

APPENDIX D – JURISDICTIONAL DELINEATION REPORT



**JURISDICTIONAL DELINEATION REPORT
FOR THE CHERRY CHANNEL DRAINAGE
PROJECT
BEAUMONT, CALIFORNIA**

Prepared for:

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SECTION 1.0 – INTRODUCTION

Chambers Group, Inc. (Chambers Group) was retained by the City of Beaumont (City) to conduct a Jurisdictional Delineation (JD) for the proposed Cherry Channel Drainage Project (Project).

The purpose of this JD report is to delineate the potential waters and wetlands that occur within and/or immediately adjacent to the Project site. This JD report describes the type and extent of: (1) waters of the United States, including wetlands (if present), under the regulatory authority of the U.S. Army Corps of Engineers (USACE); (2) waters of the State under the regulatory authority of the Regional Water Quality Control Board (RWQCB); (3) waters under the regulatory authority of the California Department of Fish and Wildlife (CDFW); and (4) Riparian/Riverine areas pursuant to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Section 6.1.2.

1.1. PROJECT BACKGROUND

The Project site is located along Cherry Avenue, between Cougar Way and Oak Valley Parkway in Riverside County. Residential communities are located along Cherry Avenue to the northeast, southeast, and southwest. Beaumont Adult School and San Geronio Middle School are located to the west of Cherry Avenue.

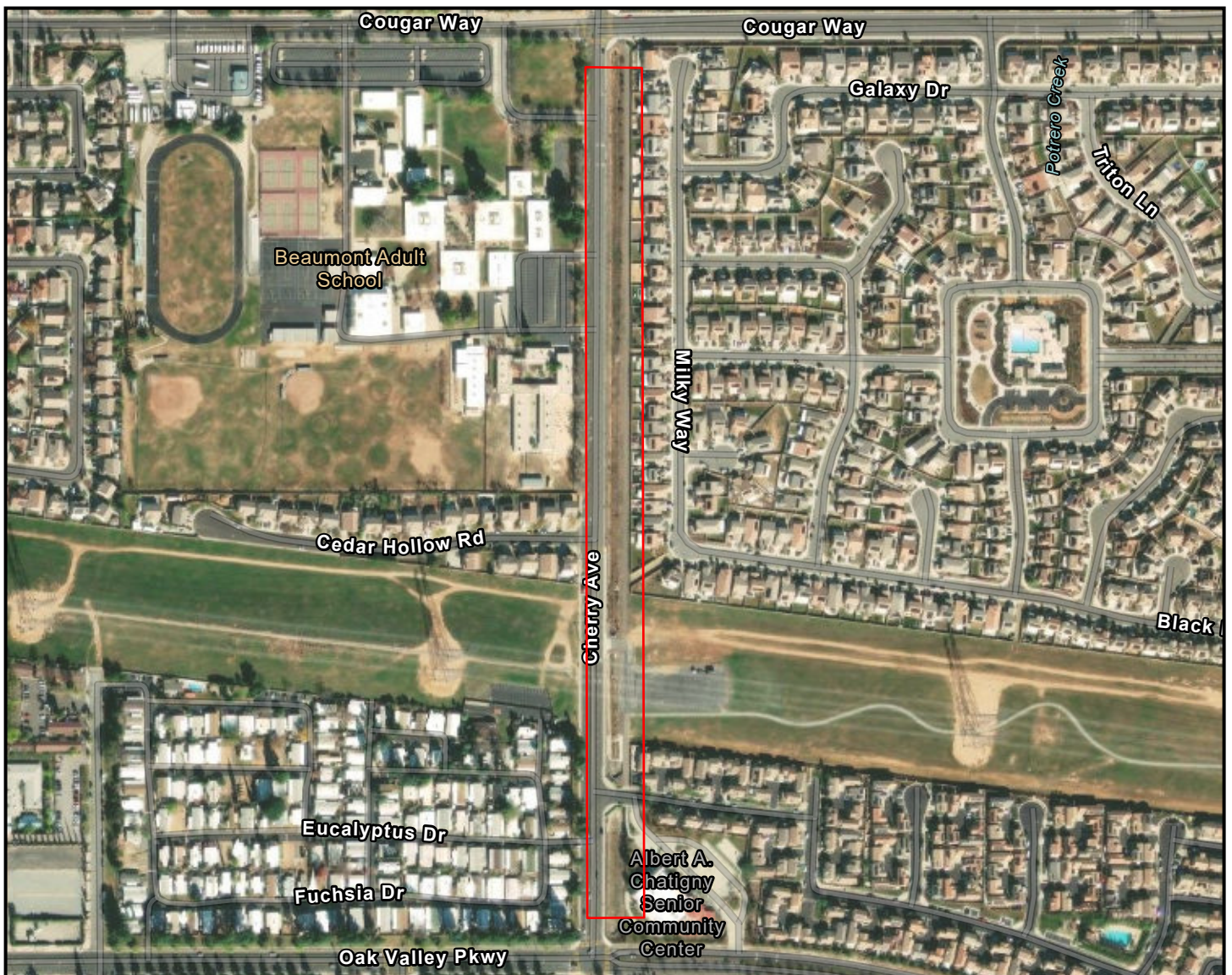
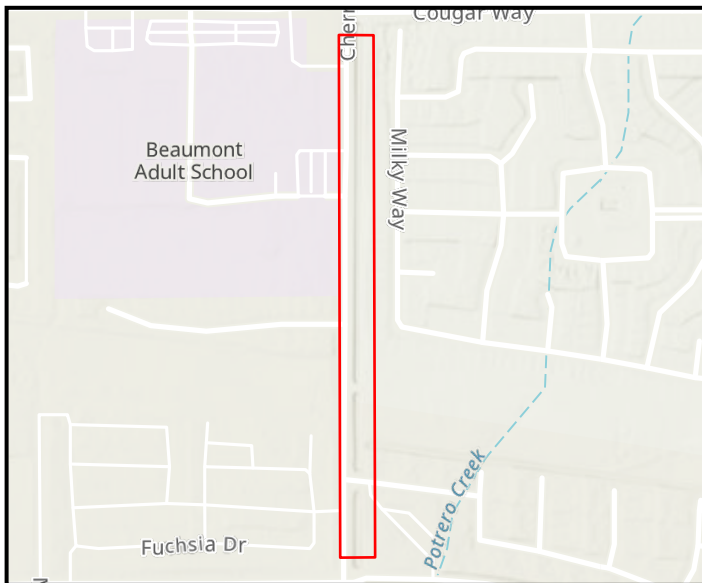
An operational and City-owned paved parking lot is located to the east of Cherry Avenue, north of Rover Lane. The parking lot is owned by the City and primarily used as overflow parking for the Community Recreation Center to the south as well as access to the drainage and conducting maintenance to the area. In addition to City use, the parking lot is available for recreational use by the public, such as walking/hiking on the maintenance access roads and unmarked trails within the open space area of an existing Southern California Edison (SCE) easement following the powerlines. Land uses surrounding the Cherry Avenue channel consists of Single Family Residential, High Density Residential, Public Facilities, and Open Space.

The Project plans to line the existing channel with concrete to improve the channel flow conditions to alleviate the increasing level of maintenance by City staff. The existing channel is lined with a turf reinforced geo-mat lining along the side slope and channel bottom. The entire channel is currently maintained under an agreement with Cal Fire for weed abatement/vegetation control twice a year after the rainy season (March/April) and July/August, prior to the school schedule. During maintenance activities, all vegetation within the channel is removed and/or trimmed down to the base.

The channel geo-mats have been affected by urban runoff flows, with sections torn or missing over the years. The Project proposes to remove the existing geo-mat lining, wingwall, and riprap within the channel and replace it with concrete along the slopes and channel bottom. The existing headwalls and culverts will remain and be protected in place. The Project would result in reduced maintenance costs and improved flow of runoff to the channel.

An irrigational system with sprinklers is located along the top of the banks and within the bottom of the channel, providing an artificial water source to this area. In addition, there are two concrete culvert crossings within the Project site, one at Rover Lane leading into the Community Recreation Center and one providing access to the parking lot, and four smaller culverts on the eastern bank of the channel, which collect water from the residential communities to the east.

The Project is located the U.S. Geological Survey (USGS) *Beaumont*, California 7.5-minute topographic quadrangle. The elevation at the Project site ranges from 2,680 to 2,703 feet above mean sea level (amsl). Maps of the Project Location and Project Vicinity are provided in Figure 1.



 Project Location

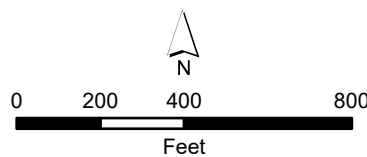


Figure 1
Cherry Channel Drainage
Project Location and Vicinity

SECTION 2.0 – REGULATORY OVERVIEW

The limits of jurisdictional waters regulated by the USACE, RWQCB and CDFW were delineated for the proposed 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 2004).

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

SECTION 3.0 – METHODS

3.1. LITERATURE REVIEW

As part of the delineation effort, high-resolution aerial photographs, USGS topographic maps, and Google Earth (Google 2024) imagery were examined to determine the potential areas that may contain waters subject to USACE, RWQCB, and CDFW jurisdiction on the Project site. USFWS National Wetlands Inventory (NWI) maps, National Hydrological Database (NHD) maps, topographic maps, and aerial photographs were used to identify drainage patterns and potential connectivity (nexus) through the Project site. Aerial photos (Google 2024) and topographic maps (USGS 1973) were used to identify potential hydrologic connectivity (significant nexus) to traditional navigable waters (TNW); features indicating connectivity were investigated in the field.

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2024) was reviewed for soil types found within the Project sites.

3.2. FIELD SURVEY

During the field survey, boundaries and dimensions of jurisdictional features were recorded on aerial photographs, Global Positioning System (GPS) units, and standardized datasheets. Features within the proposed Project were investigated for the presence of federally jurisdictional wetlands, federally jurisdictional non-wetland waters of the United States, CDFW jurisdictional streambeds including ephemeral and intermittent streambeds, RWQCB jurisdictional waters, and other water bodies, riparian habitats, potential wetlands, and connectivity, and MSHCP Riparian/Riverine Areas. The delineation defined the USACE and RWQCB jurisdictional boundaries based on the OHWM. The presence or absence of wetlands within or adjacent to the OHWM were verified through the determination of the presence of (1) hydrologic conditions and (2) hydrophytic vegetation pursuant to the 1987 Wetland Manual and Arid West Supplement guidelines (USACE 1987, 2007, 2008a, 2008b) and A Field Guide to the Identification of the OHWM in the Arid West Region of the Western U.S., A Delineation Manual; a soil test pit documenting the presence of hydrophytic vegetation would only be dug if the other wetland indicators were present or if problematic situations were present. The limits of CDFW jurisdiction were mapped from the top of bank to the top of bank along the channel/drainage, or to the outer limits of riparian vegetation (outer dripline), whichever was greater.

Where accessible, connectivity was determined by following the drainages from their origins to their terminal points. In areas with limited access or occurring on private property, connectivity was determined using USGS topographic maps, NWI and NHD maps, and aerial images. Water features (e.g., drainages, water bodies) within the Project limits were investigated for the presence of OHWM, bank to bank (BTB) measurements, and connectivity. The existing width of the water feature (e.g., OHWM or BTB) crossed by the proposed Project was measured (linear feet) in the field perpendicular to the drainage path.

Data from the delineation was digitized and recorded using Geographic Information System (GIS) software and displayed on aerial maps for this report. Reference photographs were taken during this survey and are included as Appendix D.

3.2.1 Hydrology

Typical hydrologic indicators were noted, if observed per the *1987 Wetland Manual and Arid West Supplement Guidelines* (USACE 1987, 2007, 2008b) and the *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (USACE 2022). Indicators include evidence of inundation, saturation, surface water, watermarks, drift lines, sediment deposits, destruction of vegetation, water-stained leaves, and the presence or oxidation/reduction features in the soil, among several others.

Consideration of the climate and flow frequency was given when observing watermarks and drift lines. For the purpose of determining a significant nexus to a TNW, aerial photographs, NWI and NHD maps, and USGS quadrangles were referenced. All features were inspected in the field on and off site for true connectivity.

3.2.2 Vegetation

If wetland plants were identified, they were categorized according to their probability to occur in wetlands versus non-wetlands in accordance with the categories in the *National List of Species that Occur in Wetlands* (Reed 2016). More specifically, the California Land Resource Region (Region 0) wetlands plant list was used, which is a regional adaptation of the National List. The wetland species categories are:

- I. Obligate Wetland (OBL) – Occur almost always (estimated probability >99 percent) under natural conditions in wetlands.
- II. Facultative Wetland (FACW) – Usually occur in wetlands (estimated probability 67 percent to 99 percent), but occasionally found in non-wetlands.
- III. Facultative (FAC) – Equally likely to occur in wetlands or non-wetlands (estimated probability 34 percent to 66 percent).
- IV. Facultative Upland (FACU) – Usually occur in non-wetlands (estimated probability 67 percent to 99 percent), but occasionally found in wetlands.
- V. Obligate Upland (UPL) – May occur in wetlands in another region but occur almost always (estimated probability >99 percent) under natural conditions in non-wetlands in southern California. All species not listed on the *National List of Species that Occur in Wetlands* (Reed 2016) are considered to be UPL.
- VI. No Indicator (NI) – NI is recorded for those species for which insufficient information was available to determine an indicator status.

Plant species and absolute cover values were recorded by stratum (i.e., tree, sapling/shrub, herb, woody vine) and evaluated for dominance and prevalence according to guidelines in the *1987 Wetland Manual and 2008 Arid West Supplement* (USACE 1987, 2008b). Plant species naming conventions follow the *Jepson Manual, Second Edition* (Baldwin et al. 2012). Vegetation communities follow the naming convention in *A Manual of California Vegetation* (Sawyer et al. 2009).

3.2.3 Soils

Soil pits were dug in representative delineated features on the Project site, and soils were evaluated according to guidelines in the *1987 Wetland Manual and 2008 Arid West Supplement* (USACE 1987, 2008b). Soil layers were examined for the presence or absence of hydric soil indicators and oxidation/reduction features indicative of historic saturated soil conditions. In addition, soil pits were dug in representative delineated features on the Project site in areas that had the most potential to exhibit hydric characteristics.

SECTION 4.0 – RESULTS

The following sections provide context and background by describing soils, vegetation, and hydrological features within the Project site. The results of the field delineation are presented below. Site photographs are included in Appendix C.

4.1. HYDROLOGY AND HYDROLOGIC CONNECTIVITY

The Project is located within the Potrero Creek sub watershed, within the Santa Ana River watershed, outside of the flood hazard area within the Federal Emergency Management Agency (FEMA) 100-year flood zone (Hydrologic Unit Code [HUC12] 180702020201) (USDA 2024) (Figures 2 and 3). The Middle Santa Ana River 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.

4.2. FIELD SURVEY

A field survey was conducted on July 25, 2024, by Chambers Group biologists Heather Madera and Austin Burke between the hours of 0830 and 1430. The temperatures ranged from 88 to 112 degrees Fahrenheit (°F), with no cloud cover, and no precipitation.

The Project site consists of a man-made drainage. One wetland was identified within the drainage.

4.3. VEGETATION COMMUNITIES

Six vegetation communities were mapped within the Project site, including Cattail Marsh, Disturbed Goodding's Willow - Red Willow Riparian Woodland, Wild Tarragon Patches, Ruderal, Ornamental, and Developed. Vegetation mapped during the delineation is provided in Figure 4.

4.3.1 Cattail Marsh

Cattail Marshes are found in semi-permanently flooded freshwater or brackish marshes. Soils in this community are typically clayey or silty (Sawyer et al. 2009). The USFWS Wetland Inventory (1996 national list) recognizes narrow leaf cattail (*Typha angustifolia*), slender cattail (*Typha domingensis*), and broadleaf cattail (*Typha latifolia*) as OBL plants. Slender cattail, narrow leaf cattail, or broadleaf cattail is dominant or co-dominant in the herbaceous layer with sedge (*Cyperus* sp.), salt grass (*Distichlis spicata*), barnyard grass (*Echinochloa crus-galli*), rushes (*Juncus* sp.), common reed (*Phragmites australis*), Chairmaker's bulrush (*Schoenoplectus americanus*), California bulrush (*Schoenoplectus californicus*), and rough cocklebur (*Xanthium strumarium*). Emergent trees may be present at low cover, including willows (*Salix* sp.) and herbs are less than 1.5 meters tall. Cover in this community is intermittent to continuous.

Areas with Cattail Marsh vegetation are present within 0.11 acres of the Project site located near the middle lower half of the channel along the bottom of the drainage. This area is subject to annual maintenance and vegetation trimming by the City for flood control purposes and thus all tree and shrub species are prevented from forming woody growth and must sprout back up from the base each year. Native plant species found on the Project site typical of this vegetation community included: cattail (NWI

OBL), tall Cyperus (NWI FACW), and cyperus (*Cyperus* sp.). Non-native species included: barnyard grass (NWI FACW), annual beard grass (*Polypogon monspeliensis*; NWI FACW), and tamarisk (*Tamarix chinensis*; NWI FAC). An irrigational system with sprinklers is located along the top of the banks and within the bottom of the channel, providing an artificial water source as the primary source to this area. In addition, this area receives nuisance flow from the surrounding residential area. Thus, this community likely would not occur within the Project site without the presence of the irrigation system.

4.3.2 Disturbed Goodding's Willow - Red Willow Riparian Woodland

Goodding's Willow - Red Willow Riparian Woodland vegetation is found along terraces by large rivers, canyons, along floodplains of streams, seeps, springs, ditches, floodplains, lake edges, low-gradient depositions (Sawyer et al. 2009). Black willow (aka Goodding's willow) (*Salix gooddingii*) and/or red willow (*Salix laevigata*) is dominant or co-dominant in the tree or shrub canopy with boxelder (*Acer negundo*), California buckeye (*Aesculus californica*), white alder (*Alnus rhombifolia*), incense cedar (*Calocedrus decurrens*), Oregon ash (*Fraxinus latifolia*), gray pine (*Pinus sabiniana*), California sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), valley oak (*Quercus lobata*), Pacific willow (*Salix lucida* var. *lasiandra*) or California fan palm (*Washingtonia filifera*). Shrubs include mule fat (*Baccharis salicifolia*), red twig dogwood (*Cornus sericea*), California rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), sand bar willow (*Salix exigua*), arroyo willow (*Salix lasiolepis*) or blue elderberry (*Sambucus mexicana*). Goodding's willow and red willow were formerly described and treated as separate alliances, but the two types have been merged since they often occur together and share similar habitats (Sawyer 2009). The tree canopy in this community is open to continuous with a shrub layer that is sparse to continuous and an herbaceous layer that is variable.

A disturbed form of Goodding's Willow - Red Willow Riparian Woodland is present within 0.54 acres of the Project site, located on the northern half of the channel at the bottom of the drainage. Disturbed areas are those areas that experience frequent human disturbance such as vegetation clearing, off-road vehicle traffic, and littering or those areas that have a high percentage of non-native weedy species (i.e., greater than 25 percent of the species cover). This area is subject to annual maintenance and vegetation trimming by the City for flood control purposes and thus all tree and shrub species are prevented from forming woody growth and must sprout back up from the base each year. Native plant species found on the Project site typical of this vegetation community included: black willow (NWI FACW), arroyo willow (NWI FACW), sandbar willow (NWI FACW), mulefat, Cyperus and cattail (NWI FACW).

4.3.3 Disturbed Wild Tarragon Patches

Wild Tarragon Patches can be found in intermittently flooded stream channels, terraces, and flats (Sawyer et al. 2009). Soils are typically sandy alluvium to silt loam, are derived from many substrates, and are often subject to flooding or other disturbances. The alliance occurs in disturbed environments, particularly along intermittently flooded alluvium. Membership rules for vegetation mapping state that wild tarragon (*Artemisia dracunculus*) and/or cudweed (*Pseudognaphalium canescens*) is greater than 50 percent relative cover in the herbaceous layer (Kittel et al. 2012). Wild tarragon is dominant, co-dominant, or characteristically present in the herbaceous layer with common fiddleneck (*Amsinckia menziesii*), mugwort (*Artemisia douglasiana*), Bromus spp., tocalote (*Centaurea melitensis*), purple clarkia (*Clarkia purpurea*), woodland clarkia (*Clarkia unguiculata*), coastal heron's bill (*Erodium cicutarium*), California poppy (*Eschscholzia californica*), shortpod mustard (*Hirschfeldia incana*), cat's ears (*Hypochaeris glabra*),

Spanish lotus (*Acmispon americanus*), miniature lupine (*Lupinus bicolor*), cudweed (*Pseudognaphalium canescens*), willow leaved dock (*Rumex salicifolius*) and rattail fescue (*Festuca myuros*). Emergent trees and shrubs may be present at low cover, including trees like gray pine (*Pinus sabiniana*) and shrubs like mule fat, California buckwheat (*Eriogonum fasciculatum*), deerweed (*Acmispon glaber*) and threadleaf ragwort (*Senecio flaccidus*). The herbaceous layer in this community is typically less than 5 feet and cover is intermittent to continuous (Sawyer et al. 2009).

A disturbed form of Wild Tarragon Patches are present within 0.24 acres of the Project site located in the southern portion of the channel along the bottom of the drainage. Disturbed areas are those areas that experience frequent human disturbance such as vegetation clearing, off-road vehicle traffic, and littering or those areas that have a high percentage of non-native weedy species (i.e., greater than 25 percent of the species cover). This area is subject to annual maintenance and vegetation trimming by the City for flood control purposes and thus all shrub species are prevented from forming woody growth and must sprout back up from the base each year. Trash and high weed cover were additional disturbance factors in this area. The dominant native species typical of this community included: tarragon, tall cyperus (NWI FACW), parched fireweed (*Epilobium brachycarpum*), willowherb (*Epilobium ciliatum* subsp. *ciliatum*; NWI FACW), horseweed (*Erigeron canadensis*), and young emergent black willow and arroyo willow, both NWI FACW species. Non-native species included: barnyard grass (NWI FACW), annual beard grass (NWI FACW), shortpod mustard, common knotweed (*Polygonum arenastrum*), and curly dock (*Rumex crispus*; NWI FAC). As stated above, an irrigational system with sprinklers is located along the top of the banks and within the bottom of the channel, providing an artificial water source as the primary source to this area. Therefore, this community likely would not occur within the Project site without the presence of the irrigation system.

4.3.4 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 throughout the Project site within the open space on the north and south side of the overflow parking lot, all along the channel's sloped banks, and within several sections in the base of the channel. The open space shows signs of human disturbance from disc/mowing and the ruderal sections of the channel base contain various trash and debris. The area within the channel is subject to annual maintenance and vegetation trimming by the City for flood control purposes and thus all tree and shrub species are prevented from forming woody growth and must sprout back up from the base each year. Non-native species included: shortpod mustard, Russian-thistle (*Salsola australis*), ripgut grass (*Bromus diandrus*), annual beard grass, wild oat (*Avena fatua*), and occasional tamarisk. Native plant species found on the banks and in the drainage included: horseweed which was the dominant species with scattered turkey-mullein (*Croton setiger*), California buckwheat along the top edges of the side banks. There are 1.48 acres of Ruderal vegetation located within the Project site.

4.3.5 Ornamental

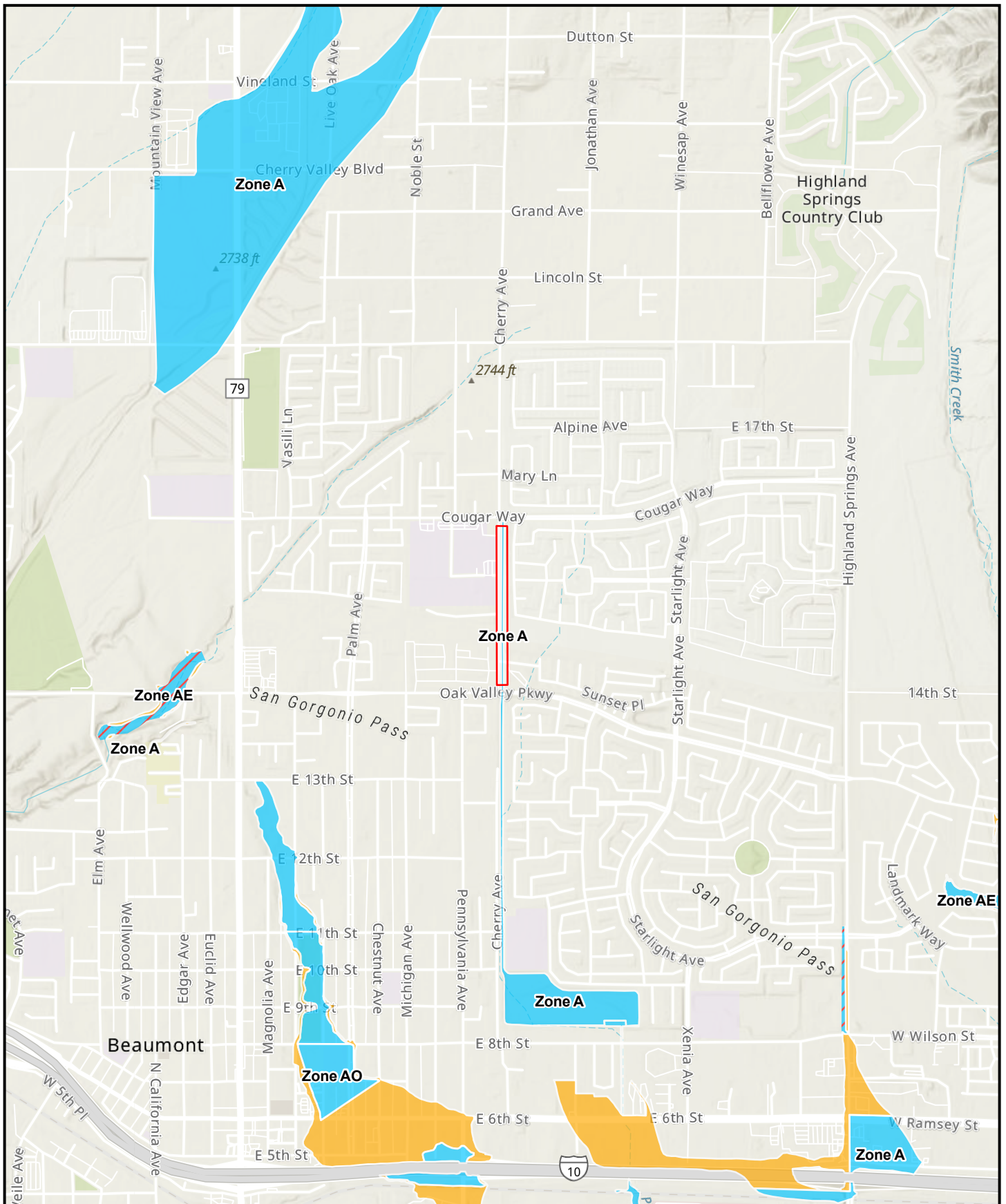
Ornamental Landscaping includes areas where the vegetation is dominated by non-native horticultural plants (Gray and Bramlet 1992). Typically, the species composition consists of introduced trees, shrubs, flowers and turf grass.

Ornamental Landscaping is present along the top edges of the Cherry Channel Drainage. These areas receive supplemental water from above ground irrigation. Plant species found on the Project site typical of this community include Japanese privet (*Ligustrum japonicum*), star jasmine (*Trachelospermum jasminoides*), Japanese cheesewood (*Pittosporum tobira*), and occasional patches of California buckwheat. There are 0.88 acres of Ornamental Landscaping on the Project site.

4.3.6 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 5.55 acres. Cherry Avenue runs parallel to the channel and is included in the Project boundary, along with sidewalks, walking paths, and a parking lot located to the east within the Project site. Residential buildings are located along the eastern edge of the Project site.



- Project Location
- FEMA Flood Hazard Zones**
- 1% Annual Chance Flood Hazard
 - Regulatory Floodway
 - 0.2% Annual Chance Flood Hazard

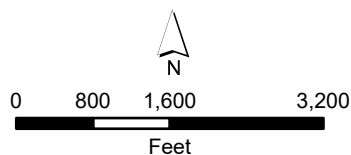
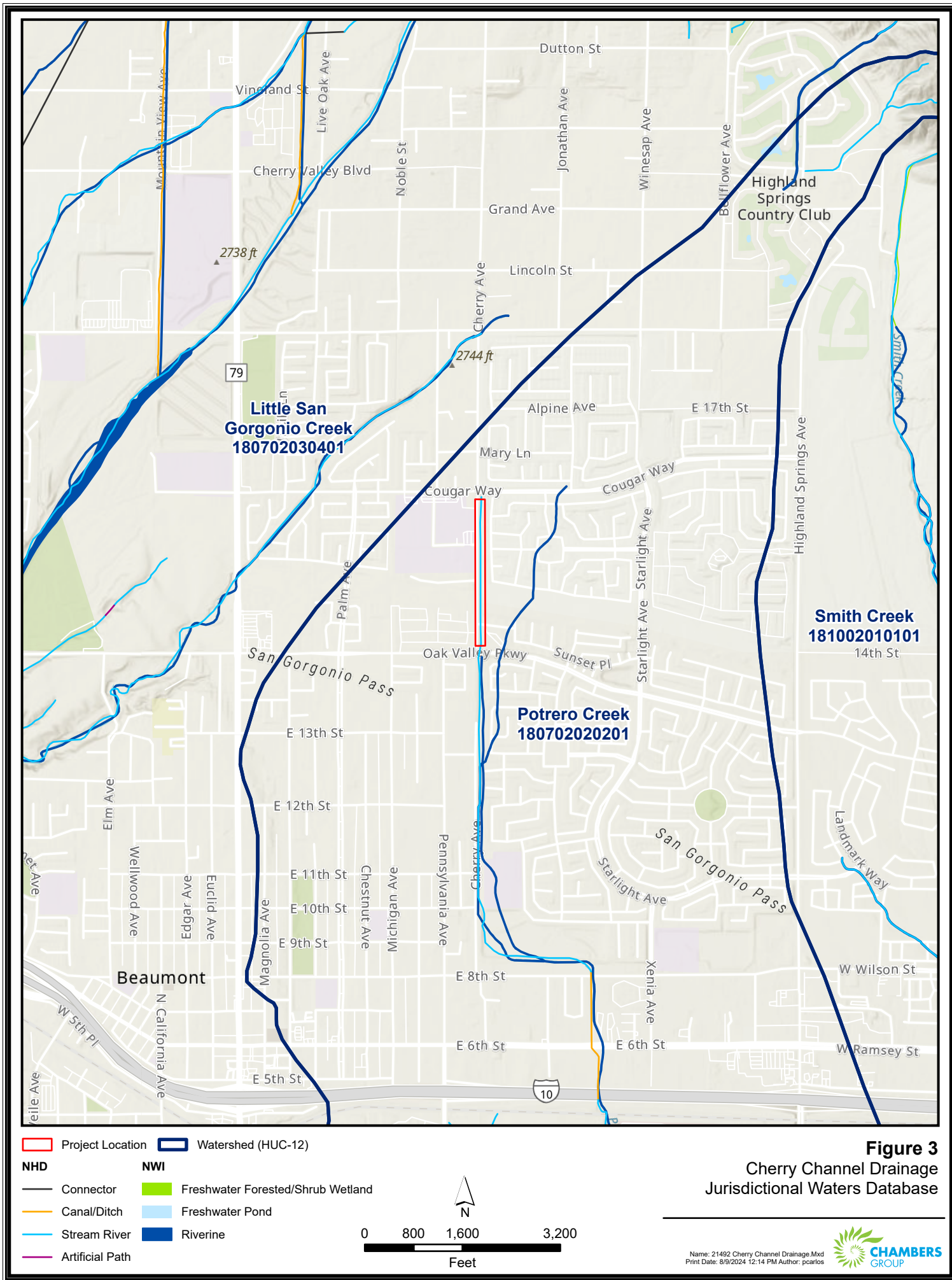
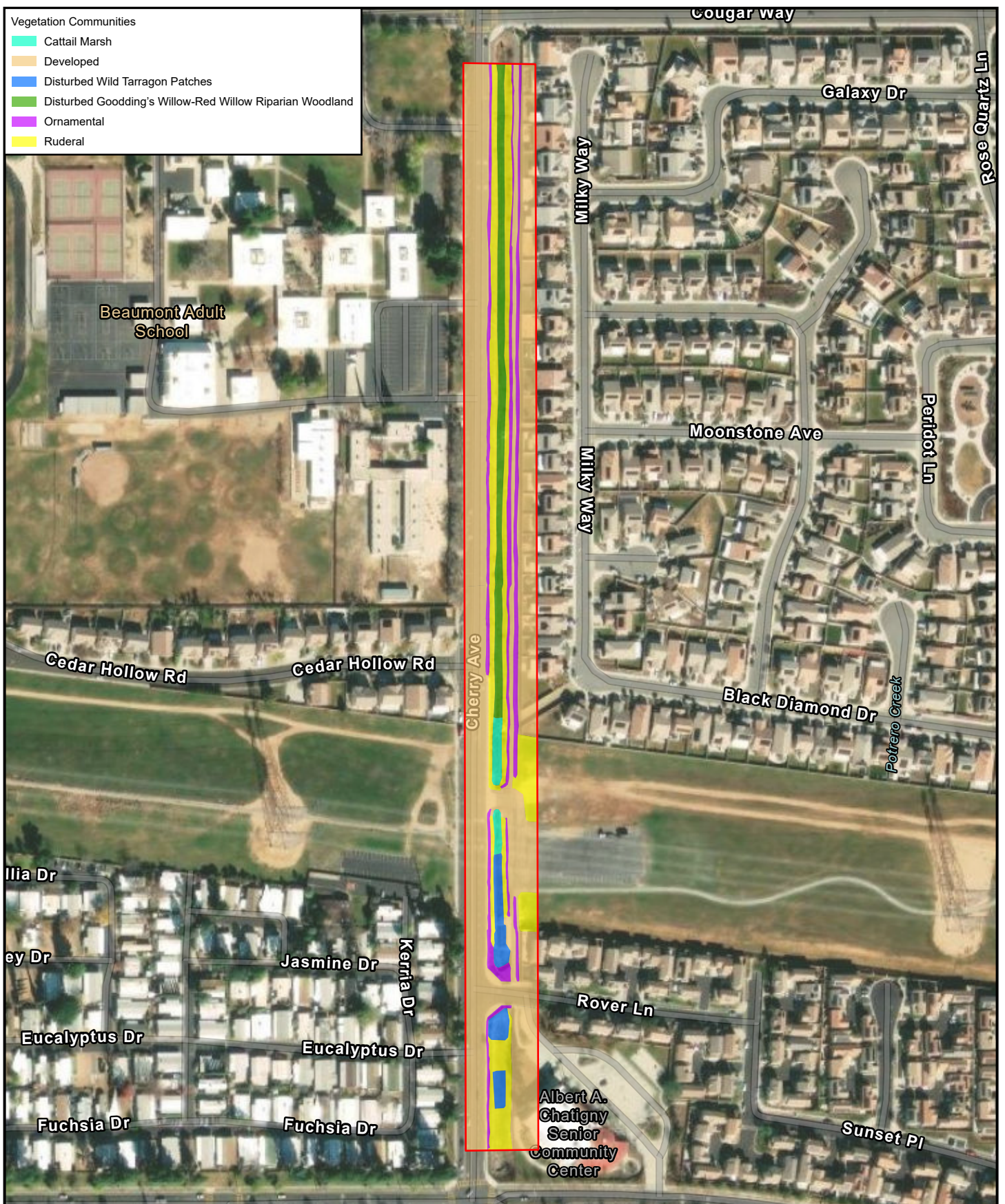


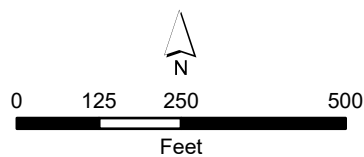
Figure 2
Cherry Channel Drainage
FEMA Flood Hazard Zones



- Vegetation Communities**
- Cattail Marsh
 - Developed
 - Disturbed Wild Tarragon Patches
 - Disturbed Goodding's Willow-Red Willow Riparian Woodland
 - Ornamental
 - Ruderal



Project Location

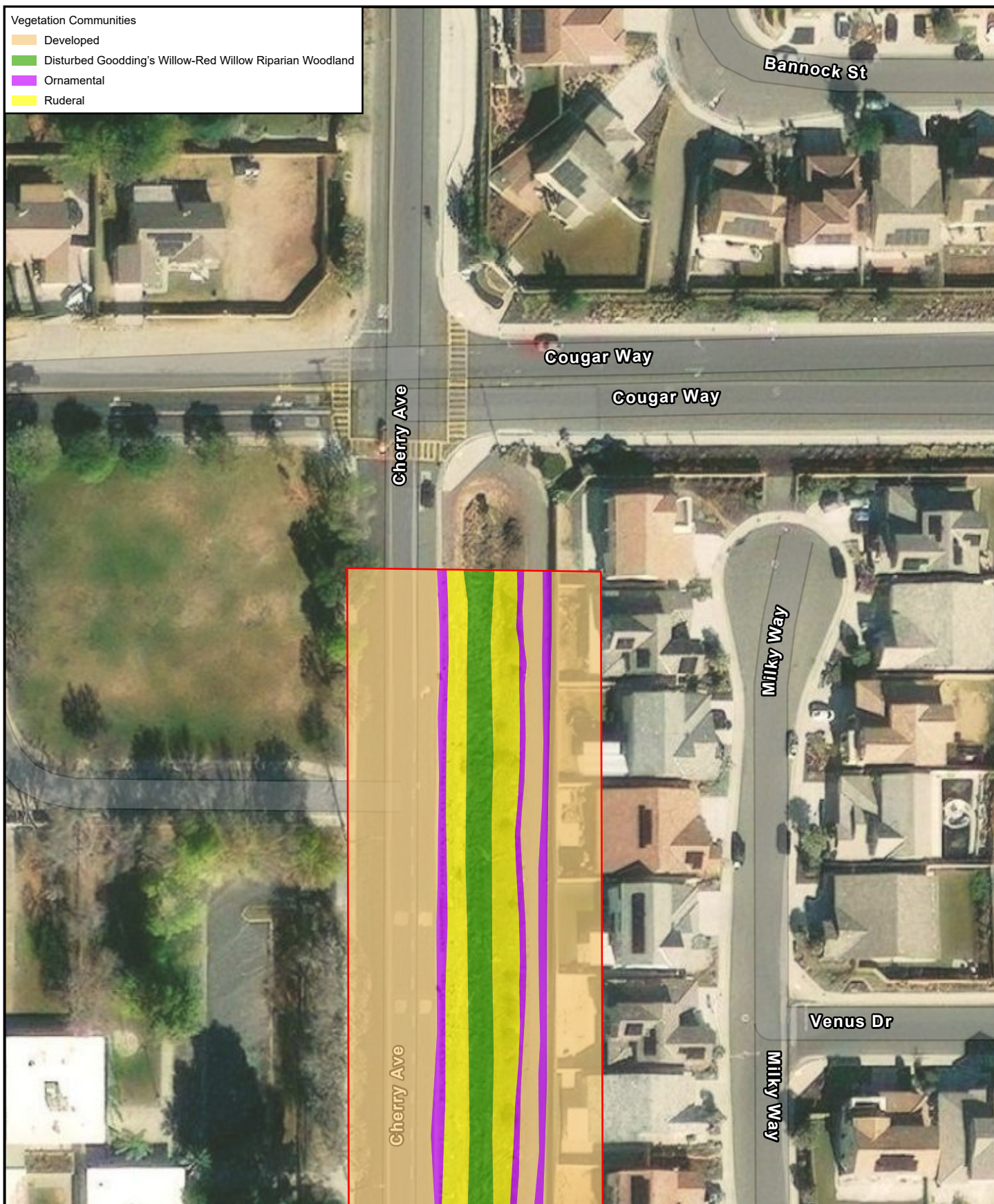


Overview

Figure 4
Cherry Channel Drainage
Vegetation Communities

Vegetation Communities

- Developed
- Disturbed Goodding's Willow-Red Willow Riparian Woodland
- Ornamental
- Ruderal



Project Location

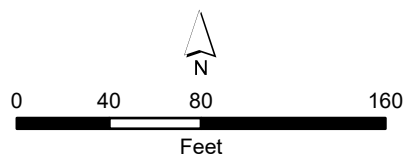
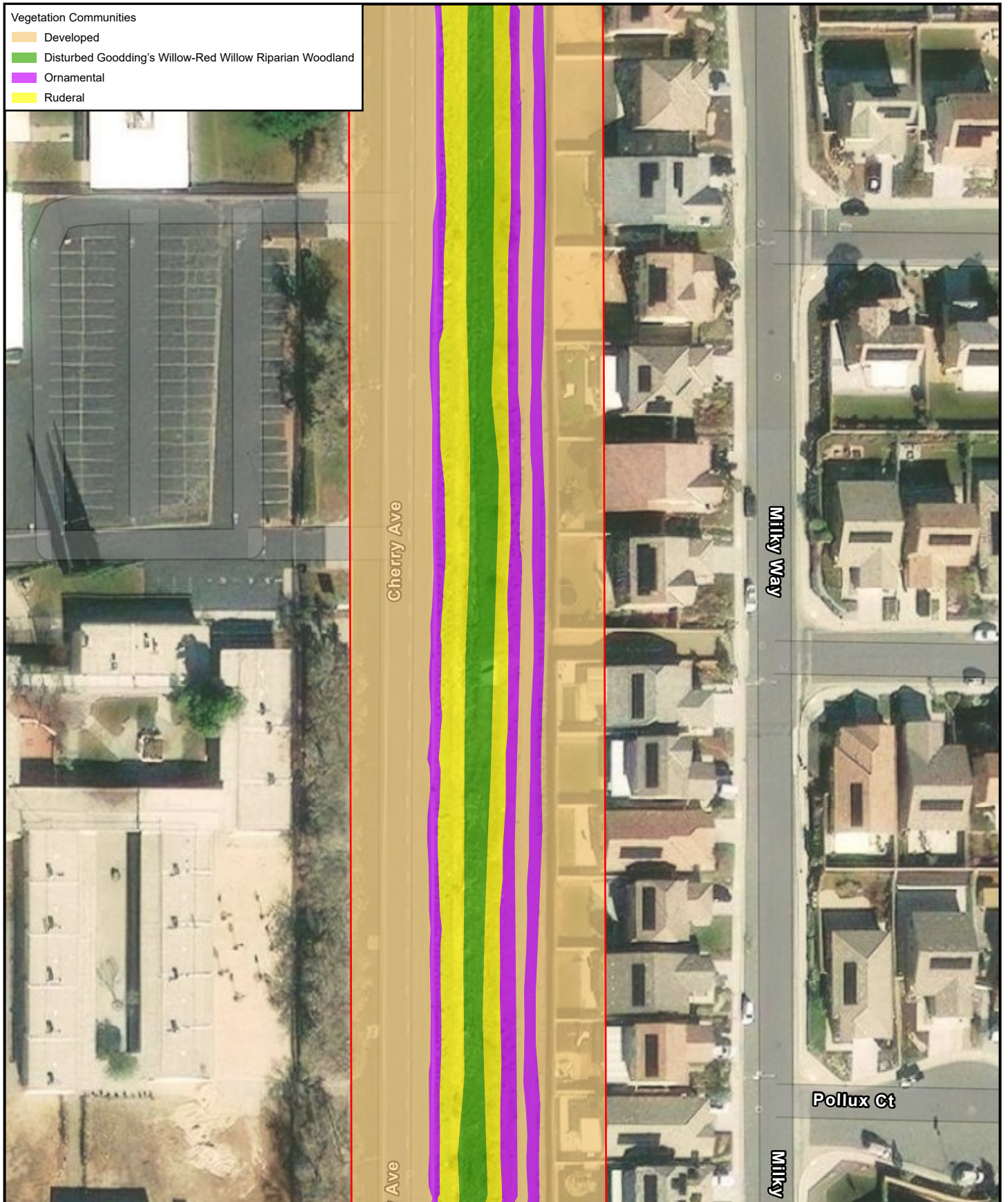


Figure 4
Cherry Channel Drainage
Vegetation Communities

- Vegetation Communities
- Developed
 - Disturbed Goodding's Willow-Red Willow Riparian Woodland
 - Ornamental
 - Ruderal



Project Location

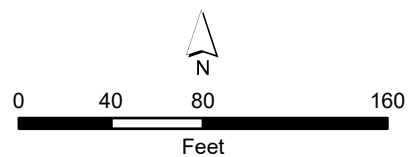
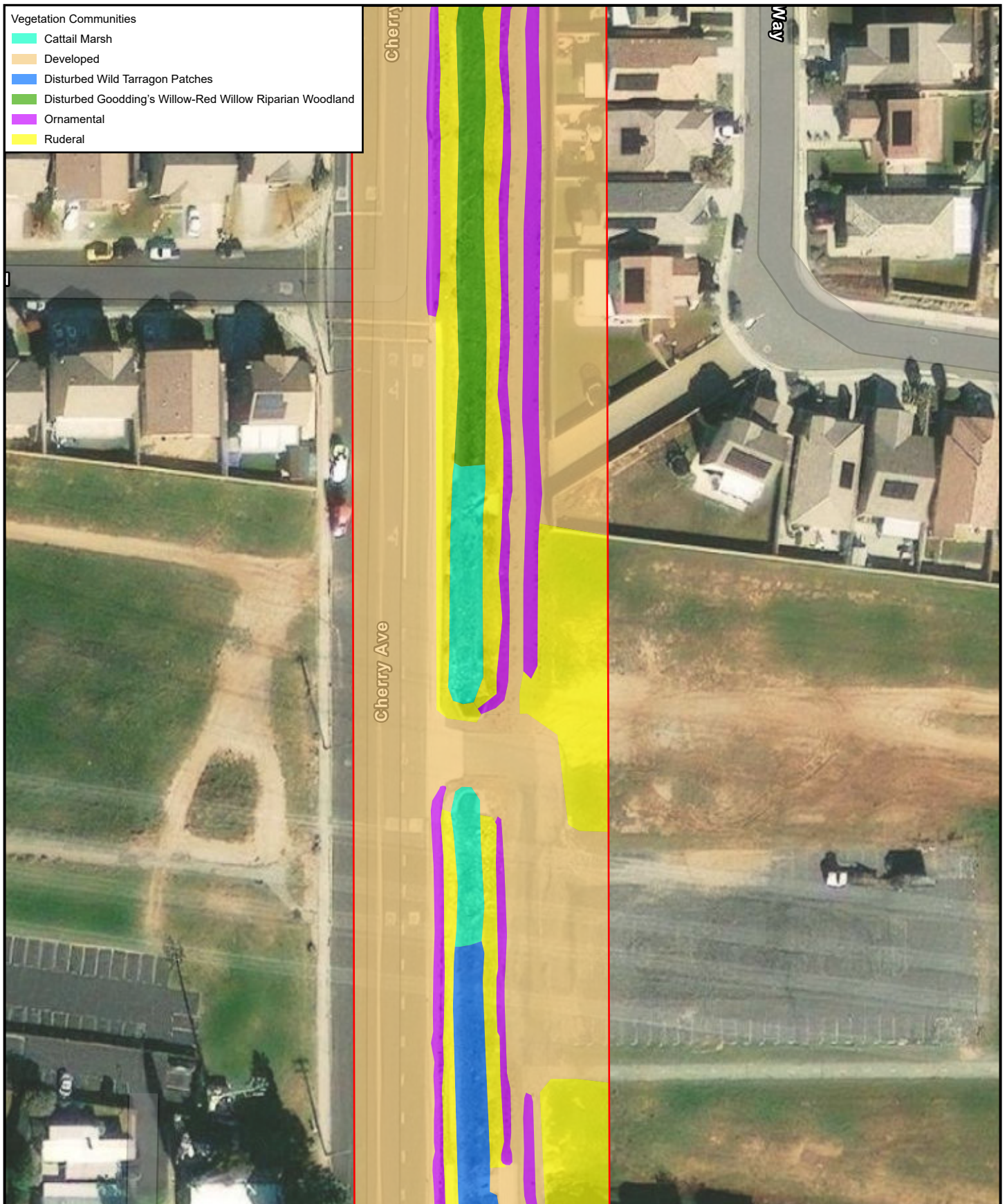


Figure 4
Cherry Channel Drainage
Vegetation Communities

Vegetation Communities

- Cattail Marsh
- Developed
- Disturbed Wild Tarragon Patches
- Disturbed Goodding's Willow-Red Willow Riparian Woodland
- Ornamental
- Ruderal



■ Project Location



0 40 80 160
Feet

Figure 4
Cherry Channel Drainage
Vegetation Communities

- Vegetation Communities**
- Developed
 - Disturbed Wild Tarragon Patches
 - Ornamental
 - Ruderal



Project Location

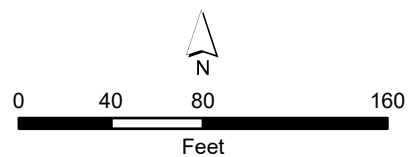


Figure 4
Cherry Channel Drainage
Vegetation Communities

4.4. SOILS

After review of USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2024), it was determined that the Project site is located within the Western Riverside Area, California area CA679. Based on the results of the database search the soil present on site is not classified as hydric. The Project site contains one soil type:

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 typically composed of sandy loam, sandy clay loam, and gravely sandy loam. These soils typically have low runoff when wet.

4.5. DRAINAGE FEATURES

The Project site is located within Cherry Channel and is historically mapped as a portion of Potrero Creek. Cherry Channel at the northern most point of the Project boundary at Cougar Way and terminates at Cherry Avenue and 8th Street into a large detention basin. Flow is then directed south/southeast through a series of underground storm drains, culverts, and surface hydrology until it ultimately flows into the San Jacinto River, a traditional navigable water (TNW).

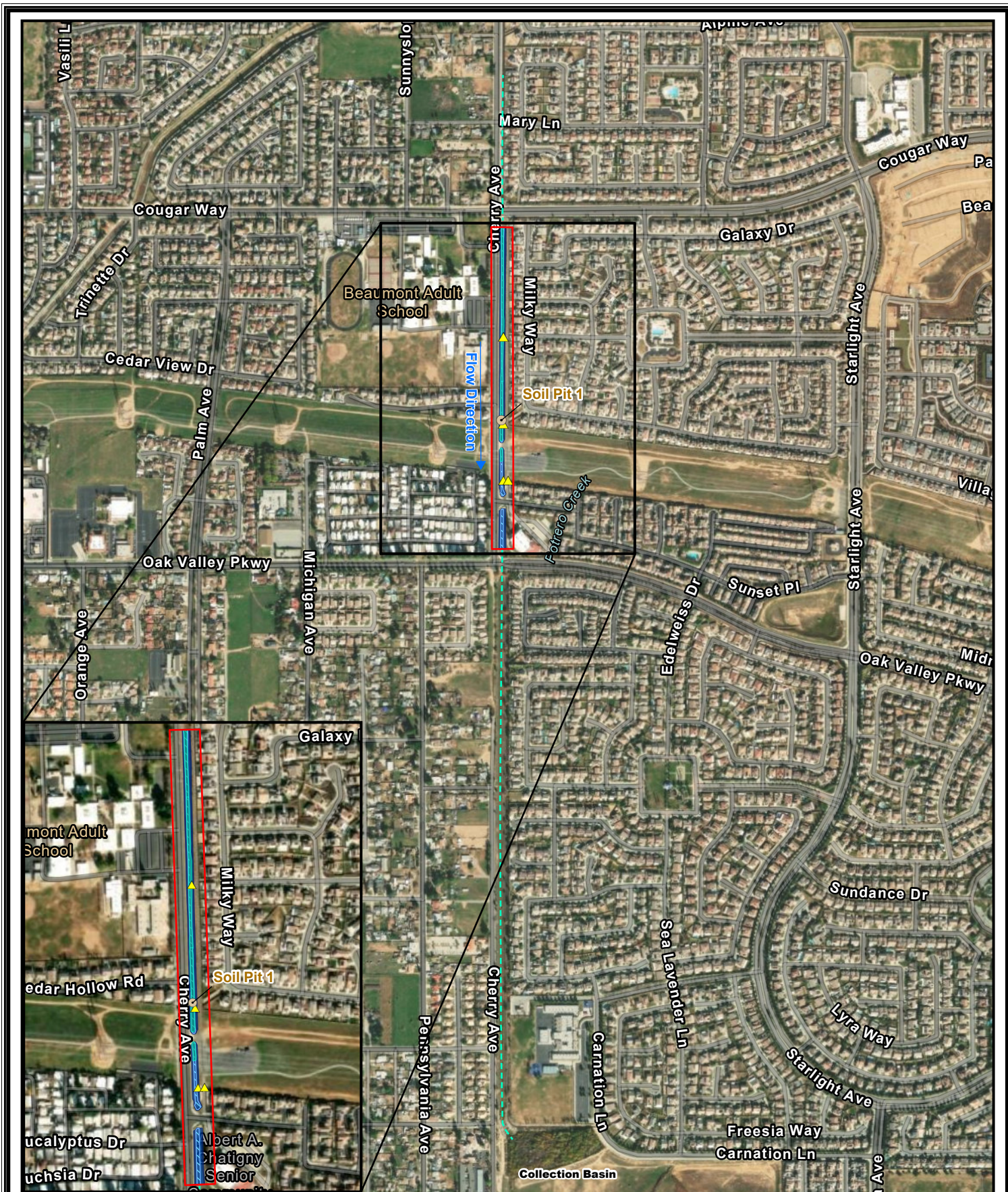
The Project site is located within the Cherry Channel and flows via surface hydrology primarily from nuisance water from the irrigation line running along the entire channel and runoff from the surrounding residences. In addition, the channel facilitates runoff from the adjacent road and neighborhood during seasonal rainfall events. Standing water was present during the survey, no flow was observed within the channel during the survey; however, several indicators of hydrology were present at the time of the field delineation. Hydrological characteristics within Cherry Channel included: surface water, evidence of inundation watermarks, drift lines, and sediment and drift deposits. In addition, hydrophytic vegetation was present within the northern portion of the site. However, hydric soils could not be confirmed within the channel (i.e., presence of geotextile mats and the compaction of the channel bottom); therefore, the Project site contains only two of the three wetland parameters. Due to the presence of the geo-mats within the channel, the site is able to hold water for the long periods of time allowing hydrophytic vegetation to grow within the channel. The limits of the Ordinary High Water Mark (OHWM) were delineated visually by change in sediment, water marks and erosion caused by water flow within the Project limits. OHWM measured approximately 7 feet 8 inches throughout the channel, and bank-to-bank measured 27 feet 1 inch (Figure 5). Cherry Channel is a City maintained channel that has geo-mats along the sidewalls for erosion control of the banks; and, therefore, the bank-to-bank measurement is a fixed measurement along the length of the entire channel. Although Cherry Channel is maintained by the County with surface flow existing only directly after a heavy rain event, this system eventually flows into the San Jacinto River.

While riparian vegetation does occur within the channel, the drainage does not meet the MSHCP definition of Riverine. While it does eventually connect to the San Jacinto River, with portions considered a MSHCP Conservation area, the Project site is several towns northwest of any MSHCP conservation area and any flow from the site travels through many subsurface drainages and tributaries before terminating in the river. Therefore, the Project site does not contribute to the biological functions and values of downstream habitat for covered species within the MSHCP Conservation Area. Additionally, the riparian vegetation that occurs within the drainage is early successional and 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. The mapped drainage can be found in Figure 5.

4.6. CDFW/MSHCP RIPARIAN HABITAT

No NWI mapped wetlands were identified within the Project site. However, a cattail marsh and Goodding's Willow - Red Willow Riparian Woodland occur within the northern portion of the channel. An irrigational system with sprinklers is located along the top of the banks and within the channel, providing an artificial water source to this area. In addition, this area receives nuisance flow from the surrounding residential area. This riparian area is primarily vegetated with cattails, emergent Goodding's and red willows, and mulefat scattered throughout with an understory of cyperus and non-native grassland. Several soil test pits were attempted during the survey; however, due to the presence of the geo-mats and the compaction of the channel bottom, a soil pit could not be obtained. In addition, no hydric soils were revealed during the database soil search. Although the presence of hydric soils could not be confirmed, hydrophytic vegetation is present within this area, as evidence of hydrology was observed throughout the area; therefore, this riparian area is considered to be a wetland area with problematic soils. In addition, since bank-to-bank channelization occurs, this area should be considered under CDFW jurisdiction and an MSHCP Riparian area. However, this area appears to be fed solely by artificial and nuisance water sources and is maintained regularly by the City, which includes regular removal of vegetation within the channel. This area is not considered a natural wetland; if the sprinklers were to be permanently removed, this riparian area is not expected to persist.



- Project Location
- Soil Pit
- Sub Surface Flow
- ▲ Culvert
- Jurisdictional Delineation**
- Bank to Bank
- Ordinary High Water Mark
- RWQCB/CDFW Wetland and MSHCP Riparian

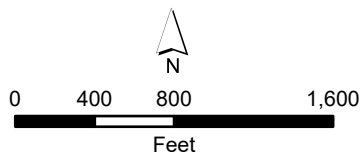


Figure 5
Cherry Channel Drainage
Jurisdictional Delineation Results

4.7. SUMMARY OF JURISDICTIONAL FINDINGS

The Project site consists of one man-made drainage that contains both riparian and upland vegetation. These areas are 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. As the project involves the replacement of the entire portion of the channel with cement, this delineation considers all impacts to be permanent with no temporary impacts identified. 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	Temporary Impact (Acres)	Temporary Impact (Square Feet)	Permanent Impact (Acres)	Permanent Impact (Square Feet)
USACE Jurisdiction Total	N/A	N/A	0.69	30,011
<i>Total Non-Wetland Waters of the US</i>	N/A	N/A	0.69	30,011
<i>Total Wetland Waters of the US</i>	N/A	N/A	0	0
RWQCB Jurisdiction Total	N/A	N/A	0.69	30,011
<i>Total Non-Wetland Waters of the State</i>	N/A	N/A	0.04	1,697
<i>Total Wetland Waters of the State</i>	N/A	N/A	0.65	28,314
CDFW Jurisdiction Total	N/A	N/A	1.80	78,316
<i>Total Non-Wetland Waters</i>	N/A	N/A	1.15	50,002
<i>Total Wetland Waters</i>	N/A	N/A	0.65	28,314
<i>MSHCP Riparian</i>	N/A	N/A	0.65	28,314

4.7.1 Potential USACE Jurisdiction

The USACE asserts jurisdiction over the San Jacinto River as a Traditionally Navigable Water (TNW). Therefore, USACE will likely take jurisdiction over the Cherry Channel. The site contains two of the three wetland parameters; however, the lack of hydric soils indicates that no jurisdictional wetlands under the

jurisdiction of the USACE are present within the Project limits. For individual impacts, refer to Table 1. Total USACE jurisdictional acreage for the Project, as defined by the OHWMs, amounts to 0.69 acre of permanent impacts. A Clean Water Act (CWA) Section 404 Permit will be required for this Project.

4.7.2 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. A total of 0.04 acre of non-wetland waters of the State and 0.65 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 surface waterbody features within the Project site. Therefore, a 401 Water Quality Certification will be required from the RWQCB for this Project.

4.7.3 Potential CDFW jurisdiction

There are 0.65 acre that have wetland vegetation and 0.04 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. Cherry Channel provides surface waters when water is present and would be considered State waters.

Due to the presence of the irrigational system, both hydrophytic vegetation and evidence of hydrology are present within this area; therefore, this area is considered a wetland. While direct impacts to wetland vegetation will occur as a result of Project activities, this area is routinely maintained throughout the year and all of the wetland vegetation is removed. Project activities involve the placement of cement throughout the entire channel and banks, which will result in the removal of the irrigational system and the channel will no longer support hydrophytic vegetation. Therefore, a Streambed Alteration Agreement (SAA) is likely to be required from CDFW for this Project.

4.7.4 MSHCP Riparian

A total of 0.69 acre of vegetated streambed was mapped within the Project impact area. The Channel does support native riparian vegetation throughout the northern portion of the Channel. However, as stated previously, the riparian vegetation is regularly maintained by the City and is considered early successional, lacking the mature forest and canopy required by the riparian species listed in Section 6.1.2 of the MSHCP. Therefore, the vegetated streambed does not meet the MSHCP definition of Riverine as it cannot support the covered species within the site. While a portion of the site does contain habitat dominated by emergent trees, shrubs, and forbs, which occur close to or which depend upon soil moisture from a nearby fresh water source, this area is supported solely by the presence of the sprinkler system and would not exist without it. Additionally, the drainage has no direct connectivity to downstream MSHCP Conservation areas, thus does not contribute to the biological functions and values of downstream habitat for covered species within the MSHCP Conservation Area. Additionally, species listed in Section 6.1.2 of the MSHCP are not present and are not expected to occur within the Project area. For these reasons, the City, as a Permittee to the MSHCP, has determined that a Determination of Biologically Equivalent or Superior Preservation (DBESP) is not warranted for this Project.

SECTION 5.0 – REFERENCES

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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 land 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 – ORDINARY HIGH WATERMARK DATA SHEET



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 #: 21492 Site Name: Cherry Channel Drainage Date and Time: 7-25-24 / 0900

Location (lat/long): 33.948971N, 116.964147W Investigator(s): Heather E. Austin B.

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

- | | | |
|---|---|---|
| <input type="checkbox"/> gage data | <input type="checkbox"/> LiDAR | <input type="checkbox"/> geologic maps |
| <input type="checkbox"/> climatic data | <input checked="" type="checkbox"/> satellite imagery | <input checked="" type="checkbox"/> land use maps |
| <input checked="" type="checkbox"/> aerial photos | <input checked="" type="checkbox"/> topographic maps | <input type="checkbox"/> Other: _____ |

Describe land use and flow conditions from online resources.

Were there any recent extreme events (floods or drought)?
NO extreme events. Man made v-ditch with geo-mat lining. Looks to facilitate runoff and nuisance water from surrounding neighborhood.

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.

Man-made trapezoidal channel, geo-mat lined, with some rip-rap, and sprinklers lined on both sides (top and bottom).

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

- | | |
|---|---|
| <input checked="" type="checkbox"/> Break in slope: | <input type="checkbox"/> Channel bar: |
| <input checked="" type="checkbox"/> on the bank: <u>Top of bank where geo-mat begins as well as sprinklers.</u> | <input type="checkbox"/> shelving (berms) on bar: |
| <input type="checkbox"/> undercut bank: | <input type="checkbox"/> unvegetated: |
| <input checked="" type="checkbox"/> valley bottom: <u>flattens and veg change</u> | <input type="checkbox"/> vegetation transition (go to veg. indicators) |
| <input type="checkbox"/> Other: _____ | <input type="checkbox"/> sediment transition (go to sed. indicators) |
| <input type="checkbox"/> Shelving: | <input type="checkbox"/> upper limit of deposition on bar: |
| <input type="checkbox"/> shelf at top of bank: | <input type="checkbox"/> Instream bedforms and other bedload transport evidence: |
| <input type="checkbox"/> natural levee: | <input type="checkbox"/> deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.) |
| <input type="checkbox"/> man-made berms or levees: | <input type="checkbox"/> bedforms (e.g., poofs, riffles, steps, etc.): |
| <input type="checkbox"/> other berms: _____ | |

☐ erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)

☐ Secondary channels:

Sediment indicators

- ☐ Soil development:
- ☐ Changes in character of soil:
- ☐ Mudcracks:
- ☐ 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:
- 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.**
- | | |
|--|---|
| <input type="checkbox"/> vegetation absent to: | <input checked="" type="checkbox"/> forbs to: <u>above OHWM and at OHWM.</u> |
| <input type="checkbox"/> moss to: | <input checked="" type="checkbox"/> graminoids to: <u>At and below OHWM.</u> |
| | <input type="checkbox"/> woody shrubs to: |
| | <input checked="" type="checkbox"/> deciduous trees to: <u>Below OHWM willows</u> |
| | <input type="checkbox"/> coniferous trees to: |
| | <input checked="" type="checkbox"/> Vegetation matted down and/or bent: <u>Some dead veg.</u> |

☐ Exposed roots below intact soil layer:

Ancillary indicators

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

Other observed indicators? Describe:

located in middle of channel bent downward, showing flow goes north to south.

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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

Vegetation change shows where the OTUW occurs. Cut in bank and vegetation that was matted down are also indicators

Additional observations or notes

Additional observations or notes

Where water was present at the bottom of the channel wetland vegetation was present. Channel also is being fed water from sprinkler system and nuisance water from surrounding neighborhood.

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.

[illegible]

APPENDIX C – SITE PHOTOGRAPHS



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Photo 1.

Overview photo of Cherry Channel drainage from the north end. The northern half of the drainage is dominated by young Goodding's Willow Riparian habitat. Photo is facing south.



Photo 2.

Overview photo of Cherry Channel drainage from the middle of the Project site. Disturbed Goodding's Willow Riparian habitat begins to transition into cattail marsh habitat. Photo is facing south.



Photo 3.

Cattail marsh habitat with Ruderal vegetation lining the slopes located near the middle of the drainage. Photo is facing southwest.



Photo 4.

Section on the southern half of the drainage that is dominated by Disturbed Wild Tarragon habitat. Slopes of the drainage are Ruderal with scattered natives including horseweed and California buckwheat. Photo is facing north.



Photo 5.

Overview of the southern portion of the drainage. This area is dominated with Ruderal vegetation. Ornamental vegetation lines the outsides of the channel. Photo is facing north.



Photo 6.

Overview photo of the parking lot located east of the drainage. More Ruderal vegetation is located on both sides of the Parking lot. Photo is facing southwest.



Photo 7.

Overview of the open space located along the SCE power lines. This area has a low potential for BUOW. Soils look freshly tilled/mowed. Photo is facing east.



Photo 8.

Overview photo of the natural drainage (Potrero Creek) located south, outside of the Project site boundary. This drainage leads to San Jacinto River which is a NWI mapped waterway. Photo is facing southwest.

APPENDIX D – PLANT SPECIES OBSERVED



APPENDIX D – PLANT SPECIES OBSERVED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
SALICACEAE	WILLOW FAMILY
<i>Populus fremontii</i> subsp. <i>fremontii</i>	fremont cottonwood
<i>Salix gooddingii</i>	black willow
<i>Salix exigua</i>	narrow-leaved willow
<i>Salix laevigata</i>	red willow
<i>Salix lasiolepis</i>	arroyo willow
EUPHORBIACEAE	SPURGE FAMILY
<i>Croton setiger</i>	turkey-mullein
<i>Chamaesyce maculata</i> *	spotted spurge
ASTERACEAE	SUNFLOWER FAMILY
<i>Cirsium vulgare</i> *	bull thistle
<i>Erigeron bonariensis</i> *	flax-leaved horseweed
<i>Baccharis salicifolia</i> subsp. <i>salicifolia</i>	mule fat
<i>Erigeron canadensis</i>	horseweed
<i>Stephanomeria pauciflora</i>	wire lettuce
<i>Heterotheca grandiflora</i>	telegraph weed
<i>Artemisia dracunculus</i>	tarragon
<i>Isocoma menziesii</i>	coast goldenbush
PLANTAGINACEAE	PLANTAIN FAMILY
<i>Veronica anagallis-aquatica</i> *	water speedwell
SOLANACEAE	NIGHTSHADE FAMILY
<i>Datura wrightii</i>	jimson weed
<i>Solanum americanum</i>	small-flowered nightshade
CHENOPODIACEAE	GOOSEFOOT FAMILY
<i>Salsola australis</i> *	Russian-thistle
ONAGRACEAE	EVENING PRIMROSE FAMILY
<i>Epilobium brachycarpum</i>	parched fireweed
<i>Epilobium ciliatum</i> subsp. <i>ciliatum</i>	epilobium cilatum
POLYGONACEAE	BUCKWHEAT FAMILY
<i>Polygonum arenastrum</i> *	common knotweed
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Rumex crispus</i> *	curly dock
<i>Persicaria hydropiperoides</i>	water pepper
APOCYNACEAE	DOGBANE FAMILY
<i>Trachelospermum jasminoides</i> *	star jasmine
TAMARICACEAE	TAMARISK FAMILY
<i>Tamarix chinensis</i> *	tamarisk
PITTOSPORACEAE	TOBIRA FAMILY

<i>Pittosporum sp.</i>	pittosporum
OLEACEAE	OLIVE FAMILY
<i>Ligustrum japonicum</i> *	Japanese privet
BRASSICACEAE	MUSTARD FAMILY
<i>Hirschfeldia incana</i> *	shortpod mustard
ANACARDIACEAE	SUMAC OR CASHEW FAMILY
<i>Schinus molle</i> *	Peruvian pepper tree
AMARANTHACEAE	AMARANTH FAMILY
<i>Amaranthus albus</i> *	tumbling pigweed
FABACEAE	LEGUME FAMILY
<i>Melilotus albus</i> *	white sweetclover
<i>Melilotus indicus</i> *	sourclover
<i>Vicia sp.</i>	vetch
PORTULACACEAE	PURSLANE FAMILY
ZYGOPHYLLACEAE	CALTROP FAMILY
<i>Tribulus terrestris</i> *	puncture vine
ANGIOSPERMS (MONOCOTS)	
TYPHACEAE	CATTAIL FAMILY
<i>Typha sp.</i>	cattail
ARECACEAE	PALM FAMILY
<i>Washingtonia robusta</i> *	Mexican fan palm
CYPERACEAE	SEDGE FAMILY
<i>Cyperus eragrostis</i>	tall cyperus
<i>Cyperus sp.</i>	sedge
POACEAE	GRASS FAMILY
<i>Bromus tectorum</i> *	cheat grass
<i>Echinochloa crus-galli</i> *	barnyard grass
<i>Bromus diandrus</i> *	ripgut grass
<i>Leptochloa fusca subsp. uninervia</i>	Mexican sprangletop
<i>Polypogon monspeliensis</i> *	annual beard grass
<i>Avena fatua</i> *	wild oat

*Non-Native Species