Appendix D

Jurisdictional Delineation

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October 26, 2021
Project No: 20-09591

Travis Seawards
Deputy Director, Development Review
County of Santa Barbara
Department of Planning and Development
123 East Anapamu Street
Santa Barbara, California 93101
Via email: tseaswards@countyofsb.org

Subject: Jurisdictional Delineation for the Arctic Cold Project Site in Santa Barbara County, California

Dear Mr. Seawards:

This letter report has been prepared by Rincon Consultants, Inc. (Rincon) to assist the County of Santa Barbara (County) Department of Planning and Development with project planning for the Arctic Cold Project (project), and for use by the United States Army Corps of Engineers (USACE) to confirm extent of potential jurisdiction under Section 404 of the Clean Water Act (CWA), the Central Coast Regional Water Quality Control Board (RWQCB) to confirm extent of potential jurisdiction pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and the California Department of Fish and Wildlife (CDFW) to confirm extent of jurisdiction pursuant to California Fish and Game Code (CFGC) Sections 1600 et seq.

This Jurisdictional Delineation (JD) identified an irrigation drainage that is potentially subject to RWQCB and CDFW jurisdictions. The findings and conclusions presented in this report represent the professional opinion of the consultant biologist. These finding and conclusions should be considered preliminary and the final discretion of the applicable resource agency.

Summary of Project Description

The proposed project includes the building of a 436,647 square foot freezer/processer facility for local strawberries and other produce to be located at 1750 East Betteravia Road in the Santa Maria area. The facility will include a new 237,610 square foot retention/infiltration basin for stormwater runoff as well as two 40-foot driveways and a pedestrian path crossing the existing irrigation drainage adjacent to East Betteravia Road.

Project Location and Study Area

The project is located within active agriculture fields in unincorporated Santa Barbara County near the City of Santa Maria, California (Attachment 1, Figure 1). Specifically, the project site is located at 1750 East Betteravia Road and includes Assessor's Parcel Numbers 128-097-001 and 128-097-002. The project

site totals approximately 109 acres. The approximate center of the project is located at latitude 34.921780° and longitude -120.397160° (WGS84).

The project site is located within *Santa Maria, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle (USGS 2020). The Public Land Survey System depicts the project site within Township 10N, Range 34W, Section 30, Mount Diablo Meridian (CDC 2021).

The Biological Study Area (Study Area) for this JD was defined for the project as the project site plus a 50-foot buffer. The Study Area analyzed in this report encompasses roughly 47 acres (Attachment 1, Figure 2).

Methods

The JD began with a literature review of existing studies and maps. After completion of the literature review, a field delineation was completed to identify, describe, and map all potential jurisdictional features within the Study Area. Field work for this evaluation was conducted by Rincon Associate Regulatory Specialist Carolynn Daman on September 23, 2020. Additional field work was conducted by Rincon Biologist Billy Fletcher on October 13, 2021. The need for this additional environmental analysis was identified during our initial biological field review of the subject property on September 14, 2020. The JD has been prepared in accordance with USACE, RWQCB and CDFW procedures, as outlined below.

Literature Review

Prior to the field survey, Rincon reviewed aerial imagery (Google Earth 2021) depicting the Study Area, the *Santa Maria, California* USGS 7.5-minute topographic quadrangle, the Soil Survey of Santa Barbara, California (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 1972), the Web Soil Survey (United States Department of Agriculture, Natural Resources Conservation Service [USDA, NRCS] 2021), and the *National Hydric Soils List by State: California* (USDA, NRCS 2020). These resources were reviewed to better characterize the site and its surroundings from a hydrologic and geologic/topographical perspective and to determine if any soil units mapped in the Study Area were classified as hydric.

Additionally, the *National Wetlands Inventory* (NWI) (United States Fish and Wildlife Service [USFWS] 2021) and the *National Hydrography Dataset* (NHD) (USGS 2021) were reviewed to determine if any wetlands or other waters had been previously documented and mapped in or near the Study Area.

Field Delineation

On September 23, 2020, Ms. Daman surveyed the Study Area on foot for potential wetland and non-wetland jurisdictional features, including streams, that might exhibit an ordinary high water mark (OHWM) and that might constitute waters of the U.S. and/or State, CDFW-jurisdictional streambeds, and/or wetlands protected by the County of Santa Barbara. On October 13, 2021, Mr. Fletcher surveyed an extended section of the Study Area that was identified during the initial biological field review on September 14, 2020. Current federal and state policies, methods and guidelines were used to identify and delineate potential jurisdictional features and are described in detail below and in Attachment 4.

During the field delineation, photographs were taken of potential jurisdictional features and the surroundings. General site characteristics were noted, and vegetation present on-site with a focus on vegetation associated with any jurisdictional features was documented (Attachment 3). Vegetation communities were classified using *A Manual of California Vegetation, 2nd Edition* (MCV2, Sawyer et al.

2009), which establishes systematic classifications and definitions of vegetation communities. Updates to the MCV2 provided in the online database (California Native Plant Society [CNPS] 2021) were also considered. For those vegetated areas that could not be classified per MCV2, industry-standard vegetation community names were used. Additionally, land covers were characterized in areas that lacked vegetation. Data collection was focused at areas where the Study Area intersected a potential jurisdictional feature and chosen as best representation of the conditions at the site.

The extent of potential jurisdictional features in the field and data were collected using a Trimble Global Positioning System (GPS) unit with sub-meter accuracy. All collected data were subsequently transferred to Rincon's Geographic Information System (GIS) software package to produce a delineation figure. Representative photographs within the Study Area are presented in Attachment 2. Attachment 1, Figure 5 includes the location and direction from where each photograph was taken.

Non-Wetland Waters of the U.S.

The lateral limits of potential USACE jurisdiction (i.e., width) for non-wetland waters or "other waters" are determined by the presence of physical characteristics indicative of the OHWM. The Code of Federal Regulations (CFR) sections (33 CFR 328.3 and 33 CFR 328.4) and Regulatory Guidance Letter No. 05-05 (USACE 2005) were reviewed, as well as various relevant technical publications including but not limited to: *Review of Ordinary High Water Mark Indicators for Delineating Arid Streams in the Southwestern United States* (USACE 2004), *Distribution of Ordinary High Water Mark (OHWM) Indicators and Their Reliability in Identifying the Limits of "Waters of the United States" in Arid Southwestern Channels* (USACE 2006), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b).

Additionally, Rincon evaluated sources of water, potential connections and distances to Traditional Navigable Waters (TNWs), streams that are perennial or intermittent in nature and other factors that affect whether waters qualify as "waters of the U.S." under current USACE regulations (33 CFR 328.3). Rincon also reviewed relevant Approved Jurisdictional Delineations (AJD) for the region to further determine USACE jurisdiction.

Wetland Waters of the U.S.

Potential wetland features were evaluated for presence of wetland indicators; specifically, hydrophytic vegetation, hydric soils, and wetland hydrology, according to routine delineation procedure within the *Wetlands Delineation Manual* (USACE 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a). The USACE *Arid West 2018 Regional Wetland Plant List* (USACE 2018) was used to determine the indicator status of the examined vegetation by the following indicator status categories: Upland (UPL), Facultative Upland (FACU), Facultative (FAC), Facultative Wetland (FACW), and Obligate Wetland (OBL) (Lichvar 2018). Paired observation points were established at locations representing potential wetland and non-wetland/upland locations within the Study Area.

CDFW Streambed

The extent of potential streambeds, streambanks, lakes and riparian habitat subject to CDFW jurisdiction under Section 1600 et seq. of the CFGC was delineated by reviewing the topography and morphology of potentially jurisdictional features to determine the outer limit of riparian vegetation, where present, or the tops of banks for stream features.

Waters of the State

The limits of non-wetland "waters of the State," as defined under the Porter-Cologne Water Quality Control Act, were conservatively determined to be coterminous with the CDFW jurisdictional streambeds previously described based on current interpretation of jurisdiction by the Central Coast RWQCB. The delineated boundaries include all streams/channels and riparian vegetation within the Study Area. Additionally, potential State wetland features were evaluated pursuant to *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB 2020) following the procedures discussed above for wetland waters of the U.S.

County of Santa Barbara

The Study Area was also evaluated for the presence of naturally occurring wetlands as defined by the County of Santa Barbara *Environmental Thresholds and Guidelines Manual* (October 2008, Amended September 2020) which must have one or more of the following three attributes:

a) At least periodically, the land supports predominantly hydrophytes, that are plants adapted to moist areas;
b) The substrate is predominantly un-drained hydric soil; and
c) 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 (Cowardin 1979).

The County of Santa Barbara's Environmental Thresholds and Guidelines Manual also states examples of naturally occurring wetlands as coastal salt and brackish marshes, fresh water marshes, or vernal pools. Following the Santa Barbara County wetland definition, areas within the Study Area were delineated as wetlands in the field if they were naturally occurring and any one of the three County wetland parameters was satisfied.

Existing Setting

The project site occurs on lands that have been used for agricultural production, specifically strawberry production, historically to present day. The parcel contains one commercial unit, water pumping station, unpaved access roadways and active agriculture fields. Properties in the vicinity of the site include active agriculture fields to the west, east and south, and a production facility to the north. The topography of the Study Area is flat with elevations at approximately 300 feet above mean sea level.

Hydrology

The project is located within the Corralitos Canyon subwatersed (Hydrologic Unit Code No. 180600080503) (Attachment 1, Figure 6). No aquatic features are depicted on the NWI or NHD within the Study Area. Note that the mapping presented in the NHD and NWI provide useful context but are not a completely accurate depiction of current conditions or extent of jurisdiction in the Study Area, particularly regarding alignment of drainages and the flow regime. Maintained irrigation ditches are located within the Study Area as well as throughout the region supplying irrigation water to agriculture crops. The irrigation ditch was observed with no direct connection to the Santa Maria River based on aerial imagery investigations (Google Earth 2021) and field observations. The Santa Maria River is located 2.3 miles east of the project.

Soils

Based on the literature review, the Study Area contains two soil map units: Betteravia loamy sand, 0 to 2 percent slopes; and Pleasanton sandy loam, 0 to 2 percent slopes. Figure 3 depicts the soils found within the Study Area. These soil units are from the USDA, NRCS Web Soil Survey dataset for Northern Santa Barbara County, California, which was conducted on a broader scale than this study and did not necessarily include on-site observations. The physical characteristics of each soil unit, as described below, are general and not necessarily indicative of characteristics actually present in the Study Area.

Betteravia Loamy Sand, 0 to 2 Percent Slopes

Betteravia series soils are moderately well drained, loamy sand soils derived from wind-modified marine sands. These soils occur on low terraces of river systems like the Santa Maria River. Betteravia soils are well suited for irrigated crop production including strawberries. The soil profile consists of a sandy topsoil that transitions to weak cemented subsoil between 36 and 50 inches in depth. This soil map unit is included on the National Hydric Soils List by State: California (USDA, NRCS 2020).

Pleasanton Sandy Loam, 0 to 2 Percent Slopes

Pleasanton series soils are well-drained sandy loam soils with cobbly clay subsoil. These soils are derived from old alluvial deposits from sandstone and shale and found on low terraces. Pleasanton soils are well suited for irrigated row crops. The soil profile consists of a dark sandy loam topsoil to 32 inches in depth and a subsoil transitioning to cobbly heavy clay loam to 66 inches in depth. This soil map unit is not included on the National Hydric Soils List by State: California (USDA, NRCS 2020).

Vegetation Communities and Land Cover Types

Vegetation communities within the Study Area consists of barnyard grass/wild radish patches, California bulrush marsh, cattail marshes, smartweed patches and ruderal. The remaining portion of the Study Area that did not consist of vegetation communities is developed land cover and agriculture. Figure 4 depicts the vegetation communities and land cover types within the Study Area. Plant species observed within the Study Area can be found in Table 3-1 in Attachment 3.

Agriculture Fields

Agriculture fields is the largest community within the Study Area. The agriculture fields were under preparation during the survey, but seasonally contain strawberries (Attachment 2, Photographs 3 and 5). This land cover type also includes access roadways within the agriculture fields.

Barnyard Grass/Wild Radish Patches

Vegetation within the western portion of the irrigation drainage is predominately non-native barnyard grass (*Echinochloa crus-galli*, FACW) and wild radish (*Raphanus sativus*, UPL) (Attachment 2, Photograph 8 and 9). The barnyard grass/wild radish patches do not correspond to *Brassica nigra - Centaurea* (*solstitialis*, *melitensis*) Herbaceous Alliance as the coverage of wild radish was not high enough; therefore, a site-specific community is described herein. Vegetation becomes less dense within the drainage towards the west. Other species present within the vegetation community include cheeseweed (*Malva parviflora*, UPL). This vegetation community is predominately non-native species and is not considered sensitive.

California Bulrush Marshes

California bulrush marshes most closely corresponds to *Schoenoplectus* (*acutus, californicus*) Herbaceous Alliance. This native herbaceous alliance is typically found brackish to freshwater marshes; along stream shores, bars, and channels of river mouth estuaries; around ponds and lakes; in sloughs, swamps, and roadside ditches between 0 to 8,202 feet (0 to 2,500 meters) in elevation. Soils are poorly aerated with organic contents. Bulrush species contributes to at least 50 percent cover in the herbaceous layer (Sawyer et al. 2009, CNPS 2021). This vegetation community is ranked G5S5 and is considered sensitive (CDFW 2021).

California bulrush marshes are present within the smartweed patches and are concentrated stands of California bulrush (*Schoenoplectus californicus*, OBL) (Attachment 2, Photograph 4). Other species present within the California bulrush marshes include tall cyperus (*Cyperus eragrostis*).

Cattail Marshes

Cattail marshes most closely corresponds to the *Typha* (*angustifolia, domingensis, latifolia*) Herbaceous Alliance. This native herbaceous alliance is typically found within semi-permanent flooded marshes or brackish marshes between 0 to 1,148 feet (0 to 350 meters) in elevation. Soils are typically clayey or silty. Cattail species contributes to at least 50 percent cover in the herbaceous layer (Sawyer et al. 2009, CNPS 2021). This vegetation community is ranked G5S5 and is not considered sensitive (CDFW 2021).

Cattail marshes are also present within the smartweed patches in the irrigation drainage. These marshes are small, concentrated stands of cattail (*Typha latifolia*, OBL).

Smartweed Patches

The smartweed patch habitat most closely corresponds to the *Persicaria lapathifolia* Herbaceous Alliance. This native herbaceous alliance is typically found within marshes, regularly disturbed wet ponds, fields and stream terraces between 0 to 4,920 feet (0 to 1,500 meters) in elevation. Soils are typically clay-rich or silty. Smartweed (*Persicaria lapathifolia* [*Polygonum lapathifolium*], FACW) and/or cocklebur (*Xanthium strumarium*) or other knotweed species contributes to at least 50 percent cover in the herbaceous layer (Sawyer et al. 2009, CNPS 2021). This vegetation community is ranked G5S5 and is not considered sensitive (CDFW 2021).

Smartweed patches is the dominate community within the eastern portion of the irrigation drainage (Attachment 2, Photograph 2 and 6). Abundant species in this community within the irrigation drainage includes smartweed, willowherb (*Epilobium ciliatum*, FACW), wild radish (*Raphanus sativus*, UPL), barnyard grass, lamb's quarters (*Chenopodium alum*, UPL), and Bermuda grass (*Cynodon dactylon*, FACU).

Ruderal

Ruderal vegetation is located adjacent to the East Betteravia Road in disturbed areas that are continually mowed by the County for maintenance. Abundant species within this community are predominantly non-native species and include mustard (*Hirschfeldia incana*, UPL), English plantain (*Plantago lanceolata*, FAC), common sow thistle (*Sonchus oleraceus*, UPL), Russian thistle (*Salsola tragus*, UPL), and Canada horseweed (*Erigeron canadensis*, FACU). This vegetation community is predominately non-native species and is not considered sensitive.

Developed

The developed lands are made up of roadways and bare ground made up of areas devoid of vegetation due to vehicle travel.

Field Results and Discussion

Based on the jurisdictional delineation, one hydrologic feature within the Study Area is potentially subject to RWQCB and CDFW jurisdiction, as discussed below. The potentially jurisdictional feature within the Study Area is identified and shown on Attachment 1, Figure 5. Representative photographs of the feature observed are included in Attachment 2. Wetland Determination and OHWM data forms are included in Attachment 3.

Irrigation Drainage

One irrigation drainage was observed within the Study Area bordering the eastern and northern perimeters of the project (Attachment 2, Photograph 2). Based on review of aerial images and limited field observations, this drainage is part of the regional irrigation system that does not have direct connectivity to any navigable waters, such as the Santa Maria River and Pacific Ocean (Attachment 1, Figure 6). The trapezoidal shaped irrigation drainage was excavated in uplands, wholly drains uplands, and is continually maintained.

The OHWM was defined by a bed and bank, change in vegetation coverage and a change in vegetation species. The OHWM was approximately 6-8 feet in width, 2-6 inches in depth, and the top of banks extend approximately 6 feet from either side of the OHWM. The substrate within the OHWM was sandy loam.

Standing water was observed within the majority of the irrigation drainage at a depth between 2 and 6 inches. Water flows into this drainage predominantly from irrigation runoff from adjacent agriculture fields as well from neighboring properties. During the field surveys, irrigation water runoff was observed flowing into the irrigation drainage at two locations directly from agriculture fields to the south of the drainage (Attachment 2, Photographs 1 and 3). The drainage is hydrologically connected to a basin located directly southeast of the Study Area, along Telephone Road and Prell Road intersection (Attachment 2, Photograph 10). This basin was observed sending a slow flow of water west towards the Study Area. The southeastern portion of the irrigation drainage converges with a ditch along Prell Road and eventually enters a culvert on the north side of Telephone Road. This culvert connects to a basin on the east side of Telephone Road (Attachment 2, Photograph 10). The basin was observed to have no direct connection to any traditional navigable waters.

Vegetation within the eastern and a part of the northern portion of the drainage was dominated by smartweed, willowherb, jointed charlock, barnyard grass, and Bermuda grass (Attachment 2, Photographs 6 and 7). Vegetation within the western portion of the drainage was predominantly barnyard grass, wild radish, and cheeseweed (Attachment 2, Photographs 8 and 9). In areas where surface water was observed near the irrigation drainage inputs, stands of California bulrush and cattail mixed with tall cyperus was observed. The banks were densely vegetated with mustard, English plantain, Russian thistle, and common sow thistle.

Due to the presence of hydrophytic vegetation and standing water, wetland sample points were conducted in areas that may be impacted by the proposed project. Sample points SP-1 and SP-3 were collected in-channel and identified hydrophytic vegetation including smartweed and wetland hydrology

indicators including standing water, water stained leaves and a positive FAC-Neutral test (Attachment 2, Photographs 2 and 6). Problematic hydric sandy loam soils were investigated; however, no hydric soils were identified. Sample points SP-2 and SP-4 were excavated as potential upland sample points for comparisons in soils from SP-1 and SP-3. Due to the lack of all three USACE wetland parameters, no federal or state wetlands are present within the irrigation drainage. Additionally, no Santa Barbara County wetlands are present due to the lack of naturally occurring waters within the irrigation drainage.

Based on the JD, the irrigation drainage is potentially subject to RWQCB, CDFW, and County jurisdictions, as discussed below.

USACE Jurisdiction

Although the irrigation drainage appears to contain surface water for the majority of the year, it is an artificially irrigated area that would revert to upland if artificial irrigation ceases and does not exhibit a hydrologic surface connection to any other waters of the U.S. or navigable waters. Therefore, the irrigation drainage is not anticipated to fall within USACE jurisdiction.

RWQCB Jurisdiction

The irrigation drainage is not anticipated to fall within USACE jurisdiction as described above; however, the irrigation drainage does contain an OHWM and surface water. Therefore, it may be regulated by the RWQCB under the Porter-Cologne Water Quality Control Act as a non-wetland water of the state. Even though two wetland parameters were observed during wetland investigations, hydrophytic vegetation and wetland hydrology, the *SWCRB State Wetland Definition and Procedures for Discharge of Dredge or Fill Material to Waters of the State* excludes wetlands that are created due to agricultural crop irrigation or stock watering. Therefore, no wetland waters of the state are present within the Study Area, only non-wetland waters of the state are present.

CDFW Jurisdiction

The irrigation drainage contains a streambed and banks with wetland plants that could support wildlife. The irrigation drainage provides moderate wildlife habitat throughout the year. During the field survey, mallard duck (*Anas platyrhynchos*) individuals were observed wading in the irrigation drainage in several locations where surface water depth was greater than 6 inches. Due to CDFW's indication that frequency of flow is not a determining factor in identifying streambeds and the subject feature providing potential wildlife habitat, this feature was conservatively mapped as a potential CDFW-jurisdictional streambed pursuant to CFGC Section 1600 et seq.

County of Santa Barbara

Although the irrigation drainage contains two of the three wetland parameters that define a County wetland, the drainage is not naturally occurring as it was constructed to solely convey agriculture irrigation discharge; therefore, it is not likely to be regulated by the County.

Summary of Jurisdictional Features

Potentially jurisdictional features within the Study Area are identified below in Table 1 and shown on Figure 5.

Table 1 USACE, RWQCB, CDFW, and County of Santa Barbara Jurisdictional Areas within the Study Area

	USACE Waters of the U.S.		RWQCB Waters of the State			
Feature	Non-Wetland Waters of the U.S.[1] (acres/ linear feet)	Wetland Waters of the U.S.[1] (acres/ linear feet)	Non-Wetland Waters of the State[2] (acres/ linear feet)	Wetland Waters of the State (acres/ linear feet)	CDFW-Jurisdictional Streambed[2] (acres/ linear feet)	County of Santa Barbara Wetlands (acres/ linear feet)
Irrigation Drainage	–	–	1.41 (3,006)	–	1.41 (3,006)	–

[1]Calculated to OHWM or edge of wetland

[2]Calculated to top of bank or edge of riparian

The findings and conclusions presented in this report, including the location and extent of areas subject to regulatory jurisdiction, represent the professional opinion of the consultant biologists. These findings and conclusions should be considered preliminary and at final discretion of the applicable resource agency.

Conclusions and Recommendations

The irrigation drainage does not have direct hydrological connectivity to traditionally navigable or interstate waters and is an artificially irrigated area that would revert to upland if artificial irrigation ceases; therefore, it would not likely be under jurisdiction of the USACE. However, the Study Area does contain approximately 1.41 acres (3,006 linear feet) of non-wetland waters of the state under the Porter-Cologne Water Quality Act and CDFW-jurisdictional streambeds under CFGC 1600 et seq. subject to RWQCB and CDFW jurisdictions, respectively. No wetland waters of the state or County wetlands are present. If project activities result in impacts to the bed, bank or channel of the irrigation drainage, or deposit any pollutants or material into them, coordination and permitting with RWQCB and CDFW would likely be required. A Lake or Streambed Alteration Agreement (LSAA) may be required from CDFW pursuant to Section 1602 of the CFGC for diverting or obstructing the natural flow of any stream (including the irrigation drainage) or lake, changing the bed, channel, or bank of any stream or lake or depositing material into any stream or lake. Coverage under Waste Discharge Requirements (WDRs) may also be required from the Central Coast RWQCB pursuant to the California Water Code (CWC) Section 13260 for discharging waste or proposing to discharge waste into waters of the State, including the irrigation drainage.

Sincerely,
Rincon Consultants, Inc.

Carolynn Daman
Biologist/Regulatory Specialist

Christopher Julian
Principal/Regulatory Specialist

Attachments

Attachment 1 Figures

Attachment 2 Representative Site Photographs

Attachment 3 Data Summary: Observed Plants List within the Study Area, Wetland Determination Data Forms, and OHWM Forms

Attachment 4 Regulatory Framework

References

Bing. 2021. Aerial imagery.

California Department of Conservation (CDC). 2020. Public Land Survey System. Available at: https://data.ca.gov/dataset/public-land-survey-system-plss-sections

California Department of Fish and Wildlife (CDFW). 2021. California Sensitive Natural Communities. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline. Accessed October 2021.

California Invasive Plant Council (Cal-IPC). 2021. Cal-IPC Inventory. Available at: https://www.cal-ipc.org/plants/inventory/

California Native Plant Society (CNPS). 2021. A Manual of California Vegetation, Online Edition. http://www.cnps.org/cnps/vegetation/; accessed October 2021. California Native Plant Society, Sacramento, CA.

County of Santa Barbara. 2020. Environmental Thresholds and Guidelines Manual. Revised September 2020.

Google Earth Pro. October 2021.

Lichvar, R.W. et al. 2018. The National Wetland Plant List: 2018 wetland ratings. Phytoneuron 2016-30: 1–17.

Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*, Second Edition. California Native Plant Society. Sacramento, California.

State Water Resources Control Board (SWRCB). 2019. *Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State.* Adopted April 2, 2019 and implemented May 28, 2020. https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/procedures_conformed.pdf

The Jepson Herbarium. 2020. Jepson eFlora. Available at https://ucjeps.berkeley.edu/eflora/

United States Army Corps of Engineers. Environmental Laboratory. 1987. Technical Report Y-97-1. In: United States Army Corps of Engineers Wetlands Delineation Manual. United States Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

_____. 2008a. A *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.* Technical Report ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

_____. 2008b. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). United States Army Corps of Engineers Research and Development Center. Vicksburg, MS. September

_____. 2010. *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. Technical Report ERDC/CRREL TN-10-1. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

_____. 2018. National Wetland Plant List. Website. Available at: http://rsgisias.crrel.usace.army.mil/NWPL/

United States Department of Agriculture, Natural Resources Conservation Service. 2021. Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

_____. 2020. National Hydric Soils List by State: California Available at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316620.html

United States Department of Agriculture, Soil Conservation Service. 1972. Soil Survey of Santa Barbara County, California. Available at: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA672/0/ca_Northern_SB.pdfUnited States Fish and Wildlife Service. 2020. *National Wetlands Inventory.* https://www.fws.gov/wetlands/data/mapper.html

United States Geological Survey (USGS). 2020. *Santa Maria, California* 7.5-minute topographic quadrangle. Accessed September 2020 via The National Map. https://viewer.nationalmap.gov/advanced-viewer/.

_____. 2020. National Hydrography Dataset. Accessed September 2020 via The National Map. https://viewer.nationalmap.gov/advanced-viewer/.

Attachment 1

Figures

Figure 1 Regional Location

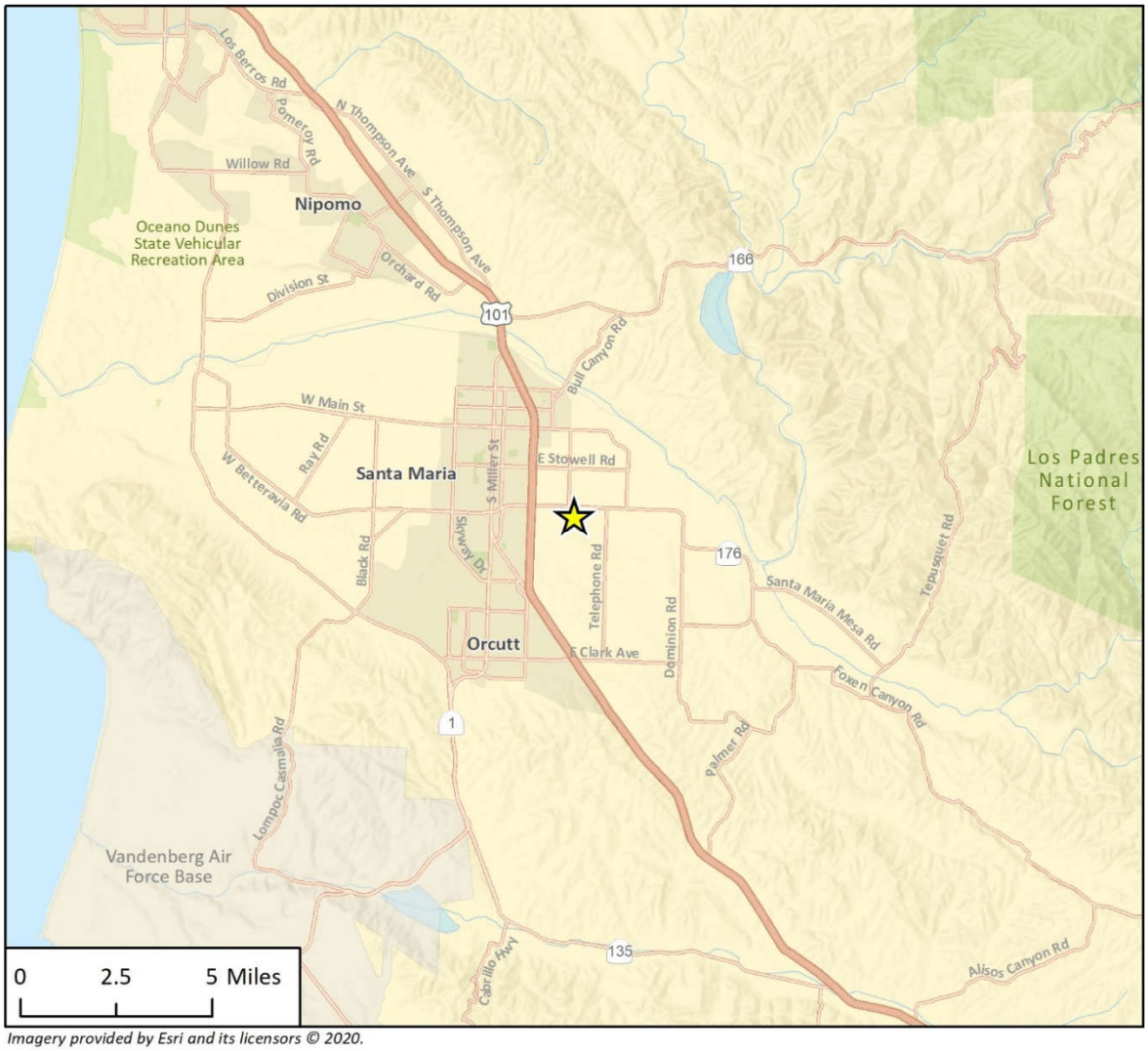
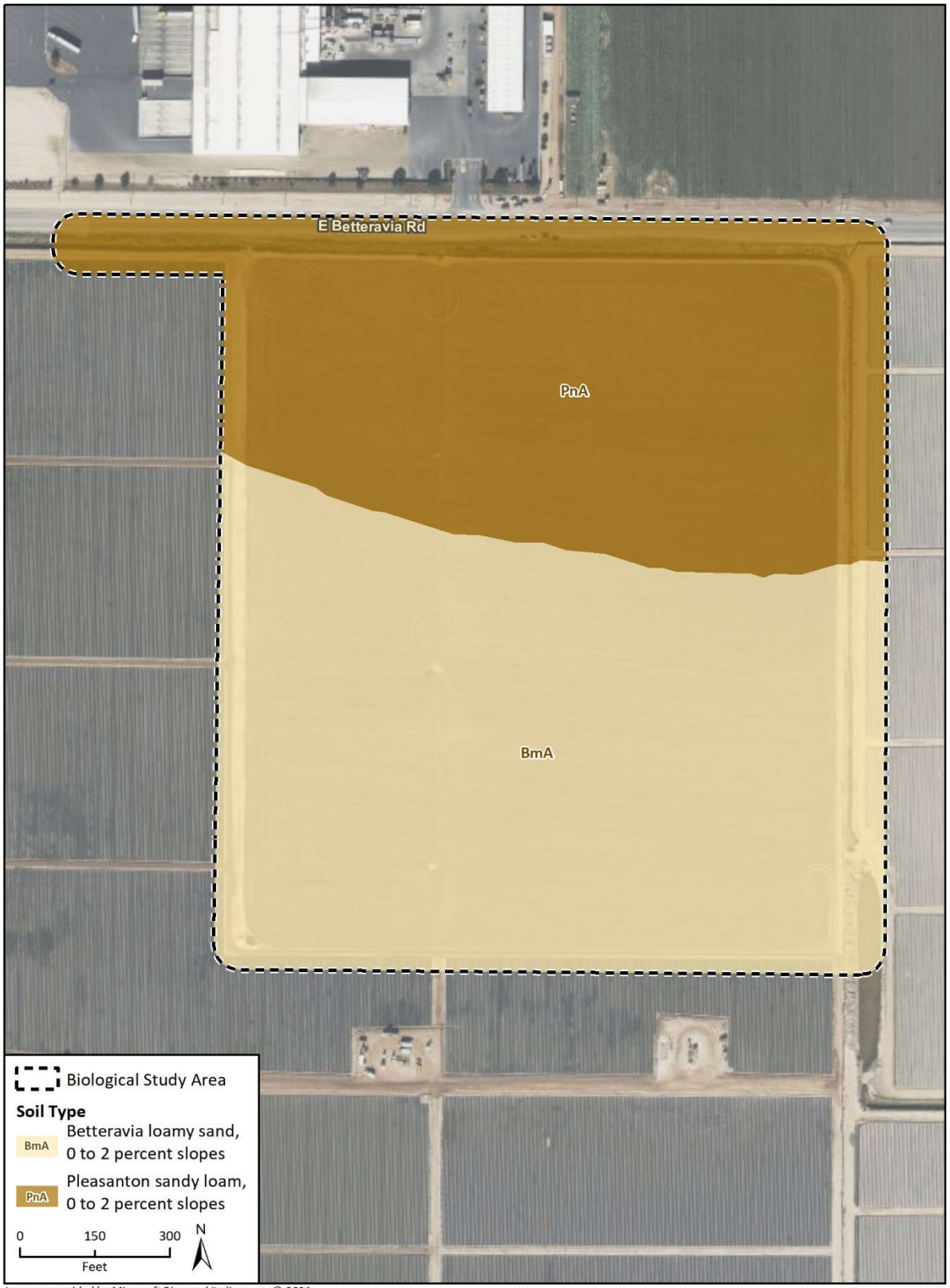


Figure 2 Project Location

Imagery provided by Microsoft Bing and its licensors © 2021.

Figure 3 Soils within the Biological Study Area



Imagery provided by Microsoft Bing and its licensors © 2021.
Soil data provided by SSURGO Downloader, NRCS, USDA, 2021.

Figure 4 Vegetation Communities and Land Cover Types within the Biological Study Area

Imagery provided by Microsoft Bing and its licensors © 2021.

Figure 5 Jurisdictional Waters within the Biological Study Area

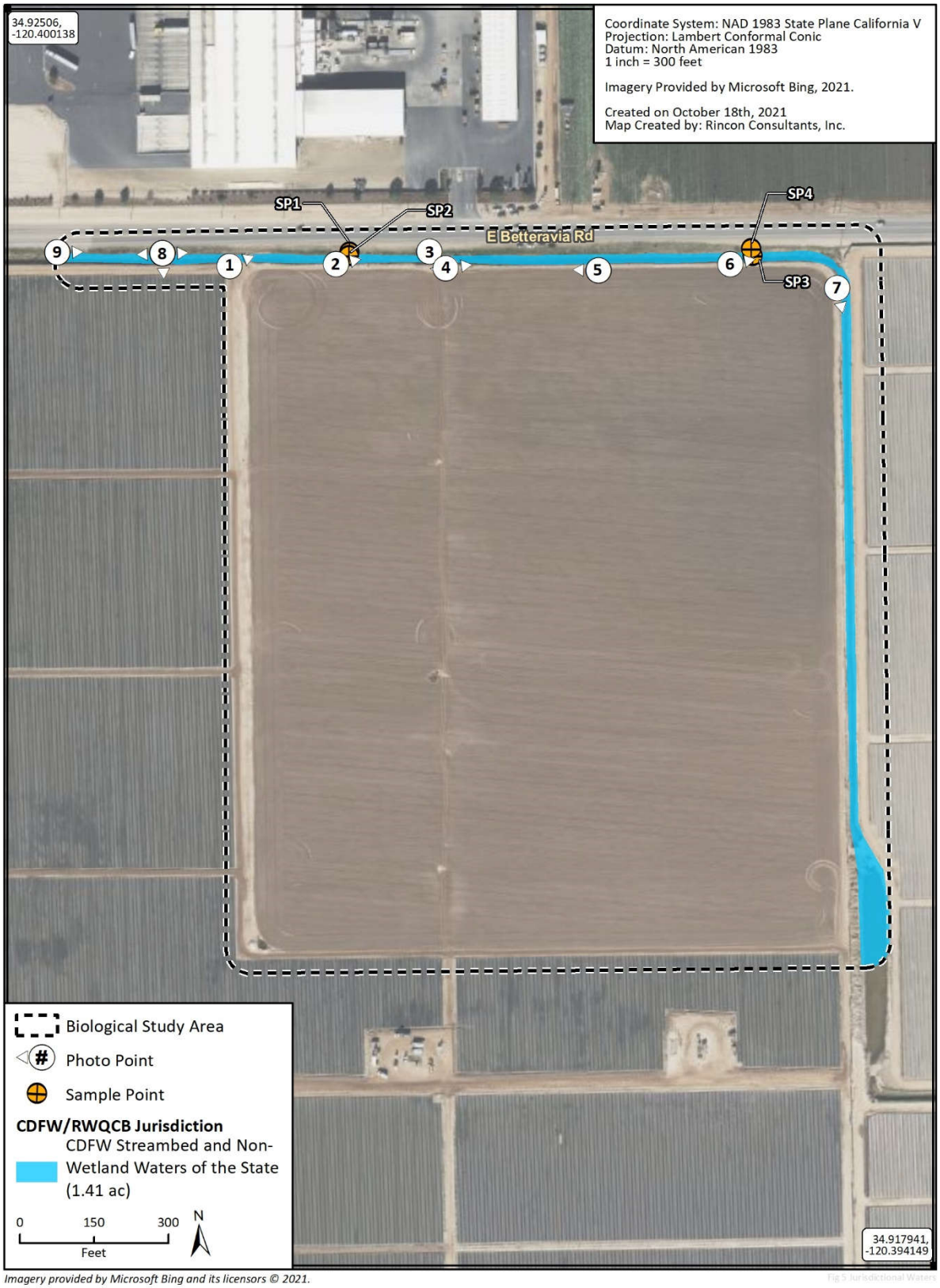


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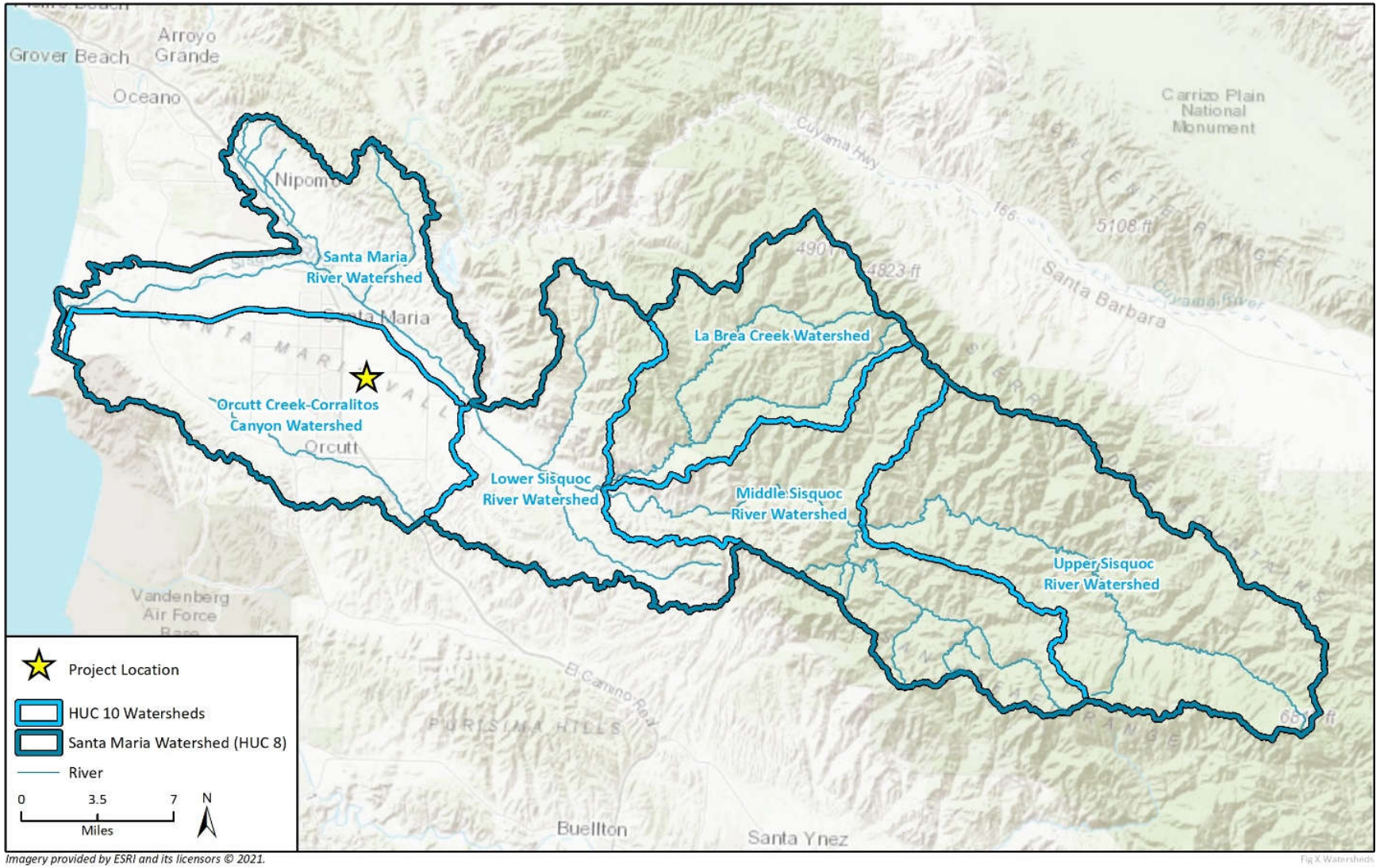
Figure 6 Watershed and Hydrology Overview



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Attachment 2

Representative Site Photographs

Photograph 1. Active irrigation input to vegetated irrigation drainage, photograph taken facing north. 09/23/2020

Photograph 2. Vegetated irrigation drainage with smartweed patches and ruderal vegetation along its banks on the left at proposed western driveway where sample point SP-1 and SP-2 were collected, photograph taken facing east. 09/23/2020

Photograph 3. Active irrigation input to vegetated irrigation drainage, photograph taken facing south. 09/23/2020

Photograph 4. Standing water with California bulrush marshes, photograph taken facing northeast. 09/23/2020

Photograph 5. Active irrigation of agriculture field south of vegetated irrigation drainage, photograph taken facing west. 09/23/2020

Photograph 6. Vegetated irrigation drainage at proposed eastern driveway where Sample Point SP-3 and SP-4 were collected, photograph taken facing east. 09/23/2020

Photograph 7. Vegetated irrigation drainage on the east side of the project, photograph taken facing north. 09/23/2020

Photograph 8. Vegetated irrigation within drainage in the extended Study Area, photograph taken facing west. 10/13/2021

Photograph 9. Vegetated irrigation within drainage in the western portion of the extended Study Area, photograph taken facing east. 10/13/2021

Photograph 10. Slow flow of water from basin connecting to southeast portion of irrigation drainage within Study Area, photograph taken facing east. 10/13/2021

Attachment 3

Data Summary:

Observed Plants List within the Study Area

OHWM Data Forms

Wetland Determination Data Forms

Table 3-1 Observed Plants within the Study Area During Field Surveys

Scientific Name	Common Name	Native or Introduced[1]; Invasive Rating[2]	Wetland Indicator Status[3]	Vegetation Communities				
				Ruderal	Cattail Marsh	California Bulrush Marsh	Smartweed Patches	Barnyard grass/ Wild radish Patches
Herbs								
Capsella bursa-pastoris	Sheperd's purse	Introduced	FACU				X	
Chenopodium alum	Lamb's quarters	Introduced	UPL				X	
Epilobium ciliatum	Willowherb	Native	FACW				X	
Erigeron canadensis	Canada horseweed	Native	FACU	X				
Euphorbia maculata	Spotted spurge	Introduced	UPL	X				
Hirschfeldia incana	Mustard	Introduced; Moderate	UPL	X				
Malva parviflora	Cheeseweed	Introduced	UPL	X				X
Plantago lanceolata	English plantain	Introduced; Limited	FAC	X				
Persicaria lapathifolia (Polygonum lapathifolium)	Smartweed	Native	FACW		X	X	X	
Raphanus sativus	Wild radish	Introduced; Limited	UPL				X	X
Salsola tragus	Russian thistle	Introduced	UPL	X				
Schoenoplectus californicus	California bulrush	Native	OBL			X		
Sonchus oleraceus	Common sow thistle	Introduced	UPL	X			X	
Typha latifolia	Broadleaf cattail	Native	OBL		X			
Grasses and Sedges								
Bromus diandrus	Ripgut brome	Introduced; Moderate	UPL	X				
Cynodon dactylon	Bermuda grass	Introduced; Moderate	FACU		X	X	X	
Cyperus eragrostis	Tall cyperus	Native	FACW			X	X	
Cyperus odoratus	Fragrant flatsedge	Native	FACW				X	
Echinochloa crus-galli	Barnyard grass	Introduced	FACW		X	X	X	X
Polypogon monspeliensis	Annual beard grass	Introduced; Limited	FACW				X	

[1]Jepson eFlora – The Jepson Herbarium (Berkeley 2020)

[2]Cal-IPC – California Invasive Plant Council (Cal-IPC 2021) Invasive Rating for Central West Jepson Region

[3]National Wetland Plant List, Arid West Region (USACE 2018)

Attachment 4

Regulatory Framework

Regulatory Framework

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, State, and local levels. A number of federal and State statutes provide a regulatory structure which guide the protection of jurisdictional features. Agencies with the responsibility for protection of jurisdictional features within the project site include:

- United States Army Corps of Engineers (non-wetland waters and wetlands of the United States)
- Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes)

United States Army Corps of Engineers Jurisdiction

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Section 404 of the Clean Water Act (CWA) authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 CFR Part 328.3 to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. In recent years the USACE and US Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining "waters of the United States" (e.g., the 2015 Clean Water Rule and 2020 Navigable Waters Protection Rule), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. Thus, the agencies' longstanding definition of "waters of the United States," which dates from 1986, remains in effect albeit with supplemental guidance interpreting applicable court decisions as described below. In summary, USACE and USEPA regulations define "waters of the United States" as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

iii. Which are used or could be used for industrial purpose by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items 1-6 above.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the USEPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(e)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217.)

USACE regulations define wetlands as:

> "[T]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(b).

The USACE has developed a field technique to identify wetlands, which is often referred to as the "three-parameter technique." This method involves a procedure to identify the three requisite characteristics of a wetland:

- **Hydrophytic vegetation** -- more than 50 percent of dominant plants are adapted to anaerobic soil conditions;
- **Hydric soils** -- soils classified as hydric or that exhibit characteristics of a reducing soil environment; and
- **Wetland hydrology** -- inundation or soil saturation during at least five percent of the growing season (in Southern California, this is equal to 18 days).

The USACE's regulations defining "waters of the United States" have been subject to legal interpretation, and two influential Supreme Court decisions have narrowed the definition to exclude certain classes of waters that bear an insufficient connection to navigable waters. In *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers* (2001), the United States Supreme Court stated that

the USACE's CWA jurisdiction does not extend to ponds that "are not adjacent to open water." In reaching its decision, the Court concluded that the "Migratory Bird Rule," which served as the basis for the USACE's asserted jurisdiction, was not supported by the CWA. The Migratory Bird Rule extended CWA jurisdiction to intrastate waters "which are or would be used as habitat by birds protected by Migratory Bird Treaties or which are or would be used as habitat by other migratory birds which cross state lines…" The Court was concerned that application of the Migratory Bird Rule resulted in "reading the term 'navigable waters' out of the statute. Highlighting the language of the CWA to determine the statute's jurisdictional reach, the Court stated, "the term 'navigable' has at least the import of showing us what Congress had in mind as its authority for enacting the CWA: its traditional jurisdiction over waters that were or had been navigable in fact or which could reasonably be so made." This decision stands for the proposition that non-navigable isolated, intrastate waters are not waters of the United States and thus are not jurisdictional under the CWA.

In 2006 the United States Supreme Court decided *Rapanos v. United States* and *Carabell v. United States* (collectively "Rapanos"), which were consolidated cases determining the extent of CWA jurisdiction over waters that carry only an infrequent surface flow. The court issued no majority opinion in Rapanos. Instead, the justices authored five separate opinions including the "plurality" opinion, authored by Justice Scalia (joined by three other justices), and a concurring opinion by Justice Kennedy. To guide implementation of the decision, the USACE and USEPA issued a joint guidance memorandum ("Rapanos Guidance Memorandum") in 2008 stating that "regulatory jurisdiction under the CWA exists over a water body if either the plurality's or Justice Kennedy's standard is satisfied."

According to the plurality opinion in Rapanos, "the waters of the United States include only relatively permanent, standing or flowing bodies of water" and do not include "ordinarily dry channels through which water occasionally or intermittently flows." In addition, while all wetlands that meet the USACE definition are considered adjacent wetlands, only those adjacent wetlands that have a continuous surface connection because they directly abut the tributary (e.g., they are not separated by uplands, a berm, dike, or similar feature) are considered jurisdictional under the plurality standard.

Under Justice Kennedy's opinion, "the USACE's jurisdiction over wetlands depends upon the existence of a significant nexus between the wetlands in question and navigable waters in the traditional sense. Wetlands possess the requisite nexus, and thus come within the statutory phrase 'navigable waters,' if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.' When, in contrast, wetlands' effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term 'navigable waters.'" Justice Kennedy identified "pollutant trapping, flood control, and runoff storage" as some of the critical functions wetlands can perform relative to other waters. He concluded that, given wetlands' ecological role, "mere adjacency" to a non-navigable tributary was insufficient to establish CWA jurisdiction, and that "a more specific inquiry, based on the significant nexus standard, is therefore necessary."

Interpreting these decisions, and according to the Rapanos Guidance Memorandum, the USACE and USEPA will assert jurisdiction over the following waters:

- Traditional navigable waters;
- Wetlands adjacent to traditional navigable waters;

- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months); and,
- Wetlands that directly abut such tributaries.

The USACE and USEPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent;
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and,
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

Where a significant nexus analysis is required, the USACE and USEPA will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and,
- Significant nexus includes consideration of hydrologic and ecologic factors.

The USACE and USEPA generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and,
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the U.S. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the U.S., and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board Jurisdiction

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a "reasonable period of time" for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 *et seq*.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act's requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA's *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as 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.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

California Department of Fish and Wildlife Jurisdiction

California Fish and Game Code section 1602 states that it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without first notifying the California Department of Fish and Wildlife (CDFW) of that activity. Thereafter, if CDFW determines and informs the entity that the activity

will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFG determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Lake or Streambed Alteration Agreement (LSAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft LSAA by the applicant, any problematic terms are negotiated with CDFW and a final LSAA is executed.

The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References "river," "stream," and "lake"
  - References "natural flow"
  - References "bed," "bank," and "channel"
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM
- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation

- **Guidance documents**, *including A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. Importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

Santa Barbara County Jurisdiction

The County of Santa Barbara (County) published the Environmental Thresholds and Guidelines Manual, revised September 2020, discussing definitions of habitat-specific resources including wetlands. In the County, naturally-occurring wetlands including coastal salt and brackish marshes, freshwater marshes, vernal pools, and special cases including seasonal wetlands, vegetated flats, inter-dunal swales, and vegetated river bars and flats are an important resource. Santa Barbara County has adopted the U.S. Fish and Wildlife Service, the California Coastal Commission, and the California Department of Fish and Wildlife wetland definitions to define Santa Barbara County wetlands. A Santa Barbara County wetland is defined as the following:

This classification of wetlands must have one or more of the following three attributes:

a) At least periodically, the land supports predominantly hydrophytes, that are plants adapted to moist areas;
b) The substrate is predominantly un-drained hydric soil; and
c) 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 (Cowardin 1979).

Wetlands which only contain one of the three defining characteristics, require review to ensure that highly disturbed areas with artificially compacted soils that do not have true wetland characteristics are not mistakenly identified as wetlands (County of Santa Barbara 2020).