Appendix C3 -DBESP Report

ROCKS
BIOLOGICAL CONSULTING



BEAUMONT SUMMIT STATION
PROJECT DBESP REPORT

Riverside County, California

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1 EXECUTIVE SUMMARY

Kimley-Horn (project applicant) retained Rocks Biological Consulting (RBC) to prepare a Determination of Biologically Equivalent or Superior Preservation (DBESP) Report for the 191-acre Beaumont Summit Station Project (project or proposed project) in the city of Beaumont, Riverside County, California. RBC prepared this DBESP Report in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (Western Riverside County Regional Conservation Authority [RCA] 2003) for the proposed project.

The project site is not located within a Cellgroup or Criteria Area. As such, the project is not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) processes. The project site is located within the Narrow Endemic Plant Species Survey Area (NEPSSA) for Marvin's onion (*Allium marvinii*) and multi-stemmed dudleya (*Dudleya multicaulis*), as well as the MSHCP Burrowing Owl Survey Area. A habitat assessment and focused surveys for both Marvin's onion and many-stemmed dudleya were conducted the spring of 2021; no suitable habitat for these species was observed within the project site, and no occurrences of either species was observed. Focused breeding season surveys for burrowing owl were also conducted for the project in accordance with the MSHCP Burrowing Owl Survey Instructions (RCA 2005). The the project site has moderate potential to support burrowing owl; however, no burrowing owl(s) or burrowing owl sign were observed on site during protocol surveys.

Approximately 8.48 acres of MSHCP riparian/riverine areas occur within the 191-acre project boundary (or project site), 2.41 acres of which fall within the project impact area and will be permanently and directly impacted by the proposed project. The riparian/riverine areas within the project boundary have moderate potential to support least Bell's vireo (*Vireo bellii pusillus*) and very low to no potential to support the riparian bird species southwestern willow flycatcher (*Empidonax traillii extimus*) and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). An individual male least Bell's vireo was observed during protocol surveys, outside of the project impact area. No suitable vernal pool habitat that could support Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), Riverside fairy shrimp (*Streptocephalus woottoni*), or vernal pool fairy shrimp (*Branchinecta lynchi*) occur within the project site. The project site is not located within the Criteria Area Species Survey Areas (CASSA), Mammal, Invertebrate, or Amphibian Survey Areas.

The project applicant proposes offsetting impacts on 2.41 acres of MSHCP riparian/riverine resources through the purchase of 4.82 acres/credits (a 2:1 mitigation ratio) from the Riverpark Mitigation Bank located within the San Jacinto watershed.

2 INTRODUCTION

2.1 PROJECT AREA

The approximately 191-acre proposed project is located south of Cherry Valley Boulevard, north of Brookside Avenue, and east of Interstate 10 (I-10; Figure 1). The current zoning for the project site is Specific Plan. All proposed changes associated with the project are located within areas previously annexed to the City of Beaumont by Local Agency Formation Commission (LAFCO). The review area is bounded by undeveloped land to the north and west, rural residences with livestock pens to the east, and residential development to the south. The latitude and longitude of the approximate center of the review area is 33.965141, -117.019732. The review area sits on Township 2 South, Range 1 West, and Section 30 within the El Casco 7.5-minute quadrangle, as mapped by the U.S. Geological Survey (USGS; Figure 2). The following Assessor Parcel Numbers (APNs) are associated with the project site: 407-230-22, -23, -24, -25, -26, -27, -28, 407-190-016, and 407-190-017.

The project is within the Santa Ana Hydrologic Unit Code (HUC) 8 (18070203), San Timoteo Wash HUC 10 (1807020304), and San Timoteo Canyon-San Timoteo Wash HUC 12 (180702030403) watersheds (Figure 3). In addition to the watersheds defined by the USGS and commonly used by the Corps, the RWQCB also defines watershed boundaries by Hydrologic Units (HUs). The majority of the project site is within the Santa Ana Basin, the Santa Ana River HU, and the Beaumont Hydrologic Subarea (Santa Ana Regional Water Quality Control Board [SARWQCB] 1986; SARWQCB 2019).

The proposed project site is within the MSHCP Plan Area but not located within a Cellgroup or Criteria Area. The project is identified as occurring within the NEPSSA for Marvin's onion and many-stemmed dudleya, as well as the MSHCP Survey Area for burrowing owl.

2.2 PROJECT DESCRIPTION

The proposed project includes a General Plan Amendment, Specific Plan Amendment, Tentative Parcel Map, Plot Plan Approval, and a Development Agreement. The proposed project is divided into five parcels with Parcels 1, 2, and 3 (Specific Plan Planning Area 1) designated for e-commerce uses with supporting office. Parcel 4 (Specific Plan Planning Area 2) would include the development of up to 150,000 square feet of commercial uses. Parcel 5 (Specific Plan Planning Area 3) would remain as open space. The project proposes to amend the existing General Plan to allow for these uses on the 191-acre project. The proposed project will impact only approximately 156 acres within proposed project boundary.

2.3 EXISTING CONDITIONS

Elevations on site range from approximately 2,400 to 2,600 above mean sea level (amsl). Seven soil types occur on site varying in percent slopes (Figure 4). The project site is composed of nine parcels that support several upland and riparian vegetation communities (Figure 5). The flat areas of the project site are primarily dominated non-native grassland and developed habitats. The

drainage features within the project site are composed primarily of non-native grassland, mulefat scrub, and non-native riparian (Figure 6).

Surrounding land uses include open space, agriculture, and residential development. The non-native grassland in the northern and southern portions of the project appear to be regularly disked.

2.3.1 VEGETATION COMMUNITIES

The project site supports ten vegetation communities and other land covers, as classified in accordance with *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and consistent with the MSHCP vegetation mapping classification (Table 1). Vegetation within the project site is predominantly comprised of non-native grassland.

Table 1. Vegetation Communities within Project Boundary

Vegetation Community/Land Use	Project Site (acres)[1]
Upland	
Chamise Chaparral	>0.01
Developed	48.70
Disturbed	1.50
Eucalyptus Woodland	0.12
Non-native Grassland	134.54
Riversidean Sage Scrub	0.24
Torrey's Scrub Oak Stands	1.10
Riparian	
Blue Elderberry Stands	0.30
Mulefat Scrub	2.14
Non-native Riparian	2.32
Total	**190.991**

[1]Acreages summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.

Chamise Chapparal

This chaparral vegetation community (>0.01 acre) is overwhelmingly dominated by chamise (*Adenostoma fasciculatum*). Within the project site, the chamise chaparral contains some individuals of California buckwheat (*Eriogonum fasciculatum*) and it occurs along the northwestern project boundary. Chamise chaparral continues as patches within non-native grassland west of the project.

Developed

Developed land (48.70 acres) within the project site does not support native vegetation and includes human-made structures. Within the project site, developed habitat includes the buildings and paved surfaces associated with the former agricultural operations.

Disturbed

Disturbed land (1.50 acres) is typically classified as land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed Riversidean sage scrub). Disturbed habitat is typically found in vacant lots, along roadsides, within construction staging areas, and in abandoned fields. The habitat is typically dominated by non-native annual species and perennial broadleaf species. Disturbed habitat on the project site occurs within the gravel driveways and staging areas that support the sparse growth of non-native grasses and forbaceous species. A few Mexican fan palms (*Washingtonia robusta*) also occur within the driveway near the eastern entrance to the project site off Cherry Valley Boulevard.

Eucalyptus Woodland

The Eucalyptus woodland (*Eucalyptus* spp.) habitat (0.12 acre) ranges from single-species thickets with little or no shrubby understory to scattered trees over a well-developed herbaceous and shrubby understory. In most cases, eucalyptus forms a dense stand with a closed canopy. Eucalyptus species produces a large amount of leaf and bark litter, the chemical and physical characteristics of which limit the ability of other species to grow in the understory, decreasing floristic diversity. A large stand of eucalyptus woodland occurs west of the project site towards I-10; the eastern extent of the large stand occurs along the western border of the project site.

Non-native Grassland

The non-native grassland within the project site (134.54 acres) is dominated by ripgut grass (*Bromus diandrus*) but also contains occurrences of other non-native grass and forbaceous species such as red brome (*B. rubens*), Mediterranean barley (*Hordeum marinum*), and short-pod mustard (*Hirschfeldia incana*). Rigid fiddleneck (*Amsinckia menziesii*) was observed within the non-native grassland habitat growing out of the topographical depressions in the western portion of project site. The project site is frequently mowed and had been grazed in the past using cattle, keeping non-native grasses and ruderal species fairly low to the ground. Non- native grassland occurs throughout much of the project site.

Riversidean Sage Scrub

Riversidean sage scrub (0.24 acre) is a form of coastal sage scrub found in Riverside County consisting of low, soft shrubs. The project site supports small patches of Riversidean sage scrub that are dominated by California sagebrush (*Artemisia californica*) and California buckwheat and contain non-native grasses between shrubs. Riversidean sage scrub is found in the southwestern portion of the project site and off-site along the southern project boundary.

Torrey's Scrub Oak Stands

Mature individuals of Torrey's scrub oak (*Quercus x acutidens*) form distinct stands (1.10 acres) occurring along the upper banks of canyons and drainages within the western portion of the project. Torrey's scrub oak is a small oak tree and on-site Torrey's scrub oak do not exceed 25 feet in height. Non-native grasses occur as the understory between individual trees. The stands of Torrey's scrub oak within the project site do not represent a specific vegetation community (e.g., scrub oak chaparral), but are a monotypic stand of trees that are functionally distinct from the surrounding non-native grassland habitat.

Blue Elderberry Stands

Individual stands of blue elderberry (*Sambucus nigra* ssp. *caerulea*) occur within the project site (0.30 acre). Blue elderberry is a tall woody shrub that can grow up to 25 feet tall. The blue elderberry trees within the project site do not represent a specific vegetation community, rather a monotypic stand of trees that are functionally distinct from the surrounding non-native grassland habitat. Blue elderberry is not a hydrophytic, or wetland-exclusive, plant species; it can be found growing in both upland and riparian habitats. However, this stand of trees is included in the riparian community discussion for the purposes of this analysis due to its location exclusively within the drainages in the project site.

Mulefat Scrub

Mulefat scrub (2.14 acres) consists of mulefat (*Baccharis salicifolia*) as the dominant or co-dominant species within a continuous shrub canopy or thicket. A few isolated, individual willows (*Salix* spp.) also occur within the continuous mulefat scrub. The herbaceous layer is typically sparse. The mulefat scrub within the project site is approximately 10-15 feet in height and co-occurs with the blue elderberry stands and non-native riparian vegetation within the canyons and drainages in the southwest.

Non-native Riparian

This habitat includes densely vegetated riparian thickets dominated by non-native, invasive species. Within the project site, non-native riparian habitat (2.32 acres) consists of a monotypic stands of tree of heaven (*Ailanthus altissima*), occurring within the drainages in the southwestern portion of the project. Tree of heaven are large trees with some individuals exceeding 30 feet in height. Virtually no understory occurs within the stands of tree of heaven that occur within the project site.

2.3.2 SOILS

Based on the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) map of the project area, seven soil map units, outlined below, occur within the project site boundary (Figure 4). The National Technical Committee for Hydric Soils defines hydric soils; *Changes in Hydric Soils Database Selection Criteria* (77 Federal Register 12234) outlines the current four hydric soil criteria. None of the soils present on site are classified as hydric soils. The

soils are described below per the USDA's *Official Soil Description and Series Classification* database (NRCS 2018) and the USDA's *Soil Survey of Wester Riverside Area, California* (1971).

Greenfield sandy loam, 2 to 8 percent slopes, eroded – The Greenfield series consists of deep, well-drained soils that formed in moderately coarse and coarse alluvium derived from granitic rock and other mixed rock sources. Greenfield soils have slow to medium runoff, moderately rapid permeability, and slopes ranging from 0 to 30 percent. These soils occur on alluvial fans and terraces at elevations of 100 to 3,500 feet amsl. Greenfield soil is used for production of field, forage, and fruit crops and also for growing grain and pasture. Uncultivated areas consist of annual grasses, forbs, some shrubs, and some oak trees. The NRCS does not list Greenfield sandy loam, 2 to 8 percent slopes, eroded, which occurs on site, as hydric.

Greenfield sandy loam, 8 to 15 percent slopes, eroded – The Greenfield series consists of deep, well-drained soils that formed in moderately coarse and coarse alluvium derived from granitic rock and other mixed rock sources. Greenfield soils have slow to medium runoff, moderately rapid permeability, and slopes ranging from 0 to 30 percent. These soils occur on alluvial fans and terraces at elevations of 100 to 3,500 feet amsl. Greenfield soil is used for production of field, forage, and fruit crops and also for growing grain and pasture. Uncultivated areas consist of annual grasses, forbs, some shrubs, and some oak trees. The NRCS does not list Greenfield sandy loam, 8 to 15 percent slopes, eroded, which occurs on site, as hydric.

Ramona sandy loam, 2 to 5 percent slopes, eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 2 to 5 percent slopes, eroded, which occurs on site, as hydric.

Ramona sandy loam, deep, 5 to 8 percent slopes, eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 5 to 8 percent slopes, eroded, which occurs on site, as hydric.

Ramona sandy loam, 8 to 15 percent slopes, severely eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 8 to 15 percent slopes, severely eroded, which occurs on site, as hydric.

Ramona sandy loam, deep, 15 to 25 percent slopes, severely eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 15 to 25 percent slopes, severely eroded, which occurs on site, as hydric.

Terrace escarpments – Terrace escarpments consist of variable alluvium on terraces or gullies derived from granite, gabbro, metamorphosed sandstone, sandstone, or mica-schist. Slopes range from 30 to 75 percent. Vegetation is sparse and includes annual grasses, salvia (*Salvia* sp.), California buckwheat, and chamise. Areas of terrace escarpments are used primarily for watershed and as wildlife habitat. The NRCS does not list terrace escarpments, which occurs on site, as hydric.

3 RIPARIAN/RIVERINE MITIGATION (MSHCP SECTION 6.1.2)

3.1 METHODS

All projects within the MSHCP Plan Area require an evaluation of potential impacts on riparian/riverine areas and vernal pools, as those terms are defined in the MSHCP, and the protected species associated with those habitats.

On April 22 and May 12, 2021, RBC biologists surveyed the project site and conducted vegetation mapping, a general biological survey, and habitat assessments for special-status plant and wildlife species, including species associated with MSHCP survey areas and MSHCP riparian/riverine areas and vernal pool habitats. RBC used binoculars (10 x 42) to aid in the observation of biological resources during biological surveys. Plants were identified using the Jepson Manual 2nd edition (Baldwin et al. 2012) and local botanical knowledge. Vegetation community boundaries were delineated at a 1:2400 scale (1 inch = 200 feet) aerial photograph following Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). RBC completed the *Beaumont Summit Station Biological Resources and MSHCP Consistency Report* in December 2021 (Rocks 2021).

RBC Regulatory Specialists Sarah Krejca and Chelsea Polevy conducted an initial jurisdictional assessment on April 22, 2021, followed by a formal aquatic resources delineation on June 3, 2021, to confirm the presence and extent of potentially jurisdictional aquatic resources and MSHCP riparian/riverine areas. RBC regulatory specialist Sarah Krejca and Shanti Santulli conducted an additional aquatic resources delineation field visit on June 7, 2021. RBC completed the *Beaumont Summit Station Project Aquatic Resources Delineation Report* in November 2021 (ARDR; Appendix A). Figure 6 shows the results of the formal jurisdictional delineation.

During the RBC's jurisdictional delineation field visit on April 22, 2021, June 3, 2021, and June 7, 2021, RBC evaluated all areas with depressions, drainage patterns, and/or wetland vegetation within the ARDR review area (including the project boundary and a 50-foot buffer; Figure 6) for potential jurisdictional status, with a focus on the presence of defined channels and/or wetland vegetation, soils, and hydrology. Details regarding methods used to delineate U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and California Department Fish and Wildlife (CDFW) jurisdictional boundaries are included in the project's ARDR (Appendix A).

While in the field, potentially jurisdictional features were recorded using a hand-held Global Positioning System (GPS) unit with a level of accuracy ranging from eight to 24 feet. RBC staff refined the data using aerial photographs and topographic maps to ensure accuracy.

RBC also conducted protocol surveys for Least Bell's Vireo in accordance with the U.S. Fish and Wildlife Service (USFWS) Least Bell's Vireo Survey Guidelines (USFWS 2001), based on the results of the habitat assessments. The survey included all suitable Least Bell's Vireo riparian habitat in the the project site, as well as a 500-foot buffer surrounding the project site. Surveys were completed between April 22, 2021 and July 16, 2021.

3.2 RESULTS/IMPACTS

3.2.1 DIRECT IMPACTS

Direct impacts are those that involve the loss, modification, or disturbance of natural resources or habitats (i.e., vegetative communities or substrate) that in turn, directly affect plant and wildlife species that depend on that habitat. Direct impacts include the destruction of individual plants or wildlife of low mobility (i.e., plants, amphibian, reptiles, and small mammals). The project boundary contains approximately 8.48 acres of MSHCP riparian/riverine areas, as defined by Section 6.1.2 of the MSHCP, of which, 2.41 acres will be directly impacted by construction; approximately 6.07 acres of MSHCP riparian/riverine areas will be avoided on site as discussed further below (Table 2; Figure 7). The on-site MSHCP riparian/riverine areas conicide with CDFW-jurisdictional vegetated streambed and associated riparian habitat.

Non-Wetland Water (NWW)-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 (Figure 6) meet the MSHCP definition of riparian/riverine areas as they contain freshwater flow during "a portion of the year," specifically after rain events (RCA 2003). Based on the field observations in April and June 2021, the on-site drainages and associated tributaries are expected to convey ephemeral flows (i.e., only in direct response to precipitation). NWW-3 also receives runoff from development south of the review area that is collected and conveyed on site through a culverted storm drain outlet. Note that the drainages and associated tributaries also previously received runoff from the former on-site agricultural operations (poultry and livestock farm) and are highly incised and disturbed. Based on field observations and a review of Google Earth aerial imagery (Google Earth Pro 2021), USGS National Hydrography Dataset (NHD) data (USGS 2020), and USFWS National Wetlands Inventory data (USFWS 2019), flows from NWW-1, NWW-2, and NWW-3 likely continue off site and downstream, flowing into a feature mapped by the USGS NHD as an ephemeral stream that continues for approximately 4 miles until transitioning to an unnamed tributary for approximately 7.5 miles, then connecting with the San Timoteo Wash. The San Timoteo Wash then continues for approximately 6.6 miles before outletting into the Santa Ana River, which ultimately discharges into the Pacific Ocean (USGS 2020).

Additionally, NWW-2A, NWW-3, NWW-3A, and NWW-3B support riparian habitat dominated by trees or shrubs "which occur close to or which depend upon soil moisture from a nearby fresh water source" (RCA 2003). Specifically, NWW-2A, NWW-3, and NWW-3B support mulefat scrub; NWW-3 supports non-native riparian habitat that is dominated by the invasive tree-of-heaven; and NWW-3 and NWW-3A support blue elderberry stands (Figure 6). Therefore, the features which are described as CDFW-jurisdictional riparian habitat meet the definition of MSHCP riparian habitat.

Additionally, the mulefat scrub within and adjacent to NWW-3 and NWW-3B provide suitable habitat for least Bell's vireo, an MSHCP riparian/riverine wildlife species. An individual male least Bell's vireo was observed during the first two of eight protocol surveys foraging and moving frequently along the mulefat canopy of NWW-3. The lack of observations following the first two least Bell's vireo surveys suggests that this bird was an early season migrant that did not establish a nesting territory within the project area. No female vireo or active nests were detected during

protocol surveys. The riparian/riverine features within the project site do not, however, support suitable habitat for southwestern willow flycatcher, or western yellow-billed cuckoo; these species prefer dense native riparian woodlands and forests which are absent from the project site. Therefore, there is very low to no potential for southwestern willow flycatcher or western yellow-billed cuckoo to occur within the project site, and no focused surveys for these species were conducted.

The proposed project will result in permanent, direct impacts on NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3B, NWW-3B1, and a small portion of NWW-3A. The project applicant designed the proposed project to avoid impacts on NWW-3, the primary and highest quality riparian/riverine resource within the project boundary, as well as a majority of NWW-3A (a tributary of NWW-3), as detailed in Table 2 and shown in Figure 7.

Several basins, swales, erosional features, and an abandoned ditch also occur within the project impact footprint. These features were determined to be non-jurisdictional by the Corps, RWQCB, and CDFW (Appendix A, Section 6.4); they also do not meet the MSHCP definition of a riparian/riverine feature as they did not appear to convey or receive flows and therefore do not receive "freshwater flow during all or a portion of the year" (RCA 2003). Additionally, these non-jurisdictional features, dominated by non-native grassland vegetation, do not "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 fresh water source" (RCA 2003). A 0.67-acre area of isolated, non-native riparian habitat located south of NWW-3 and the small areas of mulefat scrub located south and east of NWW-3B, totalling 0.38 acre, (Figure 7), also do not receive "freshwater flow during all or a portion of the year" as they are not located within or directly adjacent to a drainage (RCA 2003). Additionally, these areas are dominated by tree-of-heaven (Facultative Upland [FACU]) and mulefat (Facultative [FAC]), respectively, which are not trees or shrubs that "depend upon soil moisture from a nearby fresh water source" (RCA 2003). Therefore, these areas do not fit the MSHCP definition of a riparian/riverine area.

No areas within the project site meet the MSHCP definition of a vernal pool. The basins observed on site are abandoned, manmade settling basins (described as Basin (B-)1 through B-5 per the project ARDR [Appendix A, Section 6.4 and Figures 5A-5C]). Obligate (OBL) hydrophytes and FAC wetland plant species do not dominate these basins during the wet season based on field surveys, the known history of the project site, and a review of historic aerial imagery. Specifically, no OBL hydrophytes were observed within the basins during the April 22, 2021 field survey. Although a few mulefat (FAC) and tree tobacco (*Nicotiana glauca*; FAC) were observed within several of the basins, the vegetation was dominated by non-native grasses. Additionally, sometime between 1976 and 1996, a former poultry farm began developing B-1 through B-5 for use as settling basins to hold manure from chickens, pigs, and cattle, a use that would not support establishment of vernal pools (See Appendix C of Appendix A). Based on the USDA NRCS, the basins are dominated by Ramona sandy loam, 5 to 8 percent slopes, eroded; terrace escarpments; and Ramona sandy loam, 2 to 5 percent slopes, eroded (Appendix A; Figure 4), soils that are not indicative of a vernal pool. RBC sampled soils within B-4 within an area exhibiting cracked soils and no hydric soil parameters (Appendix A) during the formal aquatic resources delineation on June 7, 2021, which

was representative of the conditions within B-1, B-2, B-3, and B-5. The ARDR provides additional details regarding these non-jurisdictional features (Appendix A; Section 6.4).

As detailed below in Table 2 and shown in Figure 7, the proposed project will directly impact 2.41 acres of riparian/riverine habitat.

Table 2. Direct Impacts on Riparian/Riverine Habitat

Feature Name	Aquatic Resource Type	Acreage within Project Boundary	Direct Impact Acreage
NWW-1	Vegetated Streambed	0.02	0.02
NWW-1A	Vegetated Streambed	0.03	0.03
NWW-2	Vegetated Streambed	0.71	0.71
NWW-2A	Vegetated Streambed	<0.01	<0.01
	Riparian Habitat	0.03	0.03
NWW-2B	Vegetated Streambed	0.08	0.08
NWW-2C	Vegetated Streambed	0.07	0.07
NWW-3	Vegetated Streambed	4.36	0.00
	Riparian Habitat	0.72	0.00
NWW-3A	Vegetated Streambed	1.01	0.06
	Riparian Habitat	0.01	0.00
NWW-3B	Vegetated Streambed	1.04	1.00
	Riparian Habitat	0.21	0.21
NWW-3B1	Vegetated Streambed	0.18	0.18
Total		**8.48**	**2.41**

3.2.2 INDIRECT IMPACTS

Indirect impacts are considered to be those impacts associated with the project that involve the effects of alteration of the existing habitat and an increase in human population and or land use within the project site. These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to the project site.

Indirect impacts include the effects of increases in ambient levels of sensory stimuli (e.g., noise and light), unnatural predators (e.g., domestic cats and other non-native animals), competitors (e.g., exotic plants and non-native animals), and trampling and unauthorized recreational use due to the increase in human population. Other permanent indirect effects may occur that are related to water quality and storm water management, including trash/debris, toxic materials, and dust.

The project site is not located in proximity to any MSHCP Conservation Areas. Adjacent lands include residential development to the south, I-10 to the southwest, rural residences with livestock pens to the east, and undeveloped land to the north and west.

Final project design and construction will incorporate best management practices (BMPs) to reduce and/or eliminate indirect effects on MSHCP riparian/riverine resources as required for California Environmental Quality Act (CEQA) compliance per the *Beaumont Summit Station Specific Plan Administrative Draft Environmental Impact Report* (City of Beaumont 2021). Construction water quality BMPs will be required to control and prevent discharges of pollutants that can adversely impact the downstream surface water quality. Furthermore, the proposed project will treat on-site runoff with Modular Wetland System (MWS) vaults. Post-construction on-site flows would be directed towards the MWS vaults for treatment and removal of pollutants, then into a proposed underground detention system, and ultimately discharged into the ephemeral stream to the west of the project site (i.e., the downstream portion of NWW-3). Discharged flows would not exceed pre-project flows per CEQA requirements.

Additionally, if least Bell's vireo nesting is discovered, either during protocol surveys, monthly presence/absence surveys, or incidentally, noise level from project activities shall not to exceed 65 dBA at the edge of occupied habitat. If this is not possible, a noise barrier shall be constructed to avoid adverse impacts to any least Bell's vireo nest/s. Artificial light shall not be cast into suitable habitat containing active nests when night work occurs.

As such, the proposed project will not result in significant indirect effects on MSHCP riparian/riverine areas including associated species. Furthermore, the Urban/Wildland Interface Guidelines do not apply to the proposed project.

3.3 MITIGATION AND EQUIVALENCY

3.3.1 DIRECT EFFECTS

To meet the criteria of a biologically equivalent or superior alternative, the project applicant proposes offsetting impacts to the 2.41 acres of MSHCP riparian/riverine resources by purchasing 4.82 credits (2:1 mitigation ratio) from the Riverpark Mitigation Bank located within the San Jacinto watershed (Figure 8). The proposed project occurs within the primary service area of the Riverpark Mitigation Bank. Prior to issuance of a grading permit, the project applicant will provide the City of Menifee with purchase confirmation.

The Riverpark Mitigation Bank includes restored and rehabilitated riverine, riparian, and wetland resources along the San Jacinto River. The mitigation bank also includes vernal pools and alkali vegetation, supports several MSHCP-targeted sensitive species, including burrowing owl, Stephens' kangaroo rat (*Dipodomys stephensi*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), spreading navarretia (*Navarretia fossalis*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*).

The 2.41 acres of on-site MSHCP riparian/riverine resources within the project impact area provide minimal aquatic resource functions due to the highly disturbed nature of the property (e.g.,

regularly mowed, grazed, and farmed land) and historic degradation and runoff into the on-site aquatic features from previous on-site farming operations. Furthermore, as stated in , the proposed project was designed to avoid impacts on NWW-3, the primary and highest quality riparian/riverine resource within the project boundary.

The purchase of re-establishment and/or rehabitiation credits and preservation of 4.82 acres of high-quality sensitive resources at the Riverpark Mitigation Bank to offset impacts to 2.41 acres of highly disturbed MSHCP riparian/riverine resources meet the criteria of a biologically equivalent or superior alternative. Additional information and a detailed justification regarding the proposed mitigation will be included in the applicant's forthcoming Notification of Streambed Alteration to CDFW.

3.3.2 INDIRECT EFFECTS

Section 6.1.4 of the MSHCP provides guidelines pertaining to the urban/wildlands interface, which are intended to address indirect effects associated with locating public and private developments in proximity to an MSHCP Conservation Area. The project site is not adjacent to an existing MSHCP Conservation Area; therefore, no mitigation is proposed to occur to offset indirect effects. However, final project design will incorporate the appropriate BMPs to reduce and/or eliminate indirect effects.

4 NARROW ENDEMIC PLANT SPECIES MITIGATION (MSHCP SECTION 6.1.3)

4.1 METHODS

RBC queried the project site against the NEPSSA (Figure 9). The RCA MSHCP Information Map revealed that the project is located within a NEPSSA for Marvin's onion and many-stemmed dudleya (RCA 2021). On April 22 and May 12, 2021, RBC qualified botanists assessed the suitability of habitat within the project site to support MSHCP Narrow Endemic species Marvin's onion and many-stemmed dudleya and surveyed the site for each species. The project site was walked and assessed for the presence of suitable habitat and species. The surrounding 100-foot buffer was surveyed via binoculars for the potential to support special-status floral species.

4.2 RESULTS/IMPACTS

The project site does not contain appropriate soils or suitable habitat for Marvin's onion and many-stemmed dudleya, and therefore the project will not impact Narrow Endemic Plants. The proposed project will be consistent with Volume I, Section 6.1.3 of the MSHCP.

4.3 MITIGATION AND EQUIVALENCY

4.3.1 DIRECT EFFECTS

There will be no unavoidable direct impacts to narrow endemic plant species resulting from the project.

4.3.2 INDIRECT EFFECTS

There will be no unavoidable indirect impacts to narrow endemic plant species resulting from the project.

5 MITIGATION AND EQUIVALENCY (MSHCP SECTION 6.3.2)

5.1 CRITERIA AREA SPECIES SURVEY AREA – PLANTS

5.1.1 METHODS

RBC queried the project site against the CASSA for plant species (Figure 9). The project site is not located within a CASSA for any plant species; therefore, RBC did not conduct surveys for any plant species listed in Section 6.3.2 of the MSHCP.

5.1.2 RESULTS/IMPACTS

The project site is not located within a CASSA for any plant species. The project is consistent with MSHCP Section 6.3.2.

5.1.3 MITIGATION AND EQUIVALENCY

5.1.3.1 Direct Effects

There will be no unavoidable direct impacts to CASSA plant species resulting from the project.

5.1.3.2 Indirect Effects

There will be no unavoidable indirect impacts to CASSA plant species resulting from the project.

5.2 BURROWING OWL

5.2.1 METHODS

The RCA MSHCP Information Map revealed that the project is located within a MSHCP Burrowing Owl Survey Area (RCA 2021; Figure 9). RBC assessed the project site for suitable burrowing owl habitat on April 22, 2021, in accordance with the Western Riverside MSHCP Burrowing Owl Survey Instructions (RCA 2005). As a result, RBC conducted protocol burrowing owl surveys during the breeding season (March 1 to August 31). RBC biologists conducted four surveys between May 12, 2021, and July 6, 2021 (Appendix B). Surveys were not conducted during rain, dense fog, or when high winds were greater than 20 miles per hour.

RBC biologists walked transects spaced 7-20 meters (20-60 feet) apart through suitable burrowing owl habitat within the project site plus a 500-foot buffer. RBC biologists used binoculars (10x42) to scan the survey area for owls, active and potential burrows, and/or sign of owls. RBC examined all suitable burrows for sign, including feathers, pellets, excrement (e.g., scat and whitewash), and prey remains. RBC considered burrows to be active if a burrowing owl was observed at or near the entrance or if evidence of recent sign was present. Biologists documented all suitable burrows in ArcGIS Collector.

5.2.2 RESULTS/IMPACTS

Although the project site has moderate potential to support burrowing owl, no burrowing owl(s) or burrowing owl sign were observed on site during the protocol surveys.

5.2.3 MITIGATION AND EQUIVALENCY

5.2.3.1 Direct Effects

There will be no unavoidable direct impacts to burrowing owl with the project.

5.2.3.2 Indirect Effects

There will be no unavoidable indirect impacts to burrowing with the project.

5.3 MAMMALS

5.3.1 METHODS

RBC queried the project site against Mammal Species Survey Areas (Figure 9). The project site is not located within any Mammal Species Survey Areas; therefore, no surveys were conducted for any mammal species listed in Section 6.3.2 of the MSHCP.

5.3.2 RESULTS/IMPACTS

The project site is not located within a survey area for any MSHCP mammal species. The project is consistent with MSHCP Section 6.3.2.

5.3.3 MITIGATION AND EQUIVALENCY

5.3.3.1 Direct Effects

There will be no unavoidable direct impacts to MSHCP mammal species resulting from the project.

5.3.3.2 Indirect Effects

There will be no unavoidable indirect impacts to MSHCP mammal species resulting from the project.

5.4 AMPHIBIANS

5.4.1 METHODS

RBC queried the project site against Amphibian Species Survey Areas per the MSHCP. The project site is not located within any Amphibian Species Survey Areas; therefore, no surveys for any amphibian species listed in Section 6.3.2 of the MSHCP were conducted for the project.

5.4.2 RESULTS/IMPACTS

The project site is not located within a survey area for any MSHCP amphibian species. The project is consistent with MSHCP Section 6.3.2.

6 DELHI SANDS FLOWER-LOVING FLY

6.1 METHODS

RBC queried the project site against NRCS soils maps for the proposed project (Figure 4). The project site is not located within Delhi soil mapped within the MSHCP baseline data; therefore, no focused surveys for the Delhi Sands flower-loving fly were conducted for the project.

6.2 RESULTS/IMPACTS

The project site is not located within Delhi soil mapped within the MSHCP baseline data.

6.3 MITIGATION AND EQUIVALENCY

6.3.1 DIRECT EFFECTS

There will be no unavoidable direct impacts to Delhi Sands flower-loving fly resulting from the project.

6.3.2 INDIRECT EFFECTS

There will be no unavoidable indirect impacts to Delhi Sands flower-loving fly resulting from the project.

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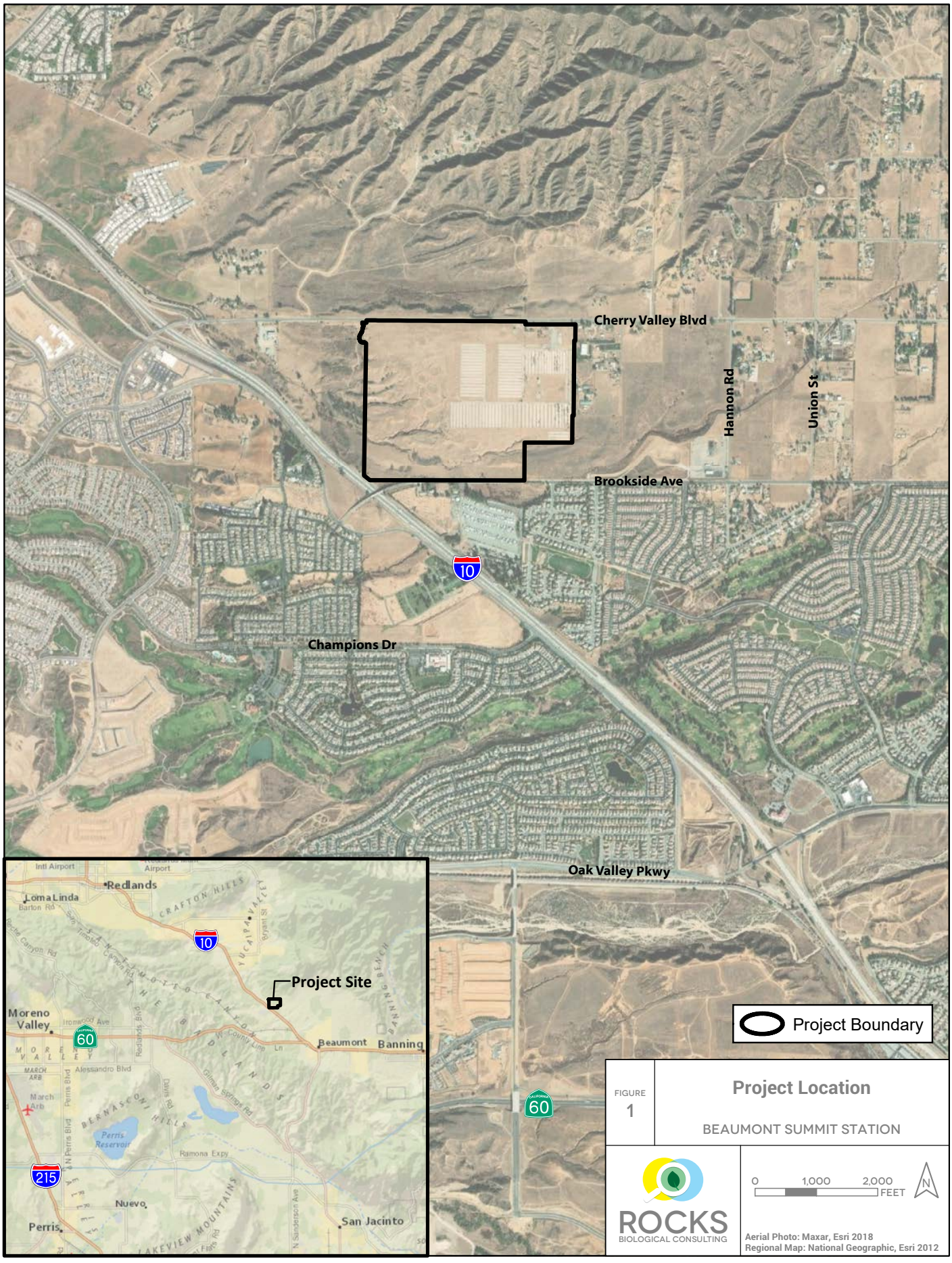


FIGURE 1

Project Location

BEAUMONT SUMMIT STATION

ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

N

Aerial Photo: Maxar, Esri 2018
Regional Map: National Geographic, Esri 2012

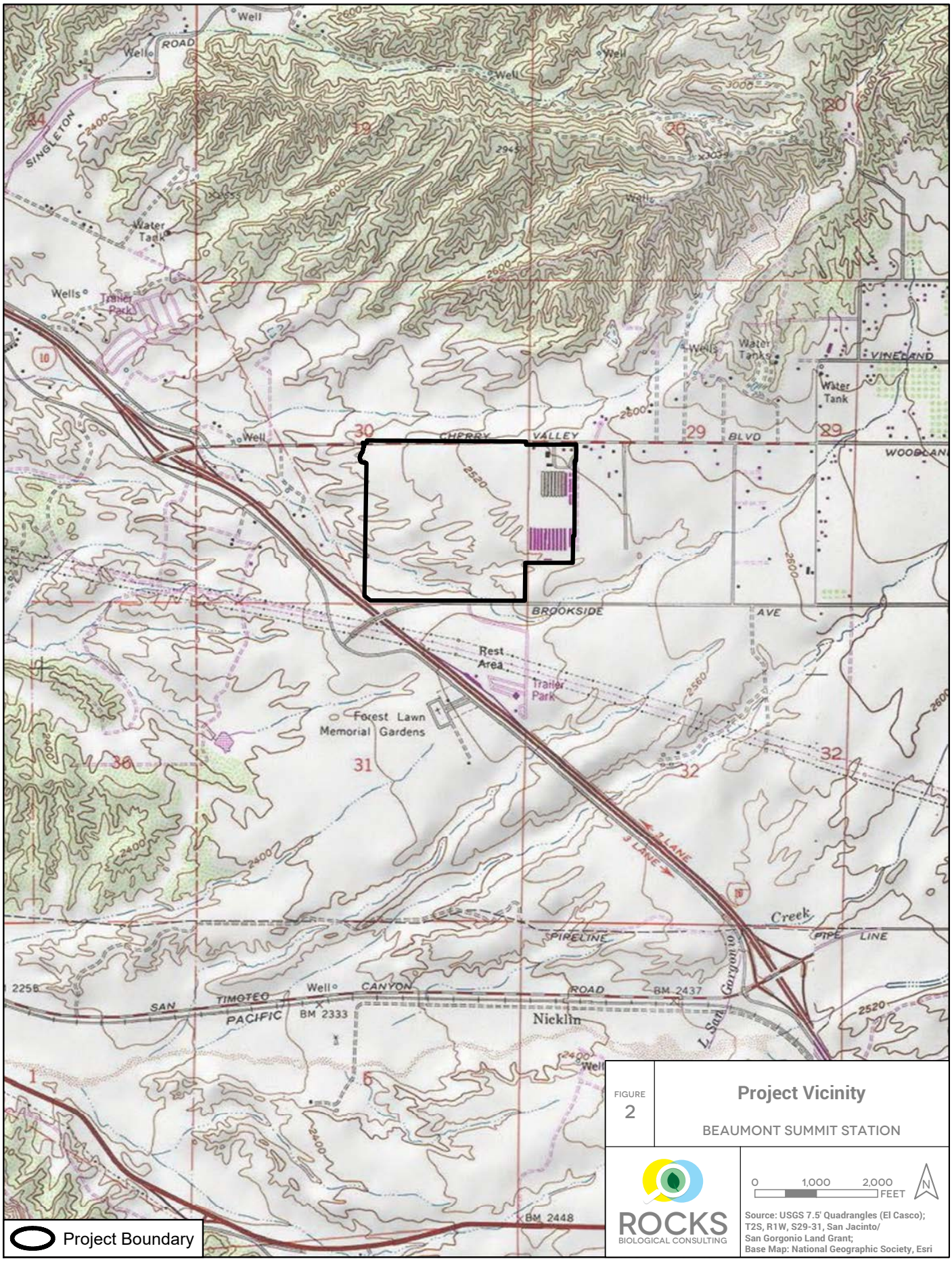


FIGURE 2

Project Vicinity

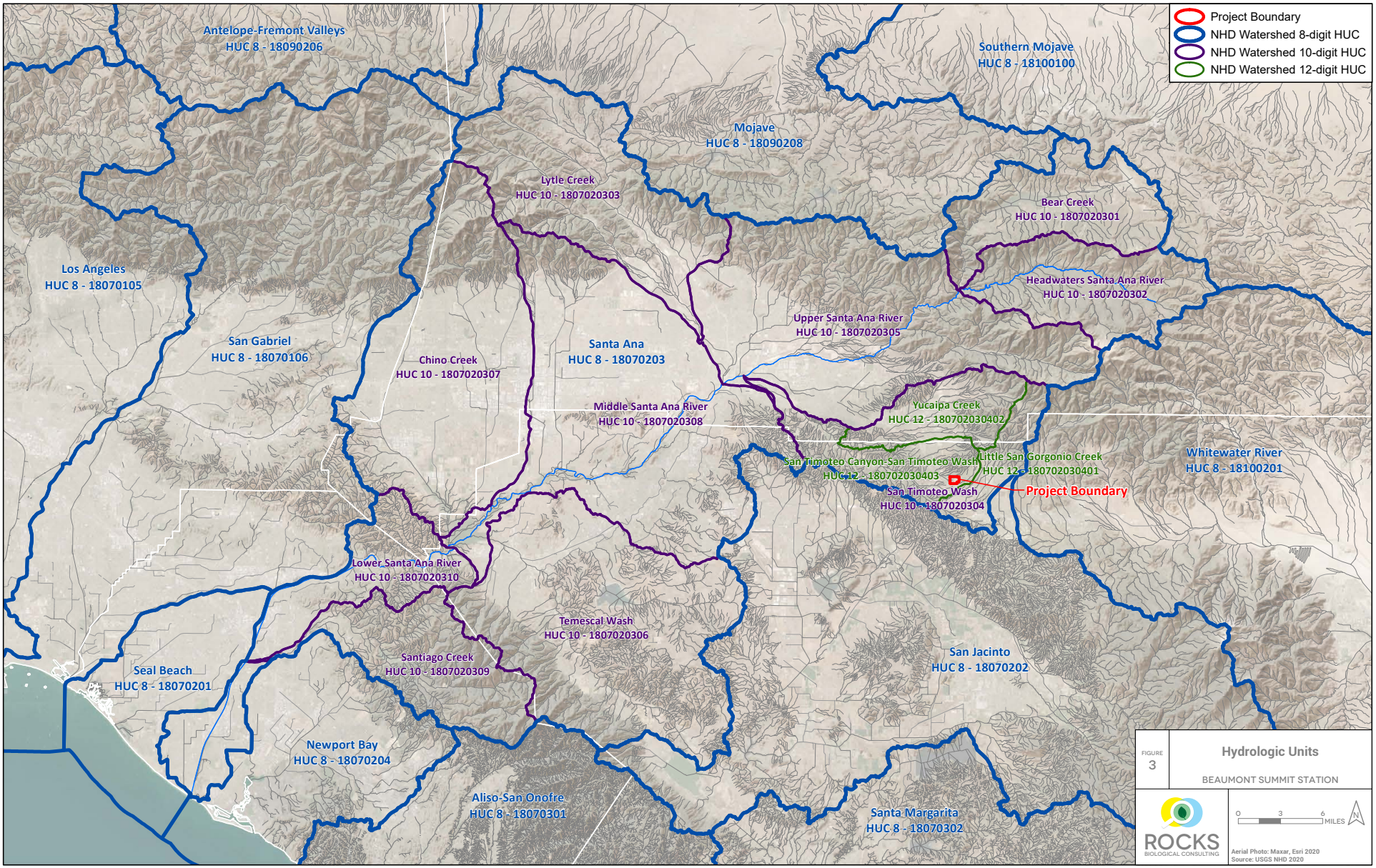
BEAUMONT SUMMIT STATION

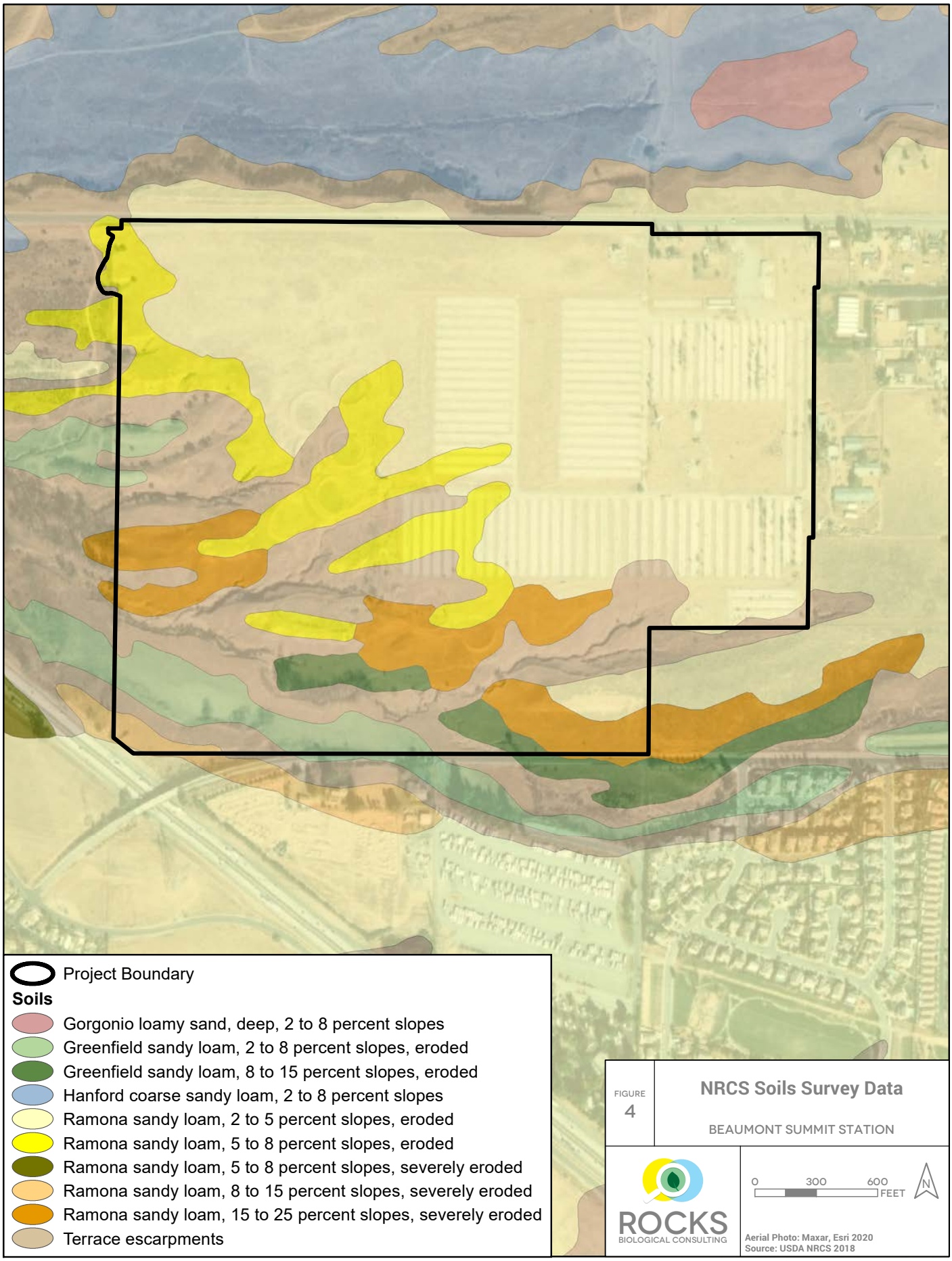
ROCKS BIOLOGICAL CONSULTING

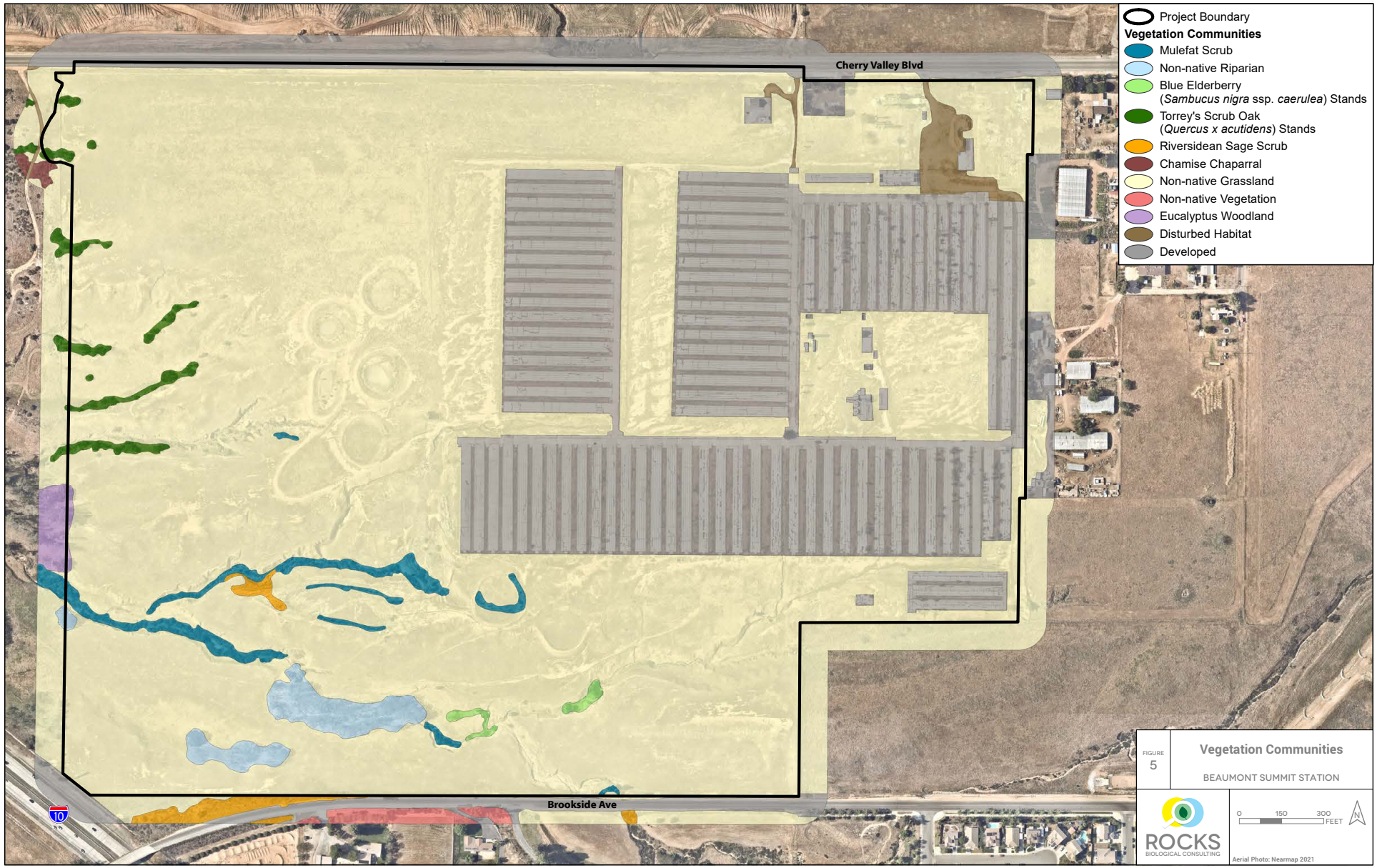
0 1,000 2,000 FEET

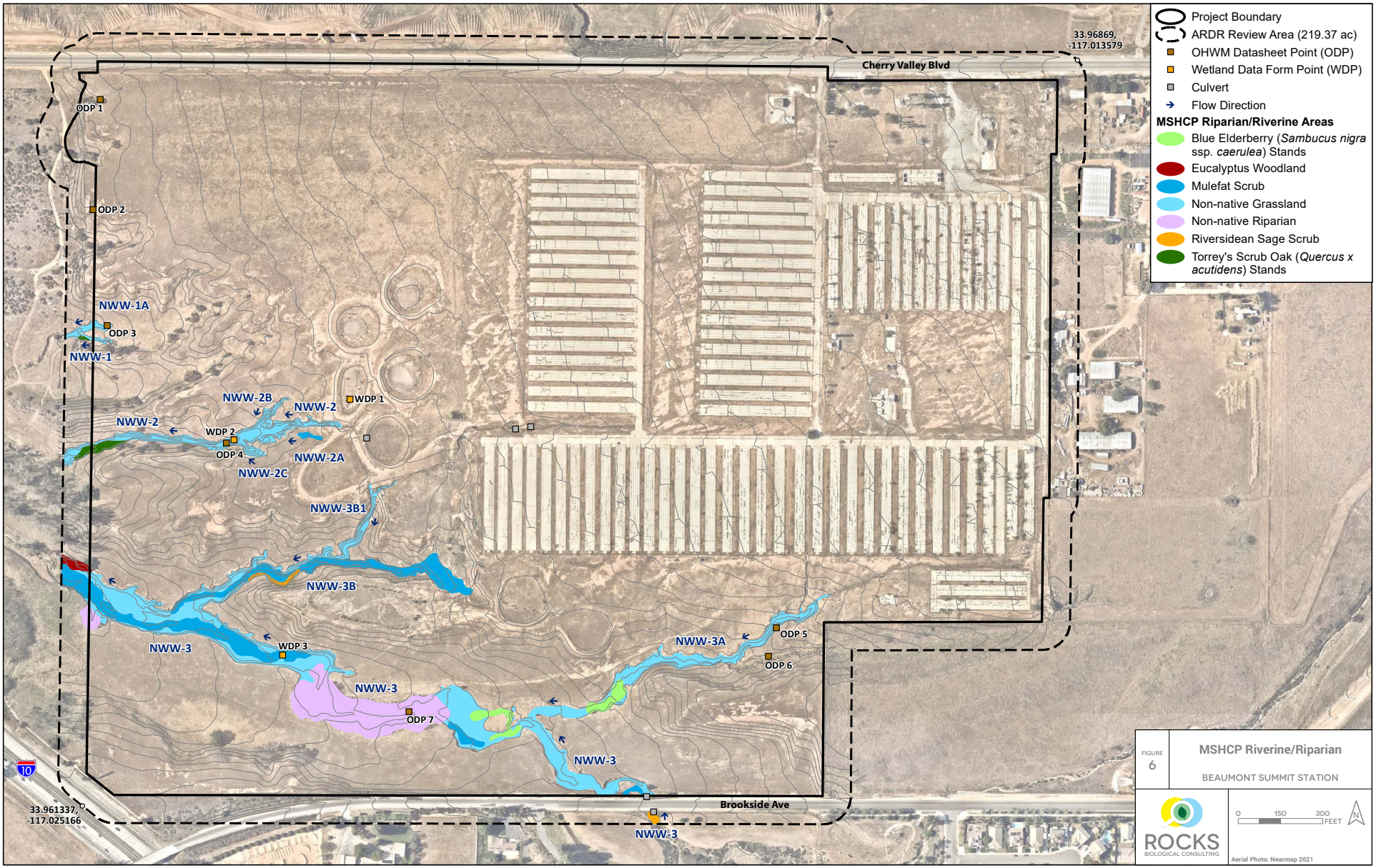
N

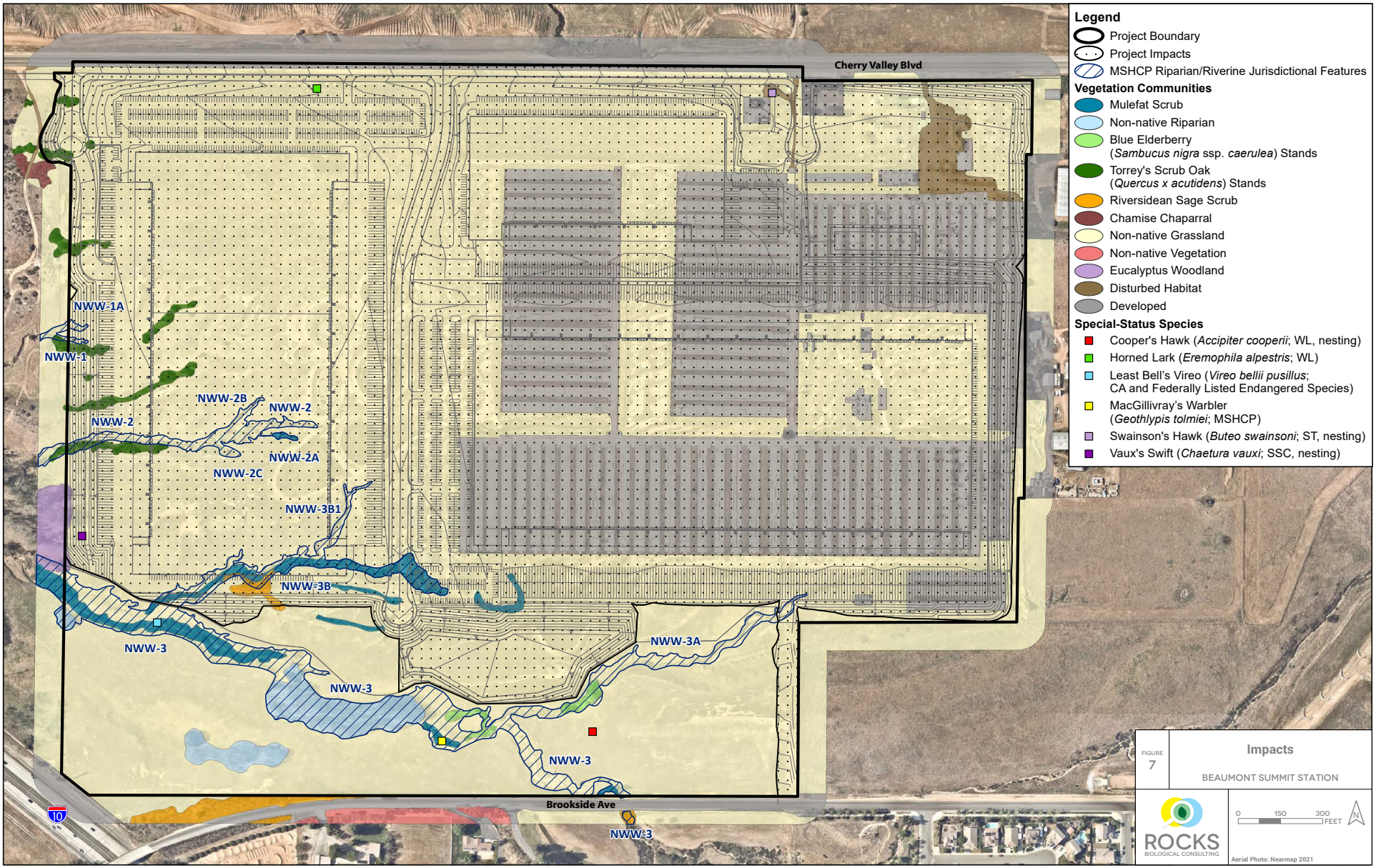
Source: USGS 7.5' Quadrangles (El Casco); T2S, R1W, S29-31, San Jacinto/ San Gorgonio Land Grant; Base Map: National Geographic Society, Esri

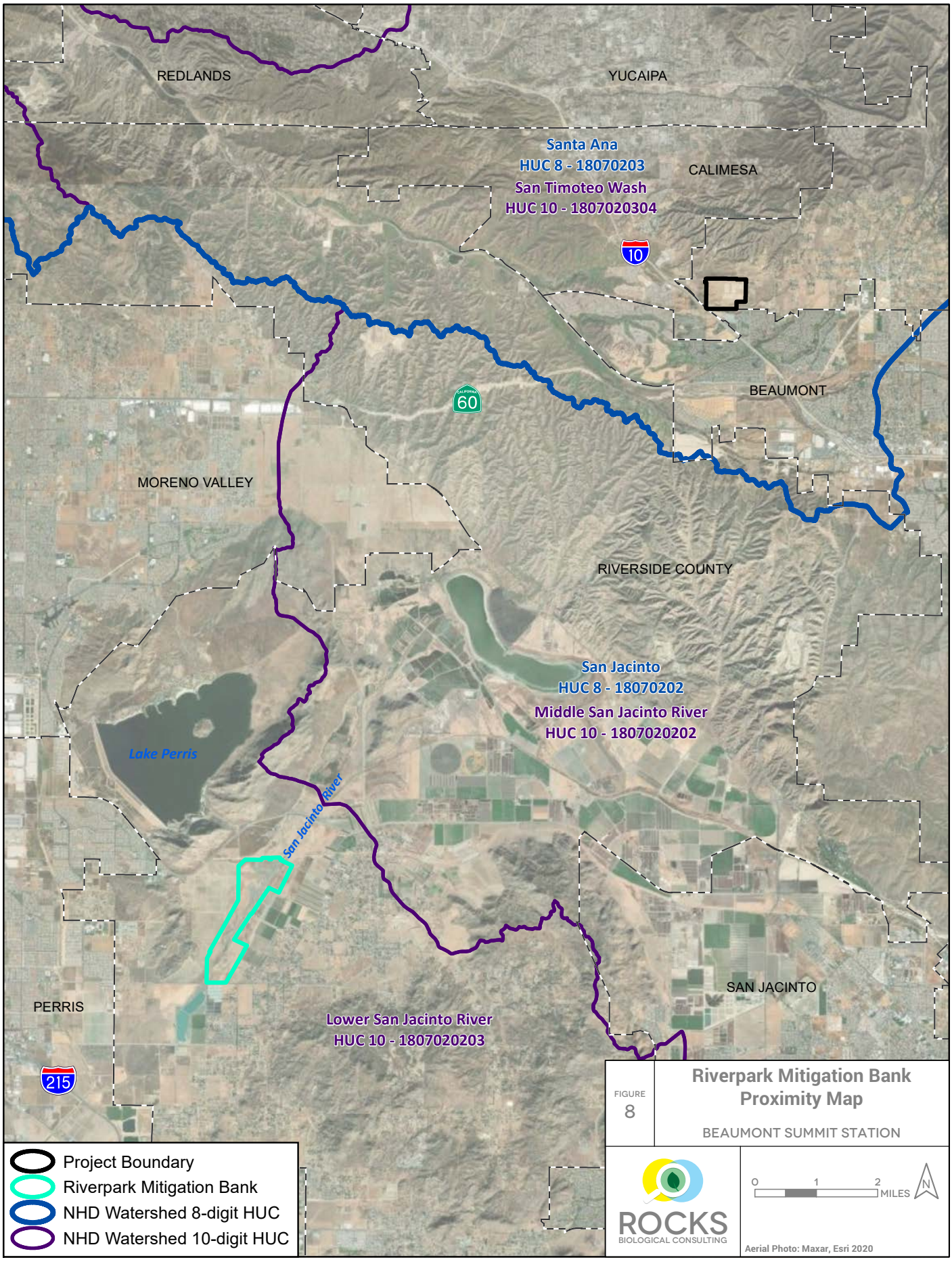

Project Boundary
NHD Watershed 8-digit HUC
NHD Watershed 10-digit HUC
NHD Watershed 12-digit HUC
Antelope-Fremont Valleys
HUC 8 - 18090206
Southern Mojave
HUC 8 - 18100100
Mojave
HUC 8 - 18090208
Lytle Creek
HUC 10 - 1807020303
Bear Creek
HUC 10 - 1807020301
Los Angeles
HUC 8 - 18070105
Headwaters Santa Ana River
HUC 10 - 1807020302
Upper Santa Ana River
HUC 10 - 1807020305
San Gabriel
HUC 8 - 18070106
Chino Creek
HUC 10 - 1807020307
Santa Ana
HUC 8 - 18070203
Middle Santa Ana River
HUC 10 - 1807020308
Yucaipa Creek
HUC 12 - 180702030402
Little San Gorgonio Creek
HUC 12 - 180702030401
San Timoteo Canyon-San Timoteo Wash
HUC 12 - 180702030403
Project Boundary
San Timoteo Wash
HUC 10 - 1807020304
Whitewater River
HUC 8 - 18100201
Lower Santa Ana River
HUC 10 - 1807020310
Temescal Wash
HUC 10 - 1807020306
Santiago Creek
HUC 10 - 1807020309
San Jacinto
HUC 8 - 18070202
Seal Beach
HUC 8 - 18070201
Newport Bay
HUC 8 - 18070204
Aliso-San Onofre
HUC 8 - 18070301
Santa Margarita
HUC 8 - 18070302
FIGURE 3
Hydrologic Units
BEAUMONT SUMMIT STATION
ROCKS
BIOLOGICAL CONSULTING
0 3 6 MILES
N
Aerial Photo: Maxar, Esri 2020
Source: USGS NHD 2020


Project Boundary
Soils
Gorgonio loamy sand, deep, 2 to 8 percent slopes
Greenfield sandy loam, 2 to 8 percent slopes, eroded
Greenfield sandy loam, 8 to 15 percent slopes, eroded
Hanford coarse sandy loam, 2 to 8 percent slopes
Ramona sandy loam, 2 to 5 percent slopes, eroded
Ramona sandy loam, 5 to 8 percent slopes, eroded
Ramona sandy loam, 5 to 8 percent slopes, severely eroded
Ramona sandy loam, 8 to 15 percent slopes, severely eroded
Ramona sandy loam, 15 to 25 percent slopes, severely eroded
Terrace escarpments
FIGURE
4
NRCS Soils Survey Data
BEAUMONT SUMMIT STATION
ROCKS
BIOLOGICAL CONSULTING
0
300
600
FEET
N
Aerial Photo: Maxar, Esri 2020
Source: USDA NRCS 2018


Project Boundary
Vegetation Communities
Mulefat Scrub
Non-native Riparian
Blue Elderberry (Sambucus nigra ssp. caerulea) Stands
Torrey's Scrub Oak (Quercus x acutidens) Stands
Riversidean Sage Scrub
Chamise Chaparral
Non-native Grassland
Non-native Vegetation
Eucalyptus Woodland
Disturbed Habitat
Developed
Cherry Valley Blvd
Brookside Ave
10
FIGURE 5
Vegetation Communities
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
N
Aerial Photo: Nearmap 2021


Project Boundary
ARDR Review Area (219.37 ac)
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Culvert
Flow Direction
MSHCP Riparian/Riverine Areas
Blue Elderberry (Sambucus nigra ssp. caerulea) Stands
Eucalyptus Woodland
Mulefat Scrub
Non-native Grassland
Non-native Riparian
Riversidean Sage Scrub
Torrey's Scrub Oak (Quercus x acutidens) Stands
33.96869, -117.013579
Cherry Valley Blvd
ODP 1
ODP 2
NWW-1A
ODP 3
NWW-1
NWW-2B
NWW-2
WDP 1
NWW-2
WDP 2
ODP 4
NWW-2A
NWW-2C
NWW-3B1
NWW-3B
NWW-3
WDP 3
NWW-3
ODP 7
NWW-3A
ODP 5
ODP 6
NWW-3
Brookside Ave
NWW-3
33.961337, -117.025166
10
FIGURE 6
MSHCP Riverine/Riparian
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
N
Aerial Photo: Nearmap 2021


Cherry Valley Blvd
NWW-1A
NWW-1
NWW-2B
NWW-2
NWW-2
NWW-2A
NWW-2C
NWW-3B1
NWW-3B
NWW-3
NWW-3A
NWW-3
NWW-3
Brookside Ave
NWW-3
10
Legend
Project Boundary
Project Impacts
MSHCP Riparian/Riverine Jurisdictional Features
Vegetation Communities
Mulefat Scrub
Non-native Riparian
Blue Elderberry (Sambucus nigra ssp. caerulea) Stands
Torrey's Scrub Oak (Quercus x acutidens) Stands
Riversidean Sage Scrub
Chamise Chaparral
Non-native Grassland
Non-native Vegetation
Eucalyptus Woodland
Disturbed Habitat
Developed
Special-Status Species
Cooper's Hawk (Accipiter cooperii; WL, nesting)
Horned Lark (Eremophila alpestris; WL)
Least Bell's Vireo (Vireo bellii pusillus; CA and Federally Listed Endangered Species)
MacGillivray's Warbler (Geothlypis tolmiei; MSHCP)
Swainson's Hawk (Buteo swainsoni; ST, nesting)
Vaux's Swift (Chaetura vauxi; SSC, nesting)
FIGURE 7
Impacts
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
N
Aerial Photo: Nearmap 2021


REDLANDS
YUCAIPA
Santa Ana
HUC 8 - 18070203
San Timoteo Wash
HUC 10 - 1807020304
CALIMESA
10
60
BEAUMONT
MORENO VALLEY
RIVERSIDE COUNTY
San Jacinto
HUC 8 - 18070202
Middle San Jacinto River
HUC 10 - 1807020202
Lake Perris
San Jacinto River
SAN JACINTO
PERRIS
Lower San Jacinto River
HUC 10 - 1807020203
215
Project Boundary
Riverpark Mitigation Bank
NHD Watershed 8-digit HUC
NHD Watershed 10-digit HUC
FIGURE
8
Riverpark Mitigation Bank
Proximity Map
BEAUMONT SUMMIT STATION
ROCKS
BIOLOGICAL CONSULTING
0 1 2 MILES
N
Aerial Photo: Maxar, Esri 2020

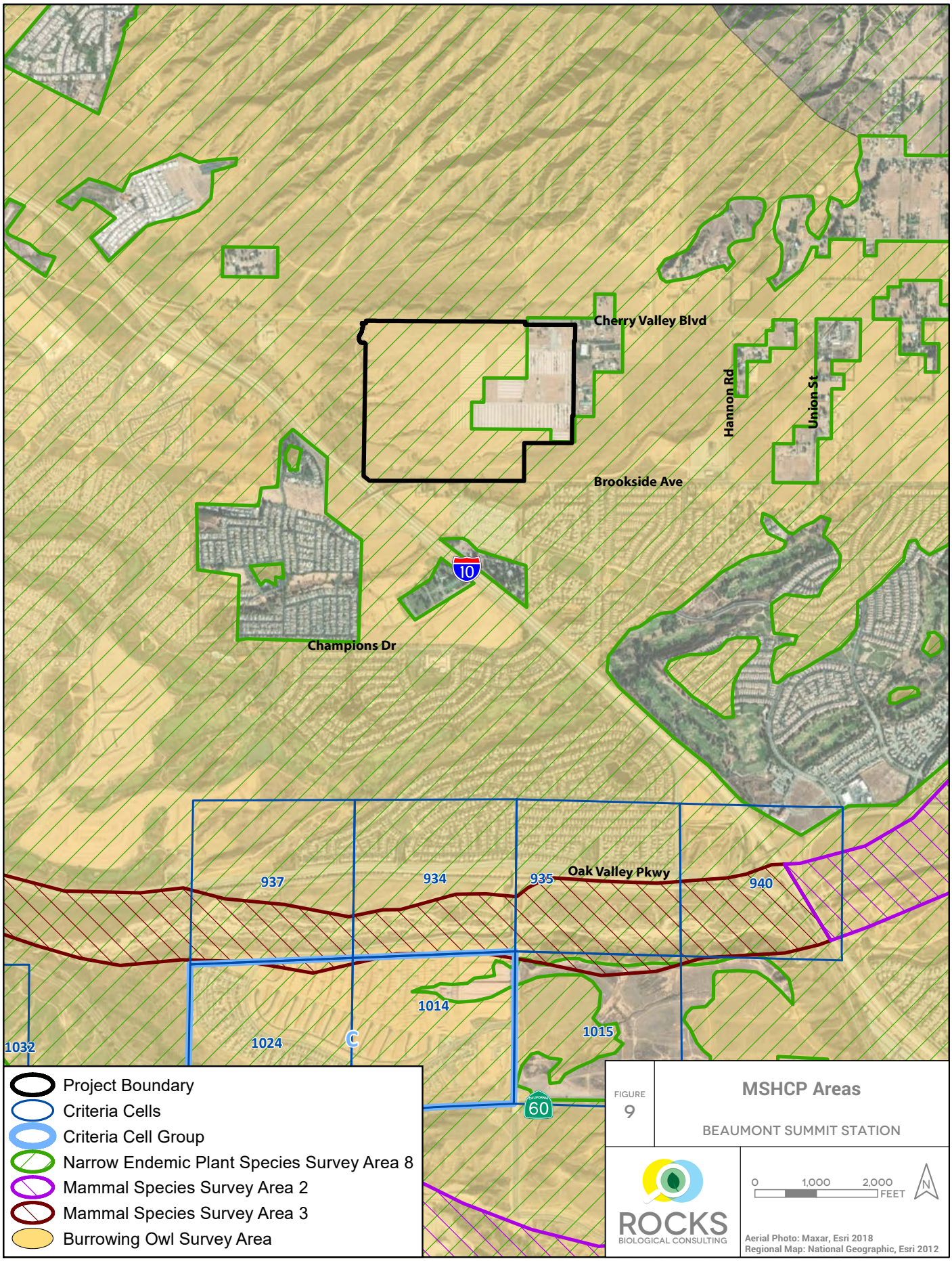


FIGURE 9

MSHCP Areas

BEAUMONT SUMMIT STATION

ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

N

Aerial Photo: Maxar, Esri 2018
Regional Map: National Geographic, Esri 2012

APPENDIX A

BEAUMONT SUMMIT STATION
AQUATIC RESOURCES DELINEATION REPORT (ARDR)

ROCKS
BIOLOGICAL CONSULTING



BEAUMONT SUMMIT STATION
AQUATIC RESOURCES DELINEATION REPORT

Riverside County, California

November 10, 2021

Prepared for:
Exeter Cherry Valley Land, LLC
5060 North 40th Street, Suite 108
Phoenix, AZ 85018
(708) 341-9821

Prepared by:
Rocks Biological Consulting
4312 Rialto Street
San Diego, CA 92107
(619) 701-6798

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TABLES

FIGURES

APPENDICES

1 INTRODUCTION

On behalf of Exeter Cherry Valley Land, LLC, Rocks Biological Consulting (RBC) conducted a formal aquatic resources delineation for the Beaumont Summit Station review area, composed of 219.37 acres (Figure 1), to identify areas that may be considered jurisdictional under the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act; the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act; and the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code. The information provided in this aquatic resources delineation report (ARDR) is necessary to define the presence or absence of aquatic resources within the review area. This ARDR can also be used by the agencies to inform the jurisidictional status of delineated aquatic resources and by the applicant and agencies to assess conformance with state and federal regulations and to estimate potential impacts and associated permitting requirements. Furthermore, the information contained in this report is in compliance with the Corps Los Angeles District's *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (Minimum Standards; Corps 2017). Appendix A provides a checklist to ensure compliance with the Minimum Standards.

2 SITE DESCRIPTION, LANDSCAPE SETTING

2.1 LOCATION

The review area is located south of Cherry Valley Boulevard, north of Brookside Avenue, and east/northeast of Interstate (I)-10, within the City of Beaumont, Riverside County, California (Figure 1). The review area is bounded by undeveloped land to the north and west, rural residences with livestock pens to the east, and residential development to the south. The latitude and longitude of the approximate center of the review area is 33.965141, -117.019732. The review area sits on Township 2 South, Range 1 West, and Section 30 within the El Casco 7.5-minute quadrangle, as mapped by the U.S. Geological Survey (USGS; Figure 2).

2.2 TOPOGRAPHY

The review area is primarily flat with elevations ranging from approximately 2,403 to 2,584 feet above mean sea level (amsl), with areas of lower topography within the drainages on the south and southwestern portions of the review area and between rolling hills along the northwestern boundary of the review area (Figure 2). Drainage patterns on site trend east to west following a gradual decrease in elevation in the same direction.

2.3 WATERSHED

The review area is within the Santa Ana Hydrologic Unit Code (HUC) 8 (18070203), San Timoteo Wash HUC 10 (1807020304), and San Timoteo Canyon-San Timoteo Wash HUC 12 (180702030403) watersheds (Figure 3). In addition to the watersheds defined by the USGS and commonly used by the Corps, the RWQCB also defines watershed boundaries by Hydrologic Units (HUs). The majority of the review area is within the Santa Ana Basin, the Santa Ana River HU, and the Beaumont Hydrologic Subarea (Santa Ana Regional Water Quality Control Board [SARWQCB] 1986; SARWQCB 2019).

3 METHODS

3.1 PRE-FIELD REVIEW

Prior to the on-site delineation, field maps were created using a Geographic Information System (GIS) and a color aerial photograph at a 1:150 scale. RBC staff also reviewed USGS National Hydrography Dataset (NHD) and topography data (Figure 2), U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data (Figure 4), and Natural Resources Conservation Service (NRCS) soils data (Figure 4) to further determine the potential locations of aquatic resources within the review area. RBC also utilized Google Earth to assess current and historic presence or absence of flows and/or ponding in the review area (Google Earth Pro 2021). RBC also reviewed the 2004 *Delineation of Jurisdictional Waters and Wetlands Sunny-Cal Specific Plan Project, City of Beaumont, Riverside County, California* (Sunny-Cal JD Report; Michael Brandman Associates 2004) and the 2006 *Recirculated Draft Environmental Impact Report Sunny-Cal Specific Plan, Annexation, And Sphere of Influence Amendment, SCH# 2004121092* (Sunny-Cal Specific Plan Draft EIR; Michael Brandman Associates 2006).

3.2 ON-SITE DELINEATION AND MAPPING

RBC regulatory specialists Sarah Krejca and Chelsea Polevy conducted an initial jurisdictional assessment field visit on April 22, 2021 and an aquatic resources delineation field visit on June 3, 2021. RBC regulatory specialist Sarah Krejca and Shanti Santulli conducted an additional aquatic resources delineation field visit on June 7, 2021. Field conditions during these field visits are provided below in Table 1.

Table 1. Field Conditions

Date	Survey Time Start – End	Temperature (°F) Start – End	Wind Speed Range (miles per hour) Start – End	Cloud Cover (%) Start – End
4/22/2021	0745 – 1315	48 – 61	0 to 5 – 5 to 8	100 – 100
6/03/2021	0730 – 1500	67 – 92	0 to 1 – 10 to 15	0 – 0
6/07/2021	0815 – 1245	52 – 62	2 to 5 – 5 to 10	100 – 90

Figure 1 and Figures 5A-5C depict the 219.37-acre review area. RBC regulatory specialist Sarah Krejca also completed a Streamflow Duration Assessment Method (SDAM) survey during the June 3 and June 7, 2021 field visits.

Areas with depressions, drainage patterns, and/or wetland vegetation within the review area were evaluated, with focus on the presence of defined channels and/or wetland vegetation, soils, and hydrology.

While in the field, potential aquatic resources were recorded using a hand-held Global Positioning System (GPS) unit with a level of accuracy ranging from 8 to 24 feet. RBC staff refined the data using aerial photographs and topographic maps with one-foot contours to ensure accuracy.

All figures generated for this ARDR follow the Corps' Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (Corps 2016).

The below subsections provide the aquatic resources delineation methods used per agency; Appendix B provides additional details regarding the agencies' applicable regulations and guidance associated with this ARDR.

3.2.1 CORPS

Ordinary High Water Mark Delineation

Aquatic resources with a defined ordinary high water mark (OHWM) would be considered potential non-wetland waters of the U.S. Corps regulations at 33 Code of Federal Regulations (CFR) 329.11 define an OHWM as "the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (51 Federal Register [FR] 41251, November 13, 1986). RBC staff used guidance provided in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Field Guide; Corps 2008a) and Regulatory Guidance Letter (RGL) 05-05 to estimate the extent of an OHWM in the field. For each feature exhibiting the potential presence of an OHWM, RBC completed a 2010 Arid West Ephemeral and Intermittent Streams OHWM Datasheet following the guidance provided in the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Datasheet; Corps 2010). Per the 2010 OHWM Datasheet, common indicators of an OHWM include a break in slope (i.e., abrupt cut in bank slope created by hydrogeomorphic processes across the landscape), changes in average sediment texture between floodplain units (i.e., low-flow, active floodplain, low terrace), and changes in vegetation species and/or cover between floodplain units.

Wetland Delineation

Field staff examined potential wetland waters of the U.S. using the routine determination methods set forth in Part IV, Section D, Subsection 2 of the Corps 1987 *Wetland Delineation Manual* (Wetland Manual; Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0* (Arid West Supplement; Corps 2008b). Areas that met the three parameters per the Arid West Supplement (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology, following methods set forth in the Wetland Manual and Arid West Supplement) were considered wetland waters of the U.S. RBC staff based wetland plant indicator status (i.e., Obligate [OBL], occurs 99+% in wetlands; Facultative Wetland [FACW], occurs 67-99% in wetlands; Facultative [FAC], occurs 34-66% in wetlands; Facultative Upland [FACU], occurs 1-33% in wetlands; Upland [UPL], occurs 99+% in uplands; and Not Listed [NL], considered UPL for wetland delineation purposes) on the *National Wetland Plant List* (NWPL; Corps 2018) and hydric soils indicators on *Field Indicators of Hydric Soils in the United States, Version 8.2* (NRCS 2018a). Soil chromas were identified in the field according to *Munsell Soil-Color Charts with Genuine Munsell Color Chips* (Munsell Color 2015) and per the Wetland Manual and Arid West Supplement. Plants were identified according to *The Jepson Manual: Vascular Plants of California, 2nd edition* (Baldwin et al. 2012) and nomenclature follows Jepson eFlora (Jepson Flora Project 2019).

3.2.2 RWQCB

Ordinary High Water Mark Delineation

The State Water Resources Control Board (SWRCB) and RWQCBs do not have regulations or guidance on defining the extent of non-wetland waters of the State. As such, field staff identified the lateral limits of potential non-wetland waters of the State using the same methods for determining an OHWM per the Corps as described in Section 3.2.1. as they have generally been considered coincident.

Wetland Delineation

The State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (the Procedures; SWRCB 2021) defines wetland waters of the State. The Procedures were adopted on April 2, 2019; went into effect on May 28, 2020; and were revised on April 6, 2021. As detailed in the Procedures, the SWRCB and RWQCBs define a wetland as follows: "An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2021).

The Procedures provide that RWQCBs shall rely on a wetland delineation from a final ARDR verified by the Corps to determine the extent of wetland waters of the State. If any potential wetland areas have not been delineated in a final ARDR verified by the Corps, the limits of such potential wetland waters of the State shall be identified using the same wetland delineation methods per the Corps as described in Section 3.2.1, except that a lack of vegetation (i.e., less than 5 percent areal coverage of plants during the peak of the growing season) does not preclude an area from meeting the definition of a wetland waters of the State (SWRCB 2021).

3.2.3 CDFW

Lake, Streambed, and Associated Riparian and Wetland Habitat Delineation

CDFW jurisdiction relies on the presence of a lake and/or streambed and associated riparian or wetland habitat. Lakes include "natural lakes or man-made reservoirs" (14 California Code of Regulations [CCR] § 1.56). CDFW regulations define a streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation" (14 CCR § 1.72). The 1987 *Rutherford v. State of California* (188 Cal. App. 3d 1268) decision further provided that a streambed is the "channel of a water course; the depression between the banks worn by the regular and usual flow of the water." A streambed includes the "[a]rea extending between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including sand bars which may exist between the foot of said banks…." (188 Cal. App. 3d 1268). The bank is defined as "the slope or elevation of land that bounds the bed of the stream in a permanent or long-standing way, and that confines the stream water up to its highest level" (*The People v. Phillip Wright Osborn*, 116 Cal. App. 4th 764).

Riparian habitat refers to vegetation and habitat associated with a stream. CDFW-jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream. Isolated riparian habitat (i.e., where riparian vegetation does not appear associated with an ephemeral wash) is not considered CDFW-jurisdictional.

CDFW follows the USFWS wetland definition and classification system, which defines a wetland as transitional land between terrestrial and aquatic systems having one or more of the following attributes: "(1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year" (USFWS 1979). A wetland is presumed when all three attributes are present; if less than three attributes are present the presumption of a wetland must be supported by "the demonstrable use of wetland areas by wetland associated fish or wildlife resources, related biological activity, and wetland habitat values" (California Fish and Game Commission [CFGC] 1994).

Potential CDFW-jurisdictional wetland boundaries were determined based on the presence of wetland areas supported by a lake or streambed. Wetland delineation methods to determine the presence of one or more wetland attributes included the same methods per the Corps as described in Section 3.2.1.

Based on the above, potential CDFW-jurisdictional aquatic resources delineated included lakes and/or streambeds and their associated riparian and wetland habitats. Field staff delineated the lateral extent of potential CDFW jurisdiction to be "bank to bank" for a streambed or to the "dripline" of riparian habitat and/or wetland boundary, if present.

4 SITE ALTERATIONS, CURRENT AND PAST LAND USE

RBC staff reviewed Google Earth Pro (Google Earth 2021), the University of California – Santa Barbara (UCSB; UCSB n.d.) database, the 2006 *Sunny-Cal Specific Plan Draft EIR* (Michael Brandman Associates 2006), and the 2004 *Sunny-Cal JD Report* (Michael Brandman Associates 2004) to assess historic and ongoing land uses within the review area.

Based on a review of Google Earth Pro and the UCSB database, various potentially jurisdictional features (e.g., Non-Wetland Water [NWW]-2, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 per Section 6 below) occurred within their current locations in the review area at least as far back as May 1938 (i.e., the earliest aerial image available; Appendix C). Agriculture fields or farming operations are also visible on historic aerials as far back as May 1938 and are primarily concentrated in the northeastern portion of the review area until around June 1980 (UCSB n.d.; Appendix C). By September 1996, farming operations were expanded further into the center of the review area through the construction of several large poultry sheds (UCSB n.d.; Appendix C). Based on a review of the 2004 *Sunny-Cal JD Report*, the review area encompasses the previously active Sunny-Cal Poultry Farm, which contained operations buildings, employee housing, and poultry sheds, and housed other livestock such as pigs and cattle (Michael Brandman Associates 2004). Per historic aerials, runoff from these developments may have resulted in the creation of various ditches, erosional features, and swales (further described in Section 6 below; Appendix C). Remains of these developments, such as shed and building foundations, exist to this day. Furthermore, per the 2004 *Sunny-Cal JD Report*, the former poultry

farm developed various human-made settling basins throughout the review area which were utilized as manure holding areas (e.g., Basin (B)-1, B-2, B-3, B-4, and B-5, per Section 6 below; Michael Brandman Associates 2004). These basins were established between September 1996 and December 2003 (UCSB n.d.; Appendix C). Normal circumstances were assumed to be present within the review area.

The *Sunny-Cal Specific Plan Draft EIR* determined four drainages within the review area to be Corps- and CDFW-jurisdictional (Michael Brandman Associates 2006) within the general locations of NWW-2, NWW-2B, NWW-3, NWW-3B, NWW-3B1, and portions of NWW-3A, further discussed in Section 6 below. Furthermore, the associated Sunny Cal Egg Ranch Specific Plan (Tract 36583) Project was previously permitted and mitigated under various regulatory approvals in 2015-2016 (CWA Section 404 Nationwide Permit 29 and 43 [File No. SPL-2014-00601-JEM]; CWA Section 401 Water Quality Certification [SARWQCB Project No. 332014-20]; and CDFW SAA No. 1600-2014-0180-R6 [Revision 2]) and included permanent impacts to waters of the U.S./State and streambed/riparian habitat; however, the Sunny Cal Egg Ranch Specific Plan (Tract 36583) Project did not move forward and the previously permitted impacts did not occur. Furthermore, site ownership and project design has changed. As such, this ARDR supercedes previous delineations for review area and will be used to support future permitting associated with the Beaumont Summit Station Project.

The following sections provide additional details regarding site alterations and land use specific to on-site soils, hydrology, and vegetation based on available data and the site visit.

4.1 SOILS

Based on the NRCS soils data map (Figure 4), seven soil map units, outlined below in Table 2, occur within the review area:

Table 2. Soil Mapped within Review Area

Soil Map Unit	Soil Series/Unit	Geomorphic Surface	Taxonomic Class	NRCS Hydric Status
Greenfield sandy loam, 2 to 8 percent slopes, eroded	Greenfield	Alluvial fans, terraces	Coarse-loamy, mixed, active, thermic Typic Haploxeralfs	No
Greenfield sandy loam, 8 to 15 percent slopes, eroded	Greenfield	Alluvial fans, terraces	Coarse-loamy, mixed, active, thermic Typic Haploxeralfs	No
Ramona sandy loam, 2 to 5 percent slopes, eroded	Ramona	Alluvial fans, terraces	Fine-loamy, mixed, superactive, thermic Typic Haploxeralfs	No
Ramona sandy loam, 5 to 8 percent slopes, eroded	Ramona	Alluvial fans, terraces	Fine-loamy, mixed, superactive, thermic Typic Haploxeralfs	No
Ramona sandy loam, 8 to 15 percent slopes, severely eroded	Ramona	Alluvial fans, terraces	Fine-loamy, mixed, superactive, thermic Typic Haploxeralfs	No

Soil Map Unit	Soil Series/Unit	Geomorphic Surface	Taxonomic Class	NRCS Hydric Status
Ramona sandy loam, 15 to 25 percent slopes, severely eroded	Ramona	Alluvial fans, terraces	Fine-loamy, mixed, superactive, thermic Typic Haploxeralfs	No
Terrace escarpments	N/A	Terraces	N/A	No

The National Technical Committee for Hydric Soils defines hydric soils; *Changes in Hydric Soils Database Selection Criteria* (77 FR 12234) outlines the current four hydric soil criteria. The NRCS does not list any of the soil map units within the review area as hydric.

The soils outlined above in Table 2 are further described below per the USDA's *NRCS Official Soil Series Description and Series Classification* database (NRCS 2018b) and the USDA's *Soil Survey of Western Riverside Area, California* (1971):

Greenfield sandy loam, 2 to 8 percent slopes, eroded – The Greenfield series consists of deep, well-drained soils that formed in moderately coarse and coarse alluvium derived from granitic rock and other mixed rock sources. Greenfield soils have slow to medium runoff, moderately rapid permeability, and slopes ranging from 0 to 30 percent. These soils occur on alluvial fans and terraces at elevations of 100 to 3,500 feet amsl. Greenfield soil is used for production of field, forage, and fruit crops and also for growing grain and pasture. Uncultivated areas consist of annual grasses, forbs, some shrubs, and some oak trees. The NRCS does not list Greenfield sandy loam, 2 to 8 percent slopes, eroded, which occurs on site, as hydric.

Greenfield sandy loam, 8 to 15 percent slopes, eroded – The Greenfield series consists of deep, well-drained soils that formed in moderately coarse and coarse alluvium derived from granitic rock and other mixed rock sources. Greenfield soils have slow to medium runoff, moderately rapid permeability, and slopes ranging from 0 to 30 percent. These soils occur on alluvial fans and terraces at elevations of 100 to 3,500 feet amsl. Greenfield soil is used for production of field, forage, and fruit crops and also for growing grain and pasture. Uncultivated areas consist of annual grasses, forbs, some shrubs, and some oak trees. The NRCS does not list Greenfield sandy loam, 8 to 15 percent slopes, eroded, which occurs on site, as hydric.

Ramona sandy loam, 2 to 5 percent slopes, eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 2 to 5 percent slopes, eroded, which occurs on site, as hydric.

Ramona sandy loam, 5 to 8 percent slopes, eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 5 to 8 percent slopes, eroded, which occurs on site, as hydric.

Ramona sandy loam, 8 to 15 percent slopes, severely eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 8 to 15 percent slopes, severely eroded, which occurs on site, as hydric.

Ramona sandy loam, 15 to 25 percent slopes, severely eroded – The Ramona series consists of well-drained soils that formed in alluvium derived from granitic rock and related rock sources. Ramona soils have slow to rapid runoff and moderately slow permeability. These soils are nearly level to moderately steep and occur on terraces and fans at elevations of 250 to 3,500 feet amsl. Ramona soil is used for production of grain, hay, pasture, irrigated citrus, olives, truck crops, and seasonal fruits. Uncultivated areas are primarily annual grasses, forbs, chamise, or chaparral. The NRCS does not list Ramona sandy loam, 15 to 25 percent slopes, severely eroded, which occurs on site, as hydric.

Terrace escarpments – Terrace escarpments consist of variable alluvium on terraces or gullies derived from granite, gabbro, metamorphosed sandstone, sandstone, or mica-schist. Slopes range from 30 to 75 percent. Vegetation is sparse and includes annual grasses, salvia (*Salvia* sp.), flat-top buckwheat (*Eriogonum fasciculatum*), and chamise (*Adenostoma fasciculatum*). Areas of terrace escarpments are used primarily for watershed and as wildlife habitat. The NRCS does not list terrace escarpments, which occurs on site, as hydric.

As stated in the Arid West Supplement, RBC used the hydric soils list as a tool and made final hydric soils determinations based on field-collected data at representative wetland delineation sample points deemed appropriate on site as recorded on the attached Arid West Wetland Determination Data Forms (Appendix D) discussed further in Section 6.1.

4.2 HYDROLOGY

Per the review of on-line data sources, USGS NHD maps one “Stream/River” (ephemeral) in the western portion of the review area, one “Stream/River” (ephemeral) in the southern portion of the review area, and six “Reservoirs” in the central and western portions of the review area (Figure 2; USGS 2020). USFWS NWI maps one feature with a designation of “Riverine” in the southern portion of the review area (Figure 4; USFWS 2019). USFWS NWI classifies the onsite feature as Riverine, R4SBA, indicating that the feature is an intermittent (R4) streambed (SB) that temporarily floods (A). However, based on field observations in April and June 2021, the on-site features are expected to convey ephemeral flows (i.e., only in direct response to precipitation).

The primary known hydrologic source for the observed on-site drainages and “reservoirs,” discussed further below, is direct precipitation only. The southern USGS NHD and USFWS NWI feature also receives runoff from development south of the review area that is collected and conveyed on site through a culverted storm drain outlet that flows north under Brookside Avenue. Previously, on-site drainages also received runoff from the former on-site agricultural operations (poultry and livestock farm) and the on-site “reservoirs” were used as settling basins to hold

manure from chicken, pigs, and cows.

Based on field observations, the on-site USGS NHD feature within the western portion of the review area travels west, then continues off site. The USGS NHD and USFWS NWI feature within the southern portion of the review area enters the review area then drains through two culvert outlets under Brookside Avenue, travels northwest, then continues off site. The USGS NHD maps the two features as converging just west of the review area and continuing as an ephemeral stream for approximately 4 miles until transitioning to an intermittent stream for approximately 7.5 miles, then connecting with the San Timoteo Wash. The San Timoteo Wash then continues for approximately 6.6 miles before outletting into the Santa Ana River, which ultimately discharges into the Pacific Ocean (USGS 2020).

4.3 VEGETATION

Table 3 provides vegetation community acreages within the review area based on vegetation mapping conducted by RBC biologists on April 22, 2021 (Figure 6). The review area primarily consists of non-native grassland. The vegetation community classifications generally follow Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and are consistent with the *Western Riverside County Multiple Species Habitat Conservation Plan* (MSHCP; Dudek & Associates, Inc. 2003) vegetation mapping classification.

Table 3. Vegetation Communities within Review Area

Vegetation Community/Land Cover Type	Acre(s)[1]
Blue Elderberry (*Sambucus nigra* ssp. *caerulea*) Stands	0.31
Chamise Chaparral	0.19
Developed	61.66
Disturbed Habitat	1.59
Eucalyptus Woodland	0.80
Mulefat Scrub	2.32
Non-native Grassland	146.83
Non-native Riparian	2.37
Non-native Vegetation	0.81
Riversidean Sage Scrub	1.12
Torrey's Scrub Oak (*Quercus x acutidens*) Stands	1.37
Total	219.37

[1] Acreages summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.

Blue Elderberry Stands

Individual stands of blue elderberry (*Sambucus nigra* ssp. *caerulea*) occur within the review area (0.31 acre). Blue elderberry is a tall woody shrub that can grow up to 25 feet tall. The blue elderberry trees within the review area do not represent a specific vegetation community, rather a monotypic stand of trees that are functionally distinct from the surrounding non-native grassland habitat.

Chamise Chaparral

Chamise chaparral is overwhelmingly dominated by chamise. Chamise chaparral within the review area (0.19 acre) contains some individuals of California buckwheat and occurs along the northwestern review area boundary. Chamise chaparral continues as patches within non-native grassland west of the review area.

Developed

Developed land does not support native vegetation and includes human-made structures. Developed land within the review area (61.66 acres) includes buildings and paved surfaces associated with the former agricultural operations.

Disturbed Habitat

Disturbed habitat is typically classified as land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g. disturbed Riversidean sage scrub). Disturbed habitat is typically found in vacant lots, along roadsides, within construction staging areas, and in abandoned fields. The habitat is typically dominated by non-native annual species and perennial broadleaf species. Disturbed habitat within the review area (1.59 acres) occurs within the gravel driveways and staging areas that support the sparse growth of non-native grasses and forbaceous species.

Eucalyptus Woodland

Eucalyptus woodland (*Eucalyptus* spp.) habitat ranges from single-species thickets with little or no shrubby understory to scattered trees over a well-developed herbaceous and shrubby understory. In most cases, eucalyptus forms a dense stand with a closed canopy. Eucalyptus species produce a large amount of leaf and bark litter, the chemical and physical characteristics of which limit the ability of other species to grow in the understory, decreasing floristic diversity. A large stand of eucalyptus woodland occurs along the western border of the review area (0.80 acre).

Mulefat Scrub

Mulefat scrub consists of mulefat (*Baccharis salicifolia*) as the dominant or co-dominant species within a continuous shrub canopy or thicket. A few isolated, individual willows (*Salix* spp.) also occur within the continuous mulefat scrub. The herbaceous layer is typically sparse. Mulefat scrub within the review area (2.32 acres) is approximately 10-15 feet in height and co-occurs with the blue elderberry stands and non-native riparian vegetation within the canyons and drainages in the southwest.

Non-native Grassland

Non-native grassland within the review area is dominated by ripgut brome (*Bromus diandrus*) but also contains occurrences of other non-native grass and forbaceous species such as red brome (*Bromus rubens*), Mediterranean barley (*Hordeum marinum*), and short-pod mustard (*Hirschfeldia incana*). Rigid fiddleneck (*Amsinckia menziesii*) was observed within the non-native grassland habitat growing out of the topographical depressions in the western portion of review area. The review area is frequently mowed and was previously grazed using cattle, keeping non-native grasses and ruderal species fairly low to the ground. Non-native grassland (146.83 acres) occurs throughout much of the review area.

Non-native Riparian

Non-native riparian habitat includes densely vegetated riparian thickets dominated by non-native, invasive species. Non-native riparian habitat within the review area (2.37 acres) consists of monotypic stands of tree of heaven (*Ailanthus altissima*), occurring within the drainages in the southwestern portion of the review area. Tree of heaven are large trees with some individuals exceeding 30 feet in height. Virtually no understory occurs within the stands of tree of heaven that occur within the review area.

Non-native Vegetation

Non-native vegetation refers to areas where non-native ornamentals and landscaping have been installed. Non-native vegetation within the review area (0.81 acre) occurs just south of Brookside Avenue and is dominated by tree of heaven and pine trees (*Pinus* sp.)

Riversidean Sage Scrub

Riversidean sage scrub (1.12 acres) is a form of coastal sage scrub found in Riverside County consisting of low, soft shrubs. The review area supports small patches of Riversidean sage scrub that are dominated by California sagebrush (*Artemisia californica*) and California buckwheat and contain non-native grasses between shrubs. Riversidean sage scrub is found in the southwestern portion of the review area and along the southern review area boundary.

Torrey's Scrub Oak Stands

Mature individuals of Torrey's scrub oak (*Quercus x acutidens*) form distinct stands (1.37 acres) occurring along the upper banks of canyons and drainages within the western portion of the review area. Torrey's scrub oak is a small oak tree and on-site Torrey's scrub oak do not exceed 25 feet in height. Non-native grasses occur as the understory between individual trees. The stands of Torrey's scrub oak within the review area do not represent a specific vegetation community (e.g., scrub oak chaparral), but are a monotypic stand of trees that are functionally distinct from the surrounding non-native grassland habitat.

5 PRECIPITATION DATA AND ANALYSIS

RBC utilized the NRCS Agricultural Applied Climate Information System (AgACIS) database for the Beaumont 2.5 NW station (approximately 0.7 mile southeast) to access pre-site visit precipitation data (NRCS 2021), as shown in Table 4.

RBC also utilized the Corps' Antecedent Precipitation Tool (APT) to assess whether or not the

delineation date occurred in a drier, average, or wetter than normal period for the review area (Corps 2020). The Corps created the APT to assist with determining "typical year" precipitation conditions for a review area (i.e., the normal periodic range of precipitation and other climate variables for the waterbody). Additionally, the APT can also generally inform the regulatory agencies whether or not normal hydrologic/climatic conditions were on site at the time of the site visit and assist with completion of the Wetland Determination Data Forms (Appendix D).

5.1 PRECIPITATION SUMMARY

Table 4 describes the estimated monthly total precipitation for the review area from June 2020 to May 2021 to provide the pertinent pre-site visit precipitation data from the NRCS database for the Beaumont 2.5 NW, California NWS station (NRCS 2021).

Table 4. Precipitation Data for June 2020 to May 2021

	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Monthly Total Precip. (inch[es])	0.11	0.00	0.00	0.00	T*	0.70	1.26	2.48	0.15	1.94	0.13	M*

*Per AgACIS database: "Values of 'M' indicate missing data and 'T' indicates a trace."

5.2 ANTECEDENT PRECIPITATION TOOL DATA

The APT provides three climatological parameters: Palmer Drought Severity Index (PDSI), season, and antecedent precipitation condition. The PDSI is a standardized index calculated on a monthly basis with PDSI value outputs ranging from -10 (extremely dry) to +10 (extremely wet) (National Oceanic and Atmospheric Administration [NOAA] 2020) to assess drought conditions (i.e., PDSI Class). The APT determines wet vs. dry season based on related procedures provided in the applicable regional supplement for the review area (i.e., Arid West Supplement). The antecedent precipitation condition is classified as drier than normal with an antecedent runoff condition (ARC) score less than 10; normal with an ARC score between 10 to 14; or wetter than normal with an ARC score greater than 14 (Corps 2000).

Table 5 summarizes the key data extrapolated from the APT output to compare the current year 30-day rolling total to the averaged 30-year normal for the weather stations with comprehensive historical data within 30 miles of the review area: estimated drought conditions, wet or dry season determination, ARC score, and antecedent precipitation condition. The APT output provided in Appendix E and summarized in Table 5, noted a PDSI Class of "severe drought" on April 22, 2021 and "extreme drought" on June 3, 2021 and June 7, 2021 for the review area; the precipitation and climatic conditions were classified as "drier than normal" on April 22, 2021 and "normal" on June 3, 2021 and June 7, 2021 for the review area based on the 30-day rolling totals for the three months preceding the field survey dates. Field staff considered the drought conditions during the field delineation, evaluated how the drought conditions could affect the data collected on the Arid West Wetland Determination Data Forms and Ephemeral and Intermittent Streams OHWM Datasheets (Appendix D), and used recent and historic aerials to ensure appropriate representation of the extent of the on-site aquatic features for this ARDR despite 2021 drought conditions.

Table 5. Antecedent Precipitation Tool Data for the Review Area

Field Survey Date	PDSI Value	PDSI Class	Season	ARC Score	Antecedent Precipitation Condition
4/22/2021	-3.99	Severe drought	Dry season	9	Drier than normal
6/03/2021	-4.98	Extreme drought	Dry season	10	Normal conditions
6/07/2021	-4.98	Extreme drought	Dry season	11	Normal conditions

6 DESCRIPTION OF OBSERVED POTENTIAL AQUATIC RESOURCES

The following descriptions of observed potential aquatic resources within the review area document the presence or absence of aquatic resource indicators per the methods discussed in Section 3. The subsections below are intended to be reviewed independently under each agency's purview unless otherwise directed in the text (i.e., the aquatic resource description is the same between two or more agencies) given the various regulatory definitions and standards per each agency.

Appendix F provides site photographs of the features within the review area; all figures in the Figure 5 series display representative photo points.

6.1 CORPS/RWQCB WETLAND WATERS OF THE U.S./STATE

RBC collected data at three representative Wetland Data Form Points (WDP) within the review area, one within NWW-2 (see *Non-Wetland Water 2* in Section 6.2 below), one within NWW-3 (see *Non-Wetland Water 3* in Section 6.2 below), and one within B-4 (see *Basins 1 – 5* in Section 6.4 below), to determine the presence or absence of jurisdictional wetland waters of the U.S./State (Figures 5A and 5B; Appendix D). The delineated aquatic features on site did not meet the appropriate wetland parameters to qualify as wetland waters of the U.S./State based on the data collected during the field delineation, as discussed further in Section 6.2.

6.2 CORPS/RWQCB NON–WETLAND WATERS OF THE U.S./STATE

Non-Wetland Water 1

NWW-1 is a vegetated, earthen-bottom drainage that occurs within the far western portion of the review area (Figures 5A and 5B). Specifically, NWW-1 is an approximately 175-linear foot feature within an area of non-native grassland, the upstream extent of which appeared severely incised and erosional. After approximately 145 linear feet, NWW-1 converges with NWW-1A (see *Non-Wetland Water 1A* below) before continuing off site and downstream, and exhibiting a more defined bed and bank with established vegetation along the banks.

OHWM Datasheet Point (ODP) 3 (see *Non-Wetland Water 1A* below) represents the OHWM within NWW-1 given the similar conditions observed within NWW-1A; similarily, WDP 2 (see *Non-Wetland Water 2* below) provides representative wetland delineation data for NWW-1 given the similar conditions observed within NWW 2. The estimated OHWM within NWW-1 measured approximately 4 feet wide until NWW-1 converged with NWW-1A, at which point the OHWM

increased to approximately 6 feet wide.

Non-Wetland Water 1A

NWW-1A is a vegetated, earthen-bottom drainage that occurs withn the far western portion of the review area and is a tributary of NWW-1 (Figures 5A and 5B). Specifically, NWW-1A is an approximately 156-linear foot feature within an area of non-native grassland that, similar to NWW-1, originates as a severely incised and erosional feature.

An OHWM delineation was conducted within the drainage to confirm the presence or absence of OHWM indicators. ODP 3 confirmed the presence of the following OHWM indicators within NWW-1A: a faint break in bank slope and change in vegetation cover between the active floodplain and adjacent uplands (Figures 5A and 5B; Appendix D, ODP 3). WDP 2 (see *Non-Wetland Water 2* below) was representative of the conditions in NWW-1A. Based on the data collected, the estimated OHWM measured approximately 6 feet wide throughout the extent of NWW-1A.

Non-Wetland Water 2

NWW-2 is a vegetated, earthen-bottom drainage that travels through the western portion of the review area, south of NWW-1 (Figures 5A and 5B). Specifically, NWW-2 is an approximately 1,018-linear foot feature within an area of non-native grassland that initiates just west of B-4 (see *Basin 4* below). After approximately 200 linear feet, NWW-2 converges with NWW-2A (see *Non-Wetland Water 2A* below), then flows approximately 90 linear feet before converging with NWW-2B (see *Non-Wetland Water 2B* below) after which NWW-2 continues an additional 70 linear feet before converging with NWW-2C (see *Non-Wetland Water 2C* below). After converging with NWW-2C, NWW-2 flows approximately 658 linear feet before continuing off site and downstream.

A wetland and OHWM delineation were conducted within NWW-2 to confirm the presence or absence of wetland parameters and/or OHWM indicators. ODP 4 confirmed the presence of the following OHWM indicators within NWW-2: a break in bank slope and change in vegetation cover between the active floodplain and adjacent uplands (Figures 5A and 5B; Appendix D, ODP 4). Based on the data collected, the estimated OHWM ranged from 3 feet to 4 feet wide throughout the extent of NWW-2.

WDP 2 was taken within a vegetated area dominated by blue elderberry (FACU), mulefat (FAC), false brome (*Brachypodium distachyon*; NL/UPL), and ripgut brome (NL/UPL). WDP 2 did not meet the hydrophytic vegetation, hydric soil, or wetland hydrology parameters (Figures 5A and 5B; Appendix D, WDP 2).

Non-Wetland Water 2A

NWW-2A is a vegetated, earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-2 (Figures 5A and 5B). Specifically, NWW-2A displays a faint OHWM and flows for approximately 168 linear feet through a small area dominated by mulefat and non-native grasses before converging with NWW-2 (see *Non-Wetland Water 2* above).

ODP 4 (see *Non-Wetland Water 2* above) was representative of the OHWM in NWW-2A. WDP 2 (see *Non-Wetland Water 2* above) was representative of the conditions in NWW-2A. Based on the data collected, the estimated OHWM measured approximately 1 foot wide.

Non-Wetland Water 2B

NWW-2B is a vegetated, earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-2 (Figures 5A and 5B). Specifically, NWW-2B travels for approximately 175 linear feet through an area of non-native grassland before converging with NWW-2 (see *Non-Wetland Water 2* above).

ODP 4 (see *Non-Wetland Water 2* above) represents the OHWM within NWW-2B given the similar conditions observed within NWW-2; similarily, WDP 2 (see *Non-Wetland Water 2* above) provides representative wetland delineation data for NWW-2B given the similar conditions observed within NWW 2. Based on the data collected, the estimated OHWM measured approximately 3 feet wide.

Non-Wetland Water 2C

NWW-2C is a vegetated, earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-2 (Figures 5A and 5B). Specifically, NWW-2C flows for approximately 109 linear feet through a small area of non-native grassland before converging with NWW-2 (see *Non-Wetland Water 2* above).

ODP 4 (see *Non-Wetland Water 2* above) represents the OHWM within NWW-2C given the similar conditions observed within NWW-2; WDP 2 (see *Non-Wetland Water 2* above) also provides representative wetland delineation data for NWW-2C. Based on the data collected, the estimated OHWM measured approximately 3 feet wide.

Non-Wetland Water 3

NWW-3 is a vegetated, earthen-bottom drainage that flows through the southern portion of the review area (Figures 5A and 5B). Specifically, NWW-3 is an approximately 2,710-linear foot feature that enters the southern boundary of the review area then immediately flows through two culvert outlets under Brookside Avenue. After exiting the culverts, NWW-3 continues northwest for approximately 600 linear feet through an area of non-native grassland, before converging with NWW-3A (see *Non-Wetland Water 3A* below). NWW-3 then flows northwest for approximately 1,740 linear feet through areas of non-native grassland, mulefat scrub, blue elderberry stands, and non-native riparian, until converging with NWW-3B (see *Non-Wetland Water 3B* below). After converging with NWW-3B, NWW-3 flows west approximately 370 linear feet before continuing off site and downstream.

A wetland and OHWM delineation were conducted within NWW-3 to confirm the presence or absence of wetland parameters and/or OHWM indicators. ODP 7 confirmed the presence of the following OHWM indicators within NWW-3: a faint break in slope, change in average sediment texture, change in vegetation cover, and change in vegetation species between the active floodplain and adjacent uplands (Figures 5A and 5B; Appendix D, ODP 7). Based on the data collected, the estimated OHWM ranged from 4 feet to 8 feet wide throughout the extent of NWW-3.

WDP 3 was taken within a sparsely vegetated area dominated by mulefat (FAC). WDP 3 met the hydrophytic vegetation parameter; however, WDP 3 did not meet the hydric soil or wetland hydrology parameters (Figures 5A and 5B; Appendix D, WDP 3).

Non-Wetland Water 3A

NWW-3A is a vegetated, earthen-bottom drainage that occurs within the southern portion of the review area, east of NWW-3, and is a tributary to NWW-3 (Figures 5A and 5B). NWW-3A likely resulted from runoff from former agricultural fields in the northeast corner of the review area and adjacent fields to the east of the review area, based on a review of historic aerials (Appendix C). Furthermore, NWW-3A appeared to have previously convey surface flows/runoff downslope from the former farming operations within the review area, based on its location just south of the former poultry sheds and a review of historic aerials (Appendix C). Specifically, NWW-3A is an approximately 1,290-linear foot feature that originates at the western extent of Swale (S)-1 (see *Swales 1-5* below) and eventually converges with converging with NWW-3 (see *Non-Wetland Water 3* above).

An OHWM delineation was conducted within the drainage to confirm the presence or absence of OHWM indicators. ODP 5 confirmed the presence of the following OHWM indicators within NWW-3A: a break in bank slope, change in average sediment texture, and change in vegetation cover between the active floodplain and adjacent uplands (Figures 5A and 5B; Appendix D, ODP 5). WDP 3 (see *Non-Wetland Water 3* above) was representative of the conditions in NWW-3A.

Based on the data collected, the estimated OHWM ranged from approximately 3 feet to 6 feet wide throughout the extent of NWW-3A.

Non-Wetland Water 3B

NWW-3B is a vegetated, earthen-bottom drainage that occurs within the western portion of the review area, directly west of what remains of the former poultry sheds (Figures 5A and 5B). NWW-3B is a tributary to NWW-3 that likely resulted from runoff from former agricultural fields in the northeast corner of the review area, based on a review of historic aerials (Appendix C). Furthermore, based on a review of historic aerials and field observations, NWW-3B appeared to previously convey surface flows/runoff from the former farming operations within the review area (Appendix C). Specifically, NWW-3B is an approximately 1,273-linear foot feature that originates just west of the western extent of Erosional Feature (EF)-8 (see *Erosional Features 1-8* below), then travels approximately 393 linear feet before converging with NWW-3B1 (see *Non-Wetland Water 3B1* below), then continues another 880 linear feet before converging with NWW-3 (see *Non-Wetland Water 3* above).

ODP 5 (see *Non-Wetland Water 3A* above) provides representative data for the OHWM in NWW-3B given similar conditiosn wihtin the two features. WDP 3 (see *Non-Wetland Water 3* above) provides representative wetland delineation data in NWW-3B. Based on the data collected, the estimated OHWM measured approximately 4 feet wide throughout the extent of NWW-3B.

Non-Wetland Water 3B1

NWW-3B1 is a vegetated, earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-3B (Figures 5A and 5B). NWW-3B1 likely also resulted from runoff from former agricultural fields in the northeast corner of the review area, based a review of historic aerials (Appendix C). Furthermore, based on a review of historic aerials and field observations, NWW-3B1 appeared to previously convey surface flows/runoff from the former farming operations within the review area. Specifically, NWW-3B1 is an approximately 409-linear

foot feature that originates at the western extent of S-5 (see *Swales 1-5* below), then drains south/southwest as it gradually widens before converging with NWW-3B (see *Non-Wetland Water 3B* above).

Data collected at ODP 5 (see *Non-Wetland Water 3A* above) represents of the OHWM observed within NWW-3B1. WDP 3 (see *Non-Wetland Water 3* above) also provides wetland delineation data in NWW-3B1. Based on the data collected, the estimated OHWM ranged from approximately 1 foot to 4 feet wide.

6.3 CDFW STREAMBED AND ASSOCIATED RIPARIAN AND WETLAND HABITATS

Figure 5C displays the estimated extent of streambed within the review area, delineated based on the top of the channel banks.

Non-Wetland Water 1: Vegetated Streambed

NWW-1 is a heavily vegetated, earthen-bottom drainage that occurs within the far western portion of the review area (Figure 5C). Specifically, NWW-1 is an approximately 175-linear foot feature ranging from approximately ten feet wide to 22 feet wide from bank to bank, within an area of non-native grassland, the upstream extent of which appeared severly incised and erosional. After approximately 145 linear feet, NWW-1 converges with NWW-1A (see *Non-Wetland Water 1A*: *Vegetated Streambed* below) before continuing off site and downstream, and exhibiting a more defined bed and bank with established vegetation along the banks. The streambed and earthen banks are generally dominated by non-native grassland plant species such as ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL).

Non-Wetland Water 1A: Vegetated Streambed

NWW-1A is a heavily vegetated, earthen-bottom drainage that occurs withn the far western portion of the review area and is a tributary of NWW-1 (Figure 5C). Specifically, NWW-1A is an approximately 156-linear foot feature ranging from approximately eight feet wide to 24 feet wide from bank to bank, within an area of non-native grassland that, similar to NWW-1, originates as a severely incised and erosional feature. The streambed and earthen banks are generally dominated by non-native grassland plant species such as ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL).

Non-Wetland Water 2: Vegetated Streambed

NWW-2 is a vegetated, earthen-bottom drainage that travels through the western portion of the review area, south of NWW-1 (Figure 5C). Specifically, NWW-2 is an approximately 1,018-linear foot feature ranging from approximately 14 feet wide to 56 feet wide from bank to bank, within an area of non-native grassland that initiates just west of B-4 (see *Basin 4* below). After approximately 200 linear feet, NWW-2 converges with NWW-2A (see *Non-Wetland Water 2A: Vegetated Streambed* below), then continues approximately 90 linear feet before converging with NWW-2B (see *Non-Wetland Water 2B: Vegetated Streambed* below), and travels an additional 70 linear feet before converging with NWW-2C (see *Non-Wetland Water 2C: Vegetated Streambed* below). After converging with NWW-2C, NWW-2 flows west approximately 658 linear feet before continuing off site and downstream. The streambed and earthen banks are generally dominated by non-native

grassland plant species such as ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL).

Non-Wetland Water 2A: Vegetated Streambed

NWW-2A is a vegetated, earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-2 (Figure 5C). NWW-2A likely resulted from runoff from the former agricultural operations, based on field observations and a review of historic aerials (Appendix C). Specifically, NWW-2A displays a faint streambed measuring approximately one to two feet wide from bank to bank, and flows for approximately 168 linear feet through a small area dominated by mulefat and non-native grasses before converging with NWW-2 (see *Non-Wetland Water 2: Vegetated Streambed* above). The streambed and earthen banks are generally dominated by non-native grassland plant species such as ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL), as well as mulefat (FAC).

Non-Wetland Water 2A: Riparian Habitat

Riparian habitat observed as directly associated with the delineated NWW-2A streambed includes mulefat scrub (Figure 5C).

Non-Wetland Water 2B: Vegetated Streambed

NWW-2B is a vegetated, earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-2 (Figure 5C). Specifically, NWW-2B ranges from approximately ten feet wide to 28 feet wide from bank to bank and travels for approximately 175 linear feet through an area of non-native grassland before converging with NWW-2 (see *Non-Wetland Water 2: Vegetated Streambed* above). The streambed and earthen banks are generally dominated by non-native grassland plant species such as ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL), as well as mulefat (FAC).

Non-Wetland Water 2C: Vegetated Streambed

NWW-2C is a vegetated earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-2 (Figure 5C). Specifically, NWW-2C ranges from approximately 19 feet wide to 40 feet wide from bank to bank and flows northwest for approximately 109 linear feet through a small area of non-native grassland before converging with NWW-2 (see *Non-Wetland Water 2: Vegetated Streambed* above). The streambed and earthen banks are generally dominated by non-native grassland plant species such as ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL), as well as mulefat (FAC).

Non-Wetland Water 3: Vegetated Streambed

NWW-3 is a vegetated, earthen-bottom drainage that flows through the southern portion of the review area (Figure 5C). Specifically, NWW-3 is an approximately 2,710-linear foot that ranges from approximately 12 feet wide to 140 feet wide from bank to bank. NWW-3 enters the southern boundary of the review area then immediately drains through two culvert outlets under Brookside Avenue. After exiting the culverts, NWW-3 travels northwest for approximately 600 linear feet through an area of non-native grassland, before converging with NWW-3A (see *Non-Wetland Water 3A* below). NWW-3 then continues northwest for approximately 1,740 linear feet through areas of non-native grassland, mulefat scrub, blue elderberry stands, and non-native riparian, until

converging with NWW-3B (see *Non-Wetland Water 3B: Vegetated Streambed* below). After converging with NWW-3B, NWW-3 flows west approximately 370 linear feet before continuing off site and downstream. The streambed is generally dominated by dominated by non-native grassland plant species such as ripgut brome (NL/UPL), false brome (NL/UPL), shortpod mustard (NL/UPL), and horehound (*Marrubium vulgare*; FACU).

Non-Wetland Water 3: Riparian Habitat

Riparian habitat observed as directly associated with the delineated NWW-3 streambed includes mulefat scrub, non-native riparian (dominated by tree of heaven [FACU]), and blue elderberry stands (Figure 5C).

Non-Wetland Water 3A: Vegetated Streambed

NWW-3A is a vegetated, earthen-bottom drainage that occurs within the southern portion of the review area, east of NWW-3, and is a tributary to NWW-3 (Figure 5C). NWW-3A likely resulted from runoff from former agricultural fields within the northeast corner of the review area and adjacent fields to the east of the review area, based on a review of historic aerials (Appendix C). Furthermore, NWW-3A appeared to have previously convey surface flows/runoff downslope from the former farming operations within the review area, based on its location just south of the former poultry sheds and a review of historic aerials (Appendix C). Specifically, NWW-3A is an approximately 1,290-linear foot feature ranging from approximately seven feet wide to 62 feet wide from bank to bank that originates at the western extent of S-1 (see *Swales 1-5* below) and eventually flows into NWW-3 (see *Non-Wetland Water 3: Vegetated Streambed* above). The streambed is generally dominated by ripgut brome (NL/UPL), false brome (NL/UPL), shortpod mustard (NL/UPL), and horehound (FACU).

Non-Wetland Water 3B: Vegetated Streambed

NWW-3B is a vegetated earthen-bottom drainage that occurs within the western portion of the review area, directly west of what remains of the former poultry sheds (Figure 5C). NWW-3B is a tributary to NWW-3 that likely resulted from runoff from former agricultural fields in the northeast corner of the review area, based on a review of historic aerials (Appendix C). Furthermore, based on a review of historic aerials and field observations, NWW-3B appeared to previously convey surface flows/runoff from the former farming operations within the review area. Specifically, NWW-3B is an approximately 1,273-linear foot feature ranging from approximately 20 feet wide to 60 feet wide from bank to bank that originates just west of the western extent of EF-8 (see *Erosional Features 1-8* below), then flows west approximately 393 linear feet before converging with NWW-3B1 (see *Non-Wetland Water 3B1: Vegetated Streambed* below), then travels another 880 linear feet before converging with NWW-3 (see *Non-Wetland Water 3: Vegetated Streambed* above). The streambed is generally dominated by ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL).

Non-Wetland Water 3B1: Vegetated Streambed

NWW-3B1 is a vegetated earthen-bottom drainage that occurs within the western portion of the review area and is a tributary to NWW-3B (Figure 5C). NWW-3B1 likely resulted from runoff from former agricultural fields in the northeast corner of the review area, based on a review of historic aerials (Appendix C). Furthermore, based on a review of historic aerials and field observations,

NWW-3B1 appeared to previously convey surface flows/runoff from the former farming operations within the review area. Specifically, NWW-3B1 is an approximately 409-linear foot feature ranging from approximately six feet wide to 34 feet wide from bank to bank that originates at the western extent of S-5 (see *Swales 1-5* below), then continues south/southwest as it gradually widens before converging with NWW-3B (see *Non-Wetland Water 3B: Vegetated Streambed* above). The streambed is generally dominated by ripgut brome (NL/UPL), false brome (NL/UPL), and shortpod mustard (NL/UPL).

6.4 OTHER FEATURES

Field staff further investigated several areas with potential aquatic resource indicators, including basins, swales, erosional features, and an abandoned ditch as described below. Additionally, ODP 1 was taken within a lower topographic area between two gentle slopes (Figures 5A – 5C; Appendix D, ODP 1). This lower topographic area and other similar areas within the review area (See Appendix F, Photos 2, 3, 5, and 6) did not display an OHWM or exhibit bed and bank indicators, and did not appear to convey surface flows. As discussed in Section 4, the review area has been heavily manipulated and disturbed since at least 1938 based on review of historic aerials (Appendix C); many of the features discussed below are expected to be a result of the consistent manipulation of the review area.

Furthermore, the features discussed in this section are not discussed further in this ARDR as they are not anticipated to be jurisdictional under the Corps, RWQCB, or CDFW regulations, policy, and/or guidance based on the information provided in this section. An approved jurisdictional determination (AJD) can be provided under separate cover if required to confirm the features discussed below are not waters of the U.S.

Swales 1-5

Five swales (S-1 through S-5; Figures 5A – 5C) were observed during the field delineation that did not display an observable OHWM, bed and bank, or other evidence of conveying regular flows on site. These disturbed swale features also did not appear to convey flows to downstream aquatic resources via observed flow patterns, culverts, or other flow paths. A summary of the observed swales are provided below.

S-1 is a slightly concave drainage area located in the southeastern corner of the review area that eventually converges with NWW-3A at its western extent. S-1 did not display an observable OHWM or bed and bank and instead appeared to convey surface flows from EF-4, which historically conveyed runoff from former agricultural fields in the neighboring properties east of the review area (Appendix C). ODP 6, taken in an area of non-native grassland, did not show evidence of a break in slope or a defined bed and bank between the swale and adjacent uplands. Additionally, ODP 6 did not contain a change in sediment texture, change in vegetation species or cover, or any other OHWM indicators between the swale and the adjacent upland area (Figures 5A – 5C; Appendix D, ODP 6). Thus, this swale was determined to not have an OHWM or defined bed and bank.

S-2 is a slightly concave drainage area located in the southeastern portion of the review area, north of S-1, that converges with NWW-3A at its western extent. S-2 likely resulted from runoff from former agricultural fields in the northeast corner of the review area, based on a review of historic

aerials (Appendix C). Furthermore, S-2 appeared to have previously conveyed surface flows/runoff from the former farming operations within the review area based on its location just south of the former locations of the poultry sheds and a review of historic aerials (Appendix C). The conditions and vegetation observed at S-1 were similar to and representative of the conditions and vegetation observed at S-2. Thus, this swale was determined to not have an OHWM or defined bed and bank.

S-3 is a slightly concave drainage area located in the southeastern portion of the review area, west of S-1 and S-2, that converges with NWW-3A at its southern extent. S-3 appeared to have previously conveyed surface flows/runoff downslope from the former farming operations, based on its location just south of the former locations of the poultry sheds and a review of historic aerials (Appendix C). The conditions and vegetation observed at S-1 were similar to and representative of the conditions and vegetation observed at S-3. Thus, this swale was determined to not have an OHWM or defined bed and bank.

S-4 is a slightly concave drainage area located in the central portion of the review area, east of NWW-3B, that converges with EF-6 at its western extent. S-4 appeared to have previously conveyed surface flows/runoff from the former farming operations, based on its location just south of the former locations of the poultry sheds and a review of historic aerials (Appendix C). The conditions and vegetation observed at S-1 were similar to and representative of the conditions and vegetation observed at S-4. Thus, this swale was determined to not have an OHWM or defined bed and bank.

S-5 is a concave drainage area located in the central portion of the review area, just west of Ditch (D)-1 (see *Ditch 1* below), that converges with NWW-3B1 at its western extent. S-5 appeared to have previously conveyed surface flows/runoff from an abandoned ditch (D-1) associated with the former agricultural operations. The conditions and vegetation observed at S-1 were similar to and representative of the conditions and vegetation observed at S-5. Thus, this swale was determined to not have an OHWM or defined bed and bank.

Basins 1 – 5

Five basins (B-1 through B-5; Figures 5A – 5C) that occur within the western portion of the review area did not display an observable OHWM or bed and bank and instead displayed cracked soils and some concavity within the otherwise flat landscape indicative of a basin. As discussed previously in Section 4, the former poultry farm developed B-1 through B-5 for use as settling basins to hold manure from chicken, pigs, and cows. Four additional areas were investigated as potential basins, based on the appearance of ponding water and/or possible concavity during a review of recent and historic aerials (Appendix C). These areas (see Appendix F, Photos 16, 37, 44, 45, and 46) were determined to not qualify as basins, based on a lack of cracked soils and concavity.

Wetland delineation data was collected within B-4 within a small stand of mulefat (FAC) to confirm the presence or absence of wetland parameters. WDP 1 met the wetland hydrology parameter based on the presence of surface soil cracks; however, WDP 1 did not meet the hydrophytic vegetation or hydric soil parameters (Figures 5A-5C; Appendix D, WDP 1). WDP 1 was representative of the wetland conditions for B-1, B-2, B-3, and B-5.

Erosional Features 1-8

Eight erosional features (EF-1 through EF-8; Figures 5A to 5C) were observed during the field delineation that did not display an observable OHWM or defined bed and bank, and were severely incised. A summary of the observed erosional features are provided below.

EF-1 is an incised erosional feature located in the northwestern corner of the review area. EF-1 abruptly starts and stops within the otherwise flat landscape. EF-1 exhibited a slight break in slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other other OHWM indicators. Thus, this erosional feature was determined to not have an OHWM or defined bed and bank.

EF-2 and EF-3 are deeply incised gullies/erosional features located south of EF-1, in the northwestern portion of the review area. Similar to EF-1, EF-2 and EF-3 also abruptly start and stop within the review area. ODP 2, taken in an area of non-native grassland within EF-2, exhibited a slight break in bank slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other OHWM indicators (Figures 5A – 5C; Appendix D, ODP 2). The conditions and vegetation observed at EF-2 were similar to and representative of the conditions and vegetation observed at EF-3. Thus, these erosional features wer determined to not have an OHWM or defined bed and bank. Additionally, based on the established vegetation within the gullies and the abrupt stop to the features, EF-2 and EF-3 appear to no longer receive flows and do not convey flows downstream.

EF-4 is a gully/erosional feature located in the southeastern corner of the review area. EF-4 appears to initiate just to the east of the review area and appeared to previously convey runoff from former agricultural fields in the neighboring properties east of the review area (Appendix C). EF-4 continues for a short distance before dissipating and becoming swale-like (see *Swales 1 – 5* above). EF-4 exhibited a slight break in slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other other OHWM indicators. Thus, this erosional feature was determined to not have an OHWM or defined bed and bank. Additionally, based on the established vegetation within EF-4 and the quick transition into S-1, EF-4 appears to no longer receive flows or receive flows very infrequently, and does not convey flows downstream.

EF-5 is a slightly incised erosional feature located in the southeastern portion of the review area. EF-5 appears to have conveyed runoff downslope from the previous poultry farm operations, due to its location just south of the former locations of the poultry sheds. EF-5 exhibited a slight break in slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other other OHWM indicators. Thus, this erosional feature was determined to not have an OHWM or defined bed and bank. Additionally, based on the established vegetation within EF-5, EF-5 appears to no longer receive flows.

EF-6 is a sharply incised gully/erosional feature located in the central portion of the review area, just west of S-4 (see *Swales 1 – 5* above). EF-6 appears to have conveyed runoff from the previous poultry farm operations, due to its location just south of the former locations of the poultry sheds and the presence of a black pipe where EF-6 initiates, that is assumed to have outletted discharge from the former farming operations. EF-6 exhibited a slight break in slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other

other OHWM indicators. Thus, this erosional feature was determined to not have an OHWM or defined bed and bank. Additionally, based on the established vegetation within EF-6, EF-6 appears to no longer receive flows and does not convey flows downstream into NWW-3B.

EF-7 is a gully/erosional feature located in the central portion of the review area, just south of EF-6, that connects to EF-8. Similar to EF-6, EF-7 appears to have conveyed runoff from the previous poultry farm operations, due to its location just south of the former locations of the poultry sheds and the presence of a black pipe where EF-7 initiates, that is assumed to have outletted discharge from the former farming operations. It appeared that EF-7 previously discharged into EF-8, which was a slightly less incised erosional feature. EF-7 and EF-8 exhibited a slight break in slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other other OHWM indicators. Thus, these erosional features were determined to not have an OHWM or defined bed and bank. Additionally, based on the established vegetation within EF-7 and EF-8, these erosional features appear to no longer receive flows and do not convey flows downstream into NWW-3B.

Ditch 1

D-1 (Figures 5A to 5C) is an earthen-bottom ditch that is located in the center of the review area, within the former locations of the poultry sheds. D-1, which is located within an area of non-native grassland, appears to have initiated as runoff from underneath a concrete slab associated with the poultry sheds, then continues west before traveling through a culverted pipe and becoming more incised at several points before abruptly terminating (see Appendix F, Photo 40). Based on the established vegetation and a review of historic aerials (Appendix C), D-1 is an abandoned ditch that was created between May 2002 and June 2003 to convey runoff away from the poultry sheds. D-1 displayed a break in bank slope but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other other OHWM indicators. Vegetation within the ditch was well established and contained some refuse from the former agricultural operations, indicating that this ditch likely no longer receives flows and does not convey flows downstream into NWW-3BA.

7 DEVIATION FROM NWI AND NHD

The delineated extent of NWW-3 generally occurs within the area mapped by the USFWS NWI as “Riverine” and the area mapped by the NRCS NHD as an ephemeral “Stream/River” in the southern portion of the review area. However, although the NWI designates this aquatic resource as intermittent (R4), based on field observations in April and June 2021, NWW-3 is expected to convey ephemeral flows (i.e., only in direct response to precipitation). The delineated extent of NWW-2 generally occurs within the area mapped by the NRCS NHD as an ephemeral “Stream/River” in the western portion of the review area. The delienated extent of B-1, B-2, B-3, B-4, and B-5 generally occur within five of the areas mapped by the NRCS NHD as “Reservoir”; two additional areas mapped by the NRCS NHD as “Reservoir” were inspected but were determined to not qualify as reservoirs based on a lack of cracked soils and concavity (see *Basins 1 – 5* above). USGS NHD and USFWS NWI do not map any additional aquatic resources within the review area.

8 RESULTS AND CONCLUSIONS

The results provided in this section include the extent of delineated aquatic resources within the review area based on observed field indicators of potential waters of the U.S., waters of the State, and CDFW streambed and associated wetland and/or riparian habitat per the methodologies discussed in Section 3.

This section, however, does not analyze the Corps' jurisdictional status of the delineated features per the current regulations, guidance, and standard operating procedures. A jurisdictional analysis for an AJD, along with the applicable JD request forms, will be provided under separate cover to the Corps.

8.1 CORPS

NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 displayed clear indicators of an OHWM, such as a break in bank slope, change in average sediment texture, and change in vegetation species and cover between the drainage and adjacent uplands (Figure 5A). However, these features did not meet the three wetland parameters.

As such, NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 may be considered non-wetland waters of the U.S. given the presence of an OHWM. Approximately 0.83 acre (7,483 linear feet) of potential non-wetland waters of the U.S. associated with NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 occur within the review area, as further detailed in Table 6 and as shown on Figure 5A. The ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet is included as Appendix I.

Table 6. Aquatic Resource Summary Table: Corps

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Observed OHWM Indicators[1]	Observed Wetland Parameters[2]	Presence of OHWM/ Wetland	Dominant Vegetation[3]	Location (lat, long)	Acre(s)[4]	Linear Feet
NWW-1	R6	4 – 6	CVC, BBS; see NWW-1A[5]	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.965908, -117.025153	0.02	175
NWW-1A	R6	6 – 6	CVC, BBS	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.966006, -117.025084	0.02	156
NWW-2	R6	3 – 4	CVC, BBS	None	Yes/No	Non-native Grassland; See WDP 2	33.964929, -117.023925	0.09	1,018
NWW-2A	R6	1 – 2	CVC, BBS; see NWW-2[5]	None; see NWW-2[6]	Yes/No	Mulefat Scrub; See WDP 3	33.964977, -117.022656	<0.01	168
NWW-2B	R6	3 – 3	CVC, BBS; see NWW-2[5]	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.965185, -117.022994	0.01	175
NWW-2C	R6	3 – 3	CVC, BBS; see NWW-2[5]	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.964845, -117.023224	0.01	109

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Observed OHWM Indicators[1]	Observed Wetland Parameters[2]	Presence of OHWM/ Wetland	Dominant Vegetation[3]	Location (lat, long)	Acre(s)[4]	Linear Feet
NWW-3	R6	4 – 8	CAST, CVS, CVC, BBS	HV	Yes/No	Mulefat Scrub; See WDP 3	33.962391, -117.021747	0.39	2,710
NWW-3A	R6	3 – 6	CAST, CVS, BBS	HV; see NWW-3[6]	Yes/No	Non-native Grassland; See WDP 2	33.962760, -117.018132	0.15	1,290
NWW-3B	R6	4 – 4	CAST, CVS, BBS; see NWW-3A[5]	HV; see NWW-3[6]	Yes/No	Mulefat Scrub; See WDP 3	33.963540, -117.022834	0.12	1,273
NWW-3B1	R6	1 – 4	CAST, CVS, BBS; see NWW-3A[5]	HV; see NWW-3[6]	Yes/No	Non-native Grassland; See WDP 2	33.964055, -117.021934	0.03	409
							Total	0.83	7,483

[1] OHWM Indicators: CAST = Change in average sediment texture; CVS = Change in vegetation species; CVC = Change in vegetation cover; BBS = Break in bank slope
[2] Wetland Indicators: HV = Hydrophytic vegetation
[3] See Figure 6 for all vegetation communities present within each aquatic resource.
[4] Acreages summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.
[5] Based on a representative ODP taken within an aquatic resource with similar conditions.
[6] Based on a representative WDP taken within an aquatic resource with similar conditions.

8.2 RWQCB

NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 displayed clear indicators of an OHWM, such as a break in bank slope, change in average sediment texture, and change in vegetation species and cover between the drainage and adjacent uplands (Figure 5B). However, these features did not meet the three wetland parameters.

As such, NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 may be considered non-wetland waters of the State given the presence of an OHWM. Approximately 0.83 acre (7,483 linear feet) of potential non-wetland waters of the State associated with NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 occur within the review area, as further detailed in Table 7 and as shown on Figure 5B.

Table 7. Aquatic Resource Summary Table: RWQCB

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Observed OHWM Indicators[1]	Observed Wetland Parameters[2]	Presence of OHWM/ Wetland	Dominant Vegetation[3]	Location (lat, long)	Acre(s)[4]	Linear Feet
NWW-1	R6	4 – 6	CVC, BBS; see NWW-1A[5]	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.965908, -117.025153	0.02	175

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Observed OHWM Indicators[1]	Observed Wetland Parameters[2]	Presence of OHWM/ Wetland	Dominant Vegetation[3]	Location (lat, long)	Acre(s)[4]	Linear Feet
NWW-1A	R6	6 – 6	CVC, BBS	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.966006, -117.025084	0.02	156
NWW-2	R6	3 – 4	CVC, BBS	None	Yes/No	Non-native Grassland; See WDP 2	33.964929, -117.023925	0.09	1,018
NWW-2A	R6	1 – 1	CVC, BBS; see NWW-2[5]	None; see NWW-2[6]	Yes/No	Mulefat Scrub; See WDP 3	33.964977, -117.022656	<0.01	168
NWW-2B	R6	3 – 3	CVC, BBS; see NWW-2[5]	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.965185, -117.022994	0.01	175
NWW-2C	R6	3 – 3	CVC, BBS; see NWW-2[5]	None; see NWW-2[6]	Yes/No	Non-native Grassland; See WDP 2	33.964845, -117.023224	0.01	109
NWW-3	R6	4 – 8	CAST, CVS, CVC, BBS	HV	Yes/No	Mulefat Scrub; See WDP 3	33.962391, -117.021747	0.39	2,710
NWW-3A	R6	3 – 6	CAST, CVS, BBS	HV; see NWW-3[6]	Yes/No	Non-native Grassland; See WDP 2	33.962760, -117.018132	0.15	1,290
NWW-3B	R6	4 – 4	CAST, CVS, BBS; see NWW-3A[5]	HV; see NWW-3[6]	Yes/No	Mulefat Scrub; See WDP 3	33.963540, -117.022834	0.12	1,273
NWW-3B1	R6	1 – 4	CAST, CVS, BBS; see NWW-3A[5]	HV; see NWW-3[6]	Yes/No	Non-native Grassland; See WDP 2	33.964055, -117.021934	0.03	409
							Total	0.83	7,483

[1] OHWM Indicators: CAST = Change in average sediment texture; CVS = Change in vegetation species; CVC = Change in vegetation cover; BBS = Break in bank slope
[2] Wetland Indicators: HV = Hydrophytic vegetation
[3] See Figure 6 for all vegetation communities present within each aquatic resource.
[4] Acreages summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.
[5] Based on a representative ODP taken within an aquatic resource with similar conditions.
[6] Based on a representative WDP taken within an aquatic resource with similar conditions.

8.3 CDFW

NWW-1, NWW-1A, NWW-2, NWW-2A, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 qualify as CDFW streambed with associated riparian habitat.

Approximately 8.00 acres (7,483 linear feet) of vegetated streambed and 1.01 acres of riparian habitat occur within the review area, as further detailed in Table 8 and as shown on Figure 5C.

Table 8. Aquatic Resource Summary Table: CDFW

Aquatic Resource Name	Aquatic Resource Type	Vegetation Community	Width Range[1] (Feet)	Location (lat, long)	Acre(s)	Linear Feet[2]
NWW-1	Vegetated Streambed	Non-native Grassland	10 – 22	33.965912, -117.025153	0.06	191
		Torrey's Scrub Oak		33.965905, -117.025193	0.01	
NWW-1A	Vegetated Streambed	Non-native Grassland	8 – 24	33.966014, -117.025085	0.07	139
NWW-2	Vegetated Streambed	Non-native Grassland	14 – 56	33.964951, -117.023674	0.71	1,095
		Torrey's Scrub Oak		33.964834, -117.024985	0.12	
NWW-2A	Vegetated Streambed	Non-native Grassland	1 – 2	33.964970, -117.022752	<0.01	132
		Mulefat Scrub		33.964971, -117.022536	<0.01	
	Riparian Habitat[3]	Mulefat Scrub	N/A	33.964966, -117.022542	0.03	—
NWW-2B	Vegetated Streambed	Non-native Grassland	10 – 28	33.965173, -117.023011	0.08	150
NWW-2C	Vegetated Streambed	Non-native Grassland	19 – 40	33.964825, -117.023223	0.07	93
NWW-3	Vegetated Streambed	Non-native Grassland	12 – 140	33.962547, -117.021943	2.37	2,950
		Mulefat Scrub		33.963045, -117.023804	1.05	
		Eucalyptus Woodland		33.963695, -117.025272	0.07	
		Non-native Riparian		33.962377, -117.022101	1.02	
		Blue Elderberry		33.962170, -117.020330	0.11	
		Riversidean Sage Scrub		33.961267, -117.018481	0.03	
	Riparian Habitat[3]	Mulefat Scrub	N/A	33.961528, -117.018718	0.03	—
		Non-native Riparian		33.962322, -117.022037	0.69	
		Blue Elderberry		33.962269, -117.020283	0.04	

Aquatic Resource Name	Aquatic Resource Type	Vegetation Community	Width Range[1] (Feet)	Location (lat, long)	Acre(s)	Linear Feet[2]
NWW-3A	Vegetated Streambed	Non-native Grassland	7 – 62	33.962783, -117.018163	0.87	1,261
		Blue Elderberry		33.962425, -117.019001	0.14	
	Riparian Habitat[3]	Blue Elderberry	N/A	33.962362, -117.019172	0.01	—
NWW-3B	Vegetated Streambed	Non-native Grassland	20 – 60	33.963562, -117.023254	0.36	1,106
		Mulefat Scrub		33.963617, -117.022422	0.61	
		Riversidean Sage Scrub		33.963566, -117.022903	0.07	
	Riparian Habitat[3]	Mulefat Scrub	N/A	33.963610, -117.020925	0.21	—
NWW-3B1	Vegetated Streambed	Non-native Grassland	6 – 34	33.964098, -117.021923	0.18	365
				Total[4]	9.01	7,483

[1] Corresponds with the approximate stream bank widths observed during delineation. Width range accounts for entirety of streambed delineated, not individual vegetation communities.
[2] Linear feet not calculated for individual aquatic resource type and vegetation community (including riparian habitat that occurs outside of delineated streambed) to avoid redundant linear foot calculation where such areas overlap.
[3] Occurs outside of delineated streambed.
[4] Acreages and linear feet totals were summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.

8.4 DISCLAIMER STATEMENT

The aquatic resources acreages and linear feet estimated in this section represent the existing conditions during the time of the field surveys. Please note that the applicable agencies will make final jurisdictional determinations. RBC recommends early coordination with the resource agencies to determine the final jurisdictional boundaries, applicable permitting processes, compensatory mitigation requirements, and other potential permitting issues specific to the proposed work within the review area. Agency representatives may request to access the site to field-verify the results of this ARDR with the applicant, or a designated representative.

The information provided in this report should remain valid for up to five years from the date of the field effort for the jurisdictional delineation unless site conditions change substantially, or a regulatory agency requires an updated report.

9 CONTACT INFORMATION

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Phoenix, AZ 85018

andrew.greybar@eqtexeter.com

708-341-9821

Agent:

Shanti Santulli

Rocks Biological Consulting

4312 Rialto Street

San Diego, CA 92107

shanti@rocksbio.com

619-674-8067

Agency access to the review area can be coordinated with the applicant and/or agent upon request.

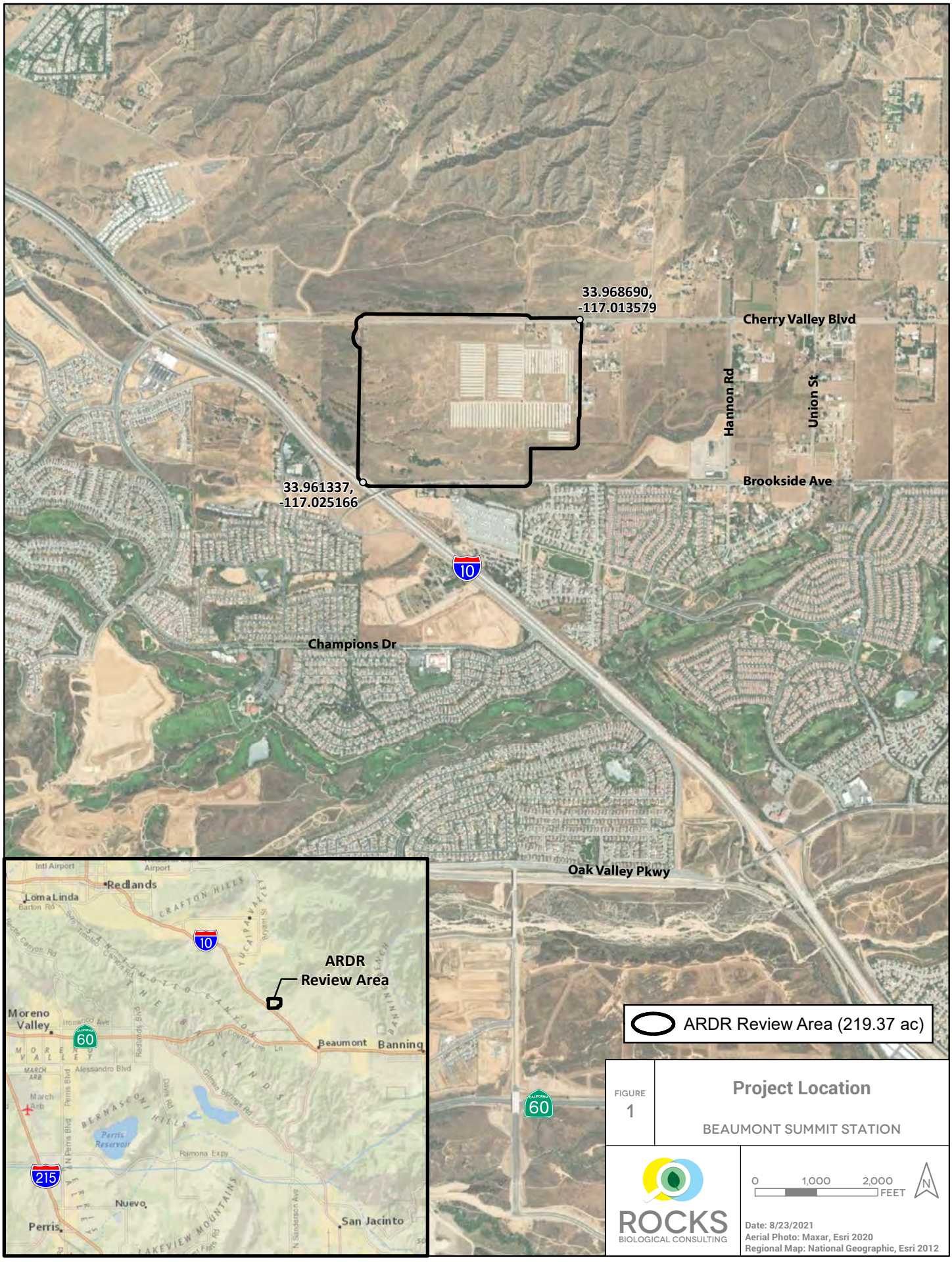


FIGURE 1

Project Location

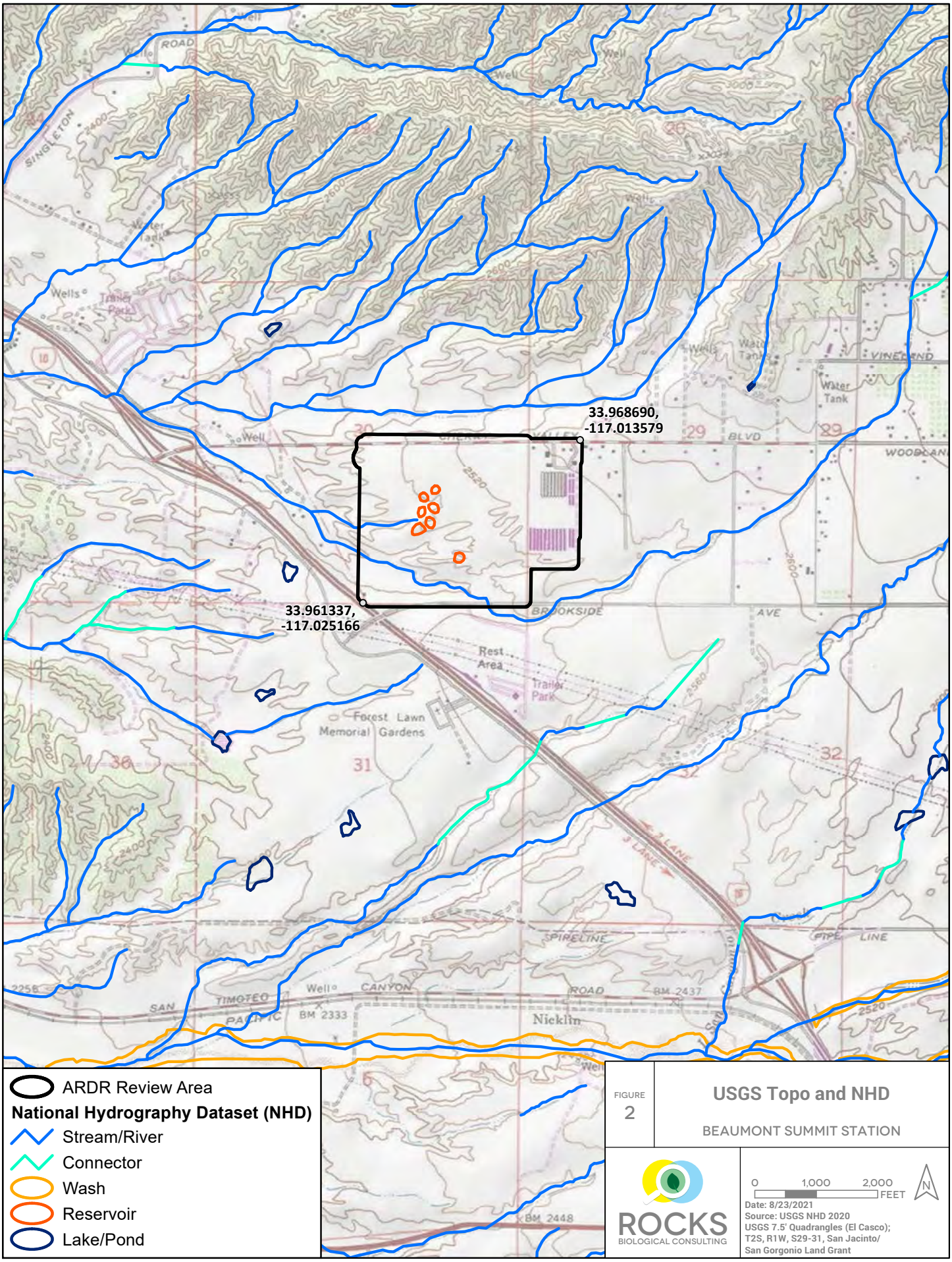
BEAUMONT SUMMIT STATION

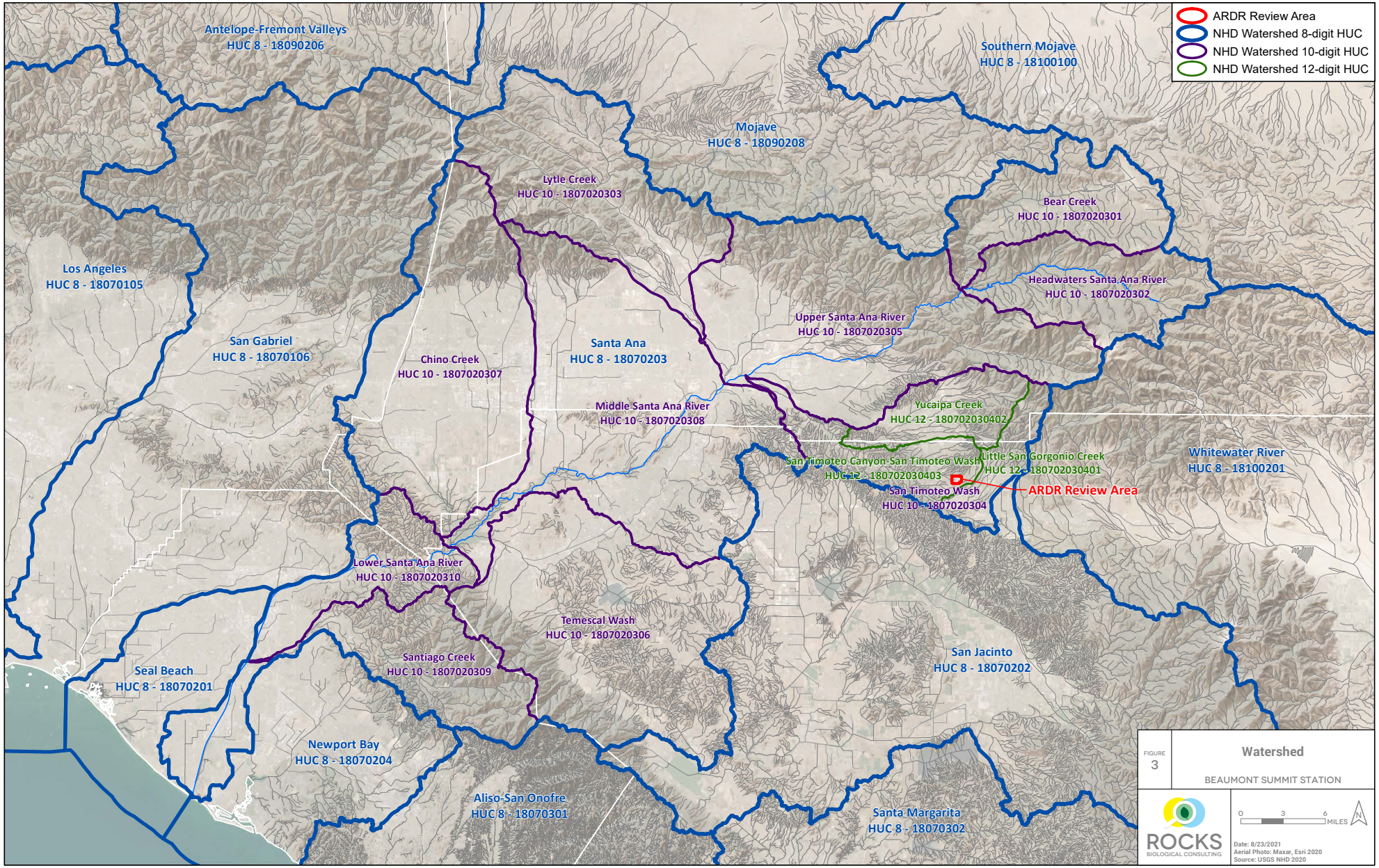
ROCKS BIOLOGICAL CONSULTING

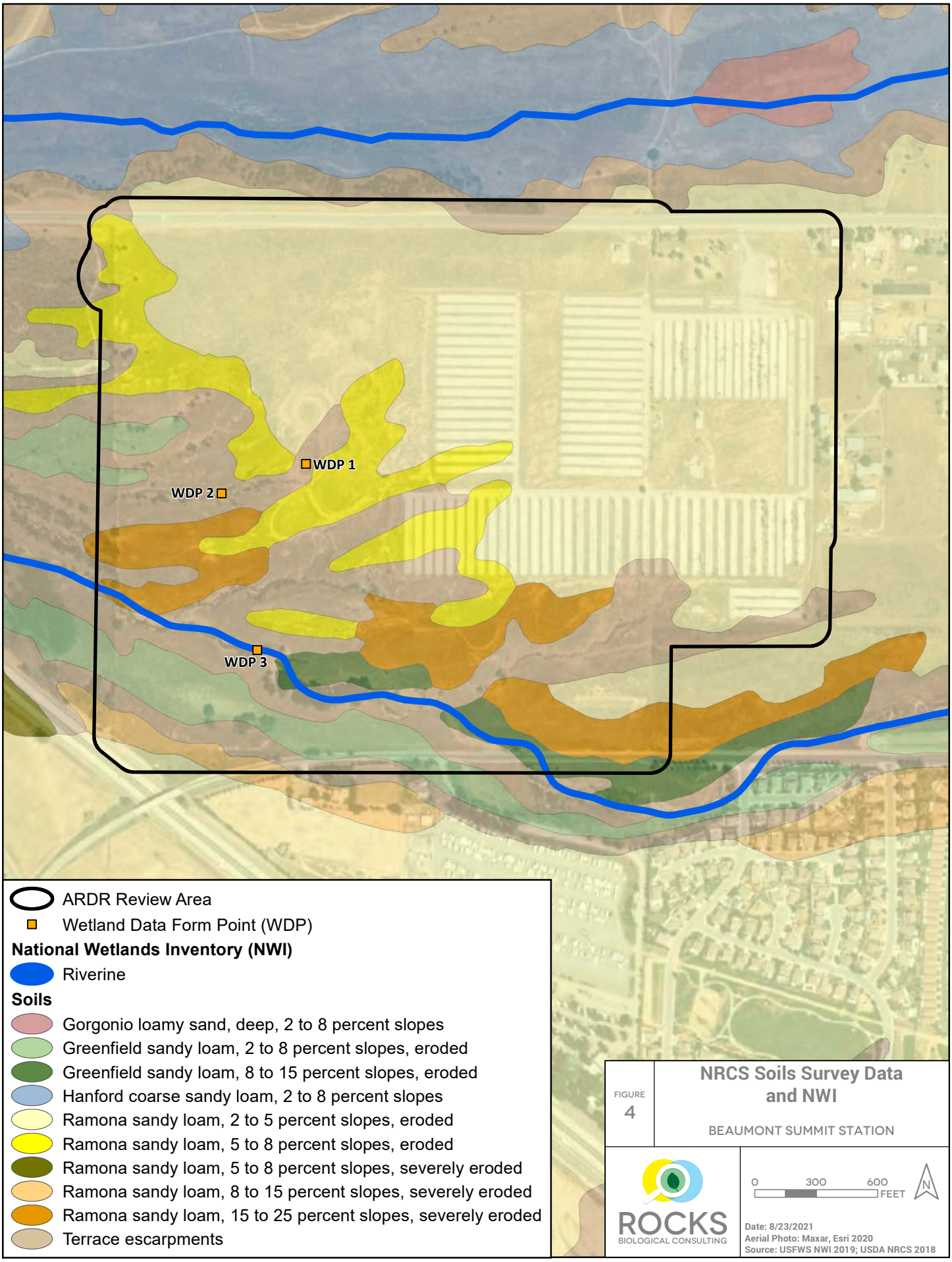
0 1,000 2,000 FEET

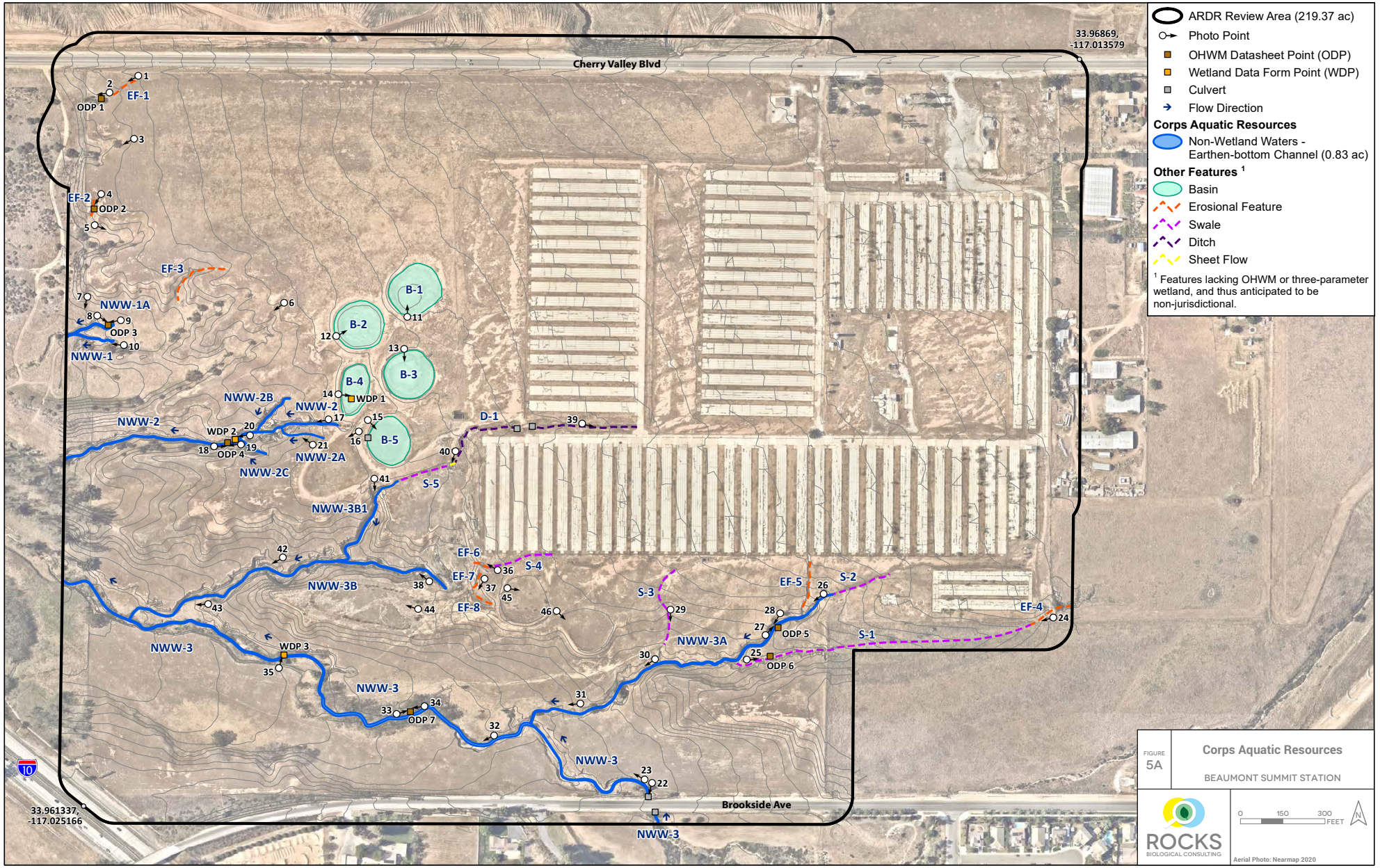
N

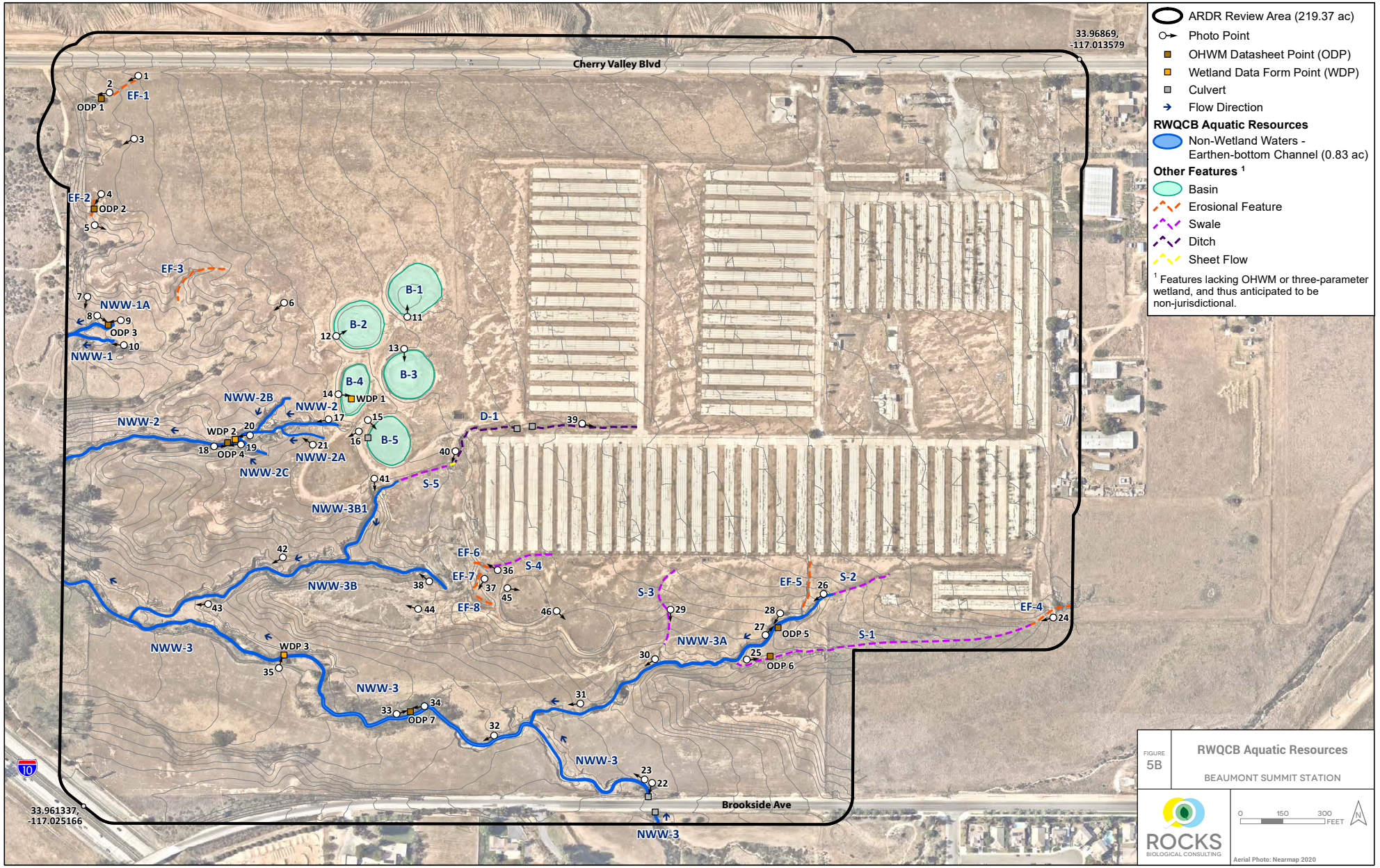
Date: 8/23/2021
Aerial Photo: Maxar, Esri 2020
Regional Map: National Geographic, Esri 2012

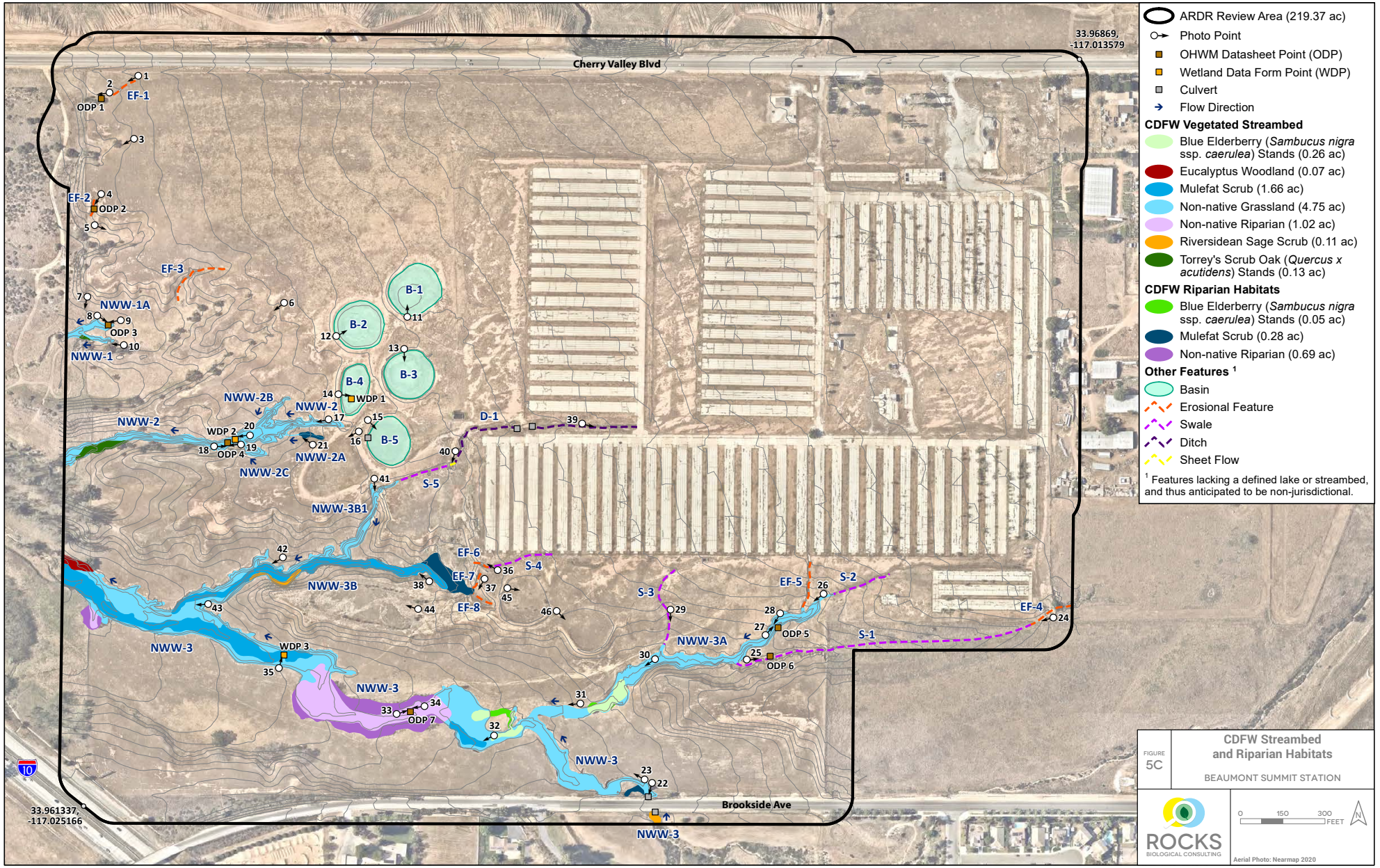

33.968690,
-117.013579
33.961337,
-117.025166
ARDR Review Area
National Hydrography Dataset (NHD)
Stream/River
Connector
Wash
Reservoir
Lake/Pond
FIGURE
2
USGS Topo and NHD
BEAUMONT SUMMIT STATION
ROCKS
BIOLOGICAL CONSULTING
0
1,000
2,000
FEET
N
Date: 8/23/2021
Source: USGS NHD 2020
USGS 7.5' Quadrangles (El Casco);
T2S, R1W, S29-31, San Jacinto/
San Gorgonio Land Grant

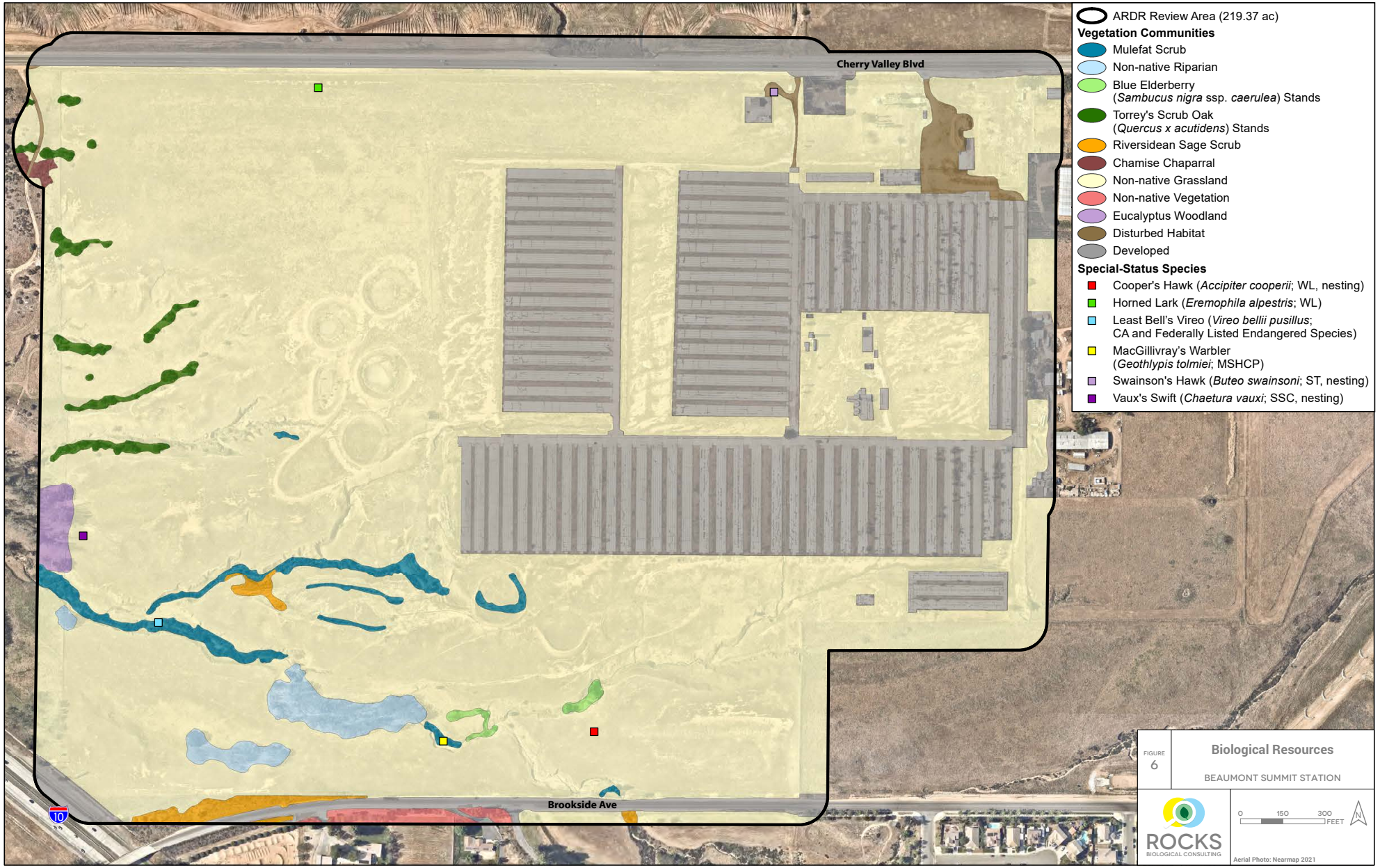

ARDR Review Area
NHD Watershed 8-digit HUC
NHD Watershed 10-digit HUC
NHD Watershed 12-digit HUC
Antelope-Fremont Valleys
HUC 8 - 18090206
Southern Mojave
HUC 8 - 18100100
Mojave
HUC 8 - 18090208
Lytle Creek
HUC 10 - 1807020303
Bear Creek
HUC 10 - 1807020301
Los Angeles
HUC 8 - 18070105
Headwaters Santa Ana River
HUC 10 - 1807020302
Upper Santa Ana River
HUC 10 - 1807020305
San Gabriel
HUC 8 - 18070106
Chino Creek
HUC 10 - 1807020307
Santa Ana
HUC 8 - 18070203
Middle Santa Ana River
HUC 10 - 1807020308
Yucaipa Creek
HUC 12 - 180702030402
San Timoteo Canyon-San Timoteo Wash
HUC 12 - 180702030403
Little San Gorgonio Creek
HUC 12 - 180702030401
Whitewater River
HUC 8 - 18100201
ARDR Review Area
San Timoteo Wash
HUC 10 - 1807020304
Lower Santa Ana River
HUC 10 - 1807020310
Temescal Wash
HUC 10 - 1807020306
Santiago Creek
HUC 10 - 1807020309
San Jacinto
HUC 8 - 18070202
Seal Beach
HUC 8 - 18070201
Newport Bay
HUC 8 - 18070204
Aliso-San Onofre
HUC 8 - 18070301
Santa Margarita
HUC 8 - 18070302
FIGURE
3
Watershed
BEAUMONT SUMMIT STATION
ROCKS
BIOLOGICAL CONSULTING
0
3
6
MILES
N
Date: 8/23/2021
Aerial Photo: Maxar, Esri 2020
Source: USGS NHD 2020


WDP 1
WDP 2
WDP 3
ARDR Review Area
Wetland Data Form Point (WDP)
National Wetlands Inventory (NWI)
Riverine
Soils
Gorgonio loamy sand, deep, 2 to 8 percent slopes
Greenfield sandy loam, 2 to 8 percent slopes, eroded
Greenfield sandy loam, 8 to 15 percent slopes, eroded
Hanford coarse sandy loam, 2 to 8 percent slopes
Ramona sandy loam, 2 to 5 percent slopes, eroded
Ramona sandy loam, 5 to 8 percent slopes, eroded
Ramona sandy loam, 5 to 8 percent slopes, severely eroded
Ramona sandy loam, 8 to 15 percent slopes, severely eroded
Ramona sandy loam, 15 to 25 percent slopes, severely eroded
Terrace escarpments
FIGURE 4
NRCS Soils Survey Data and NWI
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 300 600 FEET
N
Date: 8/23/2021
Aerial Photo: Maxar, Esri 2020
Source: USFWS NWI 2019; USDA NRCS 2018


ARDR Review Area (219.37 ac)
Photo Point
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Culvert
Flow Direction
Corps Aquatic Resources
Non-Wetland Waters - Earthen-bottom Channel (0.83 ac)
Other Features [1]
Basin
Erosional Feature
Swale
Ditch
Sheet Flow
[1] Features lacking OHWM or three-parameter wetland, and thus anticipated to be non-jurisdictional.
Cherry Valley Blvd
33.96869, -117.013579
33.961337, -117.025166
Brookside Ave
EF-1
EF-2
EF-3
EF-4
EF-5
EF-6
EF-7
EF-8
ODP 1
ODP 2
ODP 3
ODP 4
ODP 5
ODP 6
ODP 7
WDP 1
WDP 2
WDP 3
NWW-1
NWW-1A
NWW-2
NWW-2A
NWW-2B
NWW-2C
NWW-3
NWW-3A
NWW-3B
NWW-3B1
B-1
B-2
B-3
B-4
B-5
D-1
S-1
S-2
S-3
S-4
S-5
FIGURE 5A
Corps Aquatic Resources
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
Aerial Photo: Nearmap 2020


Cherry Valley Blvd
33.96869, -117.013579
33.961337, -117.025166
Brookside Ave
ODP 1
EF-1
EF-2
ODP 2
EF-3
NWW-1A
ODP 3
NWW-1
B-1
B-2
B-3
B-4
B-5
WDP 1
WDP 2
ODP 4
NWW-2B
NWW-2
NWW-2A
NWW-2C
D-1
S-5
NWW-3B1
NWW-3B
EF-6
EF-7
EF-8
S-4
S-3
EF-5
S-2
EF-4
S-1
NWW-3A
ODP 5
ODP 6
WDP 3
NWW-3
ODP 7
NWW-3
NWW-3
ARDR Review Area (219.37 ac)
Photo Point
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Culvert
Flow Direction
RWQCB Aquatic Resources
Non-Wetland Waters - Earthen-bottom Channel (0.83 ac)
Other Features [1]
Basin
Erosional Feature
Swale
Ditch
Sheet Flow
[1] Features lacking OHWM or three-parameter wetland, and thus anticipated to be non-jurisdictional.
FIGURE 5B
RWQCB Aquatic Resources
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
Aerial Photo: Nearmap 2020


Cherry Valley Blvd
33.96869, -117.013579
33.961337, -117.025166
Brookside Ave
EF-1
EF-2
EF-3
EF-4
EF-5
EF-6
EF-7
EF-8
ODP 1
ODP 2
ODP 3
ODP 4
ODP 5
ODP 6
ODP 7
WDP 1
WDP 2
WDP 3
NWW-1
NWW-1A
NWW-2
NWW-2A
NWW-2B
NWW-2C
NWW-3
NWW-3A
NWW-3B
NWW-3B1
B-1
B-2
B-3
B-4
B-5
D-1
S-1
S-2
S-3
S-4
S-5
ARDR Review Area (219.37 ac)
Photo Point
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Culvert
Flow Direction
CDFW Vegetated Streambed
Blue Elderberry (Sambucus nigra ssp. caerulea) Stands (0.26 ac)
Eucalyptus Woodland (0.07 ac)
Mulefat Scrub (1.66 ac)
Non-native Grassland (4.75 ac)
Non-native Riparian (1.02 ac)
Riversidean Sage Scrub (0.11 ac)
Torrey's Scrub Oak (Quercus x acutidens) Stands (0.13 ac)
CDFW Riparian Habitats
Blue Elderberry (Sambucus nigra ssp. caerulea) Stands (0.05 ac)
Mulefat Scrub (0.28 ac)
Non-native Riparian (0.69 ac)
Other Features 1
Basin
Erosional Feature
Swale
Ditch
Sheet Flow
1 Features lacking a defined lake or streambed, and thus anticipated to be non-jurisdictional.
FIGURE 5C
CDFW Streambed and Riparian Habitats
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
Aerial Photo: Nearmap 2020


Cherry Valley Blvd
Brookside Ave
10
ARDR Review Area (219.37 ac)
Vegetation Communities
Mulefat Scrub
Non-native Riparian
Blue Elderberry (Sambucus nigra ssp. caerulea) Stands
Torrey's Scrub Oak (Quercus x acutidens) Stands
Riversidean Sage Scrub
Chamise Chaparral
Non-native Grassland
Non-native Vegetation
Eucalyptus Woodland
Disturbed Habitat
Developed
Special-Status Species
Cooper's Hawk (Accipiter cooperii; WL, nesting)
Horned Lark (Eremophila alpestris; WL)
Least Bell's Vireo (Vireo bellii pusillus; CA and Federally Listed Endangered Species)
MacGillivray's Warbler (Geothlypis tolmiei; MSHCP)
Swainson's Hawk (Buteo swainsoni; ST, nesting)
Vaux's Swift (Chaetura vauxi; SSC, nesting)
FIGURE 6
Biological Resources
BEAUMONT SUMMIT STATION
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
N
Aerial Photo: Nearmap 2021

APPENDIX A

CHECKLIST: MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS

APPENDIX A. CHECKLIST: MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS, LOS ANGELES DISTRICT REGULATORY DIVISION, USACE, MARCH 16, 2017

REPORT SECTION/ PAGE NUMBER	MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS	ADDITIONAL NOTES
Section 1; Appendix G	1. JD REQUEST AND FORMS: ☑ A cover letter indicating whether you are requesting a jurisdictional determination (JD)*. ☑ If you are requesting a JD, you must complete, sign, and return the Request for Corps Jurisdictional Determination (JD) sheet. ☐ For preliminary jurisdictional determinations the Preliminary Jurisdictional Determination Form must be signed and submitted.	AJD Form and cover letter to be provided under separate cover.
Section 9	2. CONTACT INFORMATION: Contact information for the ☑ applicant(s), ☑ property owner(s), and ☑ agent(s).	
N/A	3. SITE ACCESS: If the property owner or their representatives will not accompany the Corps to the site, a signed statement from the property owner(s) allowing Corps personnel to enter the property and to collect samples during normal business hours. If the property lacks direct access by public roads (in other words, access requires passage through private property not owned by the applicant), the owner or proponent must obtain permission from the adjacent property owner(s) to provide access for Corps personnel.	Property owner and/or representatives will accompany the Corps for a site visit upon request.
Section 2.1	4. LOCATION: ☑ Directions to the survey area, ☐ an address (if available) and ☑ one or more set of geographic coordinates expressed in decimal degrees.	
Section 3.2.1	5. DELINEATION MANUAL CONFIRMATION: ☑ A statement confirming the delineation has been conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and applicable regional supplement(s). ☑ The regional supplement(s) used must be identified. ☑ For OHWM delineations, a statement must be included confirming the use of the OHWM field guide or that it is not applicable.	
Section 6	6. AQUATIC RESOURCE(S) DESCRIPTION: ☑ A narrative describing all aquatic resources on-site and an explanation of the mapped boundaries and any complex transition zones. ☑ If the site contains resources that only meet one or two of the three wetland criteria or do not exhibit a clear OHWM, describe the rationale for their inclusion or exclusion from the delineation. ☑ Also explain if any erosional features, upland swales, ditches and other potential aquatic features were considered but not included in the delineation.	
Figures 1 and 5A; Section 6; Table 6	7. AQUATIC RESOURCE MAPPING AND ACREAGE: ☑ Map of the outside survey boundary, ☑ total extent of aquatic and proposed non-aquatic features, ☑ type of feature(s) (waters of the United States or wetland), and include ☑ the total acreage for each polygon.	
Section 3.2; Table 1	8. FIELD WORK DATES: ☑ Date(s) field work was completed.	
Table 6	9. AQUATIC RESOURCE TABLE: A table listing all aquatic resources. The table must include ☑ the name of each aquatic resource (actual or arbitrary), ☑ its Cowardin type, ☑ acreage, ☑ summary of OHWM/wetland presence, ☑ dominant vegetation for each, and ☑ location (latitude/longitude in decimal degrees). ☑ For linear features, the table must show both acreage and linear feet as well as channel measurements (active channel width).	
Section 4; Tables 1, 4, and 5; Appendices E and F	10. FIELD CONDITIONS: A description of existing field conditions, including ☑ current land use, ☑ normal conditions, ☑ flood/drought conditions, ☐ irrigation practices, ☑ past or recent manipulation to the site, and ☐	N/A for unchecked; APT data provided in

	characteristics considered atypical (for criteria see OHWM and wetland supplement guides). ☑ Include WETS tables or pre-site visit precipitation data as appropriate: https://www.wcc.nrcs.usda.gov/climate/wets_doc.html.*	lieu of WETS tables
Section 4.2	11. HYDROLOGY: ☑ A discussion of the hydrology at the site, including ☑ all known surface or subsurface sources, ☑ drainage gradients, ☑ downstream connections to the nearest traditional navigable waterway or interstate water, and ☑ any influence from manmade water sources such as irrigation.	
N/A	12. REMOTE SENSING: ☐ If remote sensing was used in the delineation, provide an explanation of how it was used and include the name, date and source of the tools and data used and copies of the maps/photographs.	N/A
Section 4.1; Table 2; Figure 4; Appendix F	13. SOILS: ☑ Soil descriptions, ☑ soil map(s), ☑ soil photos, and ☑ a discussion of hydric soils (for wetland delineations only).	
Figure 2	14. USGS QUADRANGLE: ☑ A site location map on a 7.5-minute USGS quadrangle. The map must provide ☑ the name of the USGS quadrangle, ☑ Section, ☑ Township, ☑ Range, and ☑ the latitude and longitude in decimal degree format.	
Appendix I	15. BULK UPLOAD FORM: ☑ For sites with 3 or more separate aquatic features a completed copy of the ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet must be submitted.	
Figure 5 series	16. FIGURES: ☑ Map(s) of all delineated aquatic resources in accordance with the Final Map and Drawing Standards for the South Pacific Division Regulatory Program.	
Figure 5 series and Appendix F	17. SITE PHOTOGRAPHS: ☑ Ground photographs showing representative aquatic resource sites (or lack of), ☑ as well as an accompanying map of photo-points and table of photographic information (see Final Map and Drawing Standards for the South Pacific Division Regulatory Program item no. 8 a-c).	
Appendix D	18. DATA FORMS: ☑ Completed data forms including all essential information to make a jurisdictional determination [e.g. 2006 Wetland Determination Data Form -- Arid West Supplement; 2010 Arid West Ephemeral and Intermittent Streams OHWM Datasheet].	
Section 3	19. METHODS: ☑ A description of the methods used to survey the aquatic resource boundaries. ☑ If GPS data is used, the level of accuracy must be included. Ideally, the GPS equipment should have the capability of sub-meter (<=1 meter) level horizontal accuracy.	
Appendix J	20. GIS DATA: ☑ Digital data for the site, aquatic resource boundaries, and data point locations must be provided in a geographic information system (GIS) format, preferably either ESRI shapefiles or Geodatabase format, but GoogleEarth KMZ or KML files may be acceptable non-complex projects. Each GIS data file must be accompanied by a metadata file containing the appropriate geographic coordinate system, projection, datum, and labeling description. If GIS data is unavailable or otherwise cannot be produced and the Corps determines a site visit is necessary, the aquatic resource boundaries should be physically marked with numbered flags or stakes to facilitate verification by the Corps.	

APPENDIX B

APPLICABLE AQUATIC RESOURCE PROTECTION REGULATIONS

APPENDIX B. APPLICABLE AQUATIC RESOURCE PROTECTION REGULATIONS

Several regulations have been established by federal, state, and local agencies to protect and conserve aquatic resources. The descriptions below provide a brief overview of agency regulations that may be applicable to the project.

Executive Order 11990

Executive Order 11990 aims to avoid direct or indirect impacts on wetlands from federal or federally approved projects when a practicable alternative is available. If wetland impacts cannot be avoided, all practicable measures to minimize harm must be included.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (33 U.S. Code [USC] § 1251 et seq.; CWA), the U.S. Army Corps of Engineers (Corps) is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 Code of Federal Regulations (CFR) 328.3 (51 Federal Register [FR] 41217, November 13, 1986; 53 FR 20764, June 6, 1988) and further defined by the 2001 *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers* (SWANCC; 531 U.S. 159) decision and the 2006 *Rapanos v. United States* (547 U.S. 715) decision. The Corps, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. The Corps would require a Standard Individual Permit (SIP) for more than minimal impacts to waters of the U.S. as determined by the Corps. Projects with minimal individual and cumulative adverse effects on the environment may meet the conditions of an existing Nationwide Permit (NWP).

A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for all Section 404 permitted actions. The Regional Water Quality Control Board (RWQCB), a division of the State Water Resources Control Board (SWRCB), provides oversight of the Section 401 certification process in California. The RWQCB must certify "that there is a reasonable assurance that the activity will be conducted in a manner which will not violate water quality standards" (40 CFR 121.2(a)(3)). Water Quality Certification's must be based on the findings that a proposed discharge will comply with applicable water quality standards.

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) provides for statewide coordination of water quality regulations. The SWRCB was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCBs have primary responsibility for protecting water quality in California. As discussed above, the RWQCBs regulate discharges to surface waters under the CWA. In addition, the RWQCBs are responsible for administering the Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could

affect its water quality must first file a Report of Waste Discharge if a Section 404 permit is not required for the activity. “Waste” is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

California Fish and Game Code Section 1600-1602

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Game Code (CFGC), 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 that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources (e.g., riparian or wetland areas not supported by a river, lake, or stream). CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and applicant is the Lake or Streambed Alteration Agreement.

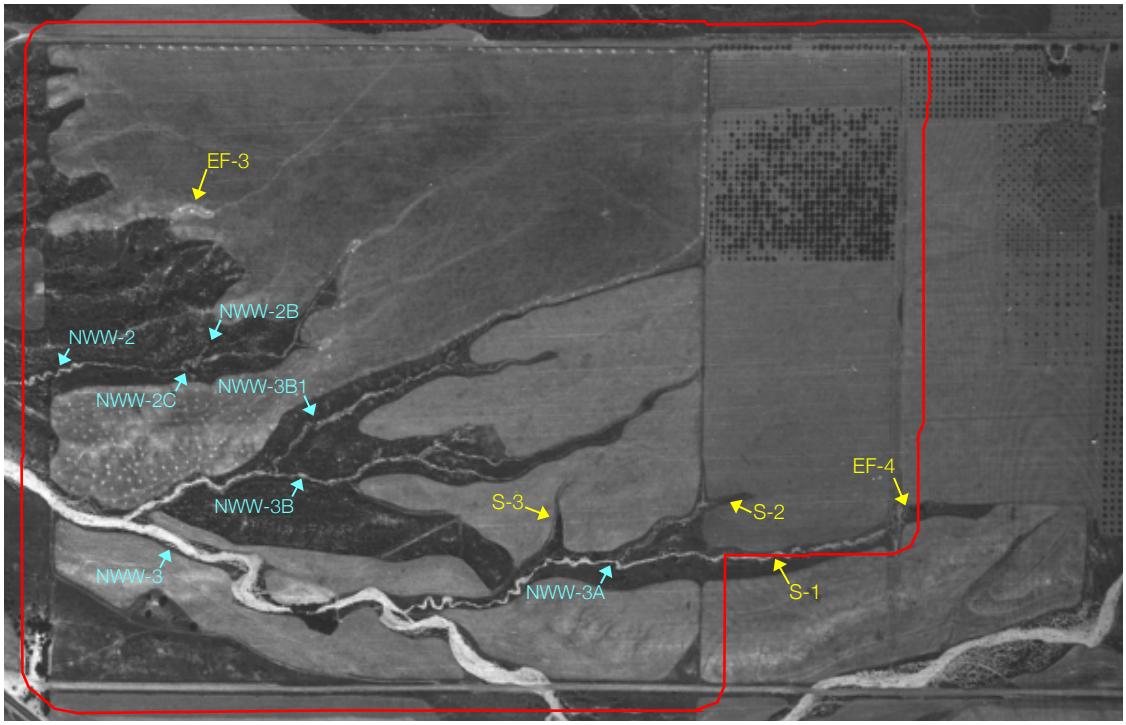
APPENDIX C

RECENT AND HISTORIC AERIALS ANALYSIS

Appendix C

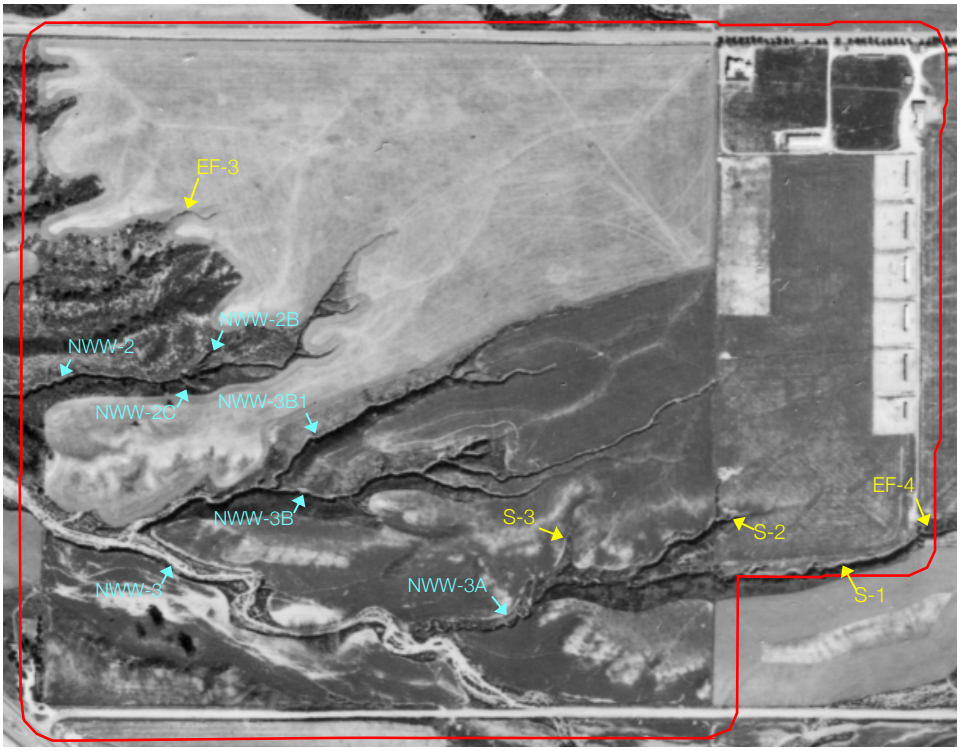
Recent and Historic Aerials Analysis

Source: Google Earth Pro and University of California – Santa Barbara



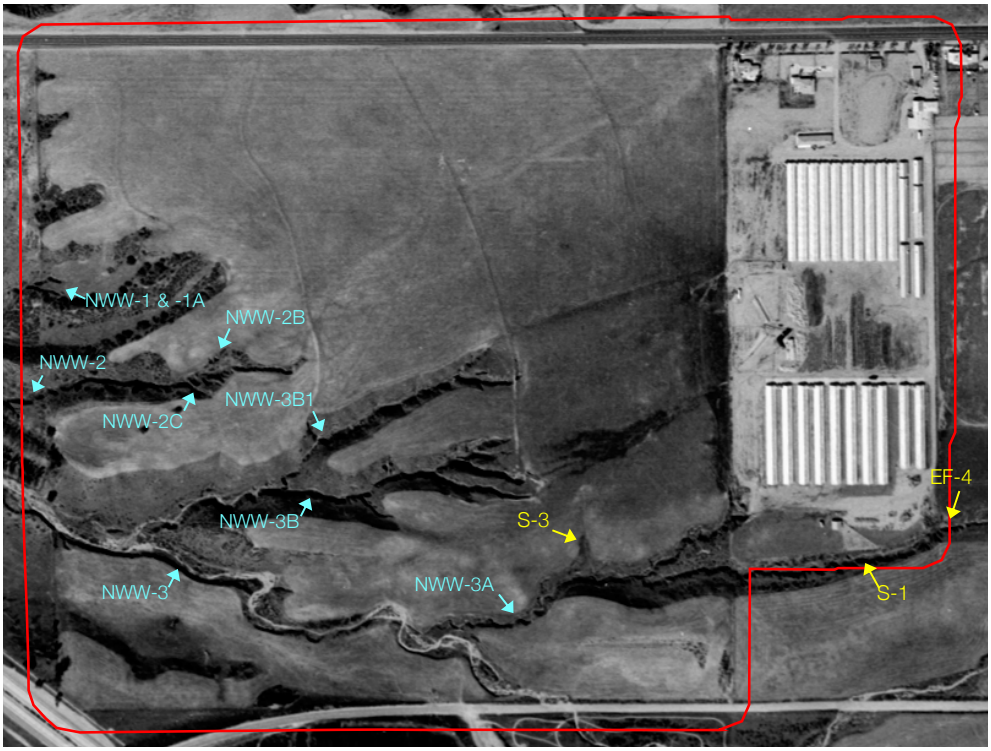
May 1938 – Agriculture fields are present on the northeast corner of the review area. The review area appears to be regularly mowed as distinguishable by the contrast in color between areas of higher elevation and lower topographical areas between hill slopes and along drainage features (see northwest corner and southern segment of the review area). Non-Wetland Water (NWW)-2B, NWW-2C, NWW-3, and NWW-3A are visible on the May 1938 aerial in their current locations. NWW-2, NWW-3B, and NWW-3B1 are also visible on the aerial in their current locations; however, each feature extends further east/northeast across the review area. NWW-3A, NWW-3B, and NWW-3B1 appear to receive runoff from the agriculture fields in the northeast corner of the review area. NWW-3A also appears to receive runoff from the agricultural fields east of the review area. NWW-1, NWW-1A, and NWW-2A are not distinguishable in the May 1938 aerial.

Erosional Feature (EF)-1 and EF-2 are not apparent. EF-3 is evident and appears to receive some runoff from Cherry Valley Boulevard. Some potential inundation or vegetation is visible in the current location of EF-4. The area appears to receive runoff from agricultural fields in the adjacent properties east of the review area. EF-5 through EF-8 are not yet present. Basin (B)-1 through B-5 are not yet present and evidence of potential ponding in their present-day locations is not visible. Swale (S)-1 is evident and more defined on the May 1938 aerial. Some potential inundation or vegetation appears in the current extent of S-2 and S-3. Ditch (D)-1, S-4, and S-5 are not yet present.



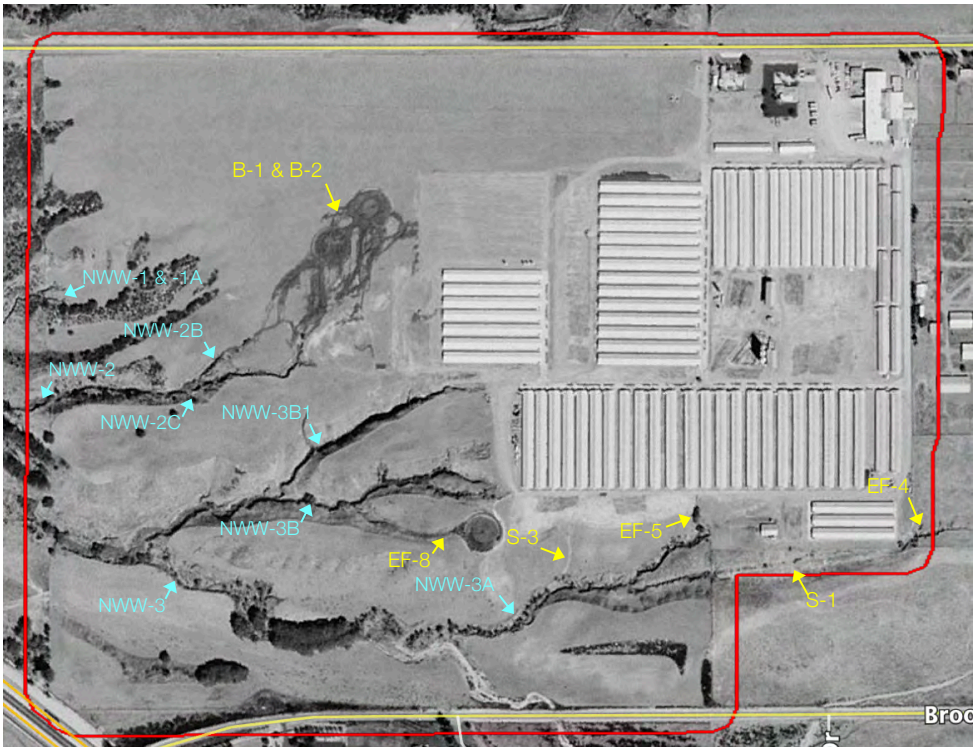
February 1953 – The agriculture fields were removed from the northeast corner and some structures were constructed along the eastern review area boundary between May 1938 and February 1953. The review area continues to appear to be regularly mowed (see northern segment and northwest corner of the review area). NWW-2B, NWW-2C, NWW-3, and NWW-3A are visible on the February 1953 aerial in their current locations. NWW-2, NWW-3B, and NWW-3B1 are also visible on the aerial in their current locations; however, each feature extends further east/northeast across the review area. NWW-1, NWW-1A, and NWW-2A are not distinguishable in the February 1953 aerial.

EF-1 and EF-2 are not apparent. EF-3 and EF-4 are evident and visible on the February 1953 aerial. EF-5 through EF-8 are not yet present. B-1 through B-5 are not yet present and evidence of potential ponding in their present-day locations is not visible. S-1 through S-3 are evident and more defined on the February 1953 aerial. D-1, S-4, and S-5 are not yet present.



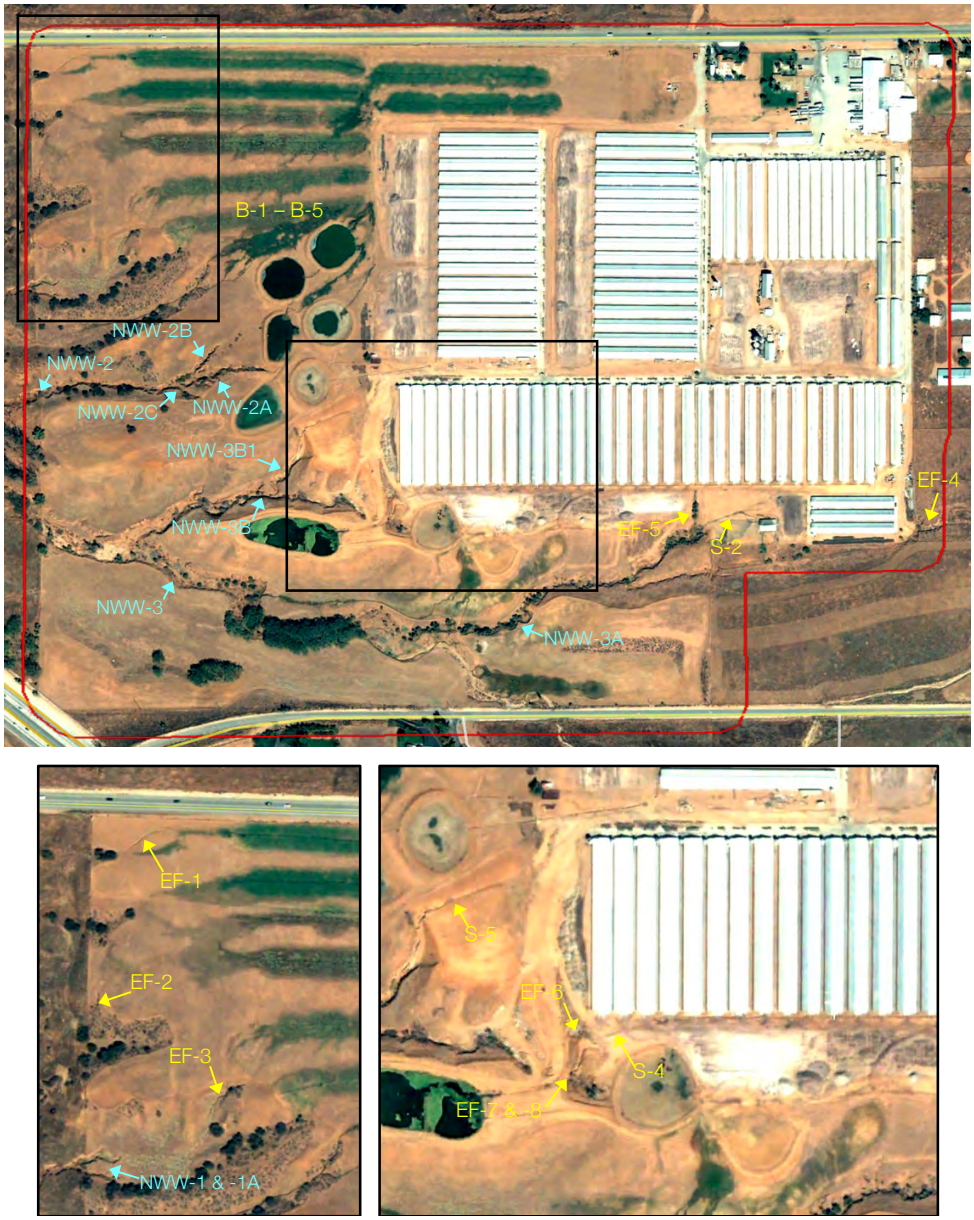
February 1976 – Farming operations within the review area began sometime between February 1953 and February 1976 with the construction of various poultry sheds in the northeast portion of the review area. Remains of these developments, such as the shed concrete foundations, exist to this day. NWW-1, NWW-1A, NWW-2C, and NWW-3 are visible on the aerial in their current locations. NWW-2B is evident but less distinguishable in the February 1976 aerial. The review area continues to appear to be regularly mowed and, along with the initiation of farming operations, likely resulted in the significant reduction of the furthermost east/northeast extents of NWW-2, NWW-3A, NWW-3B, and NWW-3B1 between February 1953 and 1976. NWW-2A is not distinguishable in the February 1976 aerial.

EF-1 and EF-2 are not apparent. EF-3 is no longer evident in the February 1976 aerial and was likely mowed between February 1953 and 1976. EF-4 is evident while EF-5 through EF-8 are still not yet present. B-1 through B-5 are not yet present and evidence of potential ponding in their present-day locations is not visible. S-1 is evident in the February 1976 aerial; however, S-1 is becoming less distinguishable. S-2 is no longer present as the new farming operations extend into S-2's previous location. Some evidence of S-3 is visible; however, the feature is less defined. D-1, S-4, and S-5 are not yet present.



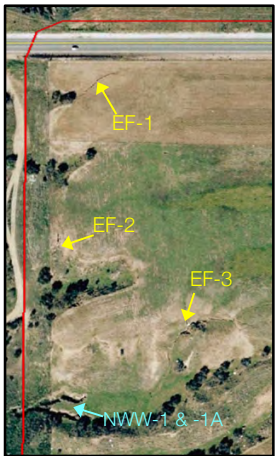
September 1996 – Farming operations within the review area continue to expand between February 1976 and September 1996 with the development of more poultry sheds in the center of the review area. Additionally, various ponding basins (i.e., B-1 and B-2) were developed within the review area during this time. Remains of these developments and site modifications exist to this day. B-1 and B-2 appear to drain runoff into NWW-2 and NWW-2B. Furthermore, an unnamed basin in the center of the review area drains into NWW-3B. The drainage between the unnamed basin and NWW-3B accounts for a portion of present-day NWW-3B and EF-8. NWW-1, NWW-1A, NWW-3, and NWW-3A are visible on the aerial in their current locations and extents. NWW-2C is evident but less distinguishable in the September 1996 aerial. The review area still appears to be regularly mowed. The expanding farming operations contribute to further reduction of NWW-3B and NWW-3B1. NWW-2A is not distinguishable in the September 1996 aerial.

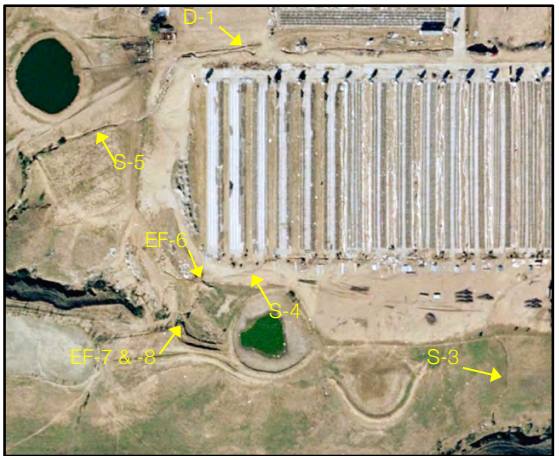
EF-1 through EF-3 are not apparent. EF-4 is still defined and visible. EF-5 is now visible and appears to receive runoff from the newly constructed poultry sheds. B-3 through B-5 are not visible/present in September 1996. S-1 is evident in the September 1996 aerial but appears to be losing further definition. Some evidence of S-3 is visible; however, the feature is less distinguishable. D-1, S-4, and S-5 are not visible.



October 2003 – Farming operations within the review area continue to expand between September 1996 and October 2003 with the construction of more poultry sheds in the center of the review area. Additionally, more ponding basins (i.e., B-3 through B-5 and various other unnamed basins) were developed during this time. Remains of these developments and site modifications exist to this day. B-1 and B-2 are still present; however, no longer appear to drain runoff into NWW-2 and NWW-2B. Furthermore, NWW-3B no longer appears to receive flows from the unnamed basin in the center of the review area. NWW-1, NWW-1A, NWW-2, NWW-2B, NWW-2C, NWW-3, and NWW-3A are visible on the aerial in their current locations. The expanding farming operations continue to contribute to further reductions of NWW-3B and NWW-3B1. By October 2003, NWW-3B and NWW-3B1 were reduced to their current extents. NWW-2A is primarily only visible near its convergence with NWW-2.

EF-1 through EF-3 are visible and appear to receive runoff from a new irrigation system within the review area. EF-4 is evident, and EF-5 still appears to receive runoff from the poultry sheds. S-1 is further indistinguishable and appears to likely contain the same characteristics as those observed present-day (i.e., no break in slope or a defined bed and bank between the swale and adjacent uplands). S-2 has reemerged and appears to receive runoff from farming operation buildings. The expansion of the poultry sheds appears to result in S-4 and EF-6 becoming slightly apparent and S-5, EF-7, and EF-8 being visible in their current locations and extents. S-3 and D-1 are not yet apparent.



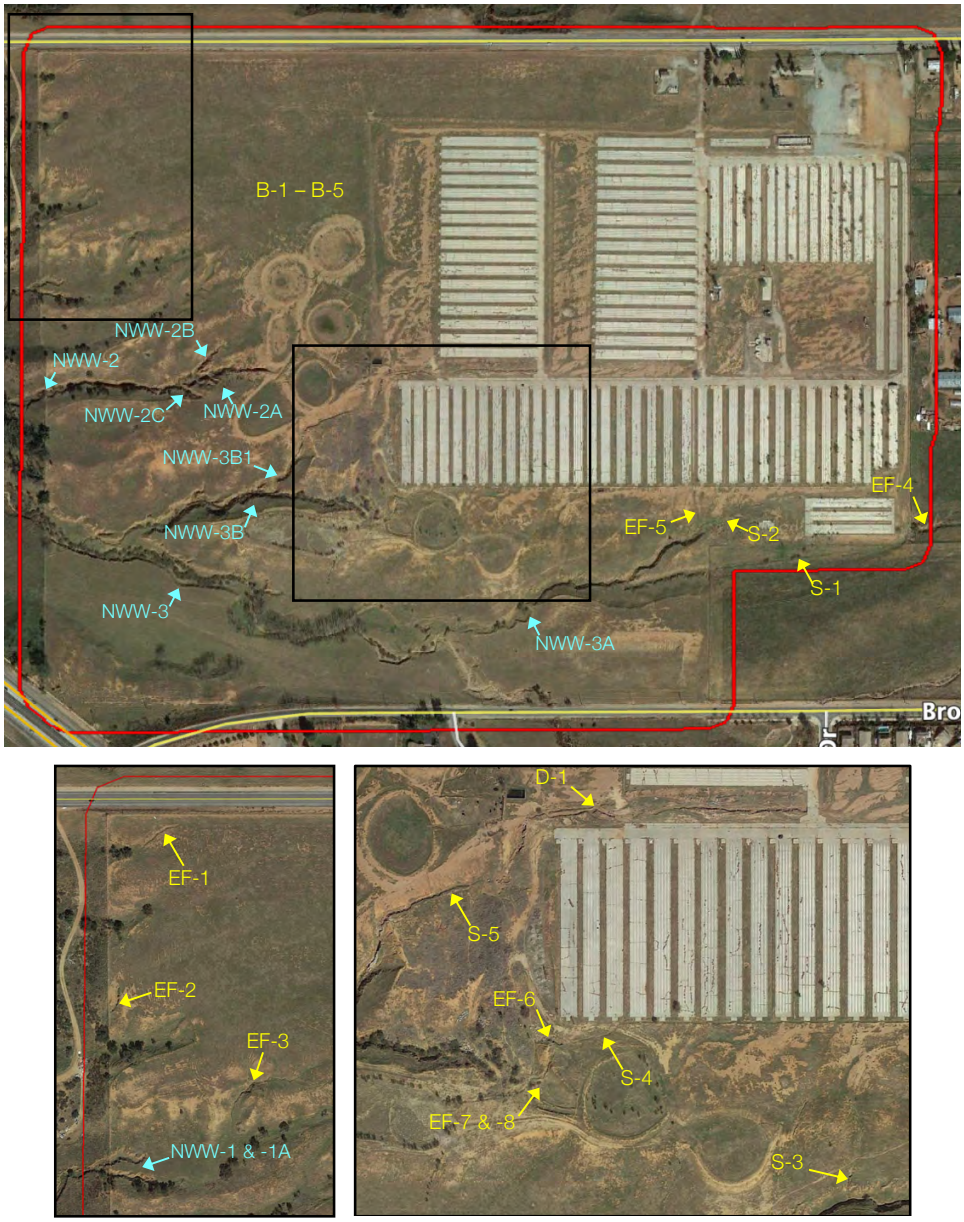


January 2006 – Various poultry sheds throughout the review area were demolished sometime between October 2003 and January 2006. The remaining shed concrete foundations visible in the January 2006 aerial exist to this day. NWW-1, NWW-1A, NWW-2, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 are visible in their current locations and extents. NWW-2A is primarily only visible near its convergence with NWW-2.

B-1 through B5 and EF-1 through EF-4 are visible in their current locations. EF-5 and S-2 continue to receive runoff downslope from the farming operations. S-1 is still only defined by the slight concave topography and lacks any other distinguishable features. S-3 has reemerged and is slightly visible in the January 2006 aerial. Active farming activities between October 2003 and January 2006 likely resulted in further defining S-4, S-5, and EF-6 through EF-8. D-1 is now fully evident in the January 2006 aerial. The northernmost poultry sheds appear to create downslope runoff which defined and created D-1 between October 2003 and January 2006.

March 2011 – Based on GoogleEarth aerials, the last remaining poultry sheds throughout the review area were removed between January 2006 and August 2006. By March 2011, NWW-1, NWW-1A, NWW-2, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 are visible in their current locations and extents. NWW-2A is primarily only visible near its convergence with NWW-2.

B-1 through B5 and EF-1 through EF-4 are visible in their current locations. EF-5 and S-2 are less distinguishable in the May 2011 aerial, likely a result from the total removal of farming operations within the review area. S-1 is still only apparent by the slight concave topography and lacks any other distinguishable features. The end of farming operations also likely contributed to the significant reduction of S-3 between January 2006 and March 2011. S-3 is only slightly evident near its convergence with NWW-3A. EF-6 through EF-8 and S-4 are also less distinguishable in the March 2011 aerial. S-5 and D-1 are still evident in the March 2011 aerial.



February 2018 – Based on GoogleEarth aerials, the last remaining farming operation buildings located in the northeastern corner were removed between October 2016 and February 2018. By February 2018, NWW-1, NWW-1A, NWW-2, NWW-2B, NWW-2C, NWW-3, NWW-3A, NWW-3B, and NWW-3B1 are visible in their current locations and extents. NWW-2A is primarily only visible near its convergence with NWW-2.

B-1 through B5 and EF-1 through EF-4 are visible in their current locations. EF-5 and S-2 are less distinguishable in the February 2018 aerial. S-1 is still only defined by the slight concave topography and lacks any other distinguishable features. S-3 is still only slightly evident near its convergence with NWW-3A. EF-6 through EF-8 and S-4 are also less distinguishable. S-5 and D-1 are still evident in the March 2011 aerial.

APPENDIX D

ARID WEST WETLAND DETERMINATION DATA FORMS AND EPHEMERAL AND INTERMITTENT STREAMS OHWM DATASHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Beaumont Summit Station City/County: Beaumont Sampling Date: 06/07/2021

Applicant/Owner: Exeter Cherry Valley Land, LLC State: CA Sampling Point: WDP 1

Investigator(s): Shanti Santulli, Sarah Krejca, Ian Hirschler Section, Township, Range: T2S, R1W, S30

Landform (hillslope, terrace, etc.): In basin (constructed) Local relief (concave, convex, none): Concave Slope (%): 0-1%

Subregion (LRR): LRR C - Mediterranean California Lat: 33.965328 Long: -117.022071 Datum: WGS 84

Soil Map Unit Name: Terrace escarpments NWI classification: None

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:

Sample point taken within constructed earthen basin, near three individual mulefat. Drought conditions per APT (i.e., atypical hydrologic conditions/naturally problematic); however, wetland hydrology parameter still met based on presence of surface soil cracks.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10-foot radius)			
1. Baccharis salicifolia	25%	Yes	FAC
2.			
3.			
4.			
5.			
	25% = Total Cover		
Herb Stratum (Plot size: 5-foot radius)			
1. Hirschfeldia incana	15%	Yes	NL/UPL
2. Polygonum aviculare	3%	No	FAC
3. Croton setiger	2%	No	NL/UPL
4.			
5.			
6.			
7.			
8.			
	20% = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1. N/A			
2.			
	N/A = Total Cover		

% Bare Ground in Herb Stratum 80% % Cover of Biotic Crust 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	28	x 3 =	84
FACU species	0	x 4 =	0
UPL species	17	x 5 =	85
Column Totals:	45 (A)		169 (B)

Prevalence Index = B/A = 3.76

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:

Sample point taken near three individual mulefat within area mapped as non-native grassland.

SOIL

Sampling Point: WDP 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	7.5 YR 4/3	100%	N/A	N/A	N/A	N/A	Clay loam	No evidence of redox observed.

[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: Shovel refusal - compact soils

Depth (inches): 7 inches

Hydric Soil Present? Yes ____ No ✔

Remarks:

Soil moistened with spray bottle to record soil color. Uniform soil throughout. No hydric soil indicators observed.

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): N/A

Water Table Present? Yes ____ No ✔ Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): N/A

Wetland Hydrology Present? Yes ✔ No ____

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

N/A

Remarks:

Abandoned farm/stock pond that may still collect water during rains but no other wetland hydrology indicators observed beyond soil surface cracks. Did not meet FAC-Neutral Test.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Beaumont Summit Station City/County: Beaumont Sampling Date: 06/07/2021

Applicant/Owner: Exeter Cherry Valley Land, LLC State: CA Sampling Point: WDP 2

Investigator(s): Sarah Krejca, Shanti Santulli Section, Township, Range: T2S, R1W, S30

Landform (hillslope, terrace, etc.): In channel Local relief (concave, convex, none): Slightly concave Slope (%): 1-3%

Subregion (LRR): LRR C - Mediterranean California Lat: 32.964923 Long: -117.023427 Datum: WGS 84

Soil Map Unit Name: Terrace escarpments NWI classification: None

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:

Sample point taken within earthen channel. Drought conditions per APT (i.e., atypical hydrologic conditions/naturally problematic); no hydrology indicators observed. However, sampling point within ephemeral channel not anticipated to function as wetland - hydrophytic vegetation and hydric soils also not observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sambucus nigra	5%	Yes	FACU
2.			
3.			
4.			
	5% = Total Cover		
Sapling/Shrub Stratum (Plot size: 10-foot radius)			
1. Baccharis salicifolia	25%	Yes	FAC
2.			
3.			
4.			
5.			
	25% = Total Cover		
Herb Stratum (Plot size: 5-foot radius)			
1. Brachypodium distachyon	35%	Yes	NL/UPL
2. Bromus diandrus	25%	Yes	NL/UPL
3. Hirschfeldia incana	15%	No	NL/UPL
4. Marrubium vulgare	5%	No	FACU
5.			
6.			
7.			
8.			
	80% = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1. N/A			
2.			
	N/A = Total Cover		

% Bare Ground in Herb Stratum 20% % Cover of Biotic Crust 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	10	x 4 =	40
UPL species	75	x 5 =	375
Column Totals:	110 (A)		490 (B)

Prevalence Index = B/A = 4.45

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:

Sample point taken within area mapped as non-native grassland.

SOIL

Sampling Point: WDP 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10 YR 3/3	100%	N/A	N/A	N/A	N/A	Loam	No evidence of redox observed.

[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: Shovel refusal - compact soils

Depth (inches): 11 inches

Hydric Soil Present? Yes _____ No ✔

Remarks:

Soil moistened with spray bottle to record soil color. Uniform soil throughout. No hydric soil indicators observed.

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): N/A

Water Table Present? Yes _____ No ✔ Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): N/A

Wetland Hydrology Present? Yes _____ No ✔

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

N/A

Remarks:

Did not meet FAC-Neutral Test. No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Beaumont Summit Station City/County: Beaumont Sampling Date: 06/07/2021

Applicant/Owner: Exeter Cherry Valley Land, LLC State: CA Sampling Point: WDP 3

Investigator(s): Sarah Krejca, Shanti Santulli, Ian Hirschler Section, Township, Range: T2S, R1W, S30

Landform (hillslope, terrace, etc.): In channel Local relief (concave, convex, none): Slightly concave Slope (%): 1-2%

Subregion (LRR): LRR C - Mediterranean California Lat: 33.962825 Long: -117.022836 Datum: WGS 84

Soil Map Unit Name: Terrace escarpments NWI classification: Riverine

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:

Sample point taken within earthen channel. Drought conditions per APT (i.e., atypical hydrologic conditions/naturally problematic); hydrophytic vegetation parameter still met at sampling point, but no hydric soils or wetland hydrology. Sampling point within ephemeral stream not anticipated to function as wetland despite presence of mulefat (FAC).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 5-foot radius)			
1. Baccharis salicifolia	10%	Yes	FAC
2.			
3.			
4.			
5.			
	10% = Total Cover		
Herb Stratum (Plot size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1. N/A			
2.			
	N/A = Total Cover		

% Bare Ground in Herb Stratum 97% % Cover of Biotic Crust 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (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 _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

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:

Sample point taken within area mapped as mulefat scrub. Less than 5% herbaceous cover (approximately 3%), therefore, per AW manual, no herb stratum. 5-foot radius plot size used for sapling/shrub stratum to only account for vegetation within area with same soil and hydrologic conditions (i.e., within the channel).

SOIL

Sampling Point: WDP 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10 YR 4/3	100%	N/A	N/A	N/A	N/A	Sand	No evidence of redox observed.

[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: Shovel refusal - compact soils

Depth (inches): 16 inches

Hydric Soil Present? Yes _____ No ✔

Remarks:

Soil moistened with spray bottle to record soil color. Uniform soil throughout. No hydric soil indicators observed.

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): N/A

Water Table Present? Yes _____ No ✔ Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): N/A

Wetland Hydrology Present? Yes _____ No ✔

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

N/A

Remarks:

Did not meet FAC-Neutral Test. No wetland hydrology indicators observed.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Beaumont Summit Station
Project Number: N/A
Stream: ODP 1
Investigator(s): Chelsea Polevy, Sarah Krejca

Date: 06/03/2021 **Time:** 0815
Town: Beaumont **State:** CA
Photo begin file#: 2 **Photo end file#:** 2

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Beaumont Summit Station Aquatic Resource Delineation Report Review Area

Projection: WGS 84 **Datum:** NAD 83
Coordinates: 33.968238, -117.025022

Potential anthropogenic influences on the channel system:
Surrounding area has been recently mowed; area is undeveloped but site was formerly used as a ranch/poultry farm.

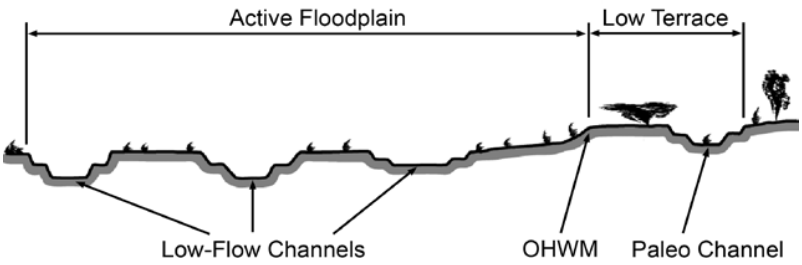
Brief site description:
Disturbed site formerly used as ranch/poultry farm. Lower topographic area between two gentle slopes, just south of developed road (Cherry Valley Boulevard).

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

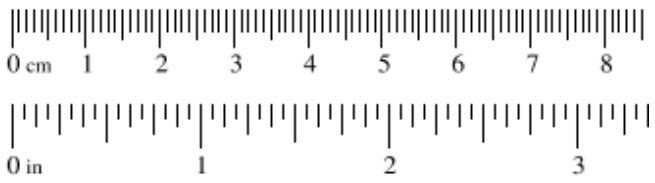


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

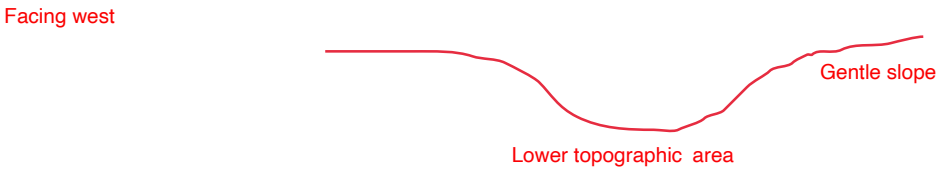
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Beaumont Summit Station **Cross section ID:** ODP 1 **Date:** 06/03/2021 **Time:** 0815

Cross section drawing:



OHWM

GPS point: 33.968238, -117.025022

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☐ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Lower topographic area did not exhibit bed and bank indicators; no change in sediment texture or break in slope; vegetation did not differ from lower topographic area to adjacent slopes (dominated by non-native grassland and scrub oak). Data was collected during a drought year; however, historic aerials and previous delineation note consistent conditions.

Floodplain unit:

☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Project ID: Beaumont Summit Station **Cross section ID:** ODP 1 **Date:** 06/03/2021 **Time:** 0815

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Beaumont Summit Station
Project Number: N/A
Stream: ODP 2
Investigator(s): Chelsea Polevy, Sarah Krejca

Date: 06/03/2021 **Time:** 0830
Town: Beaumont **State:** CA
Photo begin file#: 4 **Photo end file#:** 4

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Beaumont Summit Station Aquatic Resource Delineation Report Review Area

Projection: WGS 84 **Datum:** NAD 83
Coordinates: 33.967162, -117.025097

Potential anthropogenic influences on the channel system:
Area has been recently mowed; area is undeveloped but site was formerly used as a ranch/poultry farm.

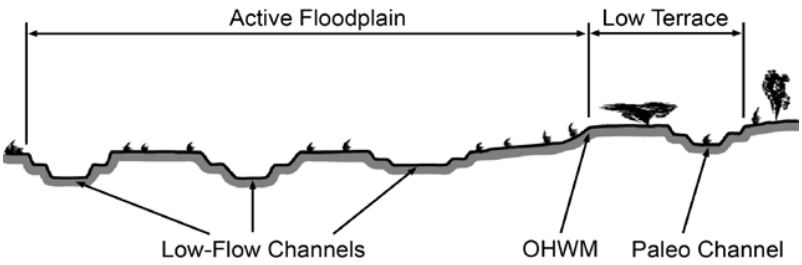
Brief site description:
Disturbed site formerly used as ranch/poultry farm; gully/erosional feature adjacent to western site boundary. Highly incised area.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

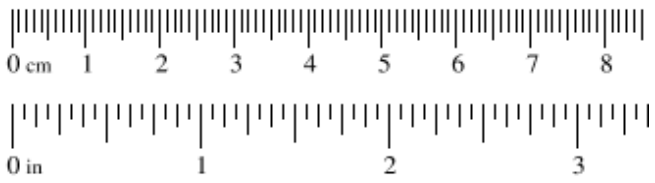


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

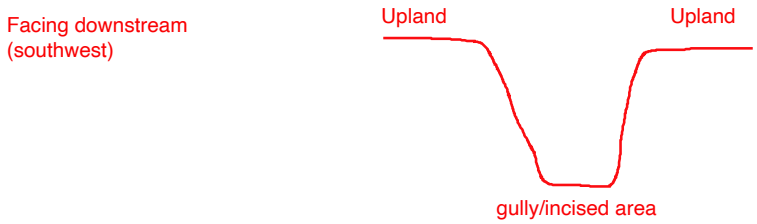
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Beaumont Summit Station **Cross section ID:** ODP 2 **Date:** 06/03/2021 **Time:** 0830

Cross section drawing:



OHWM

GPS point: 33.967162, -117.025097

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:
Gully/erosional feature that exhibited a slight break in bank slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other OHWM indicators. Gully and surrounding upland were both heavily vegetated with non-native grasses.

Floodplain unit:

☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Project ID: Beaumont Summit Station **Cross section ID:** ODP 2 **Date:** 06/03/2021 **Time:** 0830

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Beaumont Summit Station
Project Number: N/A
Stream: ODP 3
Investigator(s): Chelsea Polevy, Sarah Krejca

Date: 06/03/2021 **Time:** 0915
Town: Beaumont **State:** CA
Photo begin file#: 8 **Photo end file#:** 9

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Beaumont Summit Station Aquatic Resource Delineation Report Review Area

Projection: WGS 84 **Datum:** NAD 83
Coordinates: 33.966030, -117.024921

Potential anthropogenic influences on the channel system:
Surrounding area has been recently mowed; area is undeveloped but site was formerly used as a ranch/poultry farm.

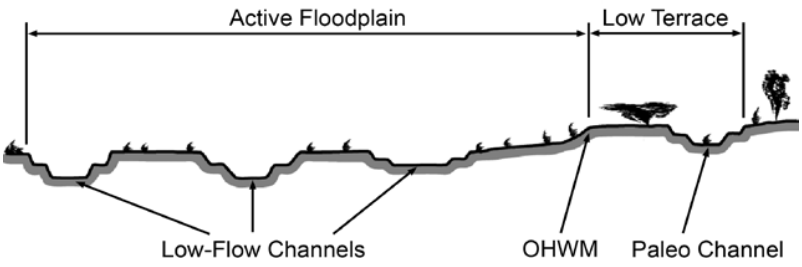
Brief site description:
Disturbed site formerly used as ranch/poultry farm; north and south leg of feature within lower topographic area adjacent to western site boundary.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

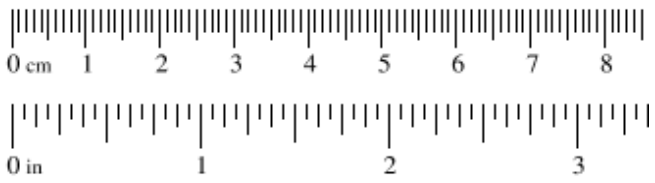


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

Wentworth Size Classes

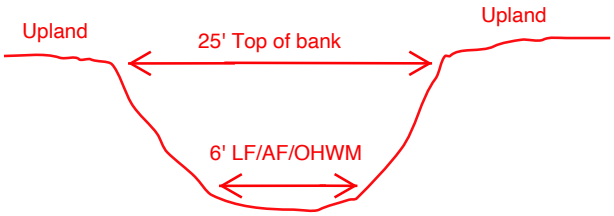
Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Beaumont Summit Station **Cross section ID:** ODP 3 **Date:** 06/03/2021 **Time:** 0915

Cross section drawing:

Northern leg of feature; facing downstream (west)



OHWM

GPS point: 33.966030, -117.024921

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:
Approximately 6-foot wide OHWM defined by a faint break in slope and change in vegetation cover. Data was taken during a drought year. No distinguishable difference in sediment texture from active floodplain (AF) to upland. More defined bed and bank occurs downstream, but off site.

Floodplain unit:

☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:
Low-flow channel (LF) is indistinguishable/cannot be determined from AF/OHWM.

Project ID: Beaumont Summit Station **Cross section ID:** ODP 3 **Date:** 06/03/2021 **Time:** 0915

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: Same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium silt

Total veg cover: 80 % Tree: 0 % Shrub: 0 % Herb: 80 %

Community successional stage:

- ☐ NA
- ☑ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

AF defined by faint break in bank slope; AF heavily vegetated with non-native grasses.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium silt

Total veg cover: 50 % Tree: 0 % Shrub: 0 % Herb: 50 %

Community successional stage:

- ☐ NA
- ☑ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

No true low terrace; uplands defined by surface relief. Uplands partially vegetated with non-native grasses.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Beaumont Summit Station
Project Number: N/A
Stream: ODP 4
Investigator(s): Shanti Santulli, Sarah Krejca

Date: 06/07/2021 **Time:** 0900
Town: Beaumont **State:** CA
Photo begin file#: 18 **Photo end file#:** 19

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Beaumont Summit Station Aquatic Resource Delineation Report Review Area

Projection: WGS 84 **Datum:** NAD 83
Coordinates: 33.964891, -117.023514

Potential anthropogenic influences on the channel system:
Area has been recently mowed; area is undeveloped but site was formerly used as a ranch/poultry farm.

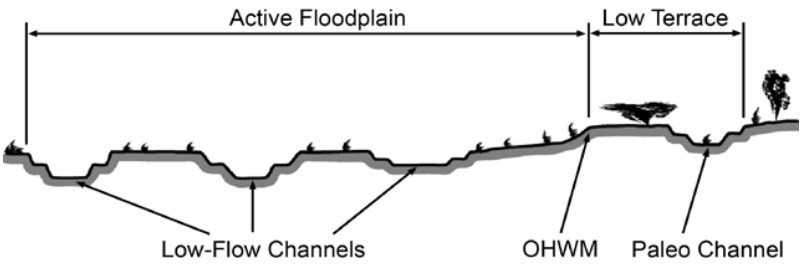
Brief site description:
Disturbed site formerly used as ranch/poultry farm; north and south leg of drainage within lower topographic area adjacent to western site boundary.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

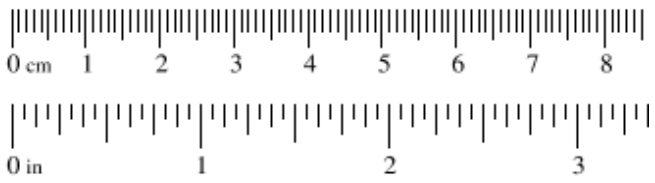


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

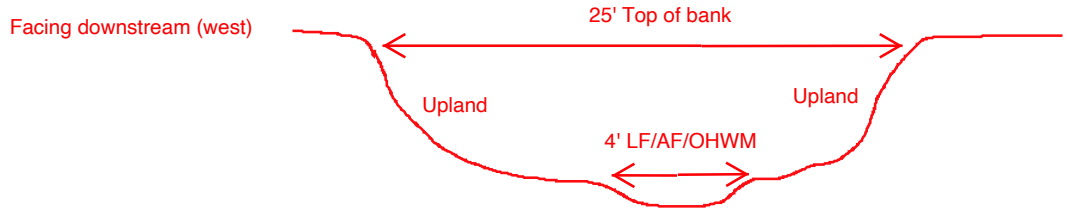
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Beaumont Summit Station **Cross section ID:** ODP 4 **Date:** 06/07/2021 **Time:** 0900

Cross section drawing:



OHWM

GPS point: 33.964891, -117.023514

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:
Approximately 4-foot wide OHWM defined by a break in slope and a change in vegetation cover. Data was taken during a drought year; however, indicators still observed and consistent with anticipated extent of OHWM based on review of aerials and site conditions/topography. No distinguishable difference in sediment texture from active floodplain (AF) to upland.

Floodplain unit:

☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:
Low-flow channel (LF) is indistinguishable/cannot be determined from AF/OHWM.

Project ID: Beaumont Summit Station **Cross section ID:** ODP 4 **Date:** 06/07/2021 **Time:** 0900

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: Same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: Coarse silt

Total veg cover: 30 % Tree: 0 % Shrub: 0 % Herb: 30 %

Community successional stage:

- ☐ NA
- ☑ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

AF defined by faint break in bank slope; AF sparsely vegetated, becoming less vegetated downstream. Vegetation dominated by non-native grasses, including short-pod mustard (Hirschfeldia incana), ripgut brome (Bromus diandrus), and false brome (Brachypodium distachyon).

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Coarse silt

Total veg cover: 65 % Tree: 0 % Shrub: 0 % Herb: 65 %

Community successional stage:

- ☐ NA
- ☑ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

No true low terrace; uplands defined by surface relief. Uplands dominated by non-native grasses, including short-pod mustard (Hirschfeldia incana), ripgut brome (Bromus diandrus), and false brome (Brachypodium distachyon).

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Beaumont Summit Station
Project Number: N/A
Stream: ODP 5
Investigator(s): Chelsea Polevy, Sarah Krejca

Date: 06/03/2021 **Time:** 1200
Town: Beaumont **State:** CA
Photo begin file#: 27 **Photo end file#:** 28

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Beaumont Summit Station Aquatic Resource Delineation Report Review Area

Projection: WGS 84 **Datum:** NAD 83
Coordinates: 33.963128, -117.017059

Potential anthropogenic influences on the channel system:
Area has been recently mowed; area is undeveloped but site was formerly used as a ranch/poultry farm.

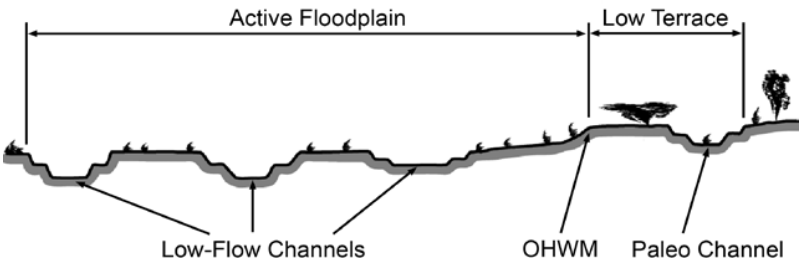
Brief site description:
Disturbed site formerly used as ranch/poultry farm; drainage feature adjacent to/south of developed concrete slabs near southeast site boundary.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

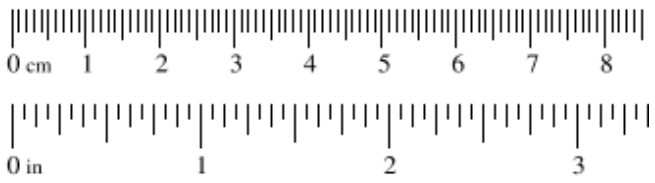


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

Wentworth Size Classes

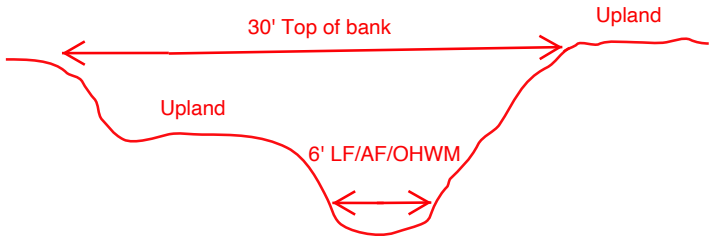
Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Beaumont Summit Station **Cross section ID:** ODP 5 **Date:** 06/03/2021 **Time:** 1200

Cross section drawing:

Facing upstream (northeast)



OHWM

GPS point: 33.963128, -117.017059

Indicators:

- [x] Change in average sediment texture
- [x] Change in vegetation species
- [ ] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:
Approximately 6-foot wide OHWM defined by a break in slope, change in sediment texture, and change in vegetation species. Data was taken during a drought year; however, indicators still observed and consistent with anticipated extent of OHWM based on review of aerials and site conditions/topography.

Floodplain unit:

- [x] Low-Flow Channel
- [ ] Active Floodplain
- [ ] Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [ ] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [ ] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:
Low-flow channel (LF) is indistinguishable/cannot be determined from AF/OHWM.

Project ID: Beaumont Summit Station **Cross section ID:** ODP 5 **Date:** 06/03/2021 **Time:** 1200

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: Same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium silt with cobbles

Total veg cover: 80 % Tree: 0 % Shrub: 15 % Herb: 65 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☑ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

AF defined by break in bank slope; AF heavily vegetated with non-native grasses, including shortpod mustard (Hirschfeldia incana).

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium silt

Total veg cover: 80 % Tree: 5 % Shrub: 10 % Herb: 65 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☑ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

No true low terrace; uplands defined by surface relief. Uplands heavily vegetated with non-native grasses, including shortpod mustard (Hirschfeldia incana), and also included horehound (Marrubium vulgare) and a black elder (Sambucus nigra).

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Beaumont Summit Station
Project Number: N/A
Stream: ODP 6
Investigator(s): Sarah Krejca, Chelsea Polevy

Date: 06/03/2021 **Time:** 1130
Town: Beaumont **State:** CA
Photo begin file#: 25 **Photo end file#:** 25

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Exeter Cherry Valley Aquatic Resource Delineation Report Review Area

Projection: WGS 84 **Datum:** NAD 83
Coordinates: 33.962849, -117.017148

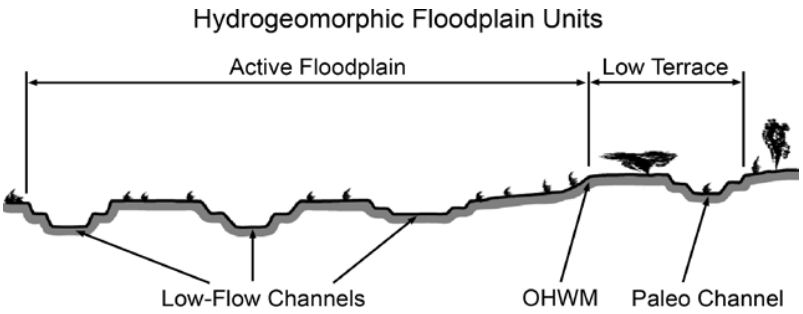
Potential anthropogenic influences on the channel system:
Area has been recently mowed; area is undeveloped but site was formerly used as a ranch/poultry farm.

Brief site description:
Disturbed site formerly used as ranch/poultry farm; swale-like feature within area of non-native grassland

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

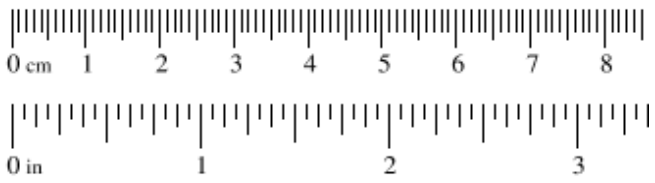


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

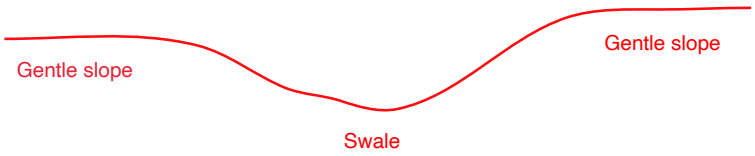
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Beaumont Summit Station **Cross section ID:** ODP 6 **Date:** 06/03/2021 **Time:** 1130

Cross section drawing:



OHWM

GPS point: 33.962849, -117.017148

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☐ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Area did not contain clear bed and bank indicators; no change in sediment texture or break in slope; vegetation in swale and adjacent upland area did not differ (both heavily vegetated and dominated by non-native grasses). Data was collected during a drought year; however, historic aerials and previous delineation note consistent conditions.

Floodplain unit:

☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Project ID: Beaumont Summit Station **Cross section ID:** ODP 6 **Date:** 06/03/2021 **Time:** 1130

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Beaumont Summit Station
Project Number: N/A
Stream: ODP 7
Investigator(s): Chelsea Polevy, Sarah Krejca

Date: 06/03/2021 **Time:** 1415
Town: Beaumont **State:** CA
Photo begin file#: 33 **Photo end file#:** 34

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Exeter Cherry Valley Aquatic Resource Delineation Report Review Area

Projection: WGS 84 **Datum:** NAD 83
Coordinates: 33.962282, -117.021353

Potential anthropogenic influences on the channel system:
Area receives upstream flows from runoff from developed road (Brookside Avenue) and from culvert that crosses under Brookside Avenue; site was formerly used as a ranch/poultry farm.

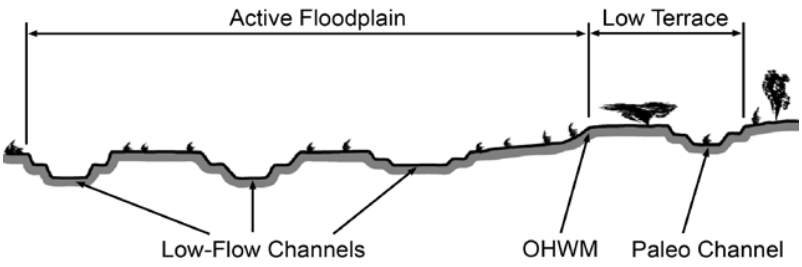
Brief site description:
Disturbed site formerly used as ranch/poultry farm; large drainage feature in southern portion of site within area mapped as tree of heaven.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

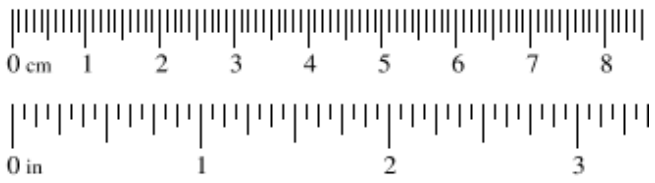


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

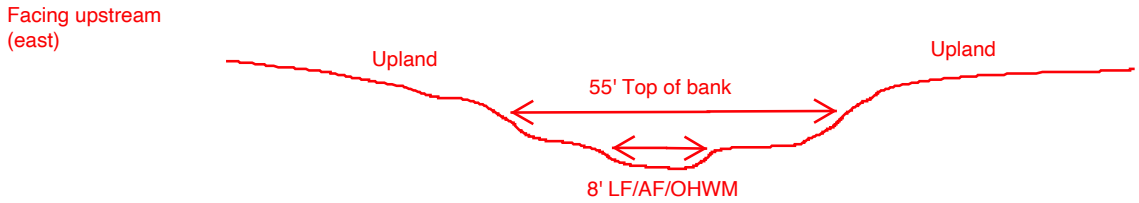
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Beaumont Summit Station **Cross section ID:** ODP 7 **Date:** 06/03/2021 **Time:** 1415

Cross section drawing:



OHWM

GPS point: 33.962282, -117.021353

Indicators:

- ☑ Change in average sediment texture
- ☑ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:
Approximately 8-foot wide OHWM primarily defined by a change in average sediment texture, change in vegetation species and cover, and faint break in bank slope. Data was collected during a drought year; however, indicators still observed and consistent with anticipated extent of OHWM based on review of aerials and site conditions/topography.

Floodplain unit:

☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:
Low-flow channel (LF) is indistinguishable/cannot be determined from AF/OHWM.

Project ID: Beaumont Summit Station **Cross section ID:** ODP 7 **Date:** 06/03/2021 **Time:** 1415

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: Same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium sand

Total veg cover: 0 % Tree: 0 % Shrub: 0 % Herb: 0 %

Community successional stage:

- ☑ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

AF defined by faint break in bank slope; AF unvegetated.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium silt

Total veg cover: 100 % Tree: 10 % Shrub: 5 % Herb: 85 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☑ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☑ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

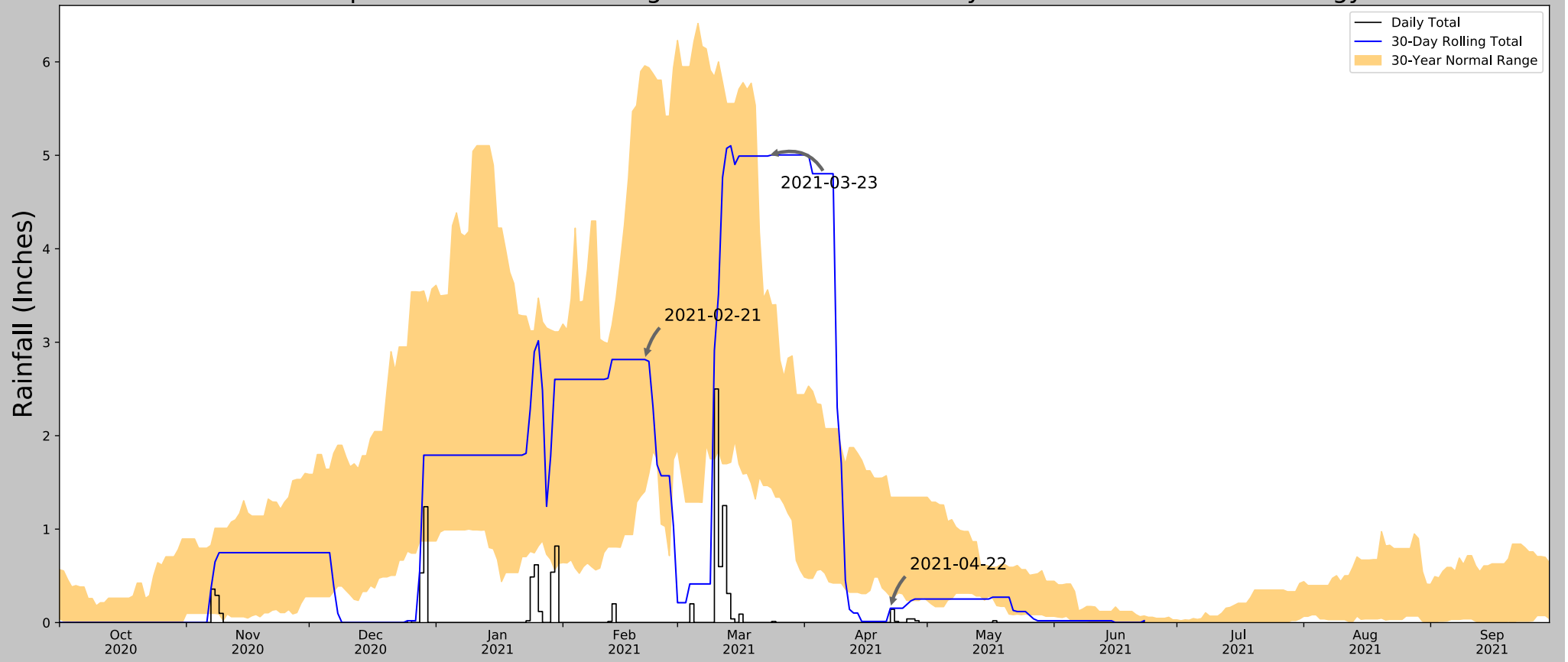
Comments:

No true low terrace; uplands defined by soil development and surface relief; uplands were dominated with non-native grasses and tree of heaven (Ailanthus altissima).

APPENDIX E

ANTECEDENT PRECIPITATION TOOL OUTPUT

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.965141, -117.019732
Observation Date	2021-04-22
Elevation (ft)	2485.7
Drought Index (PDSI)	Severe drought
WebWIMP H_2O Balance	Dry Season

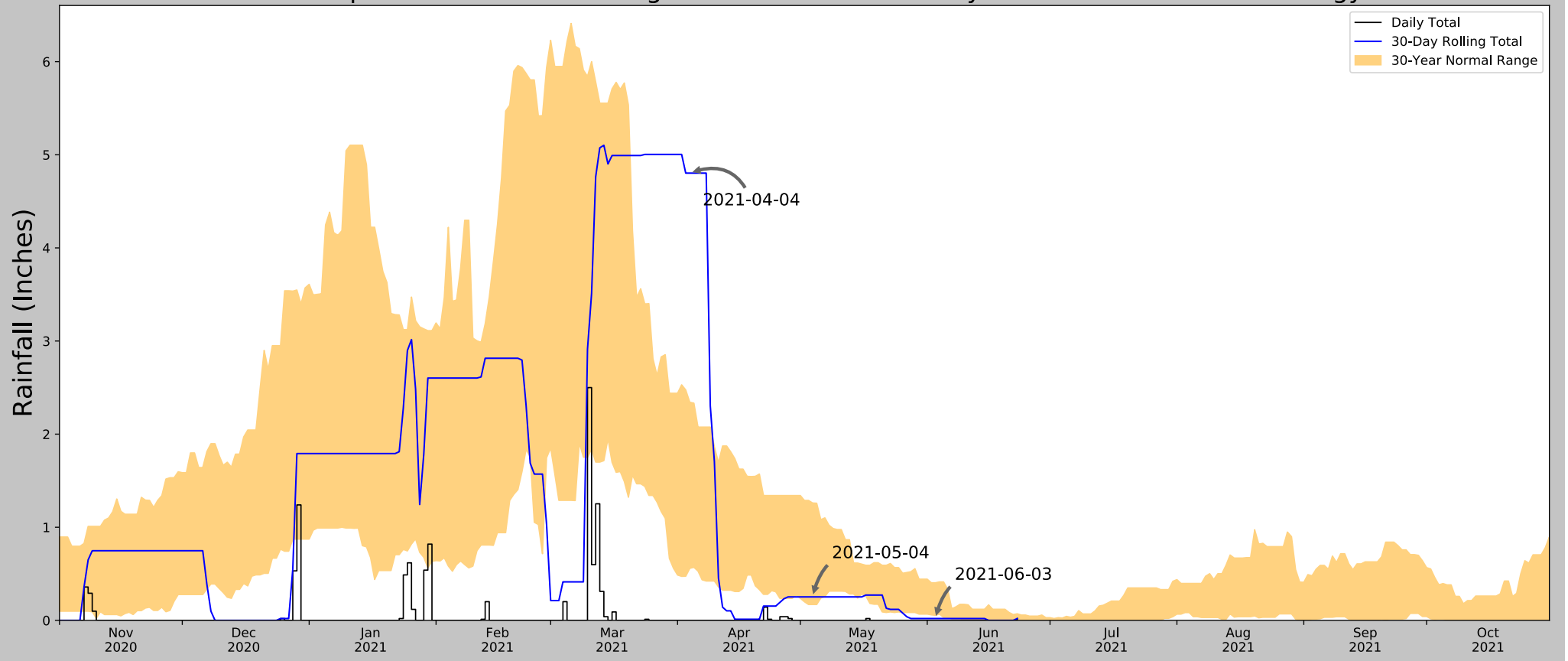
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-04-22	0.279528	1.340945	0.153543	Dry	1	3	3
2021-03-23	1.466535	3.561024	4.992126	Wet	3	2	6
2021-02-21	1.404331	5.958268	2.814961	Normal	2	1	2
Result							Normal Conditions - 11

Figure and tables made by the **Antecedent Precipitation Tool** Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CORONA 12.5 SE	33.7346, -117.4315	1301.837	28.496	1183.863	46.559	149	0
DESERT HOT SPRINGS 3.0 NW	33.9855, -116.5415	1338.911	27.438	1146.789	43.813	1581	0
HOMELAND 1.7 NNE	33.769, -117.0923	2248.032	14.177	237.668	9.749	10	3
IDYLLWILD 1.8 NW	33.7631, -116.735	6325.131	21.488	3839.431	92.171	1557	0
HEMET 4.1 ENE	33.7527, -116.9196	1698.163	15.763	787.537	19.507	1076	87
CORONA 12.8 SE	33.7307, -117.4276	1403.871	28.463	1081.829	43.6	102	0
BIG BEAR LAKE	34.2431, -116.9169	6752.953	20.086	4267.253	94.751	6722	0
ELSINORE	33.6861, -117.3458	1268.045	26.87	1217.655	44.81	135	0
HEMET	33.7381, -116.8939	1811.024	17.269	674.676	19.422	21	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.965141, -117.019732
Observation Date	2021-06-03
Elevation (ft)	2485.7
Drought Index (PDSI)	Extreme drought (2021-05)
WebWIMP H_2O Balance	Dry Season

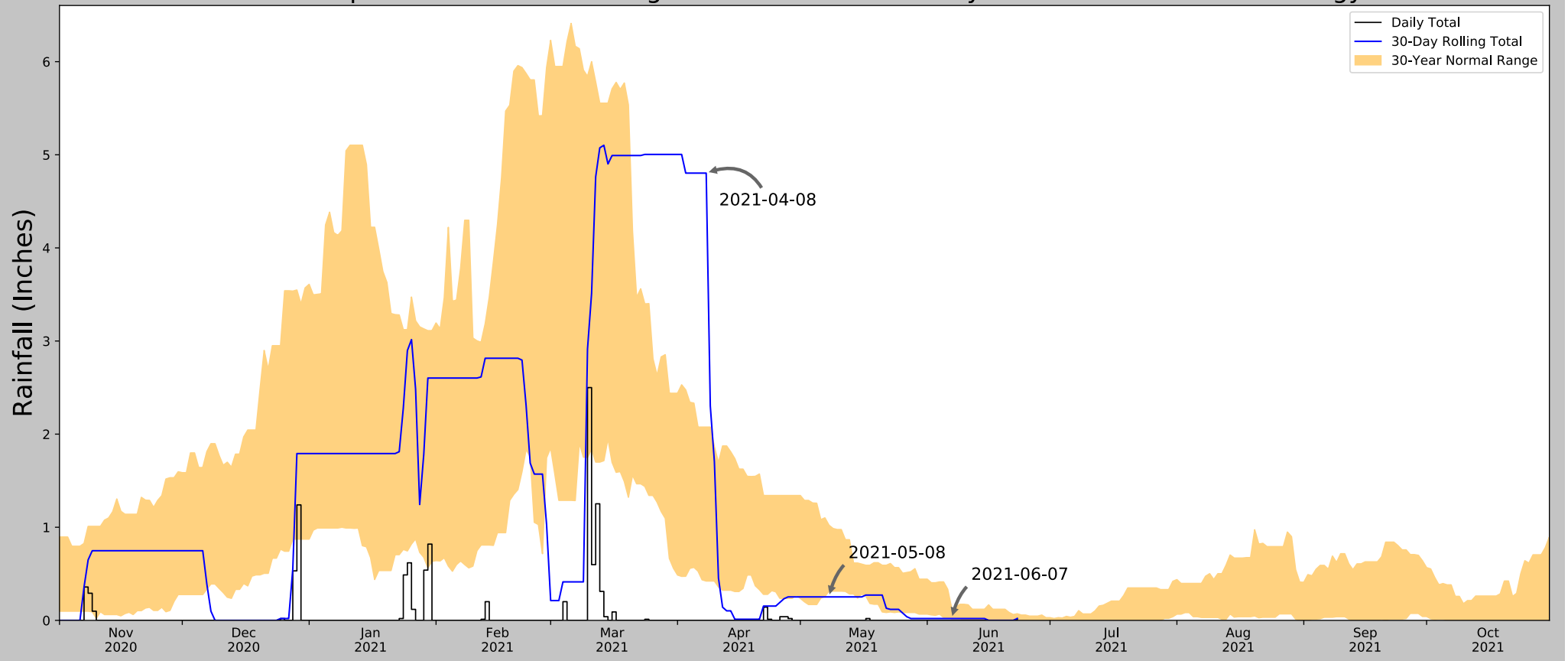
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-06-03	0.054331	0.403937	0.019685	Dry	1	3	3
2021-05-04	0.170079	1.26063	0.251969	Normal	2	2	4
2021-04-04	0.558661	2.34252	4.80315	Wet	3	1	3
Result							Normal Conditions - 10

Figure and tables made by the **Antecedent Precipitation Tool** Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CORONA 12.5 SE	33.7346, -117.4315	1301.837	28.496	1183.863	46.559	149	0
DESERT HOT SPRINGS 3.0 NW	33.9855, -116.5415	1338.911	27.438	1146.789	43.813	1581	0
HOMELAND 1.7 NNE	33.769, -117.0923	2248.032	14.177	237.668	9.749	10	3
IDYLLWILD 1.8 NW	33.7631, -116.735	6325.131	21.488	3839.431	92.171	1557	0
HEMET 4.1 ENE	33.7527, -116.9196	1698.163	15.763	787.537	19.507	1076	86
CORONA 12.8 SE	33.7307, -117.4276	1403.871	28.463	1081.829	43.6	102	0
BEAUMONT 2.5 NW	33.9543, -117.012	2532.152	0.87	46.452	0.432	0	1
BIG BEAR LAKE	34.2431, -116.9169	6752.953	20.086	4267.253	94.751	6722	0
ELSINORE	33.6861, -117.3458	1268.045	26.87	1217.655	44.81	135	0
HEMET	33.7381, -116.8939	1811.024	17.269	674.676	19.422	21	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.965141, -117.019732
Observation Date	2021-06-07
Elevation (ft)	2485.7
Drought Index (PDSI)	Extreme drought (2021-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-06-07	0.017323	0.124409	0.019685	Normal	2	3	6
2021-05-08	0.314173	1.022047	0.251969	Dry	1	2	2
2021-04-08	0.422441	2.075591	4.80315	Wet	3	1	3
Result							Normal Conditions - 11

Figure and tables made by the **Antecedent Precipitation Tool** Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CORONA 12.5 SE	33.7346, -117.4315	1301.837	28.496	1183.863	46.559	149	0
DESERT HOT SPRINGS 3.0 NW	33.9855, -116.5415	1338.911	27.438	1146.789	43.813	1581	0
HOMELAND 1.7 NNE	33.769, -117.0923	2248.032	14.177	237.668	9.749	10	3
IDYLLWILD 1.8 NW	33.7631, -116.735	6325.131	21.488	3839.431	92.171	1557	0
HEMET 4.1 ENE	33.7527, -116.9196	1698.163	15.763	787.537	19.507	1076	86
CORONA 12.8 SE	33.7307, -117.4276	1403.871	28.463	1081.829	43.6	102	0
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BIG BEAR LAKE	34.2431, -116.9169	6752.953	20.086	4267.253	94.751	6722	0
ELSINORE	33.6861, -117.3458	1268.045	26.87	1217.655	44.81	135	0
HEMET	33.7381, -116.8939	1811.024	17.269	674.676	19.422	21	0

APPENDIX F

SITE PHOTOGRAPHS

Appendix F. Site Photographs[1]

Beaumont Summit Station Aquatic Resources Delineation – April 22, 2021; June 3 and 7, 2021

Photo 1. Looking southwest towards Erosional Feature (EF)-1 (yellow line). Vegetation surrounding EF-1 had been recently mowed. EF-1 exhibited a slight break in bank slope, but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other Ordinary High Water Mark (OHWM) indicators. (33.968462, -117.024590). June 3, 2021.

Photo 2. View of OHWM Datasheet Point (ODP) 1, facing west, within the lower topographic area between two gentle slopes just west of EF-1. The lower topographic area did not exhibit any bed and bank indicators, there was no break in slope, and the sediment texture and vegetation did not differ from the lower topographic area to the adjacent slopes (33.968296, -117.024925). June 3, 2021.

Photo 3. View of area of low topography between EF-1 and EF-2, facing southwest (33.967847, -117.024635). June 3, 2021.

Photo 4. View of ODP 2, facing southwest, within EF-2. The gully/erosional feature exhibited a slight break in bank slope but did not exhibit a distinctive change in average sediment texture, change in vegetation species or cover, or any other OHWM indicators, and did not continue downstream (33.967305, -117.025013). June 3, 2021.

[1] See corresponding Figure 5 series for Photo Point Locations. See Aquatic Resource Delineation Report Sections 6 through 8 for a discussion of each feature.

Photo 5. Overview of area of lower topography located east of EF-2, facing east (33.967002, -117.025087). June 3, 2021.

Photo 6. Overview of area of lower topography located west of Basin (B)-2, facing southwest (33.966258, -117.022864). June 3, 2021.

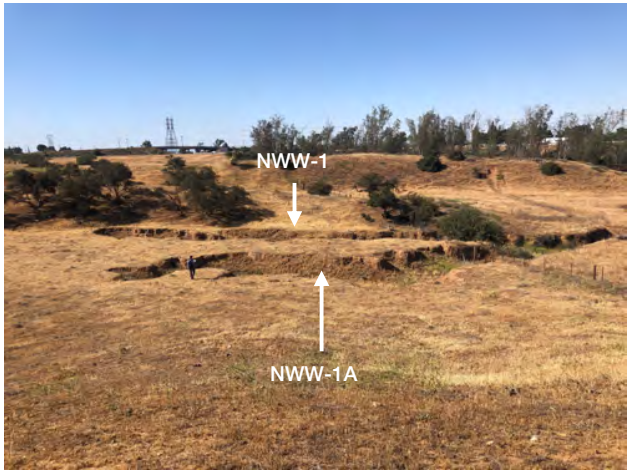

Photo 7. Overview of Non-Wetland Water (NWW)-1A and NWW-1, facing south. NWW-1A and NWW-1 converge just before continuing off site and downstream and exhibiting a more defined bed and bank (33.966304, -117.025167). June 3, 2021.

Photo 8. Upstream view of ODP 3, facing southeast, within NWW-1A. The OHWM was defined by a faint break in bank slope and a change in vegetation cover. NWW-1A and NWW-1 continue downstream where OHWM indicators become more prominent (33.966120, -117.025049). June 3, 2021.

Photo 9. Downstream view of ODP 3, facing west, within NWW-1A. As NWW-1A continues downstream, OHWM indicators become more prominent (33.966076, -117.024773). June 3, 2021.


Photo 10. Downstream view of NWW-1 from upstream extent, facing west. As NWW-1 continues downstream, OHWM indicators become more prominent (33.965835, -117.024734). June 3, 2021.


Photo 11. View of B-1, which contained several mulefat (*Baccharis salicifolia*), facing north. B-1 was previously used as a settling basin to hold manure (33.966130, -117.021422). June 3, 2021.


Photo 12. View of B-2, which contained some mulefat and tree tobacco (*Nicotiana glauca*), facing northeast. B-2 was previously used as a settling basin to hold manure (33.966130, -117.021422). June 3, 2021.

Photo 13. View of B-3, facing south. B-3 was previously used as a settling basin to hold manure (33.965818, -117.021455). June 3, 2021.

Photo 14. View of Wetland Data Form Point (WDP) 1 (white arrow) within small stand of mule fat, facing east, within B-4. WDP 1 met the wetland hydrology parameter; however, hydrophytic vegetation and hydric soil parameters were not met at WDP 1. B-4 was previously used as a settling basin to hold manure (33.965370, -117.022221). June 3, 2021.

Photo 15. View of B-5 facing southeast. B-5 was previously used as a settling basin to hold manure (33.965122 -117.021874). June 3, 2021.

Photo 16. View of area mapped by U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) as a “Reservoir,” facing west. No evidence of hydrology was observed (33.965010, -117.021979). June 3, 2021.

Photo 17. Downstream view of NWW-2, facing west. (33.965125, -117.022334). June 7, 2021.

Photo 18. Upstream view of ODP 4, facing east, within NWW-2. The OHWM was defined by a faint break in bank slope and a change in vegetation cover (33.964853, -117.023670). June 7, 2021.

Photo 19. Downstream view of ODP 4, facing west, within NWW-2. Vegetation was dominated by non-native grasses, including short-pod mustard *(Hirschfeldia incana*), ripgut brome *(Bromus diandrus*), and false brome *(Brachypodium distachyon*) (33.964874, -117.023356). June 7, 2021.

Photo 20. View of WDP 2 (white arrow), facing west, within NWW-2. WDP 2 did not meet the hydrophytic vegetation, hydric soil, or wetland hydrology parameters (33.964962, -117.023251). June 7, 2021.

Photo 21. View of NWW-2A (yellow line), which showed faint indicators of an OHWM, as it continues into NWW-2, facing northwest (33.964876, -117.022516). June 7, 2021.

Photo 22. View of culvert outlets located along the southern extent of the review area under Brookside Avenue, facing south. Flows from the culvert outlets continue into NWW-3 (33.961603, -117.018517). June 3, 2021.

Photo 23. Downstream view of NWW-3, facing northwest, located just north of the two culvert outlets under Brookside Avenue before NWW-3 converges with NWW-3A (33.961636, -117.018604). June 3, 2021.

Photo 24. View of EF-4 within the review area, facing west. EF-4 continues west into Swale (S)-1, which ultimately converges with NWW-3A (33.963245, -117.013837). April 22, 2021.

Photo 25. View of ODP 6, facing east, within S-1. S-1 did not exhibit any bed and bank indicators, there was no change in sediment texture or break in slope, and vegetation did not differ between the swale and the adjacent upland area (33.962812, -117.017420). June 3, 2021.

Photo 26. View at upstream extent of NWW-3A, facing southwest, just west of S-2 (33.963458, -117.016526). June 3, 2021.

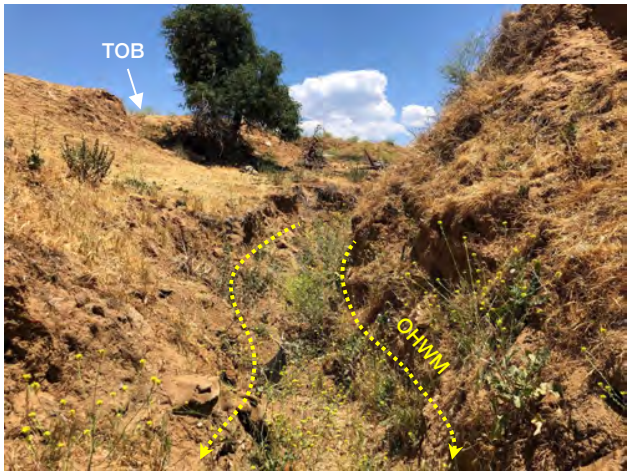

Photo 27. Upstream view of ODP 5, facing northeast, within NWW-3A. The OHWM was primarily defined by a a break in bank slope, change in average sediment texture, and change in vegetation species (33.963053, -117.017202). June 3, 2021.

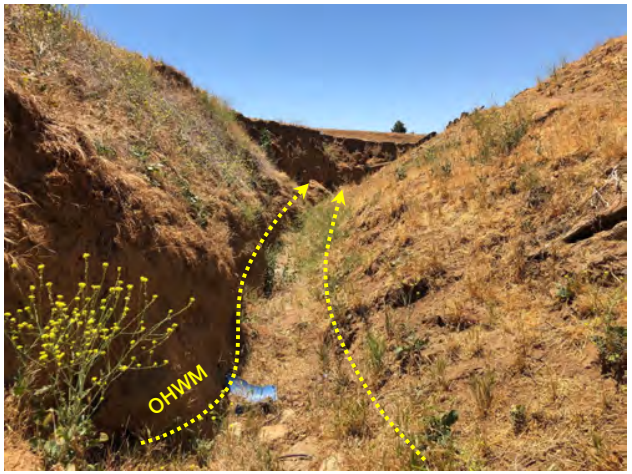

Photo 28. Downstream view of ODP 5, facing southwest, within NWW-3A (33.963266, -117.017032). June 3, 2021.

Photo 29. View of S-3, facing south, as it travels towards NWW-3A (33.9632961, -117.018316). April 22, 2021.

Photo 30. Downstream view of NWW-3A, facing southwest (33.962811, -117.018492). June 3, 2021.

Photo 31. Downstream view of area of NWW-3A exhibiting a faint OHWM, facing west (33.962373, -117.019364). June 3, 2021.

Photo 32. Downstream view of NWW-3, located west of the convergence of NWW-3 and NWW-3A, facing southwest (33.962054, -117.02037). June 3, 2021.

Photo 33. Upstream view of ODP 7, facing east, within NWW-3. The OHWM was primarily defined by a change in average sediment texture, change in vegetation species and cover, and faint break in bank slope (33.962257, -117.021513).

Photo 34. Downstream view of ODP 7, facing west, within NWW-3 (33.962335, -117.021187). June 3, 2021.

Photo 35. View of WDP 3, facing north, within NWW-3. WDP 3 met the hydrophytic vegetation parameter; however, hydric soil and wetland hydrology parameters were not met within WDP 3 (33.962696, -117.022892). June 7, 2021.

Photo 36. View of EF-6 (yellow line), facing northwest, which travels into area with some mulefat and tree tobacco, just east of NWW-3B. EF-6 did not appear to contribute flows to NWW-3B (33.963667, -117.020341). June 3, 2021.

Photo 37. View of EF-7 (yellow arrow), just south of EF-6, facing south/southwest. EF-7 converges with EF-8 (white arrow), neither of which appeared to contribute flows to NWW-3B (33.963581, -117.020494). June 3, 2021.

Photo 38. Looking downstream from the south side of the upstream extent of NWW-3B, facing northwest (33.963553, -117.021142). June 3, 2021.

Photo 39. View of D-1, facing east (33.965103, -117.019365). April 22, 2021.

Photo 40. View of area where D-1 abruptly stops, facing south. Flows likely continue as sheet flow into S-5, before continuing into NWW-3B1 (33.964824, -117.020845). June 3, 2021.

Photo 41. View of NWW-3B1, facing south. Flows continue south/southwest into NWW-3B (white arrow) (33.964550, -117.021793). June 3, 2021.


Photo 42. Downstream view of NWW-3B, facing west (33.963775, -117.022856). April 22, 2021.

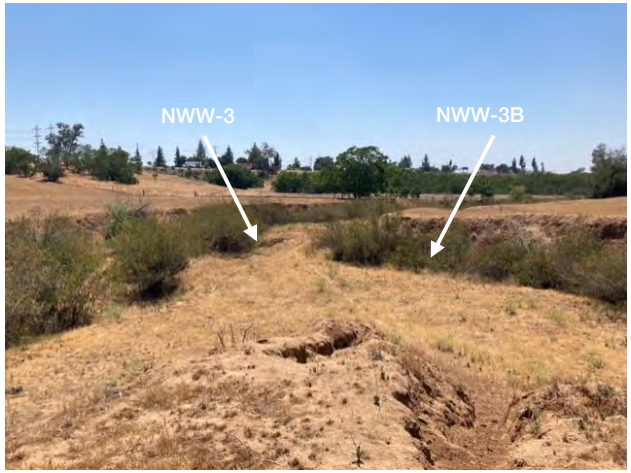

Photo 43. Downstream view of the convergence of NWW-3 and NWW-3B, facing west, before NWW-3 continues off site (33.963316, -117.023726). June 3, 2021.


Photo 44. View of slight depressional area surrounded by mulefat scrub, located south of NWW-3B, facing west. No evidence of hydrology was observed (33.963283, -117.021269). June 3, 2021.

Photo 45. East facing view of area mapped by USGS NHD as a "Reservoir" and where a basin was previously located east of EF-8. No evidence of hydrology was observed (33.963493, -117.020227). June 3, 2021.

Photo 46. Southeast facing view of area where a basin was previously located west of S-3. No evidence of hydrology was observed (33.963274, -117.019648). June 3, 2021.

APPENDIX G

JURISDICTIONAL DETERMINATION REQUEST FORMS

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: South of Cherry Valley Blvd., north of Brookside Ave., and east/northeast of I-10 (Street Address)
  City/Township/Parish: Beaumont County: Riverside State: CA
  Acreage of Parcel/Review Area for JD: 215.96
  Section: 30 Township: 2 S Range: 1 W
  Latitude (decimal degrees): 33.965141 Longitude (decimal degrees): -117.019732
  (For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ✔ I currently own this property. ___ I plan to purchase this property.
  ___ I am an agent/consultant acting on behalf of the requestor.
  ___ Other (please explain): _____.
- Reason for request: (check as many as applicable)
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ___ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ✔ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ___ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
  ___ A Corps JD is required in order to obtain my local/state authorization.
  ___ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
  ___ I believe that the site may be comprised entirely of dry land.
  ___ Other: _____
- Type of determination being requested:
  ___ I am requesting an approved JD.
  ✔ I am requesting a preliminary JD.
  ___ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ___ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: _____

- Typed or printed name: Andrew Greybar
  Company name: Exeter Cherry Valley Land, LLC
  Address: 5060 North 40th Street, Suite 108
  Phoenix, AZ 85018
  Daytime phone no.: 708-341-9821
  Email address: andrew.greybar@eqtexeter.com

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

APPENDIX H

LITERATURE CITATIONS AND REFERENCES

APPENDIX H. LITERATURE CITATIONS AND REFERENCES

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APPENDIX I

ORM BULK UPLOAD AQUATIC RESOURCES OR CONSOLIDATED EXCEL SPREADSHEET

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude
NWW-1	CALIFORNIA	R6		Area	0.018	ACRE	DELINEATE	33.965908	-117.025153
NWW-1A	CALIFORNIA	R6		Area	0.021	ACRE	DELINEATE	33.966006	-117.025084
NWW-2	CALIFORNIA	R6		Area	0.087	ACRE	DELINEATE	33.964929	-117.023925
NWW-2A	CALIFORNIA	R6		Area	0.004	ACRE	DELINEATE	33.964977	-117.022656
NWW-2B	CALIFORNIA	R6		Area	0.012	ACRE	DELINEATE	33.965185	-117.022994
NWW-2C	CALIFORNIA	R6		Area	0.007	ACRE	DELINEATE	33.964845	-117.023224
NWW-3	CALIFORNIA	R6		Area	0.385	ACRE	DELINEATE	33.962391	-117.021747
NWW-3A	CALIFORNIA	R6		Area	0.146	ACRE	DELINEATE	33.962760	-117.018132
NWW-3B	CALIFORNIA	R6		Area	0.117	ACRE	DELINEATE	33.963540	-117.022834
NWW-3B1	CALIFORNIA	R6		Area	0.0301001	ACRE	DELINEATE	33.964055	-117.021934

APPENDIX J

GIS DATA (PROVIDED ELECTRONICALLY TO AGENCIES)

APPENDIX B

BEAUMONT SUMMIT STATION PROJECT
BURROWING OWL SURVEY REPORT

ROCKS
BIOLOGICAL CONSULTING



BEAUMONT SUMMIT STATION PROJECT

PROTOCOL PRESENCE/ABSENCE 2021 SURVEY REPORT FOR BURROWING OWL (*Athene cunicularia*)

Riverside County, California

October 5, 2021

Prepared for:
EQT Exeter
8621 East Whitton Avenue
Scottsdale, AZ 85251
(708) 341-9821

Prepared by:
Rocks Biological Consulting
4312 Rialto St,
San Diego, CA 92107
(619) 701-6798

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FIGURES

APPENDICES

1 SUMMARY

This report is a summary of focused burrowing owl (*Athene cunicularia*; BUOW) surveys Rocks Biological Consulting (RBC) conducted for the Beaumont Summit Station Project (project) in the City of Beaumont, Riverside County, California. The project is located within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Burrowing Owl Survey Area (RCA 2021). RBC conducted a habitat assessment for BUOW on April 22, 2021 in accordance with the Western Riverside MSHCP Burrowing Owl Survey Instructions (RCA 2006.

Based on the presence of suitable habitat, RBC conducted breeding season BUOW surveys between May 12, 2021 and July 6, 2021 in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006 and California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). No BUOW, active burrows, or sign were documented within the survey area.

2 INTRODUCTION

2.1 PROJECT LOCATION & PROPOSED ACTIVITY

The project is in the northwestern portion of the City of Beaumont, California (Figure 1). The project site is approximately 191 acres, located south of Cherry Valley Boulevard, north of Brookside Avenue, and east of Interstate 10 (I-10). The project would amend the approved Sunny-Cal Specific Plan (2007) and would include development of the site for an e-commerce center, commercial development, open space (parks/trails and buffer), and roads. Development start time will be dependent on processing time but is scheduled to begin in fall 2022 with an estimated construction time of approximately one year.

2.2 BURROWING OWL NATURAL HISTORY

Within California, BUOW is listed by the California Department of Fish and Wildlife (CDFW) as a Species of Special Concern (SSC). Suitable habitat for BUOW is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils, such as naturally occurring grassland, shrub steppe, and desert habitats (Haug et al. 1993). Additionally, BUOW may occur in agricultural areas, ruderal grassy fields, vacant lots and pastures containing suitable vegetation structure and useable burrows and foraging habitat in proximity (Gervais et al. 2008). Typically, BUOW use burrows that have been dug by other species, termed host burrowers. In California, BUOW frequently use burrows dug by California ground squirrel (*Otospermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) and dens or holes dug by other fossorial species, including badger (*Taxidea taxus*), coyote (*Canis latrans*), and fox (e.g., San Joaquin kit fox [*Vulpes macrotis mutica*]) (Ronan 2002). In addition, BUOW also frequently use natural rock cavities, debris piles, culverts, and pipes for nesting and roosting (Rosenberg et al. 1998) and have been documented using artificial burrows for nesting and cover (Belthoff and Smith 2003). Occupancy of burrowing owl habitat is confirmed at a site when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years (Rich 1984).

3 METHODS

RBC biologists conducted a habitat assessment for BUOW on April 22, 2021 in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006). Based on the presence of suitable habitat on-site, RBC avian biologists Ian Hirschler and Chris Thomson conducted focused burrow surveys and focused breeding season BUOW surveys between May 12 and July 6, 2021 in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006) and the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Mr. Hirschler is a wildlife biologist with over six years of professional experience and a Bachelor of Science degree in field and wildlife biology. Mr. Thomson is a wildlife biologist with over three years of professional experience and a Bachelor of Science degree in environmental science with a focus on ornithology. Both biologists have extensive experience performing burrowing owl surveys.

The survey area included the project site, as well as all suitable habitat within a 500-foot buffer per CDFW guidance (Figure 2). Survey timing followed MSHCP Instructions which calls for focused burrowing owl surveys consisting of site visits on four separate days; however, survey methodologies followed those presented in the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFW 2012).

Two visits were required for each survey 'pass' due to the size of the site and survey timing restrictions. During each survey, RBC avian biologists walked through suitable BUOW habitat within the survey area via straight-line transects spaced 10 meters (m) to 30 m apart, adjusting for vegetation height and density, and used binoculars to scan the survey area at least every 100 m for BUOW, active burrows, and/or sign of BUOW. No calls were used. Care was taken to minimize disturbance near suitable burrows to avoid flushing any burrowing owls. All observed burrows were examined for sign, including feathers, pellets, whitewash, and prey remains. Burrows were considered active if a BUOW was observed at or near the entrance or if recent sign was present. All BUOW, active burrows, and BUOW sign were mapped in the geographic information system (GIS) program ArcGIS Collector. Survey dates, times, and weather conditions are presented in Table 1, below. Climatic and temporal conditions did not affect BUOW detection or survey scope.

Table 1. Burrowing Owl Survey Dates and Conditions

Survey Number	Date	Surveyor(s)	Time (Start; End)	Temp (F) (Start; End)	Cloud Cover (%) (Start; End)	Wind Range (mph) (Start; End)	Precip. (Start; End)	Visibility (Lo, Med, High) (Start; End)
1 (dusk)	5/12/21	I. Hirschler, C. Thomson	1730-1930	81-70	0-0	3-7; 3-7	0-0	High; High
1 (dawn)	5/13/21	I. Hirschler, C. Thomson	0715-0930	60-70	0-0	0-2; 1-4	0-0	High; High
2 (dusk)	6/6/21	I. Hirschler, C. Thomson	1730-1945	77-67	0-0	5-8; 5-8	0-0	High; High
2 (dawn)	6/7/21	I. Hirschler, C. Thomson	0730-1000	52-75	100-100	0-2; 1-3	0-0	High; High
3 (dusk)	6/23/21	I. Hirschler	1745-1930	76-74	80-60	2-5; 0-2	0-0	High; High
3 (dawn)	6/24/21	I. Hirschler	0715-1000	64-69	15-5	0-2; 0-2	0-0	High; High
4 (dusk)	7/5/21	I. Hirschler, H. Swarthout[1]	1715-1945	88-82	0-0	0-2; 1-4	0-0	High; High
4 (dawn)	7/6/21	I. Hirschler	1715-1945	88-82	0-0	0-2; 1-4	0-0	High; High

[1]*Hannah Swarthout participated in survey 4 (dusk) as a trainee*

4 RESULTS

4.1 EXISTING CONDITIONS & HABITAT ASSESSMENT

The project site is composed primarily of non-native grassland dominated by red brome (*Bromus rubens*) and goldentop grass (*Lamarckia aurea*) as well as developed land. The developed land on-site consists of multiple concrete foundations and several abandoned outbuildings that supported former poultry and egg farm operations. The project site also supports several canyons and drainages composed of non-native grassland, mulefat thickets, non-native riparian habitat and Riversidian sage scrub.

During the initial BUOW habitat assessment, most of the survey area was determined to be suitable BUOW habitat based on the presence of open grassland and several observations of California ground squirrel activity at suitable burrows throughout the project site. Photographs of site conditions are presented in Appendix A.

4.2 BURROWING OWL SURVEY RESULTS

RBC conducted four focused BUOW surveys during the breeding season (February 1 to August 31) between May 12, 2021 and July 6, 2021. No BUOW, sign, or active burrows were observed during focused surveys.

No evidence of owl predation was observed; however, common predators in the area include coyote, gray fox (*Urocyon cinereoargenteus*), and raccoon (*Procyon lotor*). Additionally, 34 bird species were observed during protocol surveys as listed in Appendix B.

5 BURROWING OWL MITIGATION

Pursuant to the MSHCP, all project sites containing burrows or suitable habitat require pre-construction surveys (RCA 2006). The pre-construction surveys will be conducted in accordance with MSHCP Objective 6 for BUOW. As such, the following minimization and avoidance measure is required in order to avoid direct impacts on BUOW:

> A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If burrowing owls are documented on site, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, as specified in the MSHCP.

6 CONCLUSIONS

No BUOW, active burrows, or BUOW sign were documented within the project site during the focused BUOW surveys conducted between May 12, 2021 and July 6, 2021. However, due to the presence of suitable habitat on site and the potential for future occupation of the site, pre-construction surveys will be required to avoid potential direct impacts on BUOW resulting from the project in conformance with the MSHCP.

7 REFERENCES

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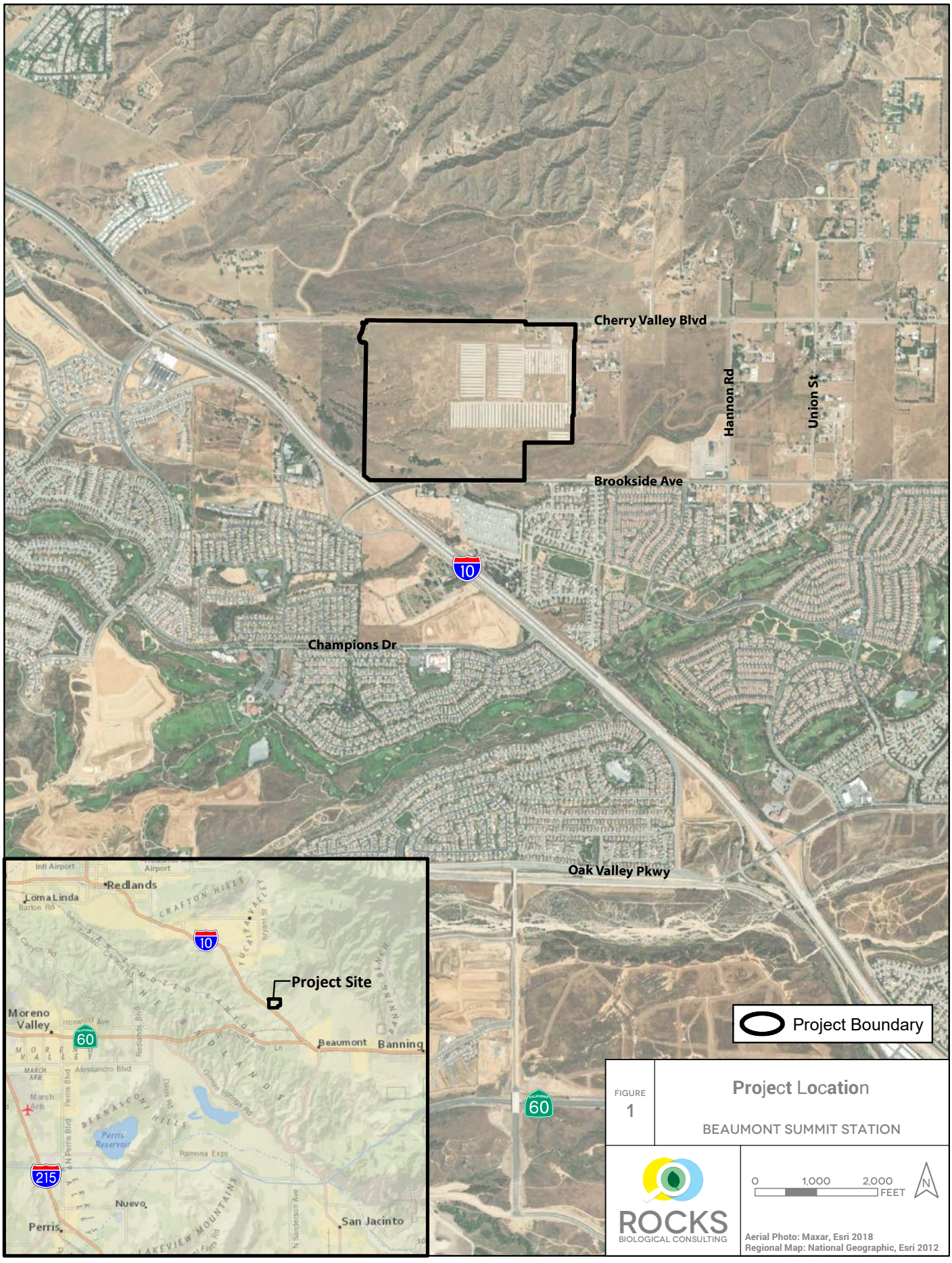


FIGURE 1

Project Location

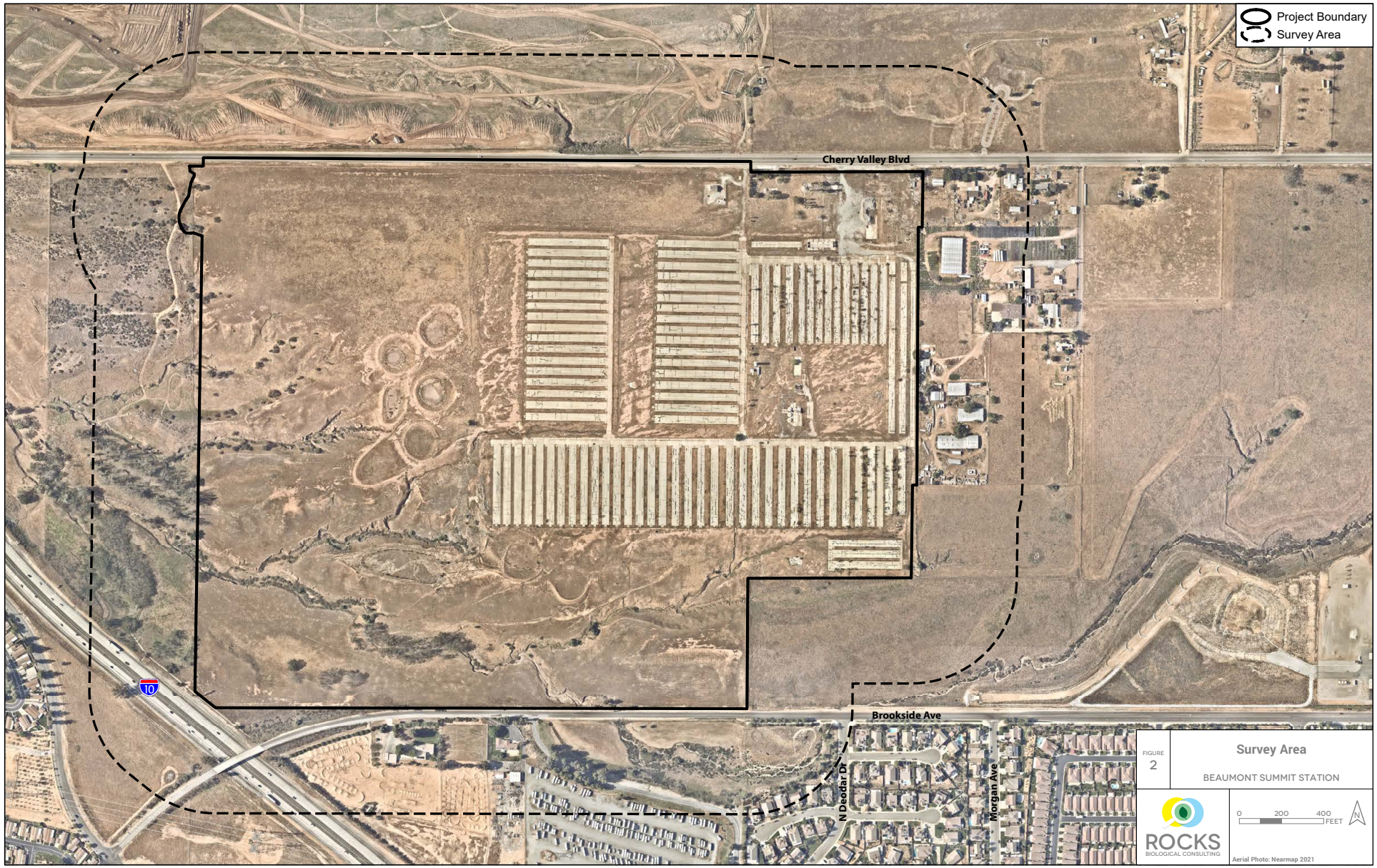
BEAUMONT SUMMIT STATION

ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

N

Aerial Photo: Maxar, Esri 2018
Regional Map: National Geographic, Esri 2012


Project Boundary
Survey Area
Cherry Valley Blvd
Brookside Ave
N Deodar Dr
Morgan Ave
10
FIGURE
2
Survey Area
BEAUMONT SUMMIT STATION
ROCKS
BIOLOGICAL CONSULTING
0
200
400
FEET
Aerial Photo: Nearmap 2021

APPENDIX A

SITE PHOTOGRAPHS

Appendix A

Site Photographs

Photo 1. Overview of project site from the western site boundary, showing drainages running through non-native grassland, facing northeast on April 22, 2021.

Photo 2. View of non-native grassland in the western portion of the project site, showing oaks and drainages containing mulefat, facing west on April 22, 2021.

Photo 3. View of non-native grassland within central portion of the project, facing east on April 22, 2021.

Photo 4. Picture of concrete pads within the central portion of the project, facing south on April 22, 2021.

Photo 5. Representative photos from April 22, 2021 of the non-native riparian (*Ailanthus altissima*) within the drainages in the southwestern portion of the site; stands have a height of up to approximately 25 feet.

Photo 6. South-facing view of mulefat scrub within the drainages in the southwestern portion of the site, facing west on May 27, 2021.

Photo 7. Representative picture of the drainages within the southwestern portion of the project site, facing east on April 22, 2021.

Photo 8. Representative picture of the drainages within the southwestern portion of the project site, facing north on April 22, 2021.

Photo 9. Representative photo of the small-mammal burrows throughout the non-native grassland within the survey area.

Photo 10. Representative photo of the adjacent chamise chaparral habitat northwest of project boundary on July 20, 2021.

APPENDIX B

BIRD SPECIES OBSERVED DURING FOCUSED BURROWING OWL SURVEYS

Appendix B

Bird Species Observed During Burrowing Owl Focused Surveys

Family	Common Name	Scientific Name
Accipitridae	red-tailed hawk	*Buteo jamaicensis*
Alaudidae	horned lark	*Eremophila alpestris*
Charadriidae	killdeer	*Charadrius vociferus*
Columbidae	rock pigeon	*Columba livia*
Columbidae	Eurasian collared-dove	*Streptopelia decaocto*
Columbidae	mourning dove	*Zenaida macroura*
Corvidae	American crow	*Corvus brachyrhynchos*
Corvidae	common raven	*Corvus corax*
Falconidae	American kestrel	*Falco sparverius*
Fringillidae	house finch	*Haemorhous mexicanus*
Fringillidae	Lawrence's goldfinch	*Spinus lawrencei*
Fringillidae	lesser goldfinch	*Spinus psaltria*
Hirundinidae	barn swallow	*Hirundo rustics*
Hirundinidae	cliff swallow	*Petrochelidon pyrrhonota*
Hirundinidae	northern rough-winged swallow	*Stelgidopteryx serripennis*
Icteridae	Brewer’s blackbird	*Euphagus cyanocephalus*
Icteridae	Bullock's oriole	*Icterus bullockii*
Icteridae	hooded oriole	*Icterus cucullatus*
Icteridae	western meadowlark	*Sturnella neglecta*
Mimidae	northern mockingbird	*Mimus polyglottos*
Passerellidae	lark sparrow	Chondestes grammacus
Passerellidae	song sparrow	*Melospiza melodia*
Passerellidae	California towhee	*Melozone crissalis*
Passeridae	house sparrow	*Passer domesticus*
Picidae	Nuttall's woodpecker	*Dryobates nuttallii*
Ptiliogonatidae	phainopepla	*Phainopepla nitens*
Sturnidae	European starling	*Sturnus vulgaris*
Trochilidae	Anna’s hummingbird	*Calypte anna*
Troglodytidae	Bewick's wren	*Thryomanes bewickii*
Turdidae	western bluebird	*Sialia mexicana*
Tyrannidae	black phoebe	*Sayornis nigricans*
Tyrannidae	Say’s phoebe	*Sayornis saya*
Tyrannidae	western kingbird	*Tyrannus verticalis*
Tyrannidae	Cassin's kingbird	*Tyrannus vociferans*