Photo 11.**

The ephemeral drainage continues outside of the Survey Area and eventually connects to Potrero Creek. A defined channel with a clear bank to bank and OHWM is visible. Photo is facing south.



**Photo 12.**

The ephemeral drainage also receives nuisance water from the surrounding neighborhood through a culvert and drainage located just outside the Survey Area. Photo is facing east.



**Photo 13.**

Overview photo of the soil pit location within the Survey Area. Native vegetation includes Fremont cottonwood, mule fat, and California buckwheat. Non-native vegetation includes giant reed and other invasive weed species. Photo is facing southwest.



**Photo 14.**

Soils pulled from the soil pit are sandy loam and not classified as hydric.



**Photo 15.**

Overview photo of the hillside surrounding the southern culvert. The hillside has eroded and contributes to the excess soil and debris built-up near the culvert within the Survey Area. Vegetation on the hillside is dominated with Disturbed California Buckwheat Scrub. Photo is facing northwest.



**Photo 16.**

Close up photo of the culvert showing the excess amount of sediment and debris built up from flooding events. Photo is facing northwest.

# APPENDIX C – PLANT SPECIES LIST

## APPENDIX C – PLANT SPECIES OBSERVED

| Scientific Name | Common Name |
|---|---|
| **ANGIOSPERMS (EUDICOTS)** | |
| **APOCYNACEAE** | **DOGBANE FAMILY** |
| *Trachelospermum jasminoides** | star jasmine |
| **ASTERACEAE** | **SUNFLOWER FAMILY** |
| *Ambrosia psilostachya* | western ragweed |
| *Artemisia californica* | California sagebrush |
| *Baccharis pilularis* | coyote brush |
| *Baccharis salicifolia subsp. salicifolia* | mule fat |
| *Baccharis sarothroides* | broom baccharis |
| *Centaurea melitensis** | tocalote |
| *Centaurea solstitialis** | yellow star-thistle |
| *Erigeron canadensis* | horseweed |
| *Heterotheca grandiflora* | telegraph weed |
| *Stephanomeria pauciflora* | wire lettuce |
| *Pseudognaphalium sp.* | cudweed |
| **BRASSICACEAE** | **MUSTARD FAMILY** |
| *Hirschfeldia incana** | shortpod mustard |
| **CHENOPODIACEAE** | **GOOSEFOOT FAMILY** |
| *Salsola australis** | Russian-thistle |
| **EUPHORBIACEAE** | **SPURGE FAMILY** |
| *Euphorbia sp.** | euphorbia |
| *Croton setiger* | turkey-mullein |
| **FABACEAE** | **LEGUME FAMILY** |
| *Acmispon glaber* | deerweed |
| **LAMIACEAE** | **MINT FAMILY** |
| *Salvia apiana* | white sage |
| *Salvia columbariae* | chia |
| *Salvia mellifera* | black sage |
| **NAMACEAE** | **NAMA FAMILY** |
| *Eriodictyon crassifolium* | thick-leaved yerba santa |
| **POLYGONACEAE** | **BUCKWHEAT FAMILY** |
| *Eriogonum fasciculatum* | California buckwheat |
| **ROSACEAE** | **ROSE FAMILY** |
| *Rhaphiolepis indica** | Indian hawthorn |
| **SALICACEAE** | **WILLOW FAMILY** |
| *Populus fremontii subsp. fremontii* | fremont cottonwood |
| **SAPINDACEAE** | **SOAPBERRY FAMILY** |
| *Acer macrophyllum* | big-leaf maple |
| **SOLANACEAE** | **NIGHTSHADE FAMILY** |

| | |
|---|---|
| *Datura wrightii* | jimson weed |
| **ANGIOSPERMS (MONOCOTS)** | |
| **POACEAE** | **GRASS FAMILY** |
| *Arundo donax** | giant reed |
| *Avena fatua** | wild oat |
| *Bromus diandrus** | ripgut grass |
| *Cynodon dactylon** | Bermuda grass |
| **GYMNOSPERMS** | |
| **PINACEAE** | **PINE FAMILY** |
| *Pinus sp.* | pine |

*Non-Native Species

# APPENDIX D –WILDLIFE SPECIES LIST

## APPENDIX D – WILDLIFE SPECIES OBSERVED OR DETECTED

| Scientific Name | Common Name |
|---|---|
| **CLASS AVES** | **BIRDS** |
| **ACCIPITRIDAE** | **HAWKS, KITES, EAGLES** |
| *Buteo jamaicensis* | red-tailed hawk |
| **COLUMBIDAE** | **PIGEONS & DOVES** |
| *Columba livia* | rock pigeon |
| **CORVIDAE** | **JAYS & CROWS** |
| Corvus corax | common raven |
| **FRINGILLIDAE** | **FINCHES** |
| *Carpodacus mexicanus* | house finch |
| ***ICTERIDAE*** | **BLACKBIRDS** |
| *Sturnella neglecta* | western meadowlark |
| ***PASSERELLIDAE*** | **NEW WORLD SPARROWS** |
| *Melospiza melodia* | song sparrow |
| ***PASSERIDAE*** | **OLD WORLD SPARROWS** |
| *Passer domesticus* | house sparrow |
| ***TYRANNIDAE*** | **TYRANT FLYCATCHERS** |
| *Sayornis saya* | Say's phoebe |

# APPENDIX E – OHWM AND WETLAND DETERMINATION FORMS

U.S. Army Corps of Engineers (USACE)

# RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

*From Approved -*
*OMB No. 0710-OHWM*
*Expires: xx-xx-xxxx*

**AGENCY DISCLOSURE NOTICE**

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 **minutes** per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

| Project ID #: 21501 | Site Name: Beaumont MDP Line 2 | Date and Time: 1/14/2025, 1030AM |
|---|---|---|
| Location (lat/long): 33.921353N 116.963417W | Investigator(s): Heather Madera and Austin Burke | |

**Step 1** Site overview from remote and online resources
**Check boxes for online resources used to evaluate site:**

- ☐ gage data
- ☐ climatic data
- ☐ aerial photos
- ☐ LiDAR
- ☒ satellite imagery
- ☒ topographic maps
- ☒ geologic maps
- ☐ land use maps
- ☐ Other: _____

**Describe land use and flow conditions from online resources.**
Were there any recent extreme events (floods or drought)?
Survey Area receives water through flooding events that exit the culvert in the southern portion of the site.

**Step 2** Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

The area around the southern culvert is heavily disturbed. The hillside shows some signs of erosion. There is an excess amount of sediment and debris directly outside of the culvert. OHWM is clear as it exits the Project boundary.

**Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.**
**OHWM is at a transition point,** therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.
**OHWM.** Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

**Geomorphic indicators**

- ☒ **Break in slope:** x
  - ☐ *on the bank:*
  - ☐ *undercut bank:*
  - ☒ *valley bottom:* b
  - ☐ Other: _____
- ☐ **Shelving:**
  - ☐ *shelf at top of bank:*
  - ☐ *natural levee:*
  - ☐ *man-made berms or levees:*
  - ☐ *other berms:* _____
- ☒ **Channel bar:** b
  - ☐ *shelving (berms) on bar:*
  - ☒ *unvegetated:* b
  - ☐ *vegetation transition (go to veg. indicators)*
  - ☐ *sediment transition (go to sed. indicators)*
  - ☐ *upper limit of deposition on bar:*
- ☒ **Instream bedforms and other bedload transport evidence:** b
  - ☒ *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)* b
  - ☐ *bedforms (e.g., poofs, riffles, steps, etc.):*
- ☒ *erosional bedload indicators (e.g., obstacle marks, scour, a smoothing, etc.)*
- ☐ **Secondary channels:**

**Sediment indicators**

- ☒ **Soil development:** b
- ☐ **Changes in character of soil:**
- ☒ **Mudcracks:** b
- ☐ **Changes in particle-sized distribution:**
  - ☐ *transition from* _____ *to* _____
  - ☐ *upper limit of sand-sized particles*
  - ☐ *silt deposits:*

**Vegetation Indicators**

- ☒ **Change in vegetation type and/or density:** x
  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***
  - ☐ *vegetation absent to:*
  - ☐ *moss to:*
  - ☐ *forbs to:*
  - ☐ *graminoids to:*
  - ☐ *woody shrubs to:*
  - ☐ *deciduous trees to:*
  - ☐ *coniferous trees to:*
- ☒ **Vegetation matted down and/or bent:** b
- ☒ **Exposed roots below intact soil layer:** x

**Ancillary indicators**

- ☒ **Wracking/presence of organic litter:** x
- ☐ **Presence of large wood:**
- ☐ **Leaf litter disturbed or washed away:**
- ☐ **Water staining:**
- ☐ **Weathered clasts or bedrock:**

**Other observed indicators? Describe:**
Area is disturbed and gets a an excess amount of sediment and debris that flows through the culvert.

Project ID #: 21501

**Step 4** Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

**Step 5** Describe rationale for location of OHWM

There is a distinct cut in bank as waters are directed southeast through the culvert. The inundation is visible through aerial imagery. Most of the area below the OHWM is bare ground and leaf litter. There is a large amount of sediment and debris in the bed of the channel. OHWM is approximately 21 feet wide and the B2B is approximately 106 feet wide.

**Additional observations or notes**

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

| Photo Number | Photograph description |
|---|---|
| | |
| | |
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| | |

## OHWM Field Identification Datasheet Instructions and Field Procedure

**Step 1** **Site overview from remote and online resources** **Complete Step 1 prior to site visit.**

**Online Resources: Identify what information is available for the site. Check boxes on datasheet next to the resources used to assess this site.**

a. gage data
b. aerial photos
c. satellite imagery
d. LiDAR
e. topographic maps
f. geologic maps
g. land use maps
h. climatic data (precipitation and temperature)

**Landscape context: Use the online resources to put the site in the context of the surrounding landscape.**

a. **Note on the datasheet under Step 1:**
   i. Overall land use and change if known
   ii. Recent extreme events if known (e.g., flood, drought, landslides, debris flows, wildfires)
b. Consider the following to inform weighting of evidence observed during field visit.
   i. What physical characteristics are likely to be observed in specific environments?
   ii. Was there a recent flood or drought? Are you expecting to see recently formed or obscured indicators?
   iii. How will land use affect specific stream characteristics? How natural is the hydrologic regime? How stable has the landscape been over the last year, decade, century?

**Step 2** **Site conditions during the field assessment (assemble evidence)**

a. Identify the assessment area.
b. Walk up and down the assessment area noting all the potential OHWM indicators.
c. Note broad trends in channel shape, vegetation, and sediment characteristics.
   i. Is this a single thread or multi-thread system? Is this a stream-wetland complex?
   ii. Are there any secondary and/or floodplain channels?
   iii. Are there obvious man-made alterations to the system?
   iv. Are there man-made (e.g., bridges, dams, culverts) or natural structures (e.g., bedrock outcrops, Large Wood jams) that will influence or control flow?
d. Look for signs of recurring fluvial action.
   i. Where does the flow converge on the landscape?
   ii. Are there signs of fluvial action (sediment sorting, bedforms, etc.) at the convergence zone?
e. Look for indicators on both banks. If the opposite bank is not accessible, then look across the channel at the bank.
f. **In Step 2 of the datasheet** describe any adjacent land use or flow conditions that may influence interpretation of each line of evidence.
   i. What land use and flow conditions may be affecting your ability to observe indicators at the site?
   ii. What recent extreme events may have caused changes to the site and affected your ability to observe indicators?

**Step 3a** **List evidence**

**Assemble evidence by checking the boxes next to each line of evidence:**

a. If needed, use a separate scratch datasheet to check boxes next to possible indicators, or check boxes of possible indicators in pencil and use pen for final decision.
b. If using fillable form, then follow the instructions for filling in the fillable form.

*Context is important when assembling evidence. For instance, pool development may be an indicator of interest on the bed of a dry stream, but may not be a useful indicator to take note of in a flowing stream. On the other hand, if the pool is found in a secondary channel adjacent to the main channel, it could provide a line of evidence for a minimum elevation of high flows. Therefore, consider the site context when deciding which indicators provide evidence for identifying the OHWM. Explain reasoning in Step 5.*

**Questions to consider while making observations and listing evidence at a site:**

**Geomorphic indicators**
Where are the breaks in slope?
Are there identifiable banks?
Is there an easily identifiable top of bank?
Are the banks actively eroding?
Are the banks undercut?
Are the banks armored?
Is the channel confined by the surrounding hillslopes?
Are there natural or man-made berms and levees?
Are there fluvial terraces?
Are there channel bars?

**Sediment and soil indicators**
Where does evidence of soil formation appear?

Are there mudcracks present?

Is there evidence of sediment sorting by grain size?

**Vegetation Indicators**
Where are the significant transitions in vegetation species, density, and age?

Is there vegetation growing on the channel bed?

If no, how long does it take for the non-tolerant vegetation to establish relative to how often flows occur in the channel?

Where are the significant transitions in vegetation?

Is the vegetation tolerant of flowing water?

Has any vegetation been flattened by flowing water?

**Ancillary indicators**
Is there organic litter present?

Is there any leaf litter disturbed or washed away?

Is there large wood deposition?

Is there evidence of water staining?

Are the following features of fluvial transport present?
*Evidence of erosion: obstacle marks, scour, armoring*
*Bedforms; riffles, pools, steps, knickpoints/headcuts*
*Evidence of deposition: imbricated clasts, gravel sheets, etc.*

**In some cases, it may be helpful to explain why an indicator was NOT at the OHWM elevation, but found above or below. It can also be useful to note if specific indicators (e.g., vegetation) are NOT present. For instance, note if the site has no clear vegetation zonation.**

**Step 3b Weight each line of evidence and weigh body of evidence**

**Weight each indicator by considering its importance based upon:**

***Landscape context from Step 1 can help determine the relevance, strength, and reliability of the indicators observed in the field.**

**a. Relevance:**

i. Is this indicator left by low, high, or extreme flows?

**Tips on how to assess the indicator relative to type of flow:**

*Consider the elevation of the indicator relative to the channel bed. What is the current flow level based on season or nearby gages? Consider the elevation of the indicator relative to the current flow. If the stream is currently at baseflow and indicator is adjacent to that, then it is likely a low flow indicator. The difference between high and extreme flow indicators can sometimes be difficult to determine.*

***Information in Chapter 2 of the OHWM field manual provides information on specific indicators which can assist in putting these in context and determining relevance, strength, and reliability.**

ii. Did recent extreme events and/or land use affect this indicator?

1. Recent floods may have left many extreme flow indicators, or temporarily altered channel form. Other resources will likely be needed to support any OHWM identification at this site. Field evidence of the OHWM may have to wait for the site to recover from the recent flood.
2. Droughts may cause field evidence of OHWM to be obscured, because there has been an extended time since the last high flow event. There can be overgrowth of vegetation or deposition of material from surrounding landscape that can obscure indicators.
3. Both man-made (e.g., dams, construction, mining activities, urbanization, agriculture, grazing) and natural (e.g., fires, floods, debris flows, beaver dams) disturbances can all alter how indicators are expected to appear at a site. Chapter 6 and Chapter 7 of the OHWM field manual provides specific case-studies that can help in interpreting evidence at these sites.

**b. Strength:**

i. Is this indicator persistent across the landscape?

1. Look up and downstream and across the channel to see if you see the same indicator at multiple locations.
2. Does the indicator occur at the same elevation as other indicators?

**c. Reliability:**

i. Is this indicator persistent on the landscape over time? Will this indicator still persist across seasons?

1. This can be difficult to determine for some indicators and may be specific to climatic region (in terms of persistence of vegetation) and history of land use or other natural disturbances.
2. Chapter 2, Chapter 6, and Chapter 7 of the OHWM field manual describes each indicator in detail and provides examples of areas where indicators are difficult to interpret.

**d. Weigh body of evidence:**

i. Combine weights: integrate the weighted line of evidence (relevance, strength, reliability) of each indicator.

ii. For each of the observed indicators, which are more heavily weighted? Where do high value indicators co-occur along the stream reach? Do they co-occur at a similar elevation along the banks relative to water surface (or channel bed if there is no water).

iii. On datasheet, select the indicators used to identify the OHWM. Information in Chapter 2 of the OHWM field manual provides descriptions of specific indicators which can assist in putting these in context and determining relevance, strength, and relieability.

**e. Take photographs of indicators and attach a log using either page 2 of datasheet or another method of logging photos.**

i. Annotate photos with descriptions of indicators.

**Step 4 Is additional information needed? Are other resources needed to support the lines of evidence observed in the field?**

a. If additional resources are needed, then repeat steps 3a and 3b for the resources selected in Step 1 of assembling, weighting, and weighing evidence collected from online resources. Chapter 5 of the OHWM field manual provides information on using online resources.

b. Any data collected from online tools have strengths and weaknesses. Make sure these are clear when determining relevance, strength, and reliability of the remotely collected data. Clearly describe why other resources were needed to support the lines of evidence observed in the field, as well as the relevance, strength, and reliability of the supporting data and/or resources.

c. Attach any remote data and data analysis to the datasheet.

**Step 5 Describe rationale for location of OHWM:**

a. Why do the combination of indicators represent the OHWM?

b. If there are multiple possibilites for the OHWM, explain why there are two (or more) possibilities. Include any relevant discussion on why specific indicators were not included in the final decision.

c. If needed, add additional site notes on page 2 of the datasheet under Step 5.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Beaumont MDP Line 2 City/County: Beaumont/Riverside County Sampling Date: 1/14/25

Applicant/Owner: City State: CA Sampling Point: 1

Investigator(s): Heather Madera and Austin Burke Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):

Subregion (LRR): Lat: 33.921449N Long: 116.963482 Datum:

Soil Map Unit Name: NWI classification:

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 ✔ | No | **Is the Sampled Area within a Wetland?** Yes No ✔ |
| Hydric Soil Present? | Yes | No ✔ | |
| Wetland Hydrology Present? | Yes ✔ | No | |

Remarks:

Heavy flooding has made this area problematic. See below.

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Fremont Cottonwood | 10 | X | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 10 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: ) | | | |
| 1. Mule Fat | 35 | X | FAC |
| 2. Giant reed | 15 | X | FACW |
| 3. California buckwheat | 5 | | |
| 4. | | | |
| 5. | | | |
| | 60 | = Total Cover | |
| **Herb Stratum** (Plot size: ) | | | |
| 1. Ripgut | 5 | | |
| 2. shortpod mustard | 1 | | |
| 3. Russian thistle | 10 | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 16 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: ) | | | |
| 1. | | | |
| 2. | | | |
| | 0 | = Total Cover | |

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust 0

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species | x 1 = |
| FACW species 2 | x 2 = 4 |
| FAC species 1 | x 3 = 3 |
| FACU species | x 4 = |
| UPL species | x 5 = |
| Column Totals: 3 (A) | 7 (B) |

Prevalence Index = B/A = 2.33

**Hydrophytic Vegetation Indicators:**

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

✔ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✔ No

Remarks:

This area is problematic. This portion of the Survey Area is heavily disturbed. There is an excess amount of sediment and debris that has built up around the culvert within the Survey Area. Although wetland vegetation species are present and clear channelization of the drainage occurs, hydric soils were not found within the excess of sediment.

## SOIL

Sampling Point: 1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-18 | 7.5 YR 6/4 | 100 | | | | | Sandy Loa | Excess sediment built up outside |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes ___ No ✔

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ✔ Sediment Deposits (B2) (**Riverine**)
- ✔ Drift Deposits (B3) (**Riverine**)
- ✔ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ___ No ✔ Depth (inches): _____

Water Table Present? Yes ___ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): _____

**Wetland Hydrology Present?** Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

There is a build up of sediment and debris within the Survey Area right outside of the culvert which makes this area problematic but the area should still be considered a MSHCP Riparian Habitat. MSHCP Riparian Habitat is also located further downstream of the Project site as it connects to Potrero Creek.