Golden State Water Company:
Kelt Reservoirs Project

Initial Study
and
Mitigated Negative Declaration

Lead Agency:

State Water Resources Control Board
Division of Drinking Water
District 06 – Santa Barbara
1180 Eugenia Place, Suite 200
Carpinteria, CA 93013

Prepared by:

SWCA Environmental Consultants
1422 Monterey Street, B-C200
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Acronyms and Abbreviations

AB	Assembly Bill
AG II-100	Agriculture-100-acre
APCD	Air Pollution Control District
APN	Assessor's Parcel Number
bhp	brake horsepower
BMPs	Best Management Practices
BSA	Biological Study Area
CAL FIRE	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCIC	Central Coast Information Center
CCR	California Code of Regulations
CD	Consistency Determination
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CH_4	Methane
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNG	compressed natural gas
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CRLF	California red-legged frog
CTS	California Tiger Salamander
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibels

DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EAP	Energy Action Plan
ECAP	County of Santa Barbara Energy and Climate Action Plan
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FGC	California Fish and Game Code
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gases
GSWC	Golden State Water Company
HCP	Habitat Conservation Plan
HDD	Horizontal Directional Drilling
IPaC	Information for Planning and Consultation
ITP	Incidental Take Permit
LNG	liquified natural gas
MBTA	Migratory Bird Treaty Act
MG	million-gallon
$MMTCO_{2e}/yr$	million metric tons of CO_2 equivalent per year
mph	miles per hour
MSL	mean sea level
N_2O	nitrous oxide
NACH	Native American Heritage Council
NO_x	Nitrogen Oxide
NO_2	Nitrogen Dioxide
NOAA Fisheries	National Oceanic and Atmospheric Administration National Marine Fisheries Service
NOI	Notice of Intent
non-RPW	non-relatively permanent waters
NPPA	California Native Plant Protection Act
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
O_3	Ozone
OHP	Office of Historic Preservation
Pb	Lead
$PM_{2.5}$	Particulate Matter less than 2.5 microns in diameter
PM_{10}	Particulate Matter less than 10 microns in diameter
ppm	parts per million

PRC	Public Resources Code
PRD	Planned Residential Development
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SAP	Sustainability Action Plan
SB	Senate Bill
SBCAPCD	Santa Barbara County Air Pollution Control District
SCCAB	South Central Coast Air Basin
SCS	Soil Conservation Service
SGMA	Sustainable Groundwater Management Act
SO_2	sulfur dioxide
SSC	Species of Special Concern
SWCA	SWCA Environmental Consultants
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SYBCI	Santa Ynez Band of Chumash Indians
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife
USGS	U.S. Geologic Survey
VMT	Vehicle Miles Traveled
WMP	Water Master Plan
WOTUS	Waters of the United States

ENVIRONMENTAL CHECKLIST FORM

1. Project Title:

Golden State Water Company: Kelt Reservoirs Project

2. Lead Agency Name and Address:

State Water Resources Control Board
Division of Drinking Water
1180 Eugenia Place, Suite 200

3. Carpinteria, CA 93013Contact Person and Phone Number:

Wendy Pierce
(916) 449-5178

4. Project Location:

The Kelt Reservoirs Project (project) is located in the unincorporated community of Orcutt, in the northwest portion of Santa Barbara County, west of the Los Padres National Forest and south of the city of Santa Maria. The property is located on Orcutt Hill Road on Assessor's Parcel Number (APN) 101-010-023, approximately two miles west of U.S. Route 101. The property is mapped in Township 10 North, Range 34 West, and Sections 14, 23, and 24 on the Orcutt, California U.S. Geological Survey (USGS) quadrangle map.

5. Project Sponsor's Name and Address:

Golden State Water Company
630 E. Foothill Blvd.
San Dimas, CA 91773

6. General Plan Land Use Designation:

- A-II-100 – Agriculture – Minimum Parcel Size 100 Acres
- Planned Development - 825

7. Zoning:

- AG II-100 – Agriculture II - Minimum Lot Size-100 acres
- PRD – Planned Residential Development

8. Description of Project:

Golden State Water Company (GSWC), a subsidiary of American States Water Company, proposes to install a new approximately 1.3-mile water pipeline and two new 1-million-gallon (MG) reservoir water tanks along Orcutt Hill Road near the southern boundary of the community of Orcutt, Santa Barbara County, California (Figure 1, Project Vicinity Map, and Figure 2, Project Location Map). GSWC proposes to immediately construct the 1.3-mile water pipeline and Tank A, a 1-MG reservoir tank. The reservoir site would also be designed and constructed to facilitate the future construction of Tank B, a second 1-MG reservoir tank located adjacent to Tank A (Figure 3, Reservoir Grading and Paving Plan).

As part of GSWC's Water Master Plan (WMP) for the Orcutt System, system storage analyses are conducted to determine if adequate storage is available within the water system. This analysis considers a cumulative look at operational, fire, and emergency storage. The analysis found a storage deficiency of roughly one million gallons. To supplement the Water Master Plan, a Zone Re-Alignment Study was undertaken to develop a plan to address current operational inefficiencies, enhance the operations of the water system to increase its reliability, and make it easier to operate and less expensive to manage. The Water Master Plan and Zone Re-Alignment Study have been provided to the California Public Utilities Commission (CPUC) as part of the 2017 and 2020 GSWC rate cases. As these plans identify deficiencies and potential operational cost savings for GSWC customers, it is now GSWC's responsibility to implement the necessary improvements to optimize the system.

The proposed project would remedy the 1-MG storage deficiency identified in GSWC's 2019 WMP for the Orcutt/Patterson Zones as well as optimize operations within the Orcutt Zone as outlined in the Zone Re-Alignment Study.

Pipeline

- The proposed project would install a new 1.3-mile water pipeline within Orcutt Hill Road that would connect the proposed Kelt Reservoirs to the existing GSWC distribution system. Approximately 0.8 mile of 24-inch transmission pipeline would be installed within the County of Santa Barbara (County) right-of-way along East Rice Ranch Road and Orcutt Hill Road using an open trench method. The remaining 0.5-mile segment would be installed on private property. The underground pipeline would be American Water Works Association (AWWA) Ductile Iron Pipe (DIP), AWWA C150 and C151. The pipe will have a polyethylene encasement around the exterior of the pipe surface before burial. DIP comes from the factory with an asphaltic coating in accordance with AWWA C110 & C151. The inside of DIP is cement lined from the manufacturer. The pipe will have bell & spigot push-on type fittings, and fittings will either be mechanical-joint or flange joints where applicable on the design drawings. Trenching activities would include saw-cutting and trenching along the pipeline alignment, except at three drainage crossing locations, where trenchless technology would be utilized (described below). Heavy equipment used during trenching activities would likely consist of a combination of excavators, backhoes, and tractors. The trench would be approximately 3.67 feet wide with a maximum depth of 6.67 feet (see Figure 2).

- The pipeline alignment extends approximately 185 feet west on East Rice Ranch Road to the junction of Orcutt Hill Road, then approximately 0.8 mile southeast within the existing Orcutt Hill Road right-of-way and continues approximately 0.5 mile southeast on a private road to the proposed reservoir site. The project would also install fire hydrants along the Orcutt Hill Road right-of-way. The pipeline corridor parallels and crosses Pine Canyon Creek and unnamed tributaries to Pine Canyon Creek in a total of four locations. The project proposes to extend the pipeline under the drainages (e.g., through jack-and-bore or horizontal directional drilling [HDD] techniques) at three of these locations to avoid trenching through these features. Trenchless pipeline installation methods include excavating a sending pit on one side of the drainage and a receiving pit on the opposite side of the drainage. Specialized equipment is then used to bore the pipeline from the sending pit, under the drainage, and into the receiving pit. The sending and receiving pits would be excavated in the existing road along the same alignment as the rest of the pipeline segments. Trenchless techniques eliminate the need to perform any excavations in the drainages. The contractor is required to use system water to pressure test the pipeline, disinfect it with 50-100 ppm sodium hypochlorite, and flush the disinfectant out into a tanks or water trucks to prevent discharge and run-off into the area.

Chlorinated water will not be discharged unless the water is tested and is dechlorinated to 0 parts-per-million (ppm) and monitored during discharge. Total volume of water estimated for testing the 24-inch Ductile Iron Pipe is approximately 210,000 gallons, or 0.65 acre-foot.

At the fourth location, the drainage culvert is approximately 27 feet deep; therefore, the pipeline will be installed over the top of the existing culvert. This installation would not require any alterations to the culvert or affect the flow of water.

Reservoir Site

The project proposes to install two 1-MG reservoir water tanks on a 1.5-acre portion of APN 101-010-023 to provide additional supply storage to existing GSWC customers within the community of Orcutt. The proposed reservoir site is located within a southeastern portion of the parcel, on the west side of Orcutt Hill Road (see Figures 2 and 3).

The elevation of the reservoir site is approximately 600 feet above mean sea level (MSL), and the topography is gently sloping to the northeast. A steep northeast-facing slope borders the southwestern side of the reservoir site, and a west-facing slope borders the east side of the reservoir site. The reservoir property supports eucalyptus (*Eucalyptus* spp.) and pepper (*Schinus mole*) trees and central coast scrub. One pepper tree and three dead trees will be removed for installation of the access drive and the stormwater catch basins. Other vegetation to be removed includes non-native annual grasslands and coyote brush scrub in and around the reservoir site. GSWC will prepare an Erosion Control and Site Restoration Plan to restore the temporarily disturbed areas at the tank reservoir site. In addition, to maintain compliance with the property easement, GSWC will install coast live oak (*Quercus agrifolia*) trees in front of the tanks to screen the tanks from the remainder of the property. GSWC has designed the proposed project to avoid impacts to the coast live oak woodland south of the project site.

- The proposed project includes site design for two new 1-MG steel tank reservoirs at the site. Installation of Tank A would occur immediately upon approval of this project. The site has been designed to accommodate a second water tank, Tank B, which would be constructed at a future date when required by Orcutt area water demand. Each new water tank would be approximately 83 feet in diameter and 30 feet in height. The project would also include the installation of a 15-foot-wide paved access road that would extend from Orcutt Hill Road to the new tank location and surround the tanks, and chain-link fencing would surround the site. Excess tank overflow and storm water would be captured in a series of drainpipes and a concrete drainage channel and then directed to three catch basins within the access road circling the tanks. The Reservoirs will be tested using the AWWA standard and would not require discharge of water after testing.

Project Construction

- Project construction would result in approximately 6.36 acres of total disturbance, including two acres of disturbance at the tank site and 4.36 acres within the existing right-of-way along Orcutt Hill Road and East Rice Ranch Road. The proposed project would result in approximately 2,992 cubic yards of cut and 248 cubic yards of fill. No fill material would be imported to the project site with haul trucks. Excavated soils would be replaced with an aggregate base to meet compaction requirements. Excavated soil that is not reused on-site would be hauled off-site to a landfill for disposal. The project site would be accessed via existing paved and dirt roads. GSWC will use an existing staging area that is operated by the

local oil field operators and the confines of the reservoir site for materials staging. Some short-term staging may occur on the existing asphalt of Orcutt Hill Road during installation of the pipeline.

Project construction is anticipated to begin as soon as summer 2023 and last approximately six months. GSWC customers would not experience any interruption of service during project implementation.

9. Surrounding Land Uses and Setting

The project is in the Agriculture-100-acre minimum parcel size (AG II-100) and Planned Residential Development (PRD) land use categories in unincorporated Santa Barbara County within the South Orcutt Planning Area. The surrounding uses are predominantly open space. The Rice Ranch planned community is located adjacent to Orcutt Hill Road and south of East Rice Ranch Road. The Orcutt Hill Trail is located on the west side of Orcutt Hill Road with a parking area adjacent to the road. The northernmost, approximately 0.37-mile, portion of the pipeline alignment is bordered by a residential area to the east. The remainder of the pipeline corridor is bordered by undeveloped lands. The undeveloped lands include established but unpaved parking areas, equipment staging areas, borrow pits, landscape areas, and cattle grazing lands.

Table 1. Nearby Land Uses and Sensitive Receptors

Land Use	Distance (miles)	Location
Schools		
Pine Grove Elementary School	0.37	East
Orcutt Union Early Learning Center	0.58	Northwest
Orcutt Junior High School	0.66	Northwest
Patterson Road Elementary School	0.63	North
St. Louis de Montford Catholic School	0.90	Northeast
Churches		
Central Coast Missionary Baptist	0.5	North
South Valley Community Church	0.72	Northeast
Pine Grove Baptist Church	0.51	Northeast
Orcutt Christian Church	0.79	Northwest
St. Louis de Montford Catholic Church	0.95	Northeast
Unity Chapel of Light	0.44	East
Hospitals		
No hospitals within a two-mile radius		
Libraries		
Orcutt Branch Library	1.2	Northwest
Parks/Recreation		
Orcutt Community Park	0.09	East
Orcutt Hill Trail	Adjacent	West
May Grisham Park	0.49	Northwest

Land Use	Distance (miles)	Location
Patterson Road School Park	0.63	North
Other		
Creative Beginnings II Child Care	0.91	Northwest
Joy's Family Child Care	1.15	Northwest

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

- State Water Resources Control Board, Division of Drinking Water – Amended Water Supply Permit
- County of Santa Barbara – Encroachment Permit
- California Department of Fish and Wildlife – 2081.1 Consistency Determination or 2081-Incidental Take Permit
- U.S. Fish and Wildlife Service Incidental Take Permit
- 1600 Streambed Alteration Agreement
- Santa Barbara County Air Pollution Control District – construction and/or operational permits (if necessary)

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

The Santa Ynez Band of Chumash Indians has requested notification from the State Water Resources Control Board (State Water Board or SWRCB) pursuant to California Public Resources Code (PRC) Section 21080.3.1 for the project area and consultation has begun.

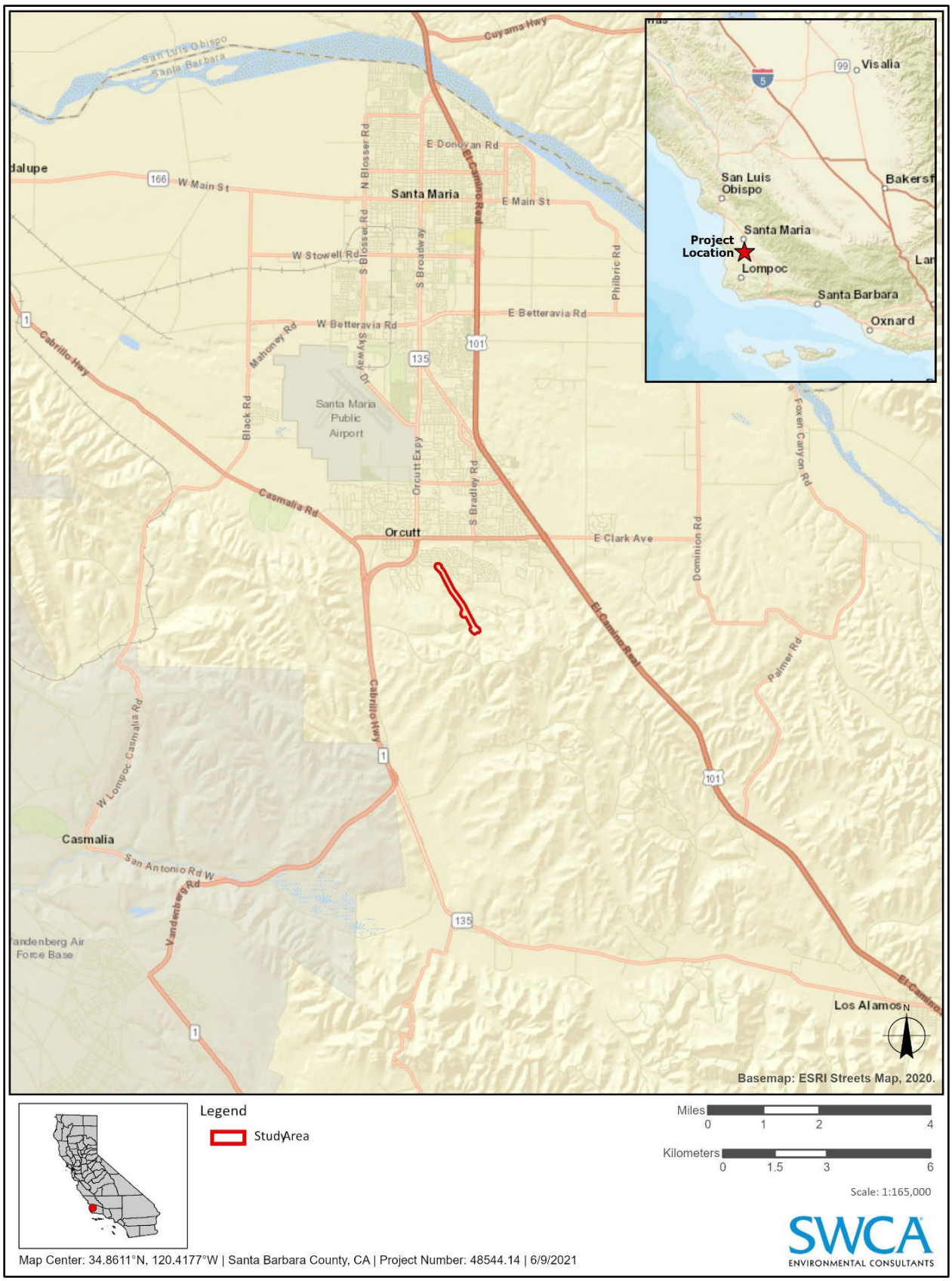

Figure 1. Project Vicinity Map.

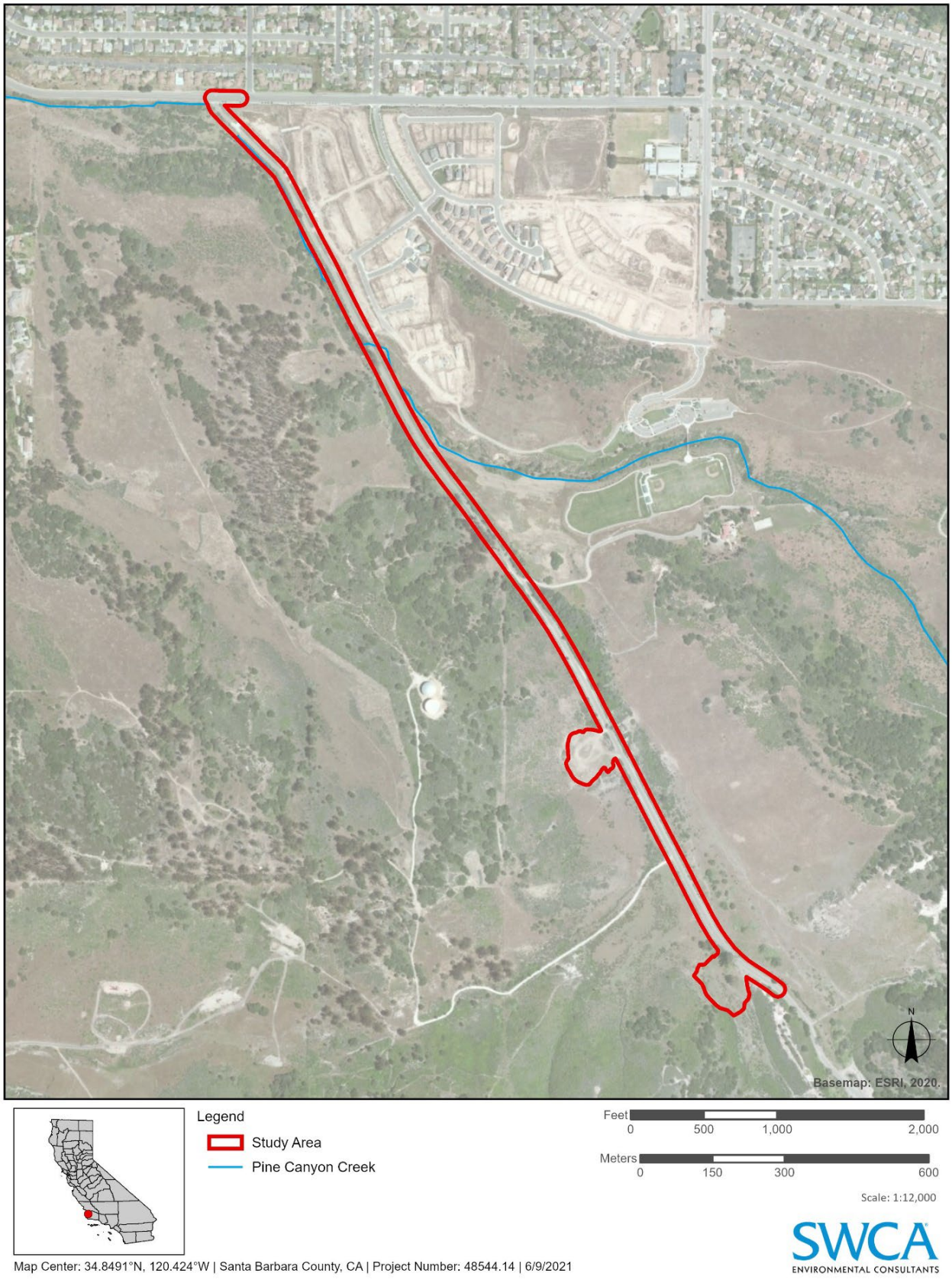

Figure 2. Project Location Map.

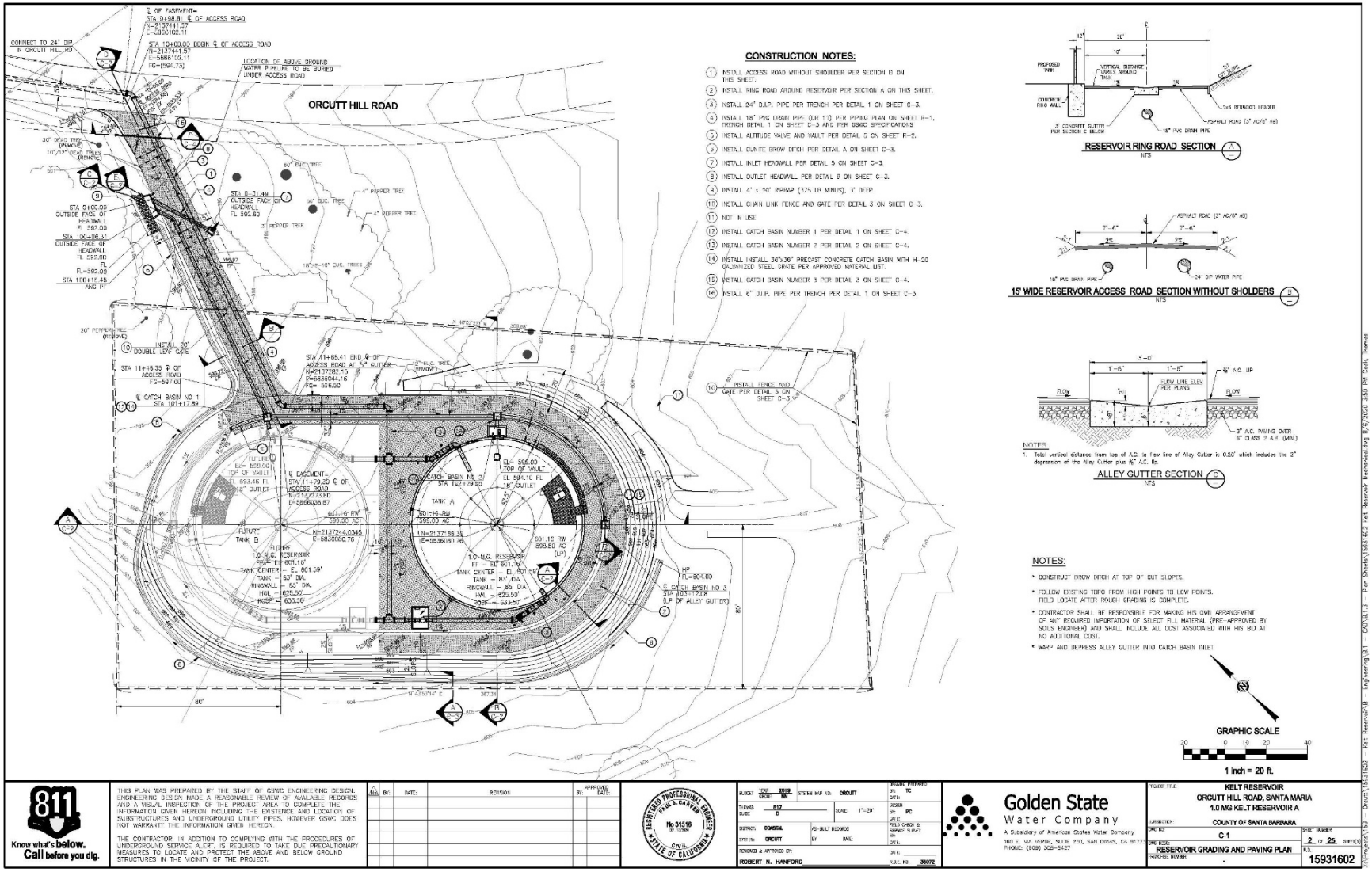

Figure 3. Reservoir Grading and Paving Plan.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture & Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology /Soils	☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☒ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation/Traffic	☒ Tribal Cultural Resources
☒ Utilities / Service Systems	☒ Wildfire	☒ Mandatory Findings of Significance

Lead Agency Determination

On the basis of this initial evaluation the State Water Board finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS**				
Except as provided in PRC section 21099, would the project:					
(a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
(b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
(c)	Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
(d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Aesthetics

Setting

The project site is located within unincorporated Santa Barbara County, south of the city of Santa Maria and the unincorporated community of Orcutt. The project proposes an underground linear pipeline that would be within approximately 1.3 miles of existing County right-of-way and private property and construction of two 1-MG reservoirs. The area is primarily characterized by open space areas. The northern part of the pipeline alignment passes through the master planned community of Rice Ranch, which includes suburban and rural residential development, a community park, and trails. The southern portion of the alignment passes through open space areas that include cattle grazing, scattered oil and gas wells, and two existing 1.5-MG water tanks. The topography of the pipeline alignment is relatively level to gently sloping, rising from an elevation of approximately 395 feet above MSL to approximately 600 feet above MSL over the course of 1.3 miles, following the paved surface street. The pipeline corridor parallels and crosses Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in several locations. The project proposes to extend the pipeline under the drainages (e.g., through jack-and-bore or HDD techniques) at three locations to avoid the need to trench through these features. At the fourth location, the drainage is 27 feet below the pipeline alignment and the pipeline would be installed subsurface over the drainage. There is no vegetation directly within the roadway; however, areas outside of the paved street surfaces include ruderal vegetation, arroyo willow thicket, eucalyptus woodland, California sagebrush scrub, annual brome grassland, and coyote brush scrub.

The proposed reservoir site is located approximately 0.55 mile southeast of Orcutt Community Park and 0.85-mile south of residential areas in the planned community of Rice Ranch. The nearest residence is a

single house approximately 0.52 mile northeast of the reservoir site. The reservoir site is surrounded by open space, which includes scattered oil and gas wells, cattle grazing lands, and hiking trails. In the undeveloped areas south of Orcutt, the project is within a visually high-quality area but is not located in a scenic overlay zone or a state scenic highway buffer zone. The nearest state scenic highway is U.S. Route 101, approximately two miles northeast of the project site. South of the project area are the Solomon Hills, which are among the most visible and significant public viewsheds south of Orcutt. There are no other scenic resources within the project vicinity.

Vegetation occurring within the project site includes annual brome grassland at Orcutt Hill Road and extending into the central portion of the site, coyote brush scrubland in the southern portion of the site, and California sage brush scrub on the bordering slopes. Several mature eucalyptus and several pepper trees occur in the annual brome grasslands. Coyote brush is the dominant species in the reservoir site.

Existing topography and vegetation provide natural screening for a large portion of the project site from the Rice Ranch community and viewers traveling north along Orcutt Hill Road. The reservoir tanks may be visible from the western end of Orcutt Community Park and from some hiking trails on the west side of Orcutt Hill Road.

Discussion

(a) Have a substantial adverse effect on a scenic vista?

A scenic vista generally provides focal views of objects, settings, or features of visual interest, or panoramic views of large geographic areas of scenic quality, from a fixed vantage point or linear corridor such as a roadway or trail. A significant impact would occur if a project introduced incompatible scenic elements within a field of view containing a scenic vista or substantially blocking views of an existing scenic vista.

The proposed project is located south of the community of Orcutt in an area surrounded by oil and gas wells, open space, and agriculture. The area is not identified as a scenic vista; therefore, *no impact* would occur.

(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The project is designed to avoid grading on the steep hillside area of the reservoir site. Reservoir construction would remove one live and three dead pepper trees on-site but would avoid removal of eucalyptus trees. The reservoir site is screened from sight by surrounding hills and vegetation; therefore, the project would not substantially damage scenic resources and impacts would be *less than significant.*

(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The reservoir site is screened from most views by surrounding hills and vegetation. The reservoirs will be Desert Tan to blend in with the landscape, but may be visible in the distance from the west end of Orcutt Community Park soccer fields and from parts of the Rice Ranch Loop trails on the west side of Orcutt Hill Road. The reservoirs are not visible from any residences or from the majority of the park and trials. Views of the project area from Orcutt Community Park include views of roads, utility poles, oil wells, and two existing reservoir tanks. The existing tanks daylight on the hill west of Orcutt Hill Road and are visible from the park and many of the residences. The

proposed reservoirs would be less visible due to color, distance and topography and would not substantially degrade the existing visual character of the area; therefore, impacts would be *less than significant.*

(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project would not create a new source of light or glare. No nighttime lighting is proposed as part of the project. The finish for the water tanks would be of a non-glare substance. Therefore, *no impact* would occur.

Conclusion

The proposed project is not located in a scenic viewshed or near a scenic highway. It would not damage scenic resources or be incompatible with the visual quality of the surrounding landscape. It would not introduce a new source of light and glare. The proposed project would not result in a significant adverse impact to Aesthetics, and no mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Agriculture and Forestry Resources

Setting

The project site includes both Urban and Built-Up Land and Grazing Land classifications by the Farmland Mapping and Monitoring Program (FMMP) (California Department of Conservation [CDOC] 2016).

According to the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS 2020), three soil types underlay the pipeline alignment and two soil types underly the reservoir site, as described below (U.S. Department of Agriculture Soil Conservation Service [SCS] 1972):

- **Elder sandy loam, 0 to 2 percent slopes** is mapped in the northern portion of the pipeline alignment and is classified as Prime Farmland if Irrigated by the NRCS.
- **Elder sandy loam, 2 to 9 percent slopes** is mapped in the middle portion of the pipeline alignment and is classified as Prime Farmland if Irrigated by the NRCS.
- **Botella loam, 2 to 15 percent slopes** is mapped in the southern portion of the pipeline alignment and eastern portion of the reservoir site and is classified as Not Prime Farmland by the NRCS.
- **Lopez shaly clay loam, 15 to 75 percent slopes** is mapped in the western portion of the reservoir site and is classified as Not Prime Farmland.

The pipeline will be constructed under the existing Orcutt Hill Road. Based on the County Zoning Map for the Orcutt Community Plan (County of Santa Barbara 2016), the reservoir site is zoned for Agricultural land uses with a minimum lot size of 100 acres. The northern portion of the pipeline route is zoned for planned residential development, and the southern portion is zoned for agricultural uses. The project is located south of the community of Orcutt. The pipeline alignment is surrounded by residential development

and open space lands, including parks, trails, and undeveloped agricultural land. The reservoir site is surrounded by undeveloped agricultural-zoned parcels, some of which have currently active oil and gas wells. The project property is not currently under a Williamson Act contract (County of Santa Barbara 2015).

Discussion

(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Based on the Farmland Mapping and Monitoring Program (FMMP), the project site consists of Urban and Built-up Land and Grazing Land (CDOC 2016). Based on farmland classification of the NRCS, the northern portion of the pipeline alignment is on soils designated as Prime Farmland if Irrigated. The remainder of the pipeline alignment and the reservoir site is designated as Grazing Land. Pipeline construction would remain within the existing road; therefore, pipeline construction would have no impact on farmlands. The reservoir site has two soil types designated Not Prime Farmland. No agricultural activities are active on the project site. No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be converted to non-agricultural use as a result of the project; therefore, *no impacts* would occur.

(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project is within parcels zoned for planned residential development and agriculture and are not under Williamson Act Contracts. The pipeline would be constructed under the existing Orcutt Hill Road. The new water tanks and access road would not affect surrounding properties with active agricultural uses. Therefore, the project would not conflict with existing zoning for agricultural use or the Williamson Act and *no impacts* would occur.

(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The project property is zoned for agricultural land uses and therefore would not conflict with any existing zoning for, or rezoning of, forest land, timberland, or areas of timberland zoned Timberland Production. There is no forestland or timberland zoning in the vicinity of the project; therefore, *no impacts* would occur.

(d) Result in the loss of forest land or conversion of forest land to non-forest use?

"Forest land" is defined by the California PRC as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits (PRC Section 12220[g]). The project property supports annual brome grassland and coyote brush scrubland. Several pepper and mature eucalyptus trees occur in the annual brome grasslands. The project would remove several pepper trees but would not result in the loss or conversion of forestland; therefore, *no impacts* would occur.

(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

There are no active agricultural uses located on-site and the project property is classified as Urban and Built-up Land and Grazing Land based on the California FMMP. The pipeline would be constructed under an existing road and there is no Prime Farmland on the reservoir site. The new water tanks would improve the efficiency of the water supply for the community of Orcutt and would not result in the direct or indirect conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use; therefore, *no impacts* would occur.

Conclusion

The proposed reservoir site is zoned Agriculture, but no Prime Farmland or significant agricultural or forest resources occur on-site. The project would not conflict with existing agricultural or forest land zoning, result in the loss of forestland, or involve any other land use conversions. The proposed project would not result in a significant adverse impact to Agricultural and Forest Resources, and no mitigation is necessary.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
(c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Air Quality

Setting

The project site is located in the South Central Coast Air Basin (SCCAB), which includes all of San Luis Obispo, Santa Barbara, and Ventura Counties.

Criteria Pollutant Regulation

In accordance with the California Clean Air Act, the California Air Resources Board (CARB) regulates the emission of airborne pollutants and have established ambient air quality standards for the protection of public health. Local regulation in air quality management is provided by CARB through multi-county and county-level Air Pollution Control Districts (APCDs). The CARB establishes statewide air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. The project site is located in the Santa Barbara County portion of the SCCAB and is under jurisdiction of the Santa Barbara County Air Pollution Control District (SBCAPCD). The SBCAPCD administers many programs under the CARB review and permit authority over stationary point sources of air pollution.

Federal and state standards have been established for six criteria pollutants, including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$), and lead (Pb). California air quality standards are identical to or stricter than federal standards for all criteria pollutants. Table 2 illustrates the current federal and California ambient air quality standards.

Table 2. Current Federal and California Ambient Air Quality

Pollutant	Federal Standard	California Standard
Ozone (O_3)	0.070 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.070 ppm (8-hr avg)
Carbon Monoxide (CO)	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide (NO_2)	0.100 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide (SO_2)	0.030 ppm (annual avg) 0.14 ppm (24-hr avg) 0.075 ppm (1-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1-hr avg)
Lead (Pb)	1.5 µg/m^3 (calendar quarter)	1.5 µg/m^3 (30-day avg)
Particulate Matter (PM_{10})	150 µg/m^3 (24-hr avg)	20 µg/m^3 (annual avg) 50 µg/m^3 (24-hr avg)
Particulate Matter ($PM_{2.5}$)	12 µg/m^3 (annual avg) 35 µg/m^3 (24-hr avg)	12 µg/m^3 (annual avg)
Sulfates	No National Standards	25 µg/m^3 (24-hr avg)
Hydrogen Sulfide		0.03 ppm (1-hr avg)
Vinyl Chloride		0.01 ppm (24-hr avg)

ppm= parts per million
µg/m^3 = micrograms per cubic meter
Source: CARB 2020a

Current Ambient Air Quality

The SBCAPCD monitors air pollutant levels to assure that air quality standards are met and, if they are not met, to also develop strategies to meet the standards. Depending on whether or not the standards are met or exceeded, the air basin is classified as being in "attainment" or as "non-attainment," respectively. The SBCAPCD *2019 Ozone Plan* (2019 Plan) is the ninth update to the initial Air Quality Attainment Plan adopted by the SBCAPCD Board of Directors in 1991 (SBCAPCD 2019b). The SBAPCD was designated "attainment" for the federal ozone standard 0.70 parts per million (ppm) in 2018 and is therefore not currently required to prepare any plans for the federal ozone standard. Effective July 1, 2020, the SBCAPCD is designated "attainment" for the state 8-hour ozone standard of 0.075 ppm and the 1-hour ozone standard of 0.09 ppm (SBCAPCD 2020). The 2019 Plan addresses the state ozone standard only (SBCAPCD 2019b).

According to the CARB State and National Area Designation Maps, Santa Barbara County is in non-attainment for the state PM_{10} standards (CARB 2018, 2019) (Table 3).

Table 3. Ambient Air Quality Data at the Santa Maria – 906 S. Broadway Station

Pollutant	2017[1]	2018[1]	2019[2]
Ozone, ppm – Hourly Maximum – Highest Daily Maximum	0.068	0.052	-
Number of days of state exceedances (>0.09 ppm)	0	0	0
Ozone, ppm – Eight Hour (State) – Highest Daily Maximum	0.063	0.048	0.045

Pollutant	2017[1]	2018[1]	2019[2]
Number of days of state exceedances (>0.070 ppm)	0	0	0
Number of days of federal exceedances (>0.070 ppm)	0	0	0
Particulate Matter <10 microns, µg/m^3– Worst 24 Hours (State)	106.9	61.9	137
Number of samples of state exceedances (>50 µg/m^3)	22	13	17
Number of samples of federal exceedances (>150 µg/m^3)	0	0	0
Particulate Matter <2.5 microns, µg/m^3– Worst 24 Hours	19.9	40.4	-
Number of samples of federal exceedances (>35 µg/m^3)	0	1	0
Nitrogen Dioxide, ppm – Hourly Maximum	0.044	0.040	-
Number of samples of state exceedances (>0.18 ppm)	0	0	-

[1] Source: CARB 2020b
[2] Source: SBCAPCD 2019a

Sensitive Receptors

Certain population groups are considered more sensitive to air pollution than others. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Sensitive receptor locations include residences, schools, nursing homes, and hospitals. There are no sensitive receptors within 0.5 mile of the reservoir site. The nearest sensitive receptors to the pipeline alignment include residences, approximately 20 feet east of Orcutt Hill Road and 40 feet north of East Rice Ranch Road, and Pine Grove Elementary School, approximately 0.4 mile east of the pipeline alignment.

Dust Control

The SBCAPCD regulates fugitive dust from construction and demolition activities under *Rule 354. Control of Dust from Construction and Demolition Activities*. Under this rule, construction and demolition activities may not result in visible dust emissions beyond the property line of 20% opacity or greater for more than three minutes in any 60-minute period. Rule 345 also addresses dust generated by haul rucks, track-out and carry-out (SBCAPCD 2010a).

Discussion

(a) Conflict with or obstruct implementation of the applicable air quality plan?

The SBCAPCD 2019 Ozone Plan addresses the attainment and maintenance of federal and state ambient air quality standards within the SCCAB. In order to be consistent with the Ozone Plan, a project's direct and indirect emissions must be accounted for in the growth assumptions within the plan, and the project must be consistent with the policies in the plan (SBCAPCD 2019b).

The proposed project would include installation of two new 1-MG steel water tanks and construction of an all-weather access driveway. The project would not result in a substantial increase in population or employment or generate a significant level of vehicle trips. The proposed project would not contribute to the generation of significant levels of any air contaminants and would not conflict with or obstruct the implementation of the SBAPCD 2019 Ozone Plan or other applicable local or regional air quality plans; therefore, impacts would be *less than significant.*

(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard

Construction-related emissions would be short term, limited in nature, and limited to the six-month construction period. Construction activities that typically result in short-term emissions may include, but are not limited to, site grading and excavation, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities. All construction vehicles and equipment would be required to be equipped with the state-mandated emission control devices pursuant to state emission regulations and standard construction practices. After construction is complete, all construction-related impacts would cease.

As discussed in the *Santa Barbara County Environmental Thresholds and Guidelines Manual* (County of Santa Barbara 2020), SBAPCD has not established a quantitative threshold for short-term, construction-related PM_{10} (which is 50% of total dust), or nitrogen oxide (NOx) and reactive organic gas (ROG) emissions from construction equipment. However, Santa Barbara County is currently in non-attainment of the state standard for PM_{10}. Therefore, standard dust mitigation measures are required for all discretionary construction activities, as detailed in Mitigation Measure AQ-1 (County of Santa Barbara 2018). Therefore, impacts related to a cumulatively considerable increase of any criteria pollutant would be *less than significant with mitigation*.

(c) Expose sensitive receptors to substantial pollutant concentrations?

The nearest sensitive receptors to the project site include single-family residences north of East Rice Ranch Road and east of Orcutt Hill Road. The project would result in temporary increases in air pollutant emissions, including emissions of fugitive dust (PM_{10}) and diesel-exhaust particulate matter, during project construction associated with excavation, trenching, soil removal, placement of fill and aggregate, asphalt, slurry, and pouring concrete. These pollutants are known to be hazardous to health, particularly when exposure would be to a sensitive receptor. Therefore, due to the proximity to multiple sensitive receptors, this impact is considered potentially significant. Standard dust- and diesel particulate matter (DPM)-reducing mitigation have been identified to reduce emissions of PM_{10} and DPM during construction activities. Upon implementation of Mitigation Measures AQ-1 and AQ-2, impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be *less than significant with mitigation*.

(d) Create objectionable odors affecting a substantial number of people?

Construction activities have the potential to emit odors from diesel equipment, paints, solvents, fugitive dust, and adhesives. Odors from construction activities would be intermittent and temporary, and generally would not extend beyond the construction area. The proposed project does not include any components or operational activities expected to generate substantial odor. Due to the temporary and intermittent nature of construction odors, the project would not result in objectionable odors affecting a substantial number of people; therefore, potential impacts would be *less than significant.*

Conclusion

The proposed project would implement standard SBCAPCD mitigation measures for dust and DPM suppression during construction activities. With incorporation of the mitigation detailed below, the project would result in less than significant impacts on Air Quality.

Mitigation Measures

AQ-1 **Fugitive Dust Control Measures.** The project proponent shall implement the SBCAPCD's Standard Fugitive Dust Control Measures (SBCAPCD 2010b), where applicable:

1. During construction, use water trucks or sprinkler systems to keep areas of vehicle movement damp to prevent dust from leaving the site and from exceeding the SBCAPCD's limit of 20% opacity for greater than three minutes in any 60-minute period. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained wind speed exceeds 15 miles per hour (mph). Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
2. On-site vehicle speeds shall be no greater than 15 mph when traveling on unpaved surfaces.
3. Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track-out of dirt, such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems.
4. If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
5. Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, using roll-compaction, revegetating, or spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible.
6. Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (greater than 25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by on-site operations from becoming a nuisance or hazard.
7. The contractor or builder shall designate a person or persons to monitor the dust control measures to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to prevent transport of dust off-site at 20% opacity for more than three minutes in any 60 minute period. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SBCAPCD prior to start of construction;
8. For fill material, cover, keep moist, or treat soil stockpiled for more than two days, and tarp trucks transporting fill material to and from the site.
9. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, revegetating, or spreading soil binders until the area is paved or otherwise developed.

AQ-2 **Diesel Particulate and NOx Emission Reduction Measures.** The project proponent shall comply with the requirements of Section 2485 of Title 13 of the California Code of Regulations (CCR), which limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. Additionally, the following is a list of regulatory requirements and control strategies that should be implemented to the maximum extent feasible:

1. All portable diesel-powered construction equipment greater than 50 brake horsepower (bhp) shall be registered with the state's portable equipment registration program or shall obtain an SBCAPCD permit.
2. Fleet owners of diesel-powered mobile construction equipment greater than 25 hp are subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR 2449), the purpose of which is to reduce NOx, DPM, and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Off-road heavy-duty trucks shall comply with the State Off-Road Regulation. For more information, see www.arb.ca.gov/msprog/ordiesel/ordiesel.htm.
3. Fleet owners of diesel-fueled heavy-duty trucks and buses are subject to CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation (13 CCR 2025), the purpose of which is to reduce NOx, DPM, and other criteria pollutants from in-use (on-road) diesel-fueled vehicles. For more information, see www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.
4. All commercial off-road and on-road diesel vehicles are subject to 13 CCR 2449(d)(3) and 13 CCR 2485, respectively, limiting engine idling time. Off-road vehicles subject to the State Off-Road Regulation are limited to idling no more than five minutes. Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes, unless the truck engine meets the optional low-NOx-idling emission standard, the truck is labeled with a clean-idle sticker, and it is not operating within 100 feet of a restricted area.
5. Diesel equipment meeting the CARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines should be used to the maximum extent feasible.
6. On-road heavy-duty equipment with model year 2010 engines or newer should be used to the maximum extent feasible.
7. Diesel-powered equipment should be replaced by electric equipment whenever feasible. Electric auxiliary power units should be used to the maximum extent feasible.
8. Equipment/vehicles using alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel, should be used on-site where feasible.
9. Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
10. All construction equipment shall be maintained in tune per the manufacturer's specifications.
11. The engine size of construction equipment shall be the minimum practical size.
12. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.

13. Construction worker trips should be minimized by requiring carpooling and by providing for lunch on-site whenever feasible.
14. Construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions whenever feasible.
15. Proposed truck routes should minimize to the extent feasible impacts to residential communities and sensitive receptors.
16. Construction staging areas should be located away from sensitive receptors, such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows.

Prior to grading / building, all requirements shall be shown as conditions of approval on grading/building plans. Conditions shall be adhered to throughout all grading and construction periods. The contractor shall retain the Certificate of Compliance for CARB's In-Use Regulation for Off-Road Diesel Vehicles onsite and have it available for inspection. The Lead Agency shall ensure measures are on project plans. The Lead Agency staff shall ensure compliance on-site. SBCAPCD inspectors will respond to nuisance complaints.

Sources

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES**				
Would the project:					
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
(c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
(d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
(f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Biological Resources

The information presented in this section is a compilation of botanical and wildlife data gathered in the field and from a review of information from federal, state, and local resource agencies. SWCA Environmental Consultants (SWCA) performed an extensive literature review to gain familiarity with the project area that consisted of a search of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) (USFWS 2022) data output for the property and the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) RareFind 5 (CDFW 2020) data output that focused on seven USGS topographic quadrangles that surround the property. In addition to the data review, an SWCA biologist conducted biological, wetland, and rare plant surveys on the property on September 7, 2018, and February 10, April 16, and May 19, 2020. A list of all species observed is included in the *Biological Resources Assessment for the Golden State Water Company Kelt Reservoir Project, Orcutt, Santa Barbara County, California* (SWCA 2021; Appendix A).

The Biological Study Area (BSA) that was surveyed and evaluated in the Biological Resources Assessment included the pipeline alignment in Orcutt Hill Road and an approximately 25-foot buffer on both sides of the road and an approximately two-acre portion of County APN 101-020-078. The conditions of the BSA are detailed in the appended Biological Resources Assessment (see Appendix A) and summarized below. SWCA also prepared an Aquatic Resources Delineation for the project, the results of which are also summarized below (SWCA 2020; Appendix B).

Setting

The project corridor is within and adjacent to the existing Orcutt Hill Road right-of-way. Orcutt Hill Road travels north to south from East Rice Ranch Road to the foot of the Solomon Hills area. At the intersection of East Rice Ranch Road with Orcutt Hill Road there is a residential development on the north side of East Rice Ranch Road and the east side of Orcutt Hill Road. The remainder of the project corridor is boarded by undeveloped lands. The undeveloped lands include established but unpaved parking areas, equipment staging areas, borrow pits, landscape areas, cattle lands, and two cattle stock ponds. These areas include a variety of vegetative communities, including, but not limited to, ruderal vegetation, arroyo willow thicket, eucalyptus groves, California sagebrush scrub, annual brome grassland, and coyote brush scrub. The project corridor parallels and crosses the ephemeral Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in several locations. A wetland area is present near the northern end of the BSA at the intersection of East Rice Ranch Road and Orcutt Hill Road. The project has been designed to avoid impacts to the wetland by placing the pipeline in the existing street. The project will not affect any adjacent wetlands, and the two cattle stock ponds (ORCU-1 and ORCU-2) are 100 to 150 feet outside of the project area.

The proposed reservoir site is at the southern terminus of the project corridor and includes a 2.17-acre polygon on the south side of Orcutt Hill Road. The elevation of the reservoir site is approximately 600 feet above MSL, and the topography is gently sloping to the east. A steep northeast-facing slope borders the southeastern side of the reservoir site, and a west-facing slope borders the east side of the reservoir site. A small remnant asphalt road traverses the eastern border of the reservoir site. The road appears to have been long abandoned and is partially overgrown with vegetation.

The vegetation types in the reservoir site include annual brome grassland at Orcutt Oil Field Road and extending into the central portion of the site, coyote brush scrubland in the southern portion of the site, and California sage brush scrub on the bordering slopes. Several mature eucalyptus trees occur in the annual brome grasslands. Coyote brush (*Baccharis pilularis* ssp. *consanguinea*) is the dominant species in the reservoir site. The presence of this habitat type in combination with the remnant asphalt road indicates that the lands in the reservoir site were subject to clearing activities at one time. Figures 4 through 6 show the project footprint, habitats, and locations of black-flowered figwort (*Scrophularia atrata*) occurrences.

Regulatory Framework

Federal Regulations

The Federal Endangered Species Act (FESA) of 1973 provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or the applicant to formally consult with the USFWS or National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a species. If USFWS or NOAA Fisheries determine that impacts to a federally listed species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

The Migratory Bird Treaty Act (MBTA) of 1918 protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the USFWS, and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with project proponents. Working with project proponents on migratory bird conservation is an integral mission of the USFWS; therefore, the USFWS maintains that potential impacts to migratory birds should be addressed during project review. If incidental take of migratory birds or their nests cannot be avoided during project activities, the project proponent must obtain a MBTA Incidental Take Permit (ITP) for the taking. The project area supports habitat for nesting birds. If proposed ground-disturbing activities were implemented during the nesting season, pre-disturbance nesting bird surveys will be conducted to avoid impacts to nesting birds

The U.S. Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into “waters of the United States” (WOTUS). These waters include wetland and non-wetland water bodies that meet specific criteria. Under Section 404 of the Clean Water Act (CWA) of 1997, the USACE regulates traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent non-navigable tributaries that have a continuous flow at least seasonally (typically three months), and wetlands that directly abut relatively permanent tributaries. The USACE determines its jurisdiction over non-navigable, non-relatively permanent waters (non-RPW), wetlands adjacent to tributaries of non-RPW, and wetlands not directly abutting non-navigable but relatively permanent waters after making a significant nexus finding.

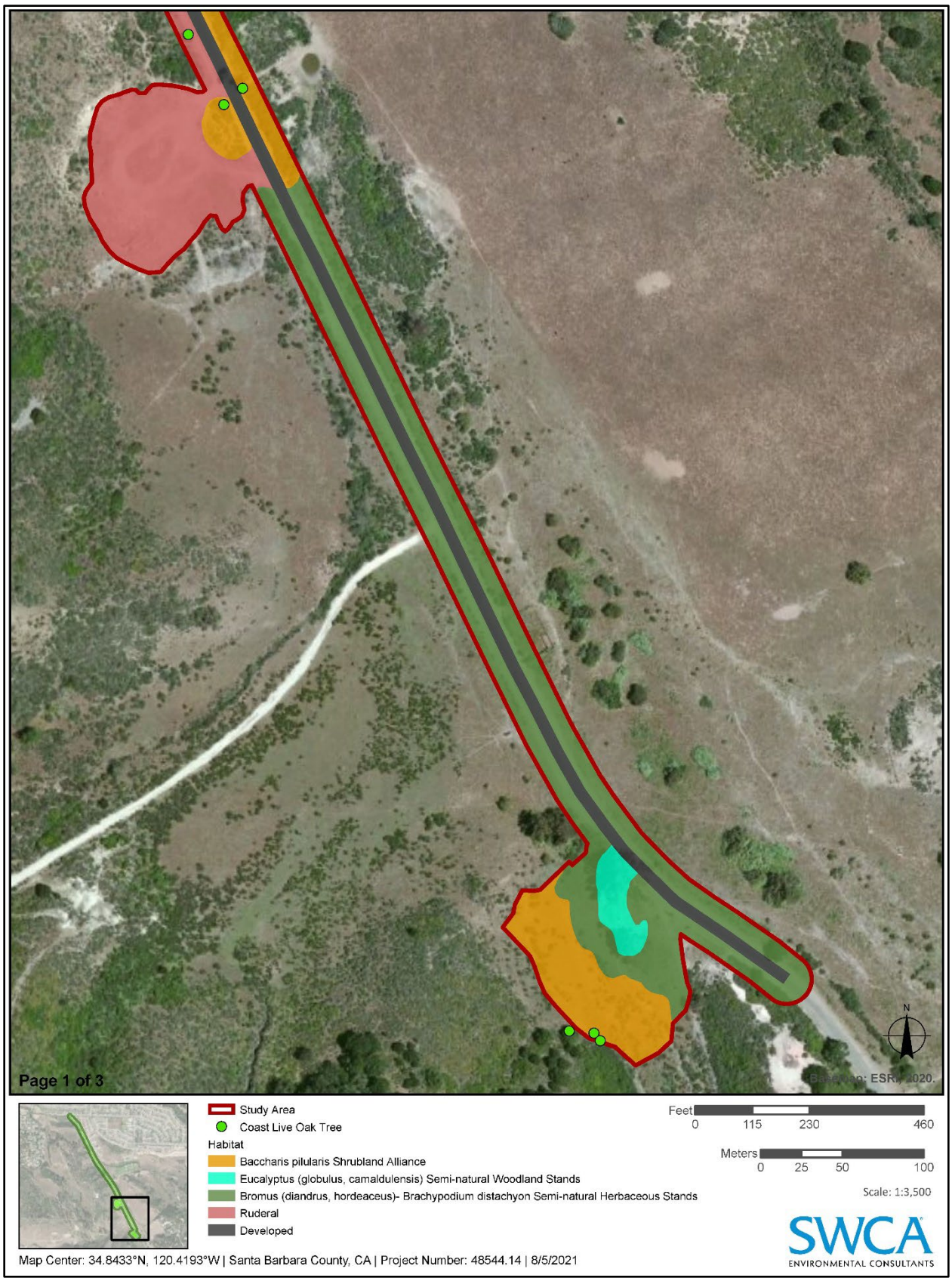

Figure 4. Habitat map (page 1 of 3).

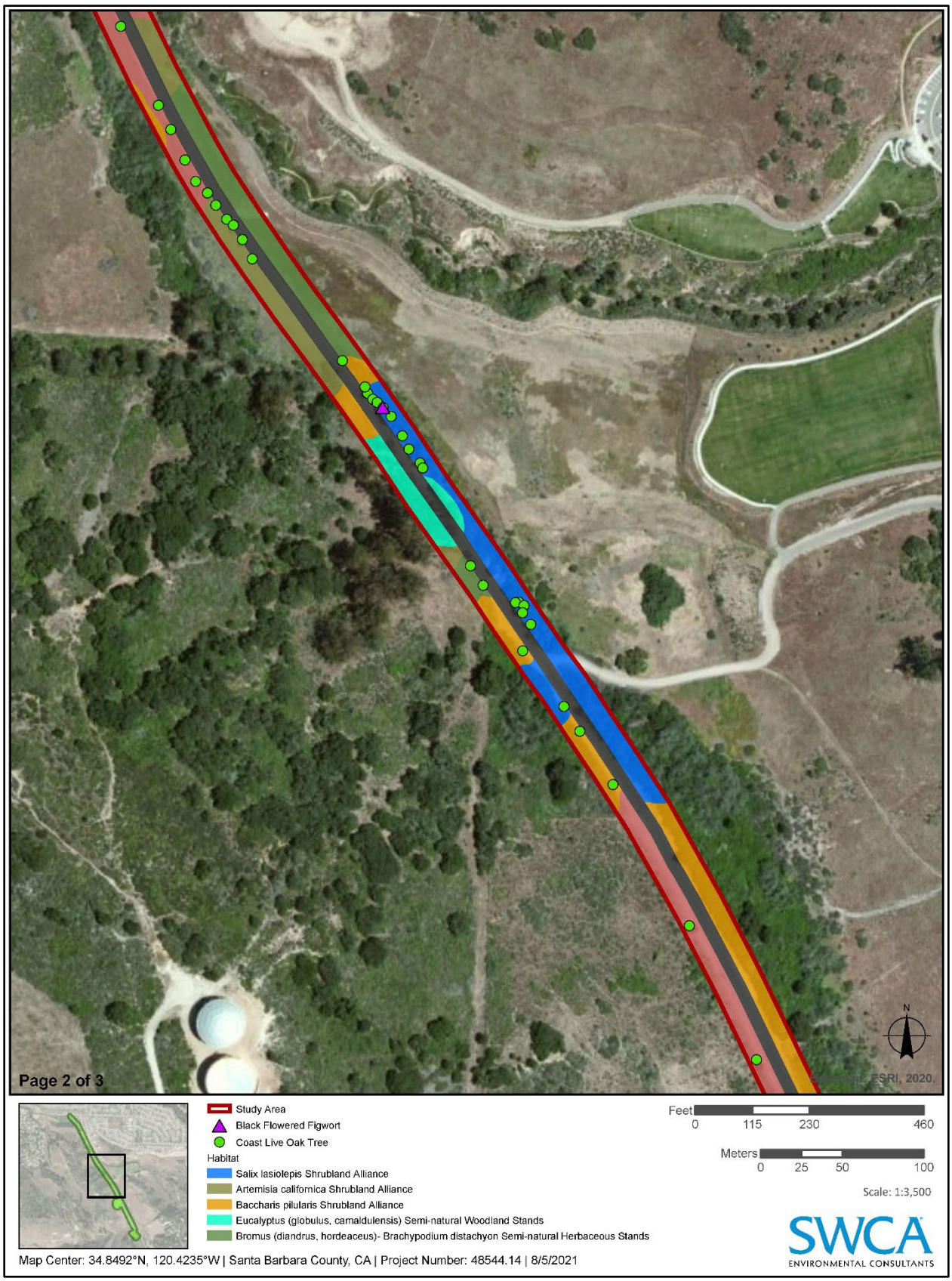

Figure 5. Habitat map (page 2 of 3).

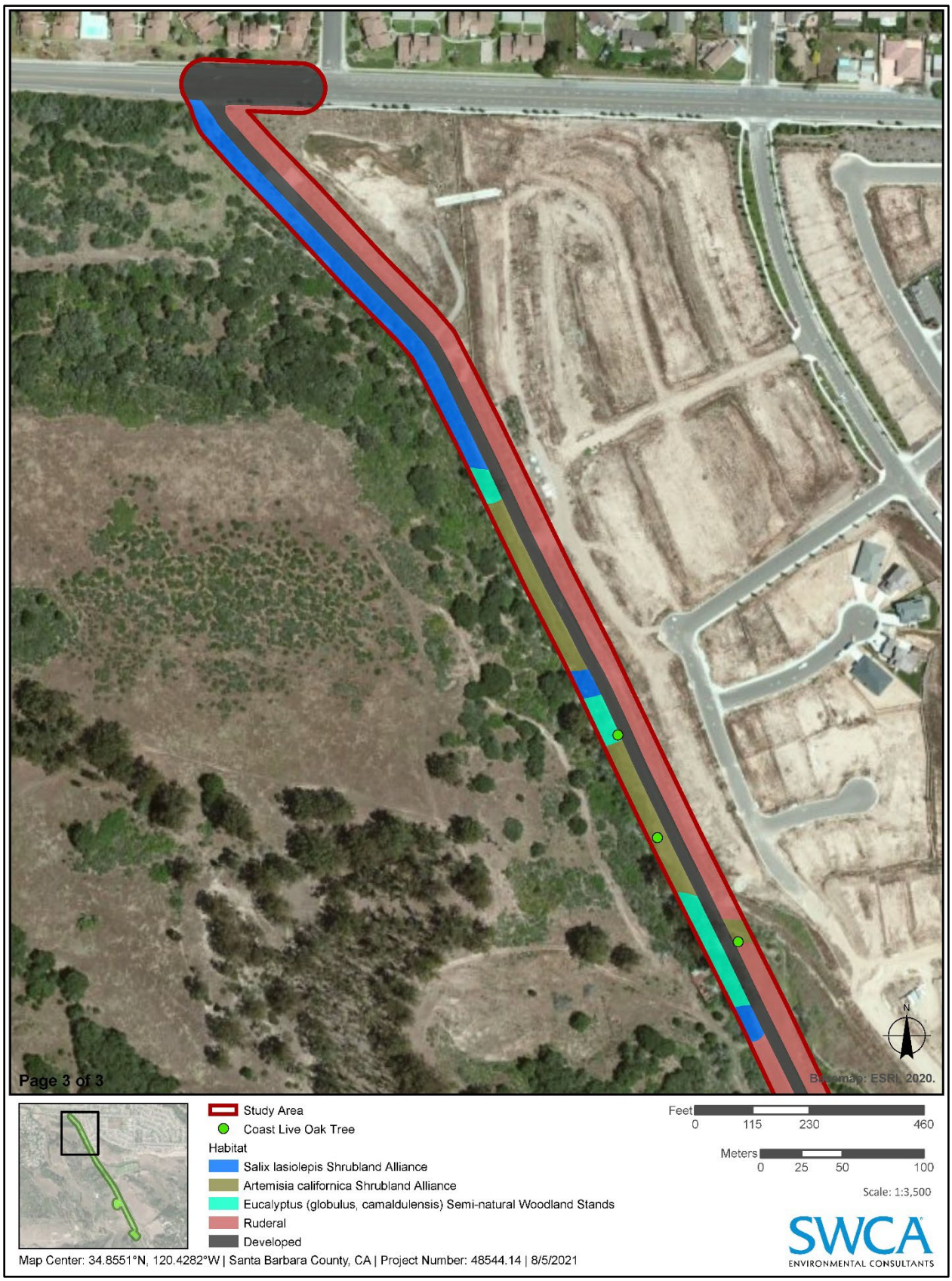

Figure 6. Habitat map (page 3 of 3).

Section 401 of the CWA and its provisions ensure that federally permitted activities comply with the federal CWA and state water quality laws. Section 401 is implemented through a review process that is conducted by the Regional Water Quality Control Board (RWQCB) and is triggered by the Section 404 permitting process.

State Regulations

The California Endangered Species Act (CESA) of 1970 ensures legal protection for plants listed as rare or endangered and wildlife species formally listed as endangered or threatened. The state also maintains a list of California Species of Special Concern (SSC), a status that is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFW is empowered to review projects for their potential to impact special-status species and their habitats. Under CESA, CDFW reserves the right to request the replacement of lost habitat that is considered important to the continued existence of CESA-protected species.

California Fish and Game Code (FGC) Section 3503, Protections of Bird's Nests, includes provisions to protect the nests and eggs of birds. Section 3503 states: "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Per FGC Section 2835, in absence of a CDFW-approved Natural Community Conservation Plan, the CDFW cannot authorize take of a Fully Protected species. FGC Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish) include provisions to protect Fully Protected species, such as: 1) prohibiting take or possession "at any time" of the species listed in the statute, with few exceptions; 2) stating that "no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" a species that has been designated as Fully Protected; and 3) stating that no previously issued permits or licenses for take of these species "shall have any force or effect" for authorizing take or possession. CDFW is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species.

The CDFW also manages the California Native Plant Protection Act (NPPA) of 1977 (FGC Sections 1900 et seq.), which was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, plant species with California Native Plant Society (CNPS) Ranks 1A, 1B, 2A, 2B, and 3 are considered "rare" under the NPPA. Impacts to plants with these rarity rankings must be fully evaluated under CEQA. Plants with CNPS Rank 4 have limited distributions but are not necessarily eligible for listing. It is recommended that impacts to plants with CNPS Rank 4 also be evaluated per CEQA.

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the FGC, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." The CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." The CDFW jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

Discussion

(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Special-Status Plants

For the purposes of this section, special-status plant species are defined as the following:

- Plants listed or proposed for listing as threatened or endangered under the FESA (50 Code of Federal Regulations [CFR] Section 17.12 for listed plants and various notices in the *Federal Register* for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the FESA.
- Plants that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Plants considered by CNPS to be "rare, threatened, or endangered" in California (CNPS Ranks 1, 2, and 3).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (CNPS Rank 4).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 CCR Section 670.5).
- Plants listed under the NPPA (FGC Section 1900 et seq.).
- Plants considered sensitive by other federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state and local agencies, or jurisdictions.

SWCA evaluated 37 special-status plant species for potential occurrence on the property. The property provides suitable conditions for 20 of the evaluated plant species (Table 4). Seasonally timed botanical surveys that captured the blooming period for the species with suitable habitat conditions in the project area were conducted in the BSA. Only one of these 20 species was observed in the BSA. The species list provided in the Biological Resources Assessment includes all species observed during the surveys (see Appendix A).

Table 4. Special-Status Plant Species Having Potential to Occur on the Property

Species Name	Blooming Period	Legal Status* Federal/State/ CNPS Rank
Hoover's bent grass (*Agrostis hooveri*)	April–July	--/--/1B.2
Santa Ynez groundstar (*Ancistrocarphus keilii*)	March–April	--/--/1B.1
La Purisima manzanita (*Arctostaphylos purissima*)	November–May	--/--/1B.1
sand mesa manzanita (*Arctostaphylos rudis*)	November–February	--/--/1B.2
Santa Barbara ceanothus (*Ceanothus impressus* var. *impressus)*	February–April	--/--/1B.2
California saw-grass (*Cladium californicum)*	June–September	--/--/2B.2

Species Name	Blooming Period	Legal Status* Federal/State/ CNPS Rank
seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*)	April–October	--/SE/1B.1
Gaviota tarplant (*Deinandra increscens* ssp. *villosa*)	May–October	FE/SE/1B.1
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae)*	April–June	--/--/1B.1
Blochman's leafy daisy (*Erigeron blochmaniae)*	July–August	--/--/1B.2
mesa horkelia (*Horkelia cuneata* ssp. *puberula*)	February–September	--/--/1B.1
Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*)	April–September	--/--/1B.1
Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata)*	May–December	--/--/1B.2
crisp monardella (*Monardella crispa)*	April–August	--/--/1B.2
San Luis Obispo monardella (*Monardella frutescens)*	May–September	--/---/1B.2
Southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuate)*	April-September	--/--/1B.2
aparejo grass (*Muhlenbergia utilis)*	October–May	--/--/2B.2
black-flowered figwort (*Scrophularia atrata*)*	March–April	--/--/1B.2
rayless (chaparral) ragwort *(Senecio aphanactis)*	January–April	--/--/2B.2
San Bernardino aster (*Symphyotrichum defoliatum)*	July–November	--/--/1B.2

Status Codes: --= No status; Federal: FE = Federally Endangered; SE = State Endangered
** Observed during May 2020 survey*

Three individuals of black-flowered figwort, CNPS Rank 1B2, were observed on the bank of the unnamed drainage on the east side of Orcutt Hill Road. The three individuals are approximately 15 feet northeast of the pipeline alignment, in a tight group and nestled under and against a large coast live oak tree (see Figure 5). GSWC designed the pipeline alignment to avoid impacts to the black-flowered figwort plants and the associated drainage by shifting the pipeline alignment to the central portion of the existing road. Project activities in this location would be confined to the road surface and would not affect the occurrences. Mitigation Measures BIO-1 through BIO-3 are provided to ensure avoidance of the black-flowered figwort plants. The project would be required to have an environmental monitor on-site to ensure that black-flowered figwort individuals are avoided. Therefore, impacts to special-status plants would be *less than significant with mitigation*.

Based on the IPaC, the BSA is in designated Critical Habitat units for La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*) and Lompoc yerba santa (*Eriodictyon capitatum*). La Graciosa thistle is federally endangered and state threatened with a CNPS Rank 1B.1. This species occurs in coastal dunes, brackish marsh, riparian scrub, and occasionally sandy wet areas. The BSA does not support coastal dunes or brackish marsh. The BSA does support riparian scrub and sandy wet areas; however, the project has been designed to avoid the riparian scrub and sandy wet areas; therefore, significant impacts to La Graciosa thistle critical habitat would be avoided. Lompoc yerba santa is federally endangered and state rare with a CNPS Rank 1B.1. This species occurs in closed-cone coniferous forest and maritime chaparral with sandy soil. The BSA does not support closed-cone coniferous forest or maritime chaparral. In addition, Lompoc yerba santa was not observed in the BSA during botanical surveys conducted in the appropriate season. Since the appropriate habitat for Lompoc yerba santa is absent from the BSA and the species does not occur in the BSA, adverse

modification to La Graciosa thistle critical habitat will not occur. *No impact* to critical habitat will occur.

Special-Status Wildlife

For the purposes of this section, special-status wildlife is defined as the following:

- Animals listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed animals and various notices in the *Federal Register* for proposed species).
- Animals that are candidates for possible future listing as threatened or endangered under the FESA.
- Animals that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
- Animal species of special concern to CDFW.
- Animal species that are fully protected in California (FGC Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

SWCA evaluated 39 special-status wildlife species that have known occurrences near the project area. The existing conditions on the property provide suitable or marginal conditions for 14 species and nesting birds listed in Table 5 below. Although all the species listed below have potential to occur on the parcel, none were observed during the surveys.

Table 5. Special-Status Wildlife Having Potential to Occur on the Property

Species Name	Legal Status	Habitat Present
monarch butterfly (*Danaus plexippus*)	--/SA/--	Suitable
California red-legged frog (*Rana draytonii*)	FT/--/SSC	Marginal
California tiger salamander (*Ambystoma californiense*)	FT/ST/SSC	Suitable
Northern California legless lizard (*Anniella pulchra*)	--/--/SSC	Suitable
coast patch-nosed snake (*Salvadora hexalepis virgultes*)	--/--/SSC	Marginal
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	MBTA/--WL	Suitable
southwestern willow flycatcher (*Emdiponax traillii extimus*)	FE/SE/--	Marginal
California horned lark (*Eremophila alpestris actia*)	MBTA/--/--	Suitable
yellow warbler (*Setophaga petechia*)	--/--/SSC	Suitable
least Bell's vireo (*Vireo bellii pusillus*)	FE/SE/--	Suitable
yellow-breasted chat (*Icteria virens)*	MBTA/--/--/SSC	Marginal
Townsend's big-eared bat (*Corynorhinus townsendii*)	--/--/SSC	Marginal
western red bat (*Lasiurus blossevillii*)	--/--/SSC	Marginal
hoary bat (*Lasiurus cinereus*)	--/SA/--	Marginal

Species Name	Legal Status	Habitat Present
American badger (*Taxidea taxus*)	--/--/SSC	Suitable
Nesting Bird (Class Aves)	MBTA/--/--	Suitable

Status Codes: --= No status; FE = Federal Endangered; FT= Federal Threatened; MBTA = Migratory Bird Treaty Act; SE= State Endangered; ST= State Threatened; SA= Not formally listed but included in CDFW "Special Animal" List; SSC = California Species of Special Concern; WL= CDFW Watch List

Nesting Birds

The habitats occurring in the project area provide suitable nesting habitat for a variety of bird species, including Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), California horned lark (*Eremophila alpestris actia*), yellow warbler (*Setophaga petechia*), least Bell's vireo (*Vireo bellii pusillus*), and other nesting birds. Passerines and raptors may use the trees for nesting and/or foraging, and the nesting habitat could be impacted by project activities, including grading and vegetation removal. If the project activities are conducted between March and September, birds may be nesting within or adjacent to the affected area and the individuals could be directly or indirectly impacted. Direct impacts may include the loss of active nests during vegetation removal, and noise or other disturbances may cause an individual to abandon a nest resulting in an indirect impact. Mitigation Measure BIO-4, which requires nesting bird surveys and avoidance of nesting birds, is included to avoid impacts to nesting birds. Therefore, impacts to nesting birds will be *avoided*.

Northern California Legless Lizard and Coast Patch Snake

Northern California legless lizard (*Anniella pulchra*) and coast patch-nosed snake (*Salvadora hexalepis virgultes*) have potential to occur in the reservoir tank site. Northern California legless lizard is a fossorial species that spends most of its life underground; therefore, they are difficult to detect without shallow excavation of the soil surface. The coast patch-nosed snake occurs on the ground surface and burrows underground in search of prey. Although these reptiles were not observed in the BSA during the surveys, their presence in the BSA cannot be ruled out. Grading for development of the reservoir site could result in the direct take of Northern California legless lizards and coast patch-nosed snake. Direct take may include being struck by equipment, entrapped in stockpiled materials or trenches, or trampled or collected by construction personnel. Mitigation Measure BIO-5, which requires reptile surveys and capture and relocation of reptiles during construction, is included to minimize impacts to Northern California legless lizards, coast patch-nosed snake, and other reptiles during project implementation. Therefore, impacts to special-status reptiles would be *less than significant with mitigation*.

Monarch Butterfly

The reservoir tank site and portions of the Orcutt Hill Road right-of-way support eucalyptus trees that could support wintering monarch butterfly (*Danaus plexippus*) roosts. Overwintering monarch butterflies have not been documented in the area and the eucalyptus trees are not known monarch overwintering sites. However, the trees could support overwintering monarchs in the future. If project construction requires removal of all or parts of the trees or use of noise-producing heavy equipment, and monarchs were present during the activities, overwintering monarch butterflies could be adversely impacted by the tree removal and/or construction activities. Direct adverse impacts could include direct mortality of overwintering monarch butterflies; indirect adverse impacts could include excessive noise from construction equipment prompting the overwintering monarchs to abandon the site. Mitigation Measure BIO-6, which includes surveys and avoidance

of overwintering monarch butterflies, is included to avoid impacts to monarch butterflies during project implementation. Therefore, impacts to monarch butterflies would be *avoided*.

Bats

The trees in the reservoir tank site and adjacent to the Orcutt Hill Road right-of-way support roosting habitat for a variety of bat species. Bats may roost in the trees during the daylight hours. The proposed project will remove one pepper tree and three dead trees from the reservoir site. If the trees are removed while bats are roosting in the trees, the bats could be fatally wounded. Mitigation Measure BIO-7, which includes surveys and avoidance of roosting bats, is included to avoid fatal impacts to roosting bats during project implementation. Therefore, impacts to roosting bats would be *less than significant with mitigation*.

American Badger

The reservoir site supports suitable habitat for American badger (*Taxidea taxus*). If American badgers are present during grading activities, the individuals could be fatally wounded by the grading equipment. To minimize the potential for this impact to occur, GSWC's monitoring biologist should conduct American badger den surveys prior to grading the site. Mitigation Measure BIO-8, which requires surveys and avoidance of American badger dens, is included to avoid impacts to American badgers during project implementation. Therefore, impacts to American badger would be *less than significant with mitigation*.

California Red-Legged Frog

The nearest known California red-legged frog (CRLF; *Rana draytonii*) occurrence is 1.6 miles south of the project area. ORCU-2 supports seasonally ponding water but does not support sturdy emergent vegetation for egg mass attachment. Due to the ephemeral hydrology and lack of emergent vegetation in ORCU-2, CRLF breeding in ORCU-2 is unlikely. However, if CRLF were to breed in ORCU-2, the reservoir site, unnamed drainage, and Pine Canyon Creek would be within dispersal range of the species. There is an unlikely potential for CRLF to disperse through the unnamed drainage, Pine Canyon Creek, and the reservoir site.

The unnamed drainage and Pine Canyon Creek are dry most of the time and only support surface water during and immediately after rain events. However, if project activities were to occur while these features supported water, there is a slight chance CRLF could disperse through the area. Since the project proposes trenchless technology to install the pipeline in three locations, activities within bed/banks of these features are not expected to occur. However, if the pipeline was installed while water was present in the features and there was an accidental drilling fluid discharge into the feature(s), personnel may need to enter the features to clean up the fluids.

The reservoir site does not support aquatic features that are suitable for CRLF aquatic habitat. ORCU-2 supports marginal habitat for CRLF when water is present. If CRLF were using ORCU-2 during the rainy season, the CRLF could disperse from ORCU-2 and enter the reservoir site or the drainages. SWCA coordinated with Rachel Henry of USFWS regarding the potential for CRLF to occur in ORCU-2 and the project area. Ms. Henry determined that seasonal restrictions on when work is conducted is sufficient to avoid impacts to CRLF (Henry 2020). Mitigation Measure BIO-11 provides seasonal restrictions to project activities and is included to avoid impacts to CRLF during project implementation Therefore, impacts to CRLF would be *avoided*.

Western Spadefoot Toad

Western spadefoot toad (*Spea hammondii*) has been documented near the BSA, potentially associated with the two cattle stock ponds (ORCU-1 and ORCU-2). The CNDDB mapping is listed as having 80-meter accuracy. ORCU-1 and ORCU-2 are located approximately 100 to 150 feet east of the BSA. Project activities near the stock pond will include installation of the pipeline, which will be confined to the existing street in this location. Therefore, installation of the pipeline will not affect suitable western spadefoot toad habitat. The reservoir site is within western spadefoot toad dispersal distance of the cattle stock ponds. Therefore, western spadefoot toad could take upland refuge in small mammal burrows in the reservoir site. If western spadefoot toad(s) were in the reservoir site during grading activities, the toads could be directly injured by equipment and grading activities. Mitigation Measure BIO-12 is provided to minimize the potential effects on western spadefoot toad. Therefore, impacts to western spadefoot toad will be *less than significant with mitigation*.

California Tiger Salamander

The project area is in the documented range of the California tiger salamander (CTS; *Ambystoma californiense*), and the nearest CNDDB documented occurrence of CTS is 2.2 miles east of the project area. Coordination with the USFWS has confirmed that this occurrence is the closest occurrence to the project area (Henry 2020). The project area does not support any ephemeral pools or seasonal water suitable for CTS breeding. The two cattle stock ponds (ORCU-1 and ORCU-2) are located approximately 100 to 150 feet east of the pipeline alignment. SWCA coordinated with the USFWS to determine if ORCU-1 or ORCU-2 support suitable breeding habitat for CTS. The USFWS determined that ORCU-1 does not support the necessary hydroperiod for CTS breeding and that ORCU-2 does support the appropriate hydroperiod for CTS breeding. Therefore, ORCU-2 supports potential breeding habitat for CTS. Due to the presence of ORCU-2 and its potential CTS breeding habitat, the upland areas around the pond provide potential upland CTS habitat. Project activities near ORCU-2 will be confined to the existing street; therefore, installation of the pipeline is not expected to affect CTS or CTS upland habitat. The proposed reservoir site supports annual grasslands and coyote brush scrub. SWCA conducted focused small mammal burrow surveys throughout the project area. Few gopher/vole burrows were observed in the reservoir site. SWCA discussed the project with USFWS Biologist Ms. Henry regarding potential take of CTS. Due to the presence of ORCU-2 near the reservoir site and small mammal burrows in the reservoir site, Ms. Henry recommended GSWC either conduct protocol CTS surveys to attempt to establish absence of the species or infer presence of CTS and obtain an ITP for CTS (Henry 2020). GSWC has not conducted protocol CTS surveys in or near the project area and has chosen to infer presence of CTS in the upland habitats in the project area. Inferring presence of CTS in the reservoir site will require GSWC to obtain an ITP from the USFWS and a Consistency Determination (CD) or a 2081-ITP from CDFW.

GSWC has initiated the ITP process with the agencies and has drafted a Habitat Conservation Plan (HCP). While drafting the HCP, GSWC coordinated with the USFWS to obtain a Searcy Model dataset for the project to determine the potential impacts to CTS upland habitat. The Searcy Model Results are shown in Table 6.

Table 6. Summary of Searcy Model Results for the Kelt Reservoirs Project

Impact Type	Reproductive Value Impacts
Reservoir and Access Road Footprint	88
Deficit Wedge	1,375

Impact Type	Reproductive Value Impacts
Sum of Reproductive Value Impacts	1,462
20% Correction for Mitigating at a Conservation Bank	1,755

Note: The Searcy Model was run for the proposed project by the USFWS, and the listed results were provided to GSWC by the USFWS on November 24, 2020

GSWC is preparing an HCP and seeking ITP coverage for the project; Mitigation Measure BIO-13, is provided to ensure that GSWC completes the HCP and obtains the ITP for the potential take of CTS and CTS upland habitat resulting from the proposed project. Since the HCP will include measures to fully mitigate the potential impacts to CTS and CTS upland habitat per the requirements of the CESA, implementation of Mitigation Measure BIO-13 would reduce potentially significant impacts to CTS to *less than significant with mitigation*.

(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Riparian habitat is present adjacent to the project site associated with the ephemeral Pine Canyon Creek and unnamed drainage. The pipeline will cross Pine Canyon Creek and the unnamed drainage in four locations. To minimize impacts to the ephemeral features, GSWC has included trenchless pipeline installation techniques at three of the crossings. Implementing trenchless technologies at these crossings will avoid direct impacts to the creek and drainage. In the fourth location, the drainage is 27 feet below the pipeline and the project proposes to install the pipeline over the drainage without impacting the drainage culvert or surrounding vegetation. Therefore, impacts to riparian habitats are not expected. However, the CDFW regulates activities that occur in, over, and under creeks and drainages that are subject to Division 2, Chapter 6, Sections 1600–1602 of the FGC. Prior to implementing the project, GSWC will need to enter into a Streambed Alteration Agreement with the CDFW. The Streambed Alteration Agreement must include provisions for a Frac-Out Contingency Plan that outlines how the contractors and GSWC will address an accidental release of drilling fluids into the surface environment. Compliance with conditions of the Streambed Alteration Agreement would ensure that impacts to riparian habitat would be *less than significant*.

(c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The project area supports an adjacent three-parameter wetland associated with the ephemeral Pine Canyon Creek and unnamed drainage. The project has been designed to avoid any disturbance to the three-parameter wetland. The pipeline will cross Pine Canyon Creek and the unnamed drainage in four locations. To minimize impacts to the ephemeral features, GSWC has included trenchless pipeline installation techniques at three of the crossings. Implementing trenchless technologies at these crossings will avoid direct impacts to the creek and drainage. At the fourth location, the drainage is 27 feet below the pipeline and the project proposes to install the pipeline over the drainage without impacting the drainage culvert. Therefore, impacts to wetlands are not expected. However, the CDFW regulates activities that occur in, over, and under creeks and drainages that are subject to Division 2, Chapter 6, Sections 1600–1602 of the CFGC. Prior to implementing the project, GSWC will enter into a Streambed Alteration Agreement with CDFW. The Streambed Alteration Agreement must include provisions for a Frac-Out Contingency Plan that outlines how the contractors and GSWC will address an accidental release of drilling fluids into the surface

environment. Compliance with the Frac-Out Contingency Plan would reduce potential impacts to *less than significant*.

(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The proposed pipeline alignment will be installed in an existing street and underground. Therefore, installation and operations of the pipeline will not interfere the with movement of resident or migratory wildlife. The reservoir site is currently undeveloped and allows passage of wildlife through the site. Upon completion of the project, the reservoir site will be contained within a chain-link fence that will impede common wildlife (e.g., deer, pig, turkey, etc.) from going through the reservoir site. However, wildlife will be able to go around the fenced area with no limitations. Since wildlife in the area will be able to go around the fenced area, the project's effects on the movement of wildlife in the area are *less than significant* without the need for mitigation.

(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The SWRCB is a state agency that is not subject to local polices or ordinances. However, GSWC and the SWRCB make efforts to consider and comply with local ordinances when feasible. The County incorporated the Grading Ordinance for Native Oak Tree Removal into Chapter 14 of the Santa Barbara County Code. The goal of the Oak Tree Protection and Regeneration Program is to sustain and, where possible, enhance the native oak resources of Santa Barbara County.

In addition, Senate Bill (SB) 1334 protects oak woodlands from conversion. Although SB 1334 largely focuses on the County's implementation of an Oak Woodland Management Plan, oak woodland protection is carried into CEQA as part of PRC Section 21083.4.

There are 43 coast live oak trees in the project area, all of which are adjacent to the Orcutt Hill Road right-of-way. Since the coast live oak trees are located adjacent to the existing Orcutt Hill Road asphalt, it is likely that the trees will not need to be removed to install the pipeline. However, trenching in the road may require the tree roots or select tree branches to be trimmed. Improper trimming or cutting of oak tree branches and roots can result in windthrow, root rot, or branch rot. Mitigation Measure BIO-9, which protects the area inside the dripline of coast live oak trees, and Mitigation Measure BIO-10, which prohibits removal of oak trees greater than five inches diameter at breast height, are included to minimize impacts to coast live oak trees during project implementation and would reduce potentially significant impacts to *less than significant with mitigation*.

(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

GSWC is in the process of preparing and will implement an HCP for potential impacts to CTS. However, the proposed project area is not included in any existing HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP area. Therefore, *no impact* would occur.

Conclusion

The proposed project has the potential to adversely affect one special-status plant species—black-flowered figwort and one special-status animal species—CTS. However, the plants are localized and will be avoided. Mitigation Measures BIO-1 through BIO-3 are provided below to address mitigation for this special-status

plant species. The proposed project has the potential to adversely affect 14 wildlife species and nesting birds: monarch butterfly, CRLF, CTS, Northern California legless lizard, coast patch-nosed snake, Southern California rufous-crowned sparrow, southwestern willow flycatcher, California horned lark, yellow warbler, least Bell's vireo, Townsend's big-eared bat, western red bat, hoary bat, and American badger. Mitigation Measures BIO-1, BIO-2, BIO-4 through BIO-8, BIO-11, and BIO-12 are provided below to avoid or minimize project-related impacts to these resources. The provided measures would serve to avoid impacts to CRLF and monarch butterfly and mitigate potential impacts to the other special-status species to less than significant with mitigation. GSWC is preparing an HCP and seeking ITP coverage under the FESA and CESA for potential impacts to CTS and CTS upland habitat. Mitigation Measure BIO-12 is provided to ensure that GSWC completes the HCP and obtains the ITP for the potential take of CTS and CTS upland habitat resulting from the proposed project. Since the HCP will include measures to fully mitigate the potential impacts to CTS and CTS upland habitat per the requirements of the CESA, implementation of Mitigation Measure BIO-13 would reduce potentially significant impacts to CTS to *less than significant with mitigation*.

The proposed project has the potential to adversely impact wetlands and riparian vegetation during pipeline construction. However, GSWC will be required to enter into a Streambed Alteration Agreement with the CDFW prior to pipeline construction. Compliance with CDFW-required measures will reduce potential impacts to a less-than-significant level. The project has the potential to impact coast live oak trees during construction. However, implementation of Mitigation Measures BIO-9 and BIO-10 would reduce potentially significant impacts to coast live oak trees to a less-than-significant level.

The proposed project is not expected to result in impacts to sensitive communities or conflict with provisions of any resource conservation plans in the area. Although the project would alter wildlife movement through the parcel, it would not prohibit wildlife from moving around the parcel with no limitations, as such impacts to wildlife corridors would be less than significant.

Mitigation Measures

BIO-1 Prior to ground disturbance, the applicant shall retain a qualified biologist to act as an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the development permit measures. The monitor shall be responsible for:

1. ensuring that procedures for verifying compliance with environmental mitigations are implemented;
2. establishing lines of communication and reporting methods;
3. conducting compliance reporting;
4. conducting construction crew training regarding environmentally sensitive areas and protected species;
5. facilitating the avoidance of black-flowered figwort plants;
6. maintaining authority to stop work; and
7. outlining actions to be taken in the event of non-compliance. Monitoring shall be conducted full time during the initial disturbances (site clearing) and be reduced to twice a week following initial disturbances or a frequency and duration determined by the applicant in consultation with the USFWS, CDFW, and SWRCB.

BIO-2 Prior to the commencement of site grading, the environmental monitor shall conduct an environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the special-status species that may occur in

the project area, including black-flowered figwort, California legless lizard, bats, monarch butterfly, CRLF, CTS, and nesting birds. Topics of discussion shall include descriptions of the species' habitats, general provisions and protections afforded by CEQA and the federal and state ESAs, measures implemented to protect special-status species, review of the project boundaries and special conditions, the environmental monitor's role in project activities, lines of communication, and procedures to be implemented in the event a special-status species is observed in the work area.

BIO-3 Black-flowered figwort occurs adjacent to the pipeline alignment. GSWC has designed the project to avoid the black-flowered figwort occurrences. GSWC and their contractors shall avoid the black-flowered figwort occurrences during construction of the project. Avoidance shall be achieved by including the location of the plant occurrences on the project plans and erecting temporary exclusion fencing between the project disturbance area and the occurrences. Prior to the commencement of trenching for the pipeline, the environmental monitor shall coordinate with the project contractors to ensure avoidance of the black-flowered figwort. The monitor shall assist the contractors in identifying the black-flowered figwort occurrences and direct the placement of highly visible exclusion fencing to protect the occurrences from accidental damage. The temporary exclusion fencing shall remain in place and functional throughout the duration of the project.

BIO-4 Prior to any vegetation removal or ground disturbance that occurs during the nesting season (March 1 to September 30), the environmental monitor shall conduct a nesting bird survey no more than two weeks prior to construction to determine presence/absence of nesting birds within the disturbance area. If active nests are observed, work activities shall be avoided within 100 feet of active passerine nests and 300 feet of active raptor nests until young birds have fledged and left the nest. The nests shall be monitored weekly by the biologist with expertise on nesting birds. The buffer may be reduced if deemed appropriate by the environmental monitor. If any state or federal endangered species acts listed bird species or California fully protected bird species are observed nesting in or near the project area, the environmental monitor shall coordinate with GSWC, the SWRCB, the USFWS, and/or the CDFW before any disturbances occur within 500 feet of the nest. Readily visible exclusion zones will be established in areas where nests must be avoided. GSWC shall be contacted if any state or federally listed bird species are observed during surveys. Bird nests, eggs, or young covered by the MBTA and FGC shall not be moved or disturbed until the end of the nesting season or until young fledge, nor will adult birds be killed, injured, or harassed at any time. Pursuant to FGC Section 3503.5, nests of raptors (owls, hawks, falcons, eagles) shall not be removed prior to coordination with and approval from the CDFW.

BIO-5 Three months prior to grading the reservoir site and during site grading, the environmental monitor shall conduct surveys for Northern California legless lizards, coast patch-nosed snake, and other reptiles. The surveyor shall utilize cover board methods in areas of disturbance where reptiles are expected to be found (e.g., under shrubs, other vegetation, or debris). The cover board methods shall commence at least three months prior to the start of construction. The cover boards shall be placed in the disturbance areas three months prior to disturbances. The environmental monitor shall search/survey the cover boards and remove them from the site no more than 48 hours prior to disturbances. All native wildlife that are found under the cover boards shall be relocated out of the project area in adjacent habitat.

Hand search surveys shall be completed during grading activities. During grading activities, the environmental monitor shall walk with the grading equipment to capture reptiles that are unearthed by the equipment. The surveyor shall capture and relocate any reptiles observed during the survey effort. The captured individuals shall be relocated from the construction area and placed in suitable habitat outside of the work area. Following the survey and monitoring efforts, the environmental monitor shall submit a project completion report to GSWC that documents the number of Northern California legless lizards, coast patch-nosed snake, and other reptiles captured and relocated, and the number of reptiles mortally wounded during grading activities.

BIO-6 One living pepper tree and three dead trees will be removed for the project. Tree removal shall be avoided during monarch butterfly fall and winter migration (late October through February) to the greatest extent feasible. If tree removal is necessary during monarch butterfly fall and winter migration, the environmental monitor shall conduct a preconstruction survey for overwintering monarch butterflies in the trees slated for removal. If overwintering monarch butterflies are detected, tree removal shall be postponed until after the overwintering period or until the environmental monitor determines monarch butterflies are no longer utilizing the trees for overwintering.

BIO-7 Prior to removal of any trees for the project, GSWC shall retain an environmental monitor to conduct roosting bat surveys in the trees to be removed. Pre-disturbance surveys for bats shall include two dusk surveys no more than 30 days prior to the tree removal to determine if bats are roosting in the trees. The surveys shall incorporate acoustic survey techniques and determine if bats are roosting in the trees to be removed. If bats are roosting in the trees to be removed, the environmental monitor shall identify the nature of the bat utilization of the trees (i.e., night roost, day roost, or maternity roost). If no roosts are identified, tree removal may proceed without further measures. If a maternity roost is identified in the trees that are slated for removal, removal of the roost tree(s) shall be delayed until the bats have left the area. If a day or night roost is identified in the trees to be removed, tree removal shall be conducted under the supervision of the environmental monitor. During tree removal and where potential bat roosts were identified, the environmental monitor shall be present and tree removal will begin with portions of the tree that do not provide suitable roost habitat (e.g., low limbs lacking forage). Trees will be disassembled at a speed in coordination with the environmental monitor that allows any roosting bats to vacate the tree.

BIO-8 American badgers were not observed in the project area during the surveys. However, the reservoir site supports suitable habitat for American badgers and an individual could have taken occupancy of the site since the surveys were completed. Therefore, this measure is provided to ensure an American badger that may have moved into the site is evacuated prior to grading the reservoir site.

Prior to ground-disturbing activities, the environmental monitor shall conduct a preconstruction survey for American badger dens. The badger survey should be conducted no more than two weeks prior to construction. If the survey results are negative (no badger dens observed), no additional work will be necessary. If the results are positive (badger dens observed), the environmental monitor shall contact GSWC within 24 hours; work in the area shall be delayed until GSWC and the biologist have determined the appropriate steps to avoid or minimize impacts to badgers. The following guidelines for avoiding impacts to badgers should be considered if a den is discovered:

1. If the environmental monitor determines that potential dens are inactive, the biologist shall excavate the dens with a shovel to prevent badgers from reusing them.
2. If the environmental monitor determines that dens may be active, the environmental monitor shall install a game camera for three days and three nights to determine if the den is in use. If the game camera does not capture an individual entering/exiting the den, the den shall be excavated as discussed above. If the camera captures badger use of the den, the environmental monitor shall install a one-way door in the den opening and continue use of the game camera. Once the camera captures the individual exiting the one-way door, the den can be excavated as discussed above.

BIO-9 Construction equipment staging and storage areas shall be located outside of coast live oak tree canopy areas. No construction equipment shall be parked, stored, or operated within the coast live oak tree canopy dripline. No fill soil, rocks, or construction materials shall be stored or placed within the coast live oak tree canopy dripline.

BIO-10 No oak trees over five inches diameter at breast height may be removed. Any roots or branches that are one inch or greater in diameter and require trimming/cutting shall be cleanly cut and sealed.

BIO-11 Initial grading activities within the reservoir site shall occur in the dry season (June 1 to September 30). Initial grading activities in the reservoir site may not occur during the rainy season (October 1 to May 3) or when greater than 0.5 inch of precipitation is forecast to occur within 48 hours of the scheduled grading.

Work shall not occur during rain events, 48 hours prior to significant rain events (>0.5 inch), or during the 48 hours after these events, to the extent practicable. If work must occur 48 hours prior to significant rain events (>0.5 inch), or during the 48 hours after these events, the environmental monitor shall conduct a pre-activity survey to ensure that the work area is clear of CRLF.

Installation of the pipeline under or over the drainages shall be prohibited if ponding water is present in the drainage within 50 feet up- or downstream of the pipeline location. Prior to installation of the pipeline under or over the drainages, the environmental monitor shall survey for CRLF in the drainages within 50 feet up- and downstream of the pipeline location. If any life stage of CRLF is observed, the pipeline installation under or over the drainage shall be delayed until the individuals have left the area on their own accord, or GSWC and the SWRCB have coordinated with the USFWS to determine if impacts to CRLF may occur. Unless previously authorized by the USFWS, CRLF shall not be captured, harassed, or taken during project activities.

If the pre-disturbance survey does not identify CRLF in the drainages, work may proceed, and no further action is necessary.

BIO-12 Prior to initial grading of the reservoir site, the environmental monitor shall conduct pre-disturbance capture and relocation surveys for western spadefoot toad while conducting the CTS capture and relocation surveys (see BIO-13). Small mammal burrows that have potential to be occupied by western spadefoot toad and that occur in the disturbance area shall be excavated using hand tools or through gentle excavation using construction equipment, under the direct supervision of the environmental monitor, until it is certain

that the burrows are unoccupied. For the purposes of this measure, "gentle excavation" is an excavation technique involving slow and shallow single passes with a backhoe/excavator bucket perpendicular to the burrow alignment that allows for burrow inspection for individuals after each pass. Individual western spadefoot toad that are encountered will be relocated out of harm's way.

The environmental monitor shall relocate any western spadefoot toad(s) found within the project footprint to an active rodent burrow system located no more than 300 feet outside of the project area. If an active rodent burrow system is not available within 300 feet of the project disturbance area, the environmental monitor shall create a burrow for the relocated individual. The created burrow may include burying three to four feet of two-inch or greater corrugated polyvinyl chloride (PVC) pipe at a slight downward angle that is closed at the buried end. The individual(s) shall be handled with clean and wet hands. During relocation, they will be placed in a clean, covered plastic container with a wet non-cellulose sponge. Captured individuals shall be relocated immediately; individuals shall not be stored for lengthy periods or in heated areas. The relocation container shall be kept out of direct sunlight.

BIO-13 Development of the reservoir site will result in permanent impacts to CTS upland habitat and has the potential to result in take of CTS. GSWC coordinated with the USFWS and CDFW and has inferred presence of CTS in the project area. Therefore, GSWC shall develop an HCP and obtain an ITP from the USFWS and a CD or a 2081-ITP from the CDFW. The HCP and resulting ITP and CD shall include measures that fully mitigate the potential impacts to CTS and loss of CTS upland habitat. The measures shall be reviewed and approved by the USFWS and CDFW. The CTS minimization measures shall include, but not be limited to, capture and relocation surveys for CTS, installation of exclusionary fencing, seasonal work restrictions, periodic site monitoring, and environmental awareness trainings. Compensatory mitigation for the loss of upland habitat shall include either purchase of CTS credits at an agency-approved mitigation bank or purchase and preservation of lands that support CTS. The proposed project shall not commence until GSWC has consulted with the USFWS and CDFW and obtained an ITP and CD (or 2081-ITP) from the agencies. GSWC shall submit copies of the ITP and CD (or 2081-ITP) to the SWRCB prior to implementing the HCP measures and initiating construction of the project.

BIO-14 Pursuant to the reservoir site easement agreement with the property owner, GSWC must install trees at the front of the tank site to screen the tanks from the remainder of the property. To maintain consistency with the surrounding lands, reduce the need for irrigation, and reduce the potential to alter the upland conditions for local amphibian species, GSWC shall only plant coast live oak trees for the tank screening. The coast live oak trees shall be irrigated with drip (flood or bubbler) irrigation or hand watered for no more than five years. Under no circumstances shall the irrigation system include sprinklers (e.g., fixed spray, gear driven, multiple stream, pop-up, rotary, etc.) or any system that produces a spray that mimics rain conditions. Irrigation lines shall be temporary and installed aboveground.

BIO-15 Prior to project implementation, GSWC shall prepare a brief Erosion Control and Site Restoration Plan that includes the methods and materials required to restore the temporarily disturbed portions of the reservoir site inclusive of earthen stormwater basins. The Erosion Control and Site Restoration Plan shall include finish grading the temporary disturbance areas to match the adjacent undisturbed contours; application of a hydroseed mix that includes soil binding mulch and locally consistent native annual and perennial grasses,

forbs, and shrubs; and a five-year invasive species management plan. GSWC shall implement the Erosion Control and Site Restoration Plan immediately following completion of the water tank installation. GSWC shall implement the invasive species management actions for a minimum of five years.

Sources

California Native Plant Society (CNPS). 2022. Electronic Inventory of Endangered and Rare Plants. Available at: www.cnps.org/. Accessed August 22, 2020 and December 18, 2022.

California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Data Base (CNDDB) Rarefind data output for the USGS 7.5-minute quadrangles: Sisquoc, Twitchell Dam, Orcutt, Lompoc, Santa Maria, Casmalia, and Los Alamos.

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SWCA Environmental Consultants (SWCA). 2020. *Biological Resources Assessment for the Golden State Water Company Kelt Reservoir Project, Orcutt, Santa Barbara County, California*. September 2020.

U.S. Department of Fish and Wildlife (USFWS). 2022. Information for Planning and Conservation (IPaC). Available at: https://ecos.fws.gov/ipac/. Accessed July 20, 2020 and December 18, 2022.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES**				
Would the project:					
(a)	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☒	☐	☐
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
(c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Cultural Resources

Setting

The project site is south of the community of Orcutt in Santa Barbara County. An Archaeological Survey Report (2018) was prepared by SWCA, which included a records search at the Central Coast Information Center (CCIC) of the California Historical Resources Information System (CHRIS), a California Native American Heritage Commission (NAHC) Sacred Lands File search, and an archaeological survey of the project area. The records search encompassed multiple sources of information, including the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California State

Historical Landmarks, California Points of Historical Interest, and California Office of Historic Preservation (OHP) Historic Property Directory and Determinations of Eligibility. The records search indicated four studies had been conducted within a quarter mile of the reservoir site and four historic-era archeological sites had been recorded adjacent to the right-of-way outside the project area. None of the resources are within the project site (Appendix C).

The 2018 field survey confirmed the previously recorded historic-era sites are not in the project footprint and are outside the right-of-way and identified and documented one unrecorded historic-era archaeological in the project footprint of the proposed reservoirs. The site consists of a sparse scatter of historic-era metal, glass, and ceramic fragments. An archaeological evaluation report (SWCA 2020) was prepared that evaluated the site for its eligibility to be listed on the California Register of Historical Resources (CRHR). The report included archival research and an analysis of the artifacts (Appendix C). This evaluation found that the site does not meet the criteria of eligibility for listing on the CRHR. Therefore, the site is not a historical resource pursuant to CEQA nor is it a unique archaeological resource.

Consultation with the Santa Ynez Band of Chumash Indians (SYBCI) who are culturally and traditionally affiliated with the project area, likewise, concluded no known tribal archaeological resources are present in the project site (See Section XVII Tribal Cultural Resources).

Discussion

(a & b) Cause a substantial adverse change in the significance of a historical resource or archaeological resource as defined in § 15064.5?

The CHRIS records search, Sacred Lands File search, field survey, and tribal consultation did not identify historical or unique archaeological resources as defined in § 15064.5 within the project site. The project site has a very low potential of encountering significant subsurface archaeological resources during construction. Nevertheless, ground disturbance associated with construction activities could uncover previously unknown, archaeological deposits. Accidental disturbance of unknown buried archaeological resources is considered a potentially significant impact. Implementation of Mitigation Measure CR-1, provided below, would ensure potential impacts are avoided and/or minimized; therefore, impacts would be *less than significant with mitigation*.

(c) Disturb any human remains, including those interred outside of formal cemeteries?

There are no known sites containing human remains within or near the project area. Further, the NAHC Sacred Lands File search, and tribal consultation did not indicate the presence of known Native American cultural resources or sacred sites in the immediate project area. However, project excavations have the potential to encounter previously unidentified human remains in the form of burials, isolated bones, and bone fragments. If human remains are exposed during construction, California State Health and Safety Code Section 7050.5 stipulates that no further disturbances shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC Section 5097.98. With adherence to California State Health and Safety Code Section 7050.5 as detailed in Mitigation Measure CR-1, impacts related to disturbance of human remains would be *less than significant with mitigation.*

Conclusion

No unique archaeological or historical resources occur within the project area. However, in the event unique archaeological, historical resources, or human remains are discovered during project construction activities, the implementation of mitigation measure CR-1, identified below, would reduce impacts to Cultural Resources to less than significant.

Mitigation Measures

CR-1 In the event that new archaeological resources are discovered during the project, all ground-disturbing activities in the vicinity of the find shall cease, and an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (National Park Service 1983) shall be retained to evaluate the find. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section15064.5 [f]). If the archaeological resource is Native American in origin, the Santa Ynez Band of Chumash Indians will also be notified and shall be provided information and invited to perform a site visit when the archaeologist makes his/her assessment, to provide tribal input on the evaluation.

After the assessment is completed, the archaeologist shall submit a report to the State Water Board describing the significance of the discovery with cultural resource management recommendations. If a resource is determined by the State Water Board, based on recommendations of the qualified archaeologist, and SYBMI as appropriate, to constitute a "historical resource" or "unique archaeological resource", time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2 for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be offered to a public, non-profit institution with a research interest in the materials, such a history museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes. If the find is Native American, the SWRCB, GSWC, and landowner shall, in good faith, consult with SYBCI on the disposition and treatment of any Native American artifacts or other cultural materials encountered during the project.

If human remains are found, State of California Health and Safety Code Section 7050.5 shall be followed.

Sources

National Park Service (NPS). 1983. *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* [As Amended and Annotated]. Electronic document. Available at: http://www.nps.gov/history/local-law/arch_stnds_0.htm. Accessed February 2020.

SWCA Environmental Consultants (SWCA). 2018. *Rice Ranch Road South Parcel Cultural Resource Constraints Analysis, Santa Barbara County, California*. Prepared for Golden State Water Company. October 2018.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY				
Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Energy

Setting

The project is located within Santa Barbara County south of the unincorporated community of Orcutt. The *County of Santa Barbara Energy Element* delineates economic and environmental benefits of alternative energy sources and energy efficiency, and presents specific goals, objectives, policies, and action items (County of Santa Barbara 2015a). Goals presented in the Energy Element include management of energy use from government facilities and operations, buildings, transportation and land use, water use and solid waste, encouragement of development and use of alternative energy sources, development of an incentive plan, interjurisdictional coordination on energy-related planning issues, and implementation and evaluation of Energy Element policies. According to the Energy Element, waste from construction is accountable for 16–26% of solid waste in the county. The Energy Element includes a policy to encourage recycling and reuse of construction waste to reduce energy consumption associated with extracting and manufacturing virgin materials.

In addition, the County Board of Supervisors adopted the *County of Santa Barbara Energy and Climate Action Plan* (ECAP) in May 2015 (County of Santa Barbara 2015b). The ECAP established a goal of reducing greenhouse gas (GHG) emissions in the unincorporated county by 15% below 2007 levels by 2020 and outlined strategies to help reach this goal. The ECAP includes a discussion of topics, including community choice energy, land use design, transportation, built environment, renewable energy, and industrial energy efficiency, and identifies goals for each topic. In addition, the ECAP builds on and incorporates measures from the County's Sustainability Action Plan (SAP) for County operations and the Energy Action Plan (EAP) for County facilities.

Discussion

(a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project includes installation of two new 1-MG water tanks, an access road, and a 1.3-mile pipeline to provide adequate and accessible water supply for the community of Orcutt. The project would require use of construction equipment and would result in vehicle trips generated from the construction crew traveling to and from the project site. These energy uses associated with the construction period would be minor and temporary in nature.

Upon completion of the construction period, the proposed water tanks would be filled and used as water storage for operational, fire, and emergency water supply. The project would improve water supply efficiency in the Orcutt Zone and would result in a negligible increase in vehicle trips for reservoir maintenance. Therefore, the project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation and potential impacts would be *less than significant.*

(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project is part of the GSWC Water Master Plan for the Orcutt System, which has been submitted to the CPUC for approval. The project would improve operational efficiency of the water supply. The project does not propose uses that would generate long-term operational energy demands and would not conflict with or obstruct of a state or local plan for renewable energy or energy efficiency. Therefore, *no impacts* would occur.

Conclusion

The project would not result in a significant energy demand during the construction phase or during operation. The project would increase the overall efficiency of the water supply in the Orcutt/Patterson Zone. The project would not result in a conflict with state or local renewable energy or energy efficiency plans. Therefore, the project would not result in any potentially significant impacts related to Energy and no mitigation measures are necessary.

Sources

County of Santa Barbara. 2015a. *County of Santa Barbara Energy Element*. Adopted 1994, republished June 2015. Available at: https://www.countyofsb.org/plndev/policy/comprehensiveplan/energyelement.sbc. Accessed August 22, 2020.

———. 2015b. *Energy and Climate Action Plan.* May 2015. Available at: https://www.countyofsb.org/sustainability/ecap/. Accessed August 22, 2020.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

VII. GEOLOGY AND SOILS

Would the project:

(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
(ii) Strong seismic ground shaking?	☐	☐	☒	☐
(iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
(iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Geology and Soils

Setting

The project site is located south of the community of Orcutt in unincorporated Santa Barbara County. The project site is located in the Santa Maria Valley just north of the Graciosa Ridge with the Casmalia Hills to the west and the Solomon Hills to the southeast. The Sisquoc River and Sierra Madre are approximately 7.5 miles to the northeast and the Pacific Ocean is approximately 11 miles to the west. (County of Santa Barbara 2020).

Based on the CDOC Earthquake Zones of Required Investigation, the project site is not located within a mapped Alquist-Priolo earthquake hazard zone (CDOC 2020). Based on the *City of Santa Maria General Plan Safety Element* and the U.S. Quaternary Faults Interactive Map (USGS 2020), the project is located in the Casmalia Fault Zone (potentially active) and near the following active fault zones: 6.5 miles northwest of the Alamo Fault, 13.5 miles north of the Santa Ynez River Fault, 27 miles southeast of the Hosgri Fault, and 45 miles southwest of the San Andreas Fault Zone. The project is located in the vicinity of the following potentially active fault zones: six miles northeast of the Lions Head Fault, 7.5 miles southwest of the San Luis Range Fault Zone, 3.5 miles southwest of the Santa Maria Fault, 5.2 miles southwest of the Bradley Canyon, and 38 miles northwest of the Big Pine Fault. The project is located within an area with low potential for liquefaction, low potential for expansive soils, and low-to-moderate potential for landslides (County of Santa Barbara 2015).

The topography on the reservoir site consists of a slightly south to north sloping field east of and below a moderately north/south-trending slope. Two soil types are mapped on the reservoir site (NRCS 2020). Botella loam, 2 to 15 percent slopes is mapped in the northeastern portion of the parcel. This is the flattest area on the parcel and is directly adjacent to Orcutt Hill Road. Botella loam is formed on slightly older alluvial fans and flood plains, usually along narrow valleys cutting through soils on terraces and uplands. It has a loam surface layer and a clay loam subsoil. The soil is well drained with moderately slow permeability. Lopez shaly clay loam, 15 to 75 percent slopes is mapped in the southwestern portion of the site. Lopez soils are formed on tilted and folded bedrock on the Monterey Formation. This is a very steep and somewhat excessively drained soil with low water storage capacity and a depth of between 10 and 20 inches. Erosion hazard is high to very high.

Three soil types underlay the pipeline alignment. Elder sandy loam, 0 to 2 percent slopes, is mapped in the northern portion of the pipeline alignment. Permeability is moderately rapid, surface runoff is slow, and the hazard of wind erosion is moderate. The hazard of water erosion is slight. Elder sandy loam, 2 to 9 percent slopes is mapped in the middle portion of the pipeline alignment. Permeability is moderately rapid, surface runoff is slow, and the hazard of wind erosion is moderate. The hazard of water erosion is slight. Botella loam, 2 to 15 percent slopes is mapped in the southern portion of the pipeline alignment. Permeability is moderately slow, surface runoff is medium to rapid, and the hazard of erosion is slight to moderate.

Discussion

(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

(a-i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Based on the CDOC Earthquake Zones of Required Investigation, the project site is not located within a mapped Alquist-Priolo earthquake hazard zone (CDOC 2020). Based on the *City of Santa Maria Safety Element* and the U.S. Quaternary Faults Interactive Map (USGS 2020), the project is located in the Casmalia Fault Zone (potentially active), and near the following active fault zones: 6.5 miles northwest of the Alamo Fault, 13.5 miles north of the Santa Ynez River Fault, 27 miles southeast of the Hosgri Fault, and 45 miles southwest of the San Andreas Fault Zone. The project is located in the vicinity of the following potentially active fault zones: six miles northeast of the Lions Head Fault, 7.5 miles southwest of the San Luis Range Fault Zone, 3.5 miles southwest of the Santa Maria Fault, 5.2 miles southwest of the Bradley Canyon, and 38 miles northwest of the Big Pine Fault. The project would be required to comply with the California Building Code (CBC) to ensure the effects of a potential seismic event would be minimized to the greatest extent feasible.

Since the project is not located in an identified Alquist-Priolo Zone, the project is unlikely to expose people or structures to the rupture of any known active faults; therefore, impacts would be *less than significant.*

(a-ii) Strong seismic ground shaking?

Seismic ground shaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. The closest major faults to the project property are the San Luis Range Fault, located approximately 7.5 miles southwest, and the San Andreas Fault, located approximately 45 miles northeast. In addition, the project property is within the Casmalia Fault Zone and is proximate to a number of other active and potentially active faults, as listed above. The project site has a 2% chance in 50 years of experiencing a peak ground acceleration of 0.493 gravity (CDOC 2020). This is equivalent to an intensity of VIII on the Modified Mercali Scale and would be expected to be perceived as severe ground shaking and cause moderate to heavy damage. According to *City of Santa Maria Safety Element*, an earthquake measuring 7.2 magnitude on the San Luis Range Fault would be expected to cause severe ground shaking (County of Santa Barbara 2017). The project does not propose structures for human occupancy and the effects of a ground-shaking event would be minimized to the greatest extent feasible through compliance with the CBC. Therefore, the project would not result in exposure of people or structures to substantial adverse effects involving strong seismic ground shaking and impacts would be *less than significant.*

(a-iii) Seismic-related ground failure, including liquefaction?

Liquefaction occurs when strong ground shaking causes saturated soils to lose their strength and behave as a fluid. The project is located within an area with low potential for liquefaction (County of Santa Barbara 2015). The project does not propose structures for human occupancy and the effects of a ground shaking event would be minimized to the greatest extent feasible through compliance with the CBC and current professional engineering standards. Therefore, the project would not result in exposure of people or structures to substantial adverse effects involving seismic-related ground failure, including liquefaction, and impacts would be *less than significant.*

(a-iv) Landslides?

Landslides typically occur in areas with steep slopes or in areas containing escarpments. The reservoir site consists of a slightly south-to-north-sloping field east of and below a moderately north/south-trending slope. Based on the *County of Santa Barbara Seismic Safety and Safety Element*, the project is within an area with low potential for landslides. Proposed grading on-site does not include major cuts into the hillside and would not exacerbate the potential for landslides to occur on-site. The project does not propose structures for human occupancy. Therefore, the project would not result in exposure of people or structures to substantial adverse effects involving landslides and impacts would be *less than significant.*

(b) Result in substantial soil erosion or the loss of topsoil?

The project site is underlain by four soil types, as described above. The pipeline would be primarily constructed under the existing road, in Elder sandy loam and Botella loam soils. Reservoir construction will avoid cutting into the steep slope in the northern portion of the site; therefore, the majority of the reservoir footprint would be underlain by Botella loam, which has a slight to moderate erosion hazard. Botella loam, 2 to 15 percent slopes is mapped in the southern portion of the pipeline alignment and northeastern portion of the reservoir site and is classified as Not Prime Farmland by the NRCS. Permeability is moderately slow, surface runoff is medium to rapid, and the hazard of erosion is slight to moderate

Project construction would result in approximately 6.36 acres of total disturbance, including approximately 2,992 cubic yards of cut and 248 cubic yards of fill material for the construction of a new pipeline, installation of two new water tanks and associated piping, and construction of a new access road. Excess tank overflow and stormwater would be captured in a drainage channel and a series of drainpipes and directed to three catch basins within the access road circling the tanks. Proposed grading activities would not result in substantial cuts into the hillslope onsite or the removal of extensive areas of native vegetation.

The pipeline corridor parallels and crosses Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in four locations. The project proposes to extend the pipeline under the drainages (e.g., through jack-and-bore or HDD techniques) in three locations to avoid the need to trench through these features. At the fourth location, the drainage is 27 feet below the pipeline alignment; therefore, installation of the pipeline over the drainage would not impact the drainage culvert.

As the project will disturb more than one acre of ground, it will be required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) during construction. In addition, Mitigation Measure GEO-1 has been identified to reduce the potential for erosion and sedimentation through implementation of drainage design features and Best Management Practices (BMPs); therefore, impacts would be *less than significant with mitigation.*

(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The proposed project would not be located on an unstable soil or geologic unit or placed in an area that would become unstable and potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse. As previously discussed in *Question a-iii* and *a-iv*, the project is located in an area with low potentials for liquefaction and landslides. The project does not include structures for human occupancy and would not expose people or buildings to liquefaction or any other seismic-related ground failure. Incorporation of current CBC and professional engineering standards would ensure the project is designed to adequately address potential impacts related to unstable geologic units. Therefore, potential impacts would be *less than significant*.

(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Based on the soil descriptions provided by the SCS (SCS 1972), the project would not be located on expansive soils that would create substantial risks to life or property. Incorporation of current professional engineering standards would ensure the project is designed to adequately address potential impacts related to expansive soil conditions. Therefore, potential impacts would *be less than significant.*

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The project does not include installation of a septic tank or connection to a community wastewater service provider. Therefore, *no impacts* would occur.

(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The project site is underlain by gravel and alluvial floodplain deposits, Careaga sand, and the Sisquoc Formation (Dibblee 1989). Cebada sand has abundant fossils locally (Woodring and

Bramlette 1950). There are no known unique paleontological resources or unique geological features located within the project site and the project does not propose substantial deep cuts into the hillside on-site. However, if paleontological resources are encountered during construction activities, Mitigation Measure GEO-2 shall be implemented to reduce potential impacts to less than significant; therefore, impacts related to destruction of a unique paleontological resource would be *less than significant with mitigation.*

Conclusion

Upon implementation of erosion control measures and BMPs as detailed in Mitigation Measures GEO-1 and GEO-2, potential impacts related to soil erosion, loss of topsoil, or paleontological resources would be less than significant. The proposed project would not expose people or structures to risks associated with unstable soil conditions or geologic hazards.

Recommended Mitigation

GEO-1 As part of the SWPPP, prior to project grading and construction activities, the owner/applicant shall prepare an Erosion Control Plan for SWRCB review and approval. This plan shall include the design and installation of erosion control measures and BMPs. These measures shall be listed on all grading and construction plans.

GEO-2 If paleontological resources are encountered during ground-disturbing activities, activities in the immediate area of the find shall be halted and a qualified paleontologist shall be retained to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology.

Sources

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS				
Would the project:				
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Greenhouse Gas Emissions

Setting

GHGs are any gases that absorb infrared radiation in the atmosphere, and are different from the criteria pollutants discussed in Section III, Air Quality, above. The primary GHGs that are emitted into the atmosphere as a result of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. These are most commonly emitted through the burning of fossil fuels (oil, natural gas, and coal), agricultural practices, decay of organic waste in landfills, and a variety of other chemical reactions and industrial processes (e.g., the manufacturing of cement).

Carbon dioxide is the most abundant GHG and is estimated to represent approximately 80–90% of the principal GHGs that are currently affecting the earth's climate. According to the CARB, transportation (vehicle exhaust) and electricity generation are the main sources of GHG in the state.

The passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, recognized the need to reduce GHG emissions and set the GHG emissions reduction goal for the State of California into law. The law required that by 2020, state emissions must be reduced to 1990 levels. This is to be accomplished by reducing GHG emissions from significant sources through regulation, market mechanisms, and other actions. Subsequent legislation (e.g., SB 97, GHG Emissions bill) directed the CARB to develop statewide thresholds.

In December 2008, CARB approved the AB 32 Scoping Plan outlining the state's strategy to achieve the 2020 GHG emissions limit. In April 2015, Governor Edmund G. Brown Jr. also issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030 and directed the CARB to update the AB 32 Scoping Plan to incorporate the 2030 target. Senate Bill (SB) 32, signed by Governor Brown on September 8, 2016, effectively extends California's GHG emission-reduction goals from year 2020 to year 2030. This new emission-reduction target of 40% below 1990 levels by 2030 is intended to promote further GHG-reductions in support of the state's ultimate goal of reducing GHG emissions by 80% below 1990 levels by 2050. SB 32 also directs the CARB to update the Climate Change Scoping Plan to address this interim 2030 emission-reduction target. The CARB has recently prepared a second update to the Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

The vast majority of individual projects typically do not generate sufficient GHG emissions to create a project-specific impact through a direct influence on climate change. Therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" indicates that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (State CEQA Guidelines Section 15355).

The significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). The SBCAPCD proposes GHG thresholds for stationary sources of 10,000 million metric tons of CO_2 equivalent per year ($MMTCO_2e/yr$) (SBCAPCD 2015). In addition, the County Board of Supervisors adopted the ECAP in May 2015 (County of Santa Barbara 2015). The ECAP established a goal of reducing GHG emissions in the unincorporated county by 15% below 2007 levels by 2020 and outlined strategies to help reach this goal.

The *2019 Ozone Plan* is the ninth triennial update to the initial state Air Quality Attainment Plan adopted by the SBCAPCD Board of Directors in 1991 (other updates were completed in 1994, 1998, 2001, 2004, 2007, 2010, 2013, and 2016). The SBCAPCD is currently designated "attainment" for the federal 8-hour ozone standard of 0.070 ppm; therefore, the *2019 Ozone Plan* addresses state ozone standards only and is not currently required to prepare any plans for the federal ozone standard. In determining consistency with the *2019 Ozone Plan*, commercial and industrial projects must be tracked pursuant to the local Congestion Management Plan (CMP), and are determined to be consistent with the *2019 Ozone Plan* if they are consistent with SBCAPCD rules and regulations.

Discussion

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The project consists of construction of a new access road and the installation of two new water tanks and associated piping and drainage basin. No GHG emissions would be generated by the project except during short-term construction activities and very limited long-term maintenance activities. These impacts would be negligible and well under the SBCAPCD GHG thresholds for stationary sources. The project would increase the efficiency of the water supply system in the

Orcutt Zone; therefore, the project would not result in a considerable contribution to cumulative GHG emissions, and potential impacts would be *less than significant.*

(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed project would not generate significant additional long-term vehicle trips or stationary or mobile-source emissions. The project would not conflict with the control measures identified in the ECAP or other state and local regulations related to GHG emissions. The project would increase the efficiency of the water supply system. The project would not conflict with plans and policies adopted for the purpose of reducing GHG emissions, therefore, *no impacts* would occur.

Conclusion

The project would not generate significant GHG emissions above existing levels and would not exceed any applicable GHG thresholds, considerably contribute to cumulatively significant GHG emissions, or conflict with plans adopted to reduce GHG emissions. Impacts would be less than significant, and no mitigation is necessary.

Sources

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	**HAZARDS AND HAZARDOUS MATERIALS**				
Would the project:					
(a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
(b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
(d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
(e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
(f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

Hazards and Hazardous Materials

Setting

Based on a search of the California Department of Toxic Substance Control (DTSC) EnviroStar database and SWRCB Geotracker system, there are no hazardous waste cleanup sites within the project area (DTSC 2020; SWRCB 2020). The project is not located within two miles of any public airport or private airstrip; the nearest airport is the Santa Maria Airport, located approximately four miles northwest of the project site. Vandenberg Air Force Base is located approximately 11.5 miles southwest. The project site is not located within a quarter mile of any school.

The project is located in a High Fire Hazard Severity Zone in a State Responsibility Area and is serviced by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2007; County of Santa Barbara 2015).

Discussion

(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The project consists of construction of a 1.3-mile pipeline under Orcutt Hill Road, a new access road, and the installation of two new water tanks and associated piping and drainage. The project

would not result in the routine transport, use, or disposal of hazardous substances on-site. Any hazardous substances associated with the project construction or maintenance would be transported, stored, and used according to regulatory requirements and existing procedures for the handling of hazardous materials; therefore, impacts would be *less than significant.*

(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction of the proposed project is anticipated to require use of limited quantities of hazardous substances, including gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. Handling of these materials has the potential to result in an accidental release. Construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws. Additionally, the construction contractor would be required to implement BMPs for the storage, use, and transportation of hazardous materials during all construction activities; therefore, impacts would be *less than significant.*

(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The project site is not located within a quarter mile of an existing school; therefore, *no impact* would occur.

(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Based on a search of the DTSC EnviroStar database and SWRCB Geotracker database, there are no hazardous waste cleanup sites within the project area; therefore, *no impact* would occur.

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The nearest public airport to the project property is Santa Maria Airport, located approximately four miles northwest. The project is not located within an airport land use plan or in close proximity to a public airport; therefore, *no impacts* would occur.

(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Implementation of the proposed project would not have a permanent impact on any adopted emergency response plans or emergency evacuation plans. The two proposed 1-MG water tanks would improve the efficiency and reliability of the community of Orcutt's water supply. No breaks in water service would occur as a result of project implementation.

Temporary construction activities and staging would not substantially alter existing circulation patterns or trips, and access to adjacent areas would be maintained throughout the duration of the project. Therefore, the project would not conflict with any regional emergency response or evacuation plans. The project would affect traffic on East Rice Ranch Road and Orcutt Hill Road during construction; however, the project sponsor would be required to obtain an encroachment permit from the County and comply with permit conditions during construction; therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would be *less than significant.*

(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project site is located in a High Fire Hazard Severity Zone. The project would not permanently increase or exacerbate potential fire risks and the project does not propose any design elements that would exacerbate risks during long-term project operation. The project does not include the construction of any structures intended for human occupancy and therefore would not expose project occupants to pollutant concentrations from a wildfire or post-fire risks, such as downstream flooding, landslides, or slope instability. Demolition activities and construction of the new tank at the top of the slope has the potential to result in a short-term increase in wildfire risk as a result of construction activities, the presence of flammable materials, and the lack of vehicular access to the work area and surrounding undeveloped areas. Contractors have Standard Operating Procedures to address fire hazards. Mitigation Measure HAZ-1 (preparation of a Fire Awareness and Avoidance Plan) has been identified to ensure short-term construction-related fire risks are minimized to less than significant. Therefore, potential impacts related to hazards and hazardous materials would be *less than significant with mitigation*.

Conclusion

Upon implementation of mitigation measures AQ-1, AQ-2, and HAZ-1, the project would not result in potentially significant adverse impacts related to Hazards and Hazardous Materials.

Recommended Mitigation

HAZ-1 To minimize potential construction related fire hazards, a Fire Awareness and Avoidance Plan shall be prepared. The plan shall include the following measures:

1. Fire preventative measures addressing cutting, grinding, and welding;
2. Maintaining fire extinguishers in every vehicle on-site and appropriate locations within the work area;
3. Communication with emergency response agencies; and
4. Methods for ensuring compliance with the Santa Barbara County Fire Prevention Ordinance Chapter 15 of the municipal code.

These requirements shall be noted in plan specifications and the Fire Awareness and Avoidance Plan shall be included in the project plans.

Sources

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY				
Would the project:				
(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Hydrology and Water Quality

Setting

The State of California fulfills its responsibility for protection of the quality of water resources through the SWRCB and the Regional Water Quality Control Boards (RWQCBs). Santa Barbara County is located within the jurisdiction of the Central Coast RWQCB. The RWQCBs establish requirements prescribing the quality of point sources of waste discharge, including discharges of municipal wastes, individual industrial waste discharges, and solid waste disposal sites. The Central Coast RWQCB has prepared the *Water Quality Control Plan for the Central Coast Basin* (Basin Plan) (RWQCB 2019) to detail how the quality of surface water and groundwater in the region should be managed to provide the highest water quality reasonably possible. This Basin Plan lists the various Beneficial Uses of water in the region and describes the quality that must be maintained to allow those uses. Under the Basin Plan, the Central Coast RWQCB issued a Phase II General Permit (Order No. 2013-0001-DWQ) in 2013, which requires control and BMPs on construction sites to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality. The County has implemented a Storm Water Management Program to comply with this permit. Under the County's Storm Water Management Program, all construction projects in excess of one acre are required to develop a SWPPP for construction and submit a Notice of Intent (NOI) to the RWQCB. The SWPPP includes BMPs to prevent contaminated stormwater runoff from leaving the site.

The community of Orcutt relies on a combination of groundwater from the Santa Maria Groundwater Basin and State Water Project (SWP) Water from Lake Cachuma (County of Santa Barbara 2019). The California Department of Water Resources (DWR) has designated the Santa Maria Groundwater Basin as high priority under the 2015 Sustainable Groundwater Management Act (SGMA). The basin was adjudicated in 2008 with an amended judgement issued in 2014. Water supply sources for water users in the Santa Maria River Valley Groundwater Basin within Santa Barbara County include both groundwater and imported state water. Surface water stored in Twitchell Reservoir is also used to supplement groundwater recharge to the basin when available.

The proposed project is underlain by the San Antonio Creek Groundwater Basin. The San Antonio Valley is nestled between the Solomon-Casmalia Hills to the north, the Purisima Hills to the south, the Burton Mesa to the west, and the westernmost flank of the San Rafael Mountains to the east. The San Antonio Valley is approximately 130 miles, and the underlying groundwater basin is approximately 110 miles.

The pipeline alignment is within the existing Orcutt Hill Road right-of-way and extends southeast approximately 1.3 miles from the intersection of East Rice Ranch Road to the reservoir site. The pipeline corridor parallels and crosses Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in several locations. The project proposes to extend the pipeline under the drainages (e.g., through jack-and-bore or HDD techniques) in three locations to avoid the need to trench through these features. At the fourth location, the drainage is 27 feet below the pipeline alignment, therefore installation of the pipeline over the drainage will not impact the drainage culvert.

Discussion

(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The project consists of construction of a 1.3-mile pipeline and new access road and the installation of two new water tanks and associated piping and drainage. The new water tanks would connect to the existing water system through the existing pipeline on East Rice Ranch Road and would store water for use by the community of Orcutt. The project does not propose any waste discharge and would not substantially affect water quality; therefore, potential impacts would be *less than significant.*

(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project would address a water storage deficiency for operational, fire, and emergency water storage in the Orcutt Zone, and would improve operational efficiency of the water supply. Approximately 40,000 gallons of water will be needed for construction purposes (compaction) and would be taken from the closest hydrant to the project site (on Rice Ranch Road). Water to fill the new reservoirs would be shifted from other areas in the system. The project would not require drawing additional water to fill the new reservoirs; therefore, the initial fill is not expected to result in substantial drawdown of groundwater levels within the immediate area. The project does not propose increased long-term groundwater pumping; therefore, impacts would be *less than significant.*

(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(c-i) Result in substantial erosion or siltation on- or off-site?

The proposed project would result in approximately 2,992 cubic yards of cut and 248 cubic yards of fill. The project would be required to implement a SWPPP and meet all requirements of the RWQCB for both construction and post-construction runoff control.

Upon completion of project construction, the contractor would restore all disturbed areas to match preconstruction conditions or better, as detailed in the current site plans. The project would not significantly alter any surface drainage patterns to a point that would result in substantially increasing erosion or siltation on- or off-site. Therefore, operational impacts related to erosion or siltation following construction would be *less than significant.*

Jack-and-bore or HDD construction techniques at three locations would avoid impacts related to erosion and sedimentation in Pine Canyon Creek and the unnamed drainage; however, they could result in frac-out into Pine Canyon Creek or the unnamed drainage, which could result in release of drilling fluids (likely water and bentonite clay) into Pine Canyon Creek or the unnamed drainage. Frac-out into an existing drainage would be a potentially significant impact. Prior to project approval, the project would be required to submit a Frac-Out Contingency Plan to the SWRCB. The Frac-Out Contingency Plan would include measures to minimize the potential for frac-out; monitor for hydraulic fracturing during work; detect, contain, and clean up any frac-outs that occur during drilling; and notify appropriate authorities of any frac-outs that may occur. Implementation of a Frac-Out Contingency Plan would ensure impacts related to erosion or siltation would be *less than significant.*

(c-ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

The project includes construction of a drainage system to retain all stormwater runoff on-site. Saw cutting uses water to contain the dust produced during cutting hard surfaces. The water for the cutting blades is minor and does not cause run-off from the site. The water would stay on the road and evaporate. Any increase in surface runoff would be accommodated by planned stormwater drainage systems and the potential for flooding on- or off-site would be negligible. Therefore, impacts related to the increase of the rate or amount of surface runoff would be *less than significant.*

(c-iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The project includes construction of a drainage system to retain all stormwater runoff on-site. Any increase in surface runoff would be accommodated by planned stormwater drainage systems and the project would not create an additional source of polluted runoff. Therefore, impacts related to exceedance of the capacity of stormwater systems or creation of additional polluted runoff would be *less than significant.*

(c-iv) Impede or redirect flood flows?

The pipeline would be installed in the existing Orcutt Hill Road and would not impede or redirect flood flows. There are no drainages in the reservoir site. The proposed project would construct two new 1-MG reservoir tanks and a surrounding access road on-site. Excess tank overflow and stormwater would be captured in a series of drainpipes and directed to three catch basins within the access road circling the tanks. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) indicate there are no floodplains present within the project area and the project property is within an area of minimal flood hazard (FEMA 2018). Therefore, impacts related to impeding or redirecting of flood flows would be *less than significant.*

(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

As described above, the project property is not within or adjacent to a flood zone and is located in an area of minimal flood hazard. Seiches occur as a series of standing waves induced by seismic shaking or landsliding into an impounded body of water. The project is not located in proximity to any impounded body of water that would be subject to seiche. According to the CDOC Santa Barbara County Tsunamic Inundation Maps, the project is located outside of a tsunami inundation zone (CDOC 2018). Therefore, *no impacts* would occur related to risk of release of pollutants due to project inundation.

(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project consists of construction of a new 1.3-mile pipeline and access road and the installation of two new water tanks and associated piping and drainage. The project does not propose any waste discharge and would not substantially affect water quality. The project would add water storage to increase water supply efficiency in the GSWC's Orcutt/Patterson Zone. During operation, the project would not result in regular or substantial pumping of groundwater. Pipeline joints are not coated with concrete. There will be concrete thrust blocks to support the pipe. Concrete waste is not generated when pouring thrust blocks. Typically, the contractor will rinse the concrete chute but would not pour waste concrete on the ground. If concrete needs to be dumped, it will be dumped

into a bagged/plastic-lined box, and the contractor will haul the box away for disposal. Otherwise, concrete waste will not be left on the site. Therefore, the project would not result in a conflict with the Basin Plan or SGMA, and impacts would be *less than significant.*

Conclusion

The project is not located in proximity to any surface water bodies and would not affect quantity or quality of groundwater. The project does not propose alterations to existing water courses or other significant alterations to existing drainage patterns at the project site. The project is not within the 100-year flood zone and would not substantially increase impervious surfaces. The proposed project would not result in a significant adverse impact related to Hydrology and Water Quality. The required SWPPP and Frac-Out Contingency Plan would reduce impacts to less than significant, and no mitigation is necessary.

Sources

California Department of Conservation (DOC). 2018. *Santa Barbara County Tsunami Inundation Maps.* Available at: https://www.conservation.ca.gov/cgs/tsunami/maps/Santa-Barbara. Accessed August 26, 2020

County of Santa Barbara. 2010a. *County of Santa Barbara Conservation Element*. Adopted 1979, amended August 2010. Available at: https://www.countyofsb.org/plndev/policy/comprehensiveplan/conservationelement.sbc. Accessed August 31, 2020.

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Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center. Available at https://msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl_print/mscprint_gpserver/jec8ef9cf5dd64be789332f23d28fc00b/scratch/FIRMETTE_b33c3d96-03f9-4bfb-bedd-88f8cd6fa55d.pdf. Accessed August 27, 2020.

Regional Water Quality Control Board (RWQCB). 2019. *Water Quality Control Plan for the Central Coast Basin.* June 2019 Edition. California Environmental Protection Agency. Available at: https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/docs/2019_basin_plan_r3_complete_webaccess.pdf. Accessed August 22, 2020.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING				
Would the project:				
(a) Physically divide an established community?	☐	☐	☐	☒
(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Land Use and Planning

Setting

The project property is located south of the rural, unincorporated community of Orcutt. The pipeline would be installed under Orcutt Hill Road. The reservoir site is surrounded by open space lands including oil and gas wells and agriculture. The area is generally surrounded by large parcels zoned agriculture.

Discussion

(a) Physically divide an established community?

The project is located in a rural portion of the county surrounded by undeveloped agricultural land and oil and gas wells. The proposed water tank and access road would not result in physically dividing an established community; therefore, *no impacts* would occur.

(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project is located south of the unincorporated community of Orcutt, a small town located south of the city of Santa Maria. The project is located in the Orcutt Community Plan area and is generally consistent with the Orcutt Community Plan, County Land Use Element, and County Seismic Safety and Safety Element, which emphasize the importance of access to fire suppression water supplies, especially in vulnerable areas (State Responsibility Areas and/or Local Responsibility Areas). In December 2017, the County of Santa Barbara Planning and Development Department was solicited for input on the location of the reservoir site. Three potential locations were proposed. The County's preferred location was that which is described herein. Therefore, the project would not result in a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and *no impacts* would occur.

Conclusion

The proposed project would not result in a significant adverse impact related to Land Use and Planning; therefore, no mitigation is necessary.

Sources

County of Santa Barbara. 2015. *Seismic Safety & Safety Element.* Adopted 1979, republished May 2009, amended February 2015. Available at: https://www.countyofsb.org/plndev/policy/comprehensiveplan/safetyelement.sbc Accessed: August 20, 2020.

County of Santa Barbara. 2016. *Land Use Element*. Adopted 1980, amended December 2016. Available at: https://www.countyofsb.org/plndev/policy/comprehensiveplan/landuseelement.sbc. Accessed, August 20, 2020.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES				
Would the project:				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
(b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Mineral Resources

Setting

Three major classes of mineral resources have been found in Santa Barbara County—petroleum and natural gas, mercury (the only metallic mineral resource has not been produced in recent years), and non-metallic resources, including diatomite, limestone, phosphate, rock, sand, and gravel. The project area is adjacent to and north of the Orcutt Oil Fields, which currently extract oil using steam injection techniques. The project site is located in an area zoned MRZ-1 for mineral deposits. MRZ-1 is defined as "areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence".

Discussion

(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Based on information provided by the California Geological Survey (CGS) Information Warehouse, there are no known mineral resources within the project property. The Orcutt Hill Oilfields are adjacent to the property, but installation of two water tanks will not affect oil extraction

in the area. Therefore, *no impacts* would occur related to loss of availability of a known mineral resource.

(b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The *County of Santa Barbara Conservation Element* provides a general map of known mineral resources within the county (County of Santa Barbara 2010). However, because not all known resources have been exploited, these boundaries are considered tentative. The map indicates that the project is generally near the Orcutt Hill Oilfields but is not near and/or within an area that contains rock, sand, or gravel mineral resources. Therefore, *no impacts* would occur related to the loss of availability of a locally important mineral resource recovery site.

Conclusion

No impacts to Mineral Resources would occur as a result of the project, and no mitigation is necessary.

Sources

California Department of Conservation (DOC), California Geological Survey Information Warehouse. 1989. Aggregate Resources and Active Mines of all Other Mineral Commodities. San Luis Obispo-Santa Barbara P-C Region. Special Report 162. Orcutt Quadrangle. Available at: https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc. Accessed August 27, 2020.

County of Santa Barbara. 2010. *County of Santa Barbara Conservation Element.* Adopted 1979, amended August 2010. Available at: https://cosantabarbara.app.box.com/s/t6t55tvyoczghf6gx2kypz7wkao0464z. Accessed August 27, 2020.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE					
Would the project result in:					
(a)	Generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
(b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Noise

Setting

The *County of Santa Barbara Noise Element* was established to develop a statement of public policy to address rising concerns with excessive noise (County of Santa Barbara 2009). The Noise Element identifies major sources of noise, estimates the extent of their impact on the county, and identifies potential methods of noise abatement. The Noise Element defines four noise exposure categories of day-night average sound levels for residential land uses. Average sound volumes of 60 decibels (dB) or less are Normally Acceptable, 55 to 70 dB are Conditionally Acceptable, 70 to 75 dB are Normally Unacceptable, and over 75 dB are Clearly Unacceptable. The Noise Element does not specifically discuss construction noise except to say that a noise control ordinance could impose curfews on evening, nighttime, and early morning work. The County does not have a noise control ordinance that addresses construction work.

Typical construction equipment (e.g., loader, jack hammer, masonry saw) generally ranges from 90–115 A-weighted decibels (dBA) at the source or between 65–90 dBA at 50 feet. By estimating sound dampening over distance, noise produced by construction equipment is generally reduced over distance at a rate of about six dB per doubling of distance.

The pipeline alignment is located within close proximity to several noise-sensitive receptor locations, including single-family residences to the north and east. Residences to the north on East Rice Ranch Road are approximately 40 feet from the pipeline alignment. There are no sensitive receptors in the vicinity of the reservoir site.

Discussion

(a) Generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The project includes construction of a 1.3-mile pipeline and access road and installation of two new water storage tanks. The proposed project does not include any features that would generate a permanent or consistent source of mobile or stationary noise. Upon completion of the construction phase, the project would not create a new permanent stationary noise source or mobile noise source.

Noise generation from the proposed project would be limited to construction activities. Construction noise would be variable, temporary, and limited in nature and duration. Heavy trucks and machinery for grading and excavation, concrete pouring, waste disposal, and other construction activities could generate a significant amount of noise. Approximately 0.3 mile of pipeline would

be constructed within 40 to 100 feet of single-family residences. Due to the pipeline alignment's close proximity to noise-sensitive receptors, noise generated during construction may have the potential to exceed noise thresholds established in the Noise Element. Pipeline construction in the vicinity of residences would be short term. Mitigation Measures NS-1, NS-2, and NS-3 have been identified to ensure construction activities are limited to no more than eight hours during the day, require construction equipment be equipped with appropriate mufflers recommended by the manufacturer, maintain all equipment properly, and maximize distance between noise-generating activities and sensitive receptors to the greatest extent feasible. Reservoir construction will not impact any sensitive land uses. With implementation of these measures, potential impacts would be *less than significant with mitigation.*

(b) Generation of excessive groundborne vibration or groundborne noise levels?

Common sources of groundborne vibrations are trains, buses on rough roads, and heavy construction activities, such as blasting, pile driving, and extensive grading and heavy earthmoving equipment. No blasting or pile driving activities are proposed as part of the project. Groundborne vibrations generally attenuate over 25 feet from the source; there are no sensitive receptors within 25 feet of the project site. Any groundborne vibrations from construction activities would be temporary and short term in nature, and likely imperceptible. Therefore, impacts related to excessive groundborne vibration would be *less than significant.*

(c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project is not located within an airport land use plan or within the vicinity of a public airport or public use airport; therefore, *no impacts* would occur.

Conclusion

The project has the potential to temporarily increase ambient noise levels and/or temporarily exceed noise thresholds as defined in the Noise Element. Mitigation limiting construction hours and requiring construction engines be equipped with appropriate mufflers would reduce potential construction-related impacts to less than significant. No long-term operational impacts related to noise would occur, and no additional mitigation is necessary.

Recommended Mitigation

NS-1 Construction activity within proximity to residential units shall be limited to eight hours between 7:00 a.m. and 7:00 p.m. on weekdays, and between 8:00 a.m. and 6:00 p.m. on Saturdays. No construction shall occur on Sundays or federal or state holidays. Construction equipment maintenance shall be limited to the same hours. Non-noise-generating construction activities without mechanical equipment are not subject to these restrictions.

NS-2 Internal combustion engines shall be equipped with the muffler recommended by the manufacturer. Internal combustion engines shall not be operated on the project site without the appropriate muffler.

NS-3 All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, is generated. Stockpiling and vehicle staging areas shall be located as far as practical from sensitive noise receptors. Every effort shall be made to

create the greatest distance between noise sources and sensitive receptors during construction activities.

Sources

County of Santa Barbara. 2009. *County of Santa Barbara Noise Element*. Adopted 1979. Republished May 2009. Available at: https://www.countyofsb.org/plndev/policy/comprehensiveplan/noiseelement.sbc. Accessed August 22, 2020.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV.	**POPULATION AND HOUSING**				
Would the project:					
(a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
(b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Population and Housing

Setting

The 2010 U.S. Census reported the population of Santa Barbara County to be 427,251, including the eight incorporated cities: Santa Barbara, Goleta, Santa Maria, Lompoc, Carpinteria, Guadalupe, Solvang, and Buellton. The County has prepared the *Housing Element Update 2015-2023*, which assesses the County's current and projected housing needs and provides an inventory of potential building sites available for housing construction. The policies and programs included in the Housing Element are driven by six goals:

1. Enhance the Affordability, Diversity, Quantity, and Quality of the Housing Supply;
2. Promote, Encourage, and Facilitate Housing for Special Needs Groups;
3. Provide Fair and Safe Access to Housing;
4. Preserve the Affordable Housing Stock and Cultivate Financial Resources for the Provision of Affordable Housing in Santa Barbara County;
5. Foster Cooperative Relationships and Efficient Government; and
6. Promote home ownership, owner occupancy, and/or the continued availability of affordable housing units through programs and implementing ordinances for all economic segments of the

population including very-low, low, moderate, and/or workforce income households to assure that existing and projected needs for affordable housing are accommodated in residential development.

The project site is located within the unincorporated community of Orcutt, which had a 2010 population of approximately 28,905 (U.S. Census Bureau 2019).

Discussion

(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The project includes construction of a 1.3-mile pipeline and installation of a new water storage tank and access road to improve water supply efficiency for the existing community. The project would not remove an existing constraints to growth, add housing or employment, or result in population growth in the area directly or indirectly; therefore, *no impacts* would occur.

(b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The project property does not have any existing housing on-site and the project would not displace people or necessitate the construction of replacement housing elsewhere; therefore, *no impacts* would occur.

Conclusion

The proposed project would not result in a significant adverse impact related to Population and Housing. Therefore, no mitigation is necessary.

Sources

County of Santa Barbara. 2015. *Housing Element Update 2015-2023*. Adopted February 3, 2015. Available at: http://www.countyofsb.org/plndev/policy/comprehensiveplan/housingelement.sbc. Accessed August 27, 2020.

U.S. Census Bureau. 2019. *Quick Facts. Orcutt CDP, California*. Available at: https://www.census.gov/quickfacts/orcuttcdpcalifornia. Accessed August 27, 2020.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

Public Services

Setting

The project is located within the community of Orcutt within a State Responsibility Area (SRA) for fire services. The project is located in a High Fire Hazard Severity Zone and would be serviced by Station 21 of the Santa Barbara County Fire Department, which is located approximately 2.1 miles northwest of the reservoir site, and/or Fire Station 26, located 1.9 miles northeast of the reservoir site. The Santa Barbara County Fire Department consists of three battalions, 16 fire stations, and approximately 271 full-time employees, and serves the cities of Buellton, Goleta, and Solvang; private lands; and unincorporated county areas (Santa Barbara County Fire Department 2020).

The Santa Barbara County Sheriff's office provides service to the unincorporated areas of Santa Barbara County. The nearest Sheriff's office is approximately 3.3 miles northwest of the project site in the community of Orcutt (Santa Barbara County Sheriff's Office 2020). The property is located within the Orcutt Union School District (Orcutt Union School District 2020).

Discussion

(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

The proposed project consists of installation of a pipeline and water storage tanks to improve water system efficiency. The project would not induce population growth. Response times within the project area are currently within acceptable levels and would not be substantially affected by project construction or operations. Therefore, the project would not result in an adverse impact associated with the provision of new facilities for fire protection, and impacts would be *less than significant.*

Police protection?

The project would construct a pipeline and two new water storage tanks, which would be a new on-site use. It would not generate substantial long-term increases in demand for police protection or other emergency services. Response times within the project area are currently within acceptable levels and would not be substantially affected by project construction or operations. The project would not require long-term police protection, would not necessitate the construction of new facilities or increase the long-term demand on police protection services, and would not result in extended response times for police protection services. Therefore, impacts associated with police protection facilities and resources would be *less than significant*.

Schools?

The nearest school is Pine Grove Elementary School, located approximately 0.4 mile east of the project site. The project includes installation of two new 1-MG water tanks and an access road that would not directly impact the school and would not result in the generation of additional school children or create an increase in demand for additional school capacity. No school facilities would be displaced as a result of project implementation. Therefore, impacts associated with schools and school facilities would be *less than significant*.

Parks?

The project does not extend through any public parks or recreational area. Pipeline construction would temporarily limit access to parking the Rice Ranch Loop hiking trails (AllTrails.com 2020), part of Orcutt Community Park, but access would be maintained throughout construction and the project would not directly impact these resources. The project would not result in an increase in population and would not place any new or increased demand on existing local or regional park and recreation facilities. Construction of the project would not displace any existing or known proposed recreational facilities. Therefore, impacts related to public park and recreational facilities would be *less than significant*.

Other public facilities?

The project consists of the installation of two new water storage tanks, a pipeline, and an access road. The project would not result in the increased demand or need for expansion of other public services or facilities within the project vicinity. Therefore, *no impacts* would occur related to other public facilities.

Conclusion

The proposed project would not result in a significant adverse impact related to Public Services; therefore, no mitigation measures are necessary.

Sources

AllTrails.com. 2020. Rice Ranch Loop Webpage. Available at: https://www.alltrails.com/trail/us/california/rice-ranch-trail. Accessed August 27, 2020.

Orcutt Union School District. 2020. School Locator Map. Available at: http://www.schoolworksgis.com/OUSD/schoollocator.html. Accessed August 27, 2020.

Santa Barbara County Fire Department. 2020. Overview. Available at: https://www.sbcfire.com/overview. Accessed August 27, 2020.

Santa Barbara County Sheriff's Office. 2019. North County Operations Division. Available at: https://www.sbsheriff.org/command-and-divisions/law-enforcement-operations/north-county-operations-division/. Accessed August 27, 2020.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI.	**RECREATION**				
(a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
(b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Recreation

Setting

The County hosts a number of accessible day use parks, campgrounds, foot trails, and other recreational amenities for public use. The nearest County parks are Orcutt Community Park and Rice Ranch Loop hiking trails. Orcutt Community Park is approximately 480 feet east of the pipeline alignment, and parking for Rice Ranch Loop is adjacent to and west of the pipeline alignment on Orcutt Hill Road.

Discussion

(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The project includes installation of two new water storage tanks, a pipeline, and an access road to improve the efficiency of water supply for the community of Orcutt. The project would not directly or indirectly induce population growth, which may increase the demand for, use of, and deterioration of existing parks and recreational facilities; therefore, *no impacts* would occur.

(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project would not include the construction of recreational facilities or require the construction or expansion of recreational facilities*;* therefore, *no impacts* would occur.

Conclusion

No significant impacts to recreational resources would occur and no mitigation is necessary.

Sources

AllTrails.com. 2020. Rice Ranch Loop Webpage. Available at: https://www.alltrails.com/trail/us/california/rice-ranch-trail. Accessed August 27, 2020.

County of Santa Barbara. 2020. Orcutt Community Park. County of Santa Barbara Parks. Available at http://www.countyofsb.org/parks/day-use/orcutt.sbc. Accessed August 27, 2020.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION/ TRAFFIC**				
Would the project:					
(a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
(b)	Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
(c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
(d)	Result in inadequate emergency access?	☐	☐	☐	☒

Transportation/Traffic

Setting

The project is located on East Rice Ranch Road and Orcutt Hill Road, and the reservoir site is currently accessed from Orcutt Hill Road. East Rice Ranch Road is classified as a Major Collector and Orcutt Hill Road is classified as a local road by the California Highway System (California Department of Transportation [Caltrans] 2020). Orcutt Hill Road is gated south of the community of Rice Ranch. The project reservoir site is currently undeveloped.

Discussion

(a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The proposed project is consistent with applicable local and regional transportation plans including the *County of Santa Barbara Circulation Element* (County of Santa Barbara 2014). Construction-related traffic impacts would be temporary and localized, occurring over the six-month construction period. The project would not result in any road closures or obstruction of alternative transportation infrastructure such as pedestrian walkways, bike paths, or transit stops. Therefore, impacts associated with conflict with local transportation or circulation plans would be *less than significant.*

(b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

State CEQA Guidelines Section 15064.3(b) establishes criteria for analyzing transportation impacts. For land use projects, vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact.

The project would not result in generation of any regular vehicle trips or permanent long-term changes in traffic or circulation. Long-term maintenance activities would not substantially increase traffic trips above those currently used to maintain GSWC facilities; therefore, VMT for those trips would be approximately equal to existing VMT for maintenance of the existing water storage tanks within the GSWC service area. Construction-related traffic would be short term during the six-month construction period. Therefore, the project would not conflict with or be inconsistent with State CEQA Guidelines criteria for evaluating transportation impacts and impacts would be *less than significant.*

(c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project includes construction of a new driveway and access road to the location of the proposed water tanks. The driveway would be sited off Orcutt Hill Road, which is gated in the vicinity of the project. The driveway would be designed to meet appropriate accessway standards and would not introduce a new hazard due to a design feature; therefore, *no impacts* would occur.

(d) Result in inadequate emergency access?

The project would not result in any road closures and the proposed water tank access road has been designed to accommodate access by emergency vehicles, including fire engines, in the event of an emergency. Therefore, *no impacts* would occur related to inadequate emergency access.

Conclusion

The proposed project would not result in significant adverse impacts related to Transportation/Traffic, and no mitigation is necessary.

Sources

California Department of Transportation (Caltrans). 2020. California Highway System Web Map. Available at https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=026e830c914c495797c969a3e5668538. Accessed August 27, 2020.

County of Santa Barbara. 2014. *County of Santa Barbara Circulation Element*. Adopted 1980, republished April 2014. Available at: https://www.countyofsb.org/plndev/policy/comprehensiveplan/circulationelement.sbc. Accessed August 27, 2020.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
(b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Tribal Cultural Resources

Setting

The Archaeological Survey Report (SWCA 2018) prepared for the project included a records search from the CHRIS CCIC, an NAHC Sacred Lands File search, and an archaeological field survey of the project area. No Native American archaeological sites are recorded in the project area, none were found during the survey, and the NAHC Sacred Lands File search resulted in negative findings.

On April 8, 2021, and again on May 7, 2021, a project notification letter with invitation to consult on the project was sent by email to representatives of the Santa Ynez Band of Chumash Indians (SYBCI), the only tribe on the SWRCB's Assembly Bill (AB) 52 list for Santa Barbara County. The SYBCI requested consultation, the cultural resources report, and the draft IS/MND cultural sections in an email. The SWRCB received confirmation of receipt from the SYBCI. The SWRCB contacted the tribal office on June 14, 2021 and a consultation meeting was scheduled for July 23, 2021 between the SYBCI and SWRCB.

The SYBCI representative said the Orcutt area in general has many SYBCI resources but did not identify known tribal cultural resources in the project footprint. He also stated that tribal monitoring would not be required as a pedestrian survey had been completed and asked if the SWRCB would amend CR-1 to allow a SYBCI representative in addition to an archaeological monitor to evaluate any archaeological resources encountered during the project. This request has been incorporated in into mitigation measure CR-1 in Section V. Cultural Resources.

Discussion

(a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

A records search of the CHRIS CCIC, a Sacred Lands File Search from the NAHC, a pedestrian survey, and tribal consultation with the SYBCI were conducted for the project property. The proposed project property does not contain any known tribal cultural resources that have been listed or are eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k). Should new archaeological deposits be discovered during construction that are eligible for listing, mitigation measure CR-1 shall be implemented. Therefore, there impacts to TCRs would be reduced to *less than significant with mitigation incorporated*.

(b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As stated above, there are no known tribal cultural resources within the project area. In the event that tribal cultural resources are encountered during excavation for the project, mitigation measure CR-1, described in Section V. Cultural Resources, will reduce impacts to a less than significant level. Therefore, impacts to tribal cultural resources would be *less than significant with mitigation incorporated.*

Conclusion

No known tribal cultural resources have been identified within the proposed project area, however, there is still a possibility that tribal cultural resources could be discovered during construction. Mitigation Measure CR-1 would reduce this impact to a less than significant level. Therefore, the proposed project would not result in a potentially significant impact to tribal cultural resources. See Mitigation Measure CR-1 in Section V.

Sources

SWCA Environmental Consultants (SWCA). 2018. *Rice Ranch Road South Parcel Cultural Resource Constraints Analysis, Santa Barbara County, California*. Prepared for Golden State Water Company. October 2018.

———. 2020. *Historic Archeological Site Evaluation for the Kelt Reservoirs Project, Orcutt, Santa Barbara County, California.* February 2020.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS				
Would the project:				
(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
(d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair attainment of solid waste reduction goals?	☐	☐	☒	☐
(e) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Utilities and Service Systems

Setting

The project site is located within the community of Orcutt. Orcutt water needs are provided by the project applicant, GSWC, and wastewater needs are met by the Laguna County Sanitation District Wastewater Reclamation Facility under the County Resource Recovery and Waste Management Division. Water delivered to customers in the Orcutt service area comes primarily from local groundwater, which is pumped from the Santa Maria Groundwater Basin through wells operated by GSWC.

Discussion

(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project includes construction of two new 1-MG water storage tanks and a 1.3-mile pipeline to improve the efficiency of the GSWC's Orcutt Zone. The project would not introduce new people or jobs to the area. As described in this Initial Study, the project would have the potential to result in significant environmental effects, and impacts resulting from the project have been evaluated and determined to result in less-than-significant environmental effects with implementation of identified mitigation. Therefore, potential impacts would be *less than significant with mitigation*.

(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The project includes installation of two new 1-MG water storage tanks and a 1.3-mile pipeline to improve the efficiency of the GSWC's Orcutt Zone. The new pipeline would be installed under Orcutt Hill Road to connect the new water tanks to the existing system. Based on the volume of the proposed new tanks, existing water supplies would have adequate capacity for the initial construction and fill of the new water tanks. During operation, the tanks would be used to improve the efficiency of the existing water supply. The project does not propose development that would generate increased demand on water supplies; therefore, impacts would be *less than significant.*

(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project would not include wastewater facilities or create an increase in demand on existing facilities. The site would not require the construction of habitable structures or new restroom facilities. A wastewater treatment provider would not be required to serve the project and the project would not affect the existing commitments of any provider; therefore, *no impacts* would occur.

(d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair attainment of solid waste reduction goals?

Upon completion, operation and use of the project would not generate any solid waste. Construction activities would result in the generation of solid waste materials, including excavated soils, pavement, and trash. Any solid waste generated during the construction period would be taken to the Santa Maria Regional Landfill, which has adequate permit capacity to serve the project. Therefore, impacts related to solid waste generation in excess of local infrastructure capacity would be *less than significant.*

(e) Comply with federal, state, and local statutes and regulations related to solid waste?

As discussed in *Question d* above, any solid waste generated during the construction period would be taken to the Santa Maria Regional Landfill, which has adequate permit capacity to serve the project. Therefore, impacts related to regulations related to solid waste would be *less than significant.*

Conclusion

The project would not generate wastewater during operation or require any changes to wastewater treatment facilities. As described in this Initial Study, the project includes construction of new water facilities and would have the potential to result in significant environmental effects, and impacts resulting from the project have been evaluated and determined to result in less-than-significant environmental effects with implementation of identified mitigation. Therefore, upon implementation of mitigation measures identified in this Initial Study, impacts related to Utilities and Service Systems would be less than significant.

Recommended Mitigation

Implementation of all mitigation measures identified in this Initial Study.

Sources

California Department of Resources Recycling and Recovery (CalRecycle). 2018. *SWIS Facility/Site Activity Details. Santa Maria Regional Landfill (42-AA-0016)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1253?siteID=3284. Accessed August 28, 2020.

County of Santa Barbara. 2020. Laguna County Sanitation District. County of Santa Barbara Resource Recovery and Waste Management Division. Available at: https://www.countyofsb.org/pwd/laguna.sbc. Accessed August 28, 2020.

Golden State Water Company (GSWC). 2020. Santa Maria Customer Service Area. Available at https://www.gswater.com/santa-maria/. Accessed August 28, 2020.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE					
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
(a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
(b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
(c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☒	☐	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Wildfire

Setting

The project is located in a High Fire Hazard Severity Zone in an SRA and is serviced by the Santa Barbara County Fire Department (Santa Barbara County Fire Department 2020). The project property is moderately to steeply sloping and contains a variety of native and non-native vegetation, including brome grassland, coyote brush scrubland, California sage brush scrub, and eucalyptus trees. It is bordered on all sides by large undeveloped parcels with native vegetation and varying slopes. For this geographic region, the windier part of the year lasts for approximately 4.7 months, from February 2 to June 25, and prevailing winds are most often from the west, from May to September, and from the north from September to May (Weather Spark 2020).

Discussion

(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Implementation of the proposed project would not have permanent impact on any adopted emergency response plans or emergency evacuation plans. The proposed 1-MG water tanks would improve the efficiency of the water supply for the community of Orcutt. No breaks in water service or road closures would occur as a result of project implementation; therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and *no impacts* would occur.

(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project does not include construction of any structures for human occupancy and therefore would not result in the exposure of occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; therefore, *no impacts* would occur.

(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project includes installation of two new 1-MG water storage tanks to improve efficiency of the water supply for the community of Orcutt, including water supply for fire suppression. The project would not exacerbate fire risk on-site as a result of long-term operation.

As discussed under Section IX, Hazards and Hazardous Materials, the project would not permanently increase or exacerbate potential fire risks and does not propose any design elements

that would exacerbate risks during long-term project operation. Demolition activities and construction of the new tanks have the potential to result in a short-term increase in wildfire risk; however, implementation of Mitigation Measure HAZ-1 (preparation of a Fire Awareness and Avoidance Plan) has been identified to ensure short-term construction-related fire risks are minimized to less than significant. Therefore, potential impacts related to wildfire risk would be *less than significant with mitigation*.

The project includes installation of municipal water sources that, based on this Initial Study, could result in potential temporary and ongoing impacts to the environment. Mitigation measures identified in this Initial Study would reduce all potential environmental impacts to less than significant. Therefore, impacts related to installation of infrastructure that may result in temporary or ongoing impacts to the environment would be *less than significant with mitigation.*

(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project includes installation of two new water storage tanks for water supply efficiency for an existing community. The project does not include construction of habitable structures and would not expose people or structures to significant risks from post-fire conditions; therefore, *no impacts* would occur.

Conclusion

Implementation of the proposed project would not have a permanent impact on any adopted emergency response plans or emergency evacuation plans or result in the exposure of occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The project includes installation of a new water storage tank for fire protection and emergencies for an existing community, and all potential environmental impacts associated with the installation of this new infrastructure have been evaluated and would be less than significant upon implementation of mitigation measures identified in this Initial Study.

Recommended Mitigation

Implementation HAZ-1 (preparation of a Fire Awareness and Avoidance Plan).

Sources

Santa Barbara County Fire Department. 2020. Overview. Available at: https://www.sbcfire.com/overview. Accessed August 27, 2020.

Weather Spark. 2020. Average Weather in Orcutt, California, United States. Cedar Lake Ventures, Inc. Available at: https://weatherspark.com/y/1267/Average-Weather-in-Orcutt-California-United-States-Year-Round. Accessed August 28, 2020.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
(a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number o restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Mandatory Findings of Significance

Discussion

(a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As discussed in each resource section above, the project has the potential to result in impacts to the habitat of special-status plant and wildlife species. Implementation of Mitigation Measures BIO-1 through BIO-12 would ensure any direct or indirect impacts to special-status plant and wildlife species and nesting birds would be reduced to less than significant. Therefore, impacts would be *less than significant with mitigation*.

(b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The project includes installation of two new water storage tanks, a pipeline, and an access road to increase the efficiency of the existing water system for the community of Orcutt. The project would result in temporary construction-related impacts to aesthetics, air quality, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation/traffic, and wildfire, which have either been determined to be less than significant or would be less than significant upon implementation of mitigation measures identified within this Initial Study. Long-term impacts would be limited to aesthetics only, and, based on the development of the surrounding area, this impact would not be cumulatively considerable. Therefore, cumulatively considerable impacts associated with the project would be *less than significant.*

(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Implementation of the project would result in the short-term generation of air pollutants and temporarily increase noise levels to levels that may exceed established acceptable thresholds at proximate sensitive receptors (residences). Mitigation measures have been developed that would reduce these project-specific impacts to a less-than-significant level; therefore, the project would not result in substantial, adverse environmental effects to human beings, either directly or indirectly, and impacts would be *less than significant with mitigation.*

Conclusion

Based on implementation of mitigation measures identified in each of the sections above, all potential impacts associated with the construction and operation of the proposed project would be mitigated to less-than-significant levels, and no cumulatively considerable impacts would occur.

APPENDIX A

Biological Resources Assessment

Biological Resources Assessment for the Golden State Water Company Kelt Reservoir Project, Orcutt, Santa Barbara County, California

JANUARY 2023

PREPARED FOR

Golden State Water Company

PREPARED BY

SWCA Environmental Consultants

BIOLOGICAL RESOURCES ASSESSMENT FOR THE GOLDEN STATE WATER COMPANY KELT RESERVOIR PROJECT, ORCUTT, SANTA BARBARA COUNTY, CALIFORNIA

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SWCA Project No. 48544.14

January 2023

Reporting Biologist: Travis Belt, SWCA Environmental Consultants

Signature

January 11, 2023

Date

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1 INTRODUCTION

1.1 Purpose of Biological Resources Assessment

SWCA Environmental Consultants (SWCA) has prepared this Biological Resources Assessment (BRA) at the request of Golden State Water Company (GSWC) for the proposed Kelt Reservoir Project (project) in Orcutt, Santa Barbara County, California. The purpose of this BRA is to document the biological resources in the project area and identify impacts to sensitive biological resources that could occur from the proposed project. This analysis was conducted based on the project area that was determined through coordination between SWCA's biologists, SWCA's planners, and the GSWC engineering team. The analysis has taken into consideration biological resources, such as sensitive habitats and plant and animal species, that are known to occur within the vicinity of the project area. For those instances where potential impacts to sensitive biological resources may occur, mitigation measures and best management practices are proposed to avoid or minimize the impacts.

SWCA understands that this BRA would be used by GSWC, the project's planning and design team, the State Water Resources Control Board (SWRCB), and affected federal, state, and/or local agencies during the environmental review process for the proposed project.

1.2 Project Location

The biological study area (BSA) is in Orcutt, Santa Barbara County, California, and includes a 1.2-mile waterline that extends south along Orcutt Hill Road from East Rice Ranch Road and Orcutt Hill Road intersection. The southern terminus of the project study area includes an approximately 2-acre portion of County of Santa Barbara (County) Assessor's Parcel Number (APN) 101-020-078. The project study area is included in Sections 14 and 23, Township 9, and Range 34 west of the Orcutt, California U.S. Geological Survey (USGS) 7.5-minute quadrangle. The latitude and longitude of the central portion of the study area are 34.848755, -120.422700. Figure 1 shows the project vicinity and Figure 2 shows the project study area. Photos of the BSA are included in Appendix A.

1.3 Project Description

GSWC proposes to install a new approximately 1.3-mile water pipeline and two new 1-million-gallon (MG) reservoir water tanks along Orcutt Hill Road near the southern boundary of the community of Orcutt. GSWC proposes to immediately construct the 1.3-mile water pipeline and Tank A, a 1-MG reservoir tank. The reservoir site would also be designed and constructed to facilitate the future construction of Tank B, a second 1-MG reservoir tank located adjacent to Tank A.

As part of GSWC's Water Master Plan (WMP) for the Orcutt System, system storage analyses are conducted to determine if adequate storage is available within the water system. This analysis considers a cumulative look at operational, fire, and emergency storage. The analysis resulted in a storage deficiency of roughly 1.5 MG. The proposed project would remedy the 1.5-MG storage deficiency for the Orcutt Zone, as well as optimize operations within the Orcutt Zone.

1.3.1 Pipeline

The proposed project would install a new water pipeline within Orcutt Hill Road that would connect the proposed Kelt Reservoir to the existing GSWC distribution system. Approximately 1.30 miles of 24-inch transmission pipeline would be installed within the County right-of-way using an open trench method. The trench would be approximately 4 feet wide with a maximum depth of 7 feet.

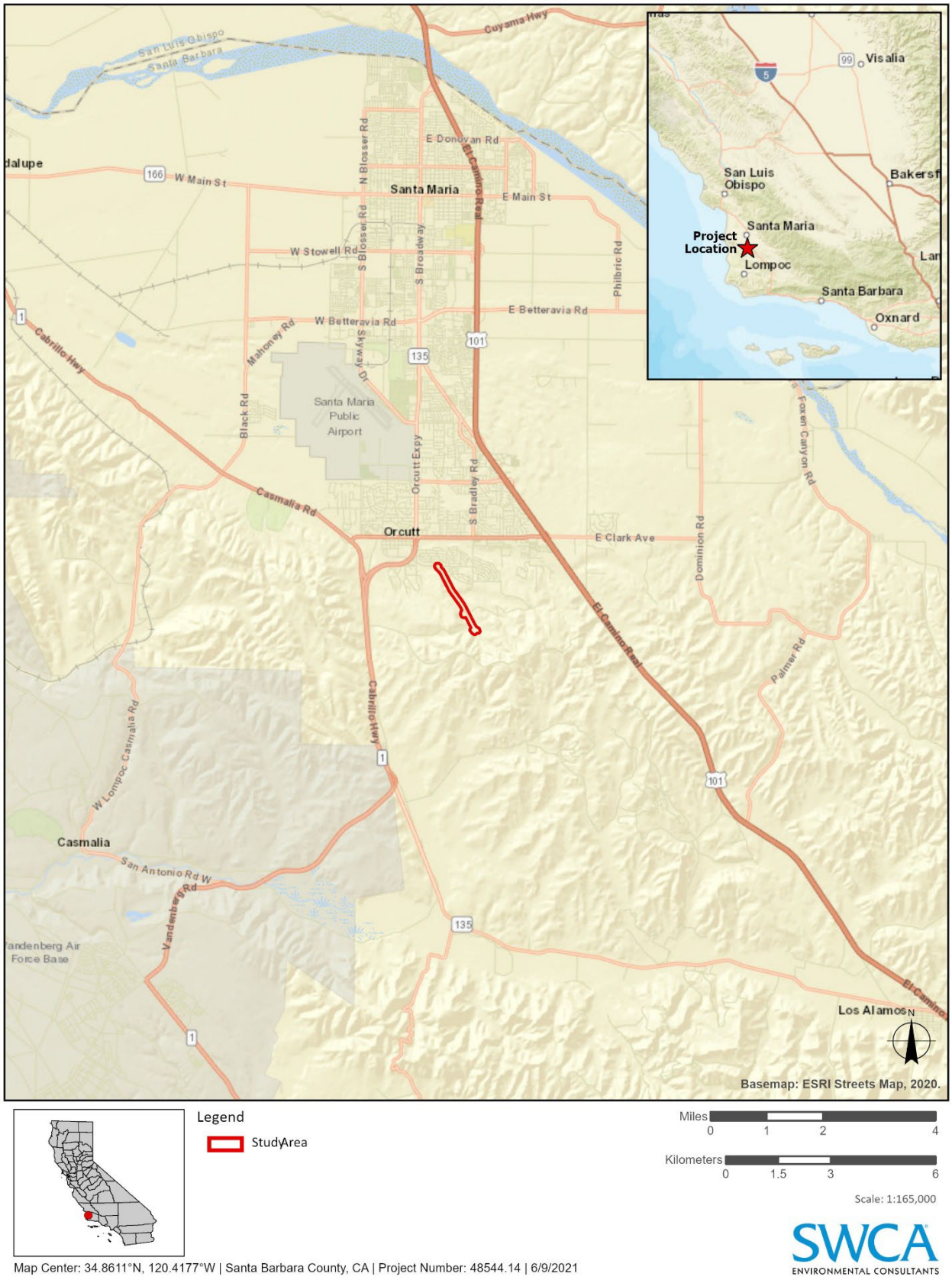

Figure 1. Project vicinity map.

Figure 2. Project location map.

The pipeline alignment is within the existing Orcutt Hill Road right-of-way and extends southeast approximately 1.3 miles from the intersection of East Rice Ranch Road to the reservoir site. The pipeline corridor parallels and crosses Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in several locations. The project proposes to extend the pipeline under the drainages via trenchless techniques (e.g., through jack-and-bore or horizontal directional drilling techniques) to avoid the need to trench through these features. Trenchless pipeline installation methods include excavating a sending pit on one side of the drainage and a receiving pit on the opposite side of the drainage. Specialized equipment is then used to bore the pipeline from the sending pit, under the drainage, and into the receiving pit. The sending and receiving pits would be excavated in the existing road along the same alignment as the rest of the pipeline segments. Trenchless techniques eliminate the need to perform any excavations in the drainages.

1.3.2 Reservoir Site

The project proposes to install two 1-MG reservoir water tanks and an access road on a 2-acre portion of APN 101-010-023. The proposed reservoir site is located within a southeastern portion of the parcel, on the west side of Orcutt Hill Road.

The proposed project includes site design for two new 1-MG steel tank reservoirs at the site. Installation of Tank A would occur immediately upon approval of this project. The site has been designed to accommodate a second water tank, Tank B, which would be constructed at a future date when required by Orcutt area water demand. Each new water tank would be approximately 83 feet in diameter and 30 feet in height. The project would also include the installation of a 15-foot-wide paved access road that would extend from Orcutt Hill Road to the new tank location and chain link fencing surrounding the reservoir site. Tank overflow and stormwater would be captured in a series of drainpipes and directed to three catch basins within the access road circling the tanks. GSWC may install landscape trees around the front of the tank site to screen the tank from the remainder of the property.

1.3.3 Project Construction

Project construction would result in approximately 6.36 acres of total disturbance, including 2 acres of disturbance at the tank site and 4.36 acres within the existing right-of-way along Orcutt Hill Road and East Rice Ranch Road. The proposed project would result in 2,992 cubic yards of cut and 248 cubic yards of fill. Excess cut soils would be hauled off to the closest landfill. The project area would be accessed via existing paved and dirt roads and staging areas, and laydown sites would be located within the reservoir site and an existing laydown area that is used daily by the local oil field operators. Project construction is anticipated to begin in June 2021 and continue for approximately 6 months.

2 METHODOLOGY

2.1 Literature Review

Prior to conducting the field surveys, SWCA conducted a literature review to gain insight on what species have known occurrences in the project vicinity. The review was initiated with a query of the most recent version of the California Natural Diversity Database (CNDDB), maintained by the California Department of Fish and Wildlife (CDFW), to identify reported occurrences of sensitive resources within the following USGS 7.5-minute quadrangles: Sisquoc, Twitchell Dam, Orcutt, Lompoc, Santa Maria, Casmalia, and Los Alamos.

In addition to the CNDDB query, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants of California (CNPS 2020) and the U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation (IPaC) (USFWS 2020) databases were reviewed to provide additional information on rare flora and fauna that are known to occur in the area. At the request of the SWRCB, SWCA conducted updated desktop review and database queries in December 2022 using the methods stated above to provide an updated list and evaluations of special-status species that have been documented to occur in the queried USGS quadrangle maps.

Refer to Appendix B for the updated CNDDB and IPaC data.

2.2 Field Surveys

SWCA conducted field surveys of the BSA on September 7, 2018, and February 10, April 16, and May 19, 2020. The purpose of the field surveys was to: (1) characterize the existing conditions in the BSA; (2) evaluate habitat conditions for special-status wildlife species; (3) determine the presence or absence of sensitive plant species; (4) delineate potentially jurisdictional waters; and (5) identify biological resources that could be impacted by the proposed project. During all surveys, SWCA inventoried the botanical resources observed in the BSA using dichotomous keys as necessary (Baldwin et al. 2012). The surveys were scheduled to correlate with the blooming period of those rare plant species with potential to occur in the BSA. Wildlife species were documented based on visual observation, auditory cues (i.e., calls and songs), and indirect signs (e.g., tracks, scat, skeletal remains, burrows, etc.). A list of species observed is included in Appendix C.

A delineation of potentially jurisdictional waters was conducted in the BSA. The delineation was conducted in the beginning of the growing season, and as such, the field conditions were indicative of spring following winter rains. The Aquatic Resources Delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (U.S. Army Corps of Engineers [USACE] 2008), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (Lichvar and McColley 2008). The Aquatic Resources Delineation is included as Appendix D.

3 RESULTS

The 21.5-acre BSA includes a 50-foot corridor that is centered on Orcutt Hill Road and terminates at the proposed reservoir site at the southern end of the study area. Orcutt Hill Road travels north to south from East Rice Ranch Road to the footslope Solomon Hills area (see Figure 2). At the East Rice Ranch Road intersection with Orcutt Hill Road (northern end of the alignment) residential development exists on the north side of East Rice Ranch Road and the east side of Orcutt Hill Road. Open space occurs on the south side of East Rice Ranch Road and the west side of Orcutt Hill Road. The open space includes an unnamed creek (herein referred to as Pine Canyon Creek), which supports arroyo willow (*Salix lasiolepis*) thicket.

The project corridor is within and adjacent to the existing Orcutt Hill Road right-of-way. With exception to the residential community discussed above, the project corridor is bordered by undeveloped lands. The undeveloped lands include established but unpaved parking areas, equipment staging areas, borrow pits, landscape areas, and cattle lands. These areas include a variety of vegetative communities, including but not limited to, ruderal vegetation, arroyo willow thicket, eucalyptus woodland, California sagebrush scrub, annual brome grassland, and coyote brush scrub. The project corridor parallels and crosses Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in several locations.

The proposed reservoir site is at the southern terminus of the project corridor and includes a 2.17-acre polygon on the south side of Orcutt Hill Road. The elevation of the reservoir site is approximately 500 feet above mean sea level, and the topography is gently sloping to the east. A steep northeast-facing slope borders the southeastern side of the reservoir site, and a west facing slope borders the east side of the reservoir site. A small remnant asphalt road traverses the eastern border of the reservoir site. The road appears to have been long abandoned and is partially overgrown with pioneering vegetation.

The vegetation types in the reservoir site include annual brome grassland at Orcutt Oil Field Road and extending into the central portion of the site, coyote brush scrub in the southern portion of the site and California sagebrush scrub on the bordering slopes. Several mature eucalyptus (*Eucalyptus* spp.) trees occur in the annual brome grasslands. Coyote brush (*Baccharis pilularis* ssp. *consanguinea*) is the dominant species in the reservoir site. This species commonly establishes in sites following disturbances. The presence of this habitat type in combination with the remnant asphalt road indicates that the lands in the reservoir site were subject to clearing activities at one time.

3.1 Soils

The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) maps the following soil types in the BSA:

- Botella loam, 2 to 15 percent slopes, eroded in the BSA. Botella loam occurs in valleys along toeslopes. Its parent material is alluvium derived from acidic sandstone and shale.
- Elder sandy loam, 0 to 2 percent slopes and 2 to 15 percent slopes. Elder sandy loam occurs in alluvial fans along footslopes. Its parent material is alluvium derived from acidic sandstone and shale.
- Terrace escarpments, sandy. This sandy soil occurs on escarpments and is derived from sandy alluvium.

3.2 Vegetation

The BSA includes a mix of eucalyptus woodland, arroyo willow thickets, coyote brush scrub, coastal sage scrub, ruderal, and nonnative annual grasslands. These plant communities are shown on Figures 3 through 5 and discussed below.

3.2.1 Eucalyptus Groves

Eucalyptus (*globulus, camaldulensis*) Semi-natural Woodland Stands (Eucalyptus groves) are present along the pipeline corridor and in the reservoir site. Eucalyptus groves include stands of blue gum eucalyptus (*Eucalyptus globulus*) or other *Eucalyptus* species. Blue gum eucalyptus is the most common eucalyptus species along the central coast. In some areas, blue gum eucalyptus stands occur as planted windrows, and in other areas this species has spread into and replaced native plant communities (Holland and Keil 1995).

Eucalyptus trees produce allelopathic (or toxic) effects on understory vegetation. Very few other plant species can grow in eucalyptus forested areas, and the understory is often sparse. The California Invasive Plant Council (Cal-IPC) lists three eucalyptus species on its invasive plant inventory list. On the central coast, eucalyptus stands provide overwintering roosting habitat for monarch butterflies (*Danaus plexippus*), a species whose natural roosting habitat has been dramatically reduced. Eucalyptus trees may also provide habitat for various bird species.

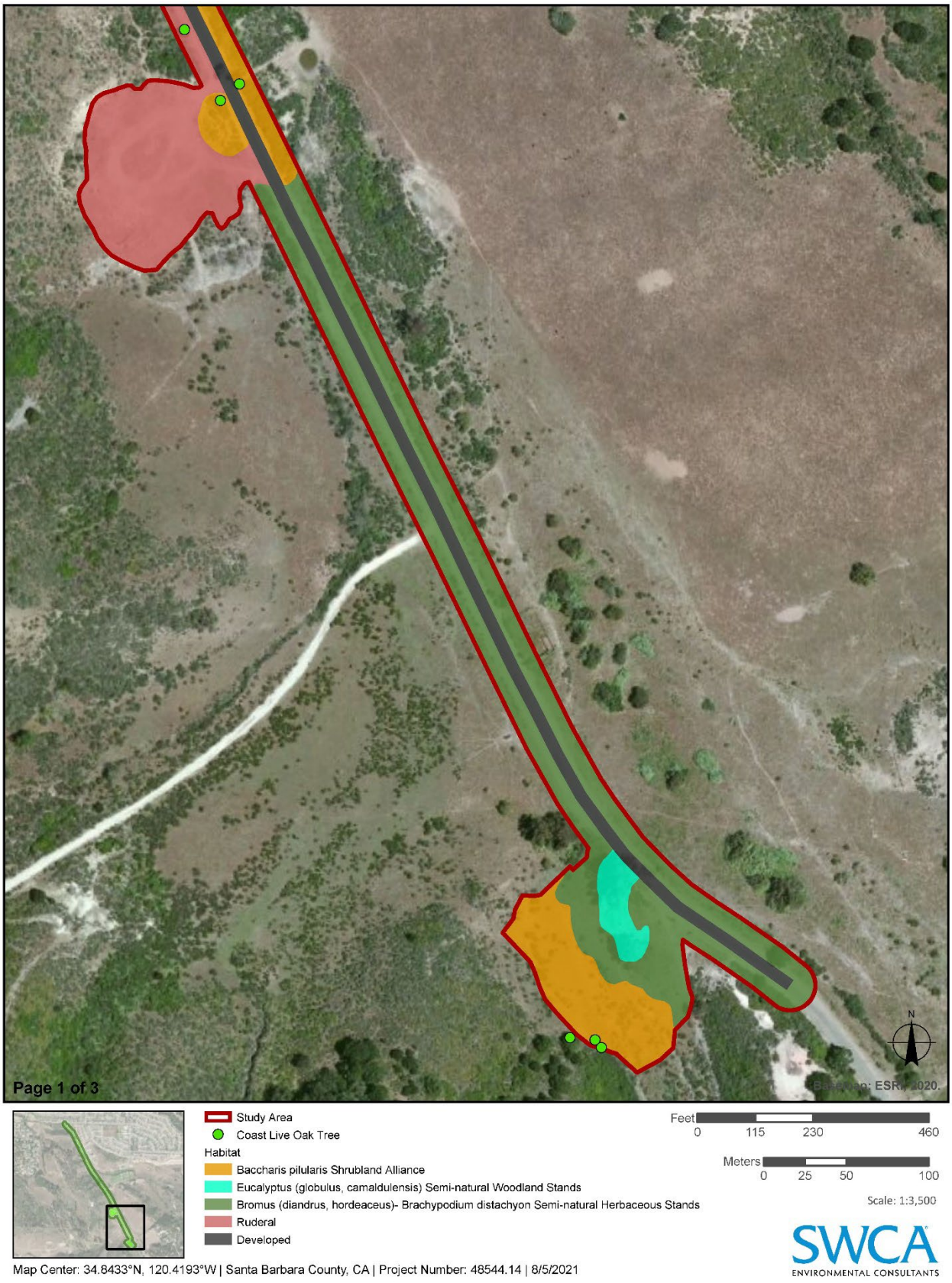

Figure 3. Habitat map (page 1 of 3).

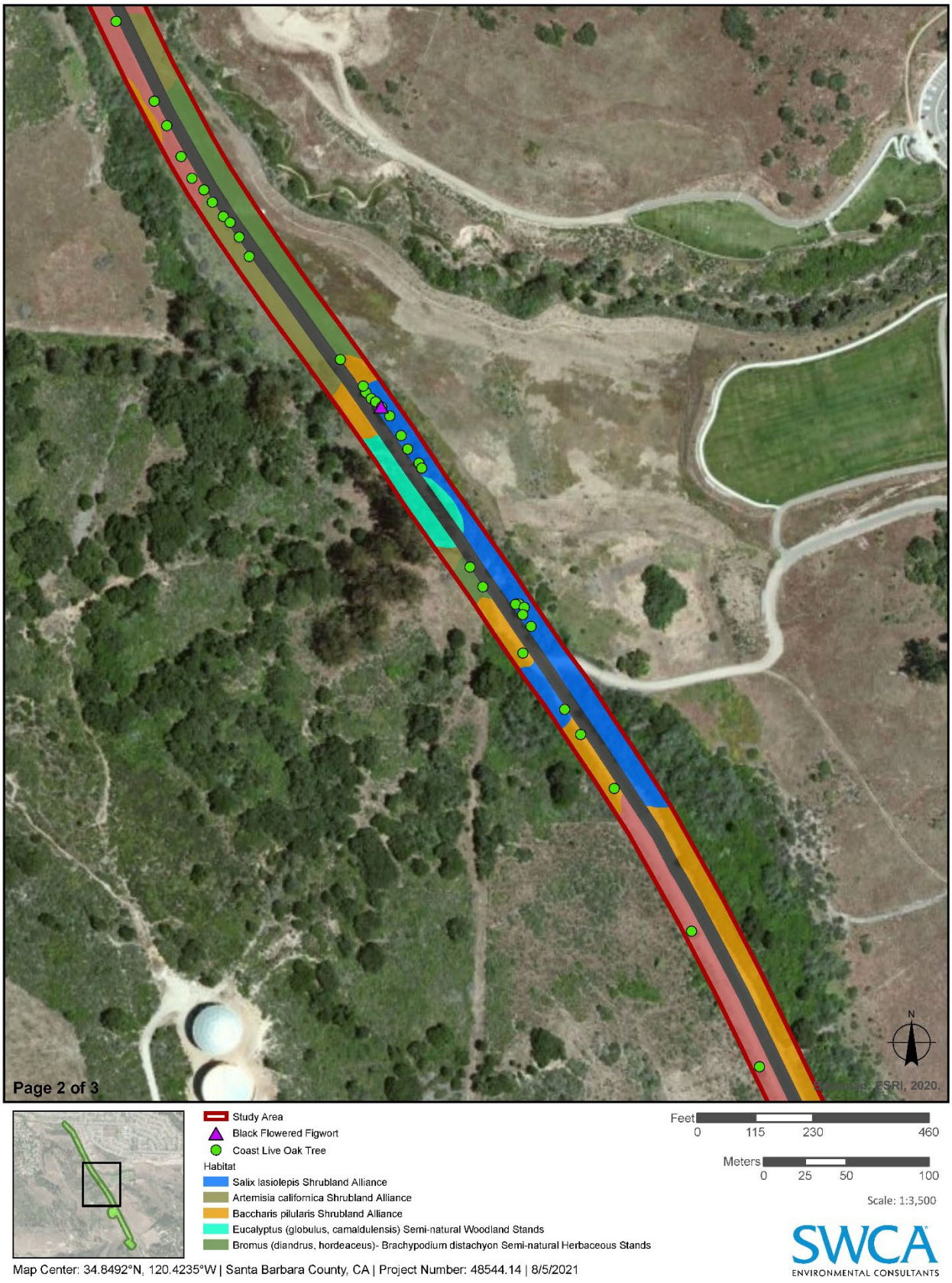

Figure 4. Habitat map (page 2 of 3).

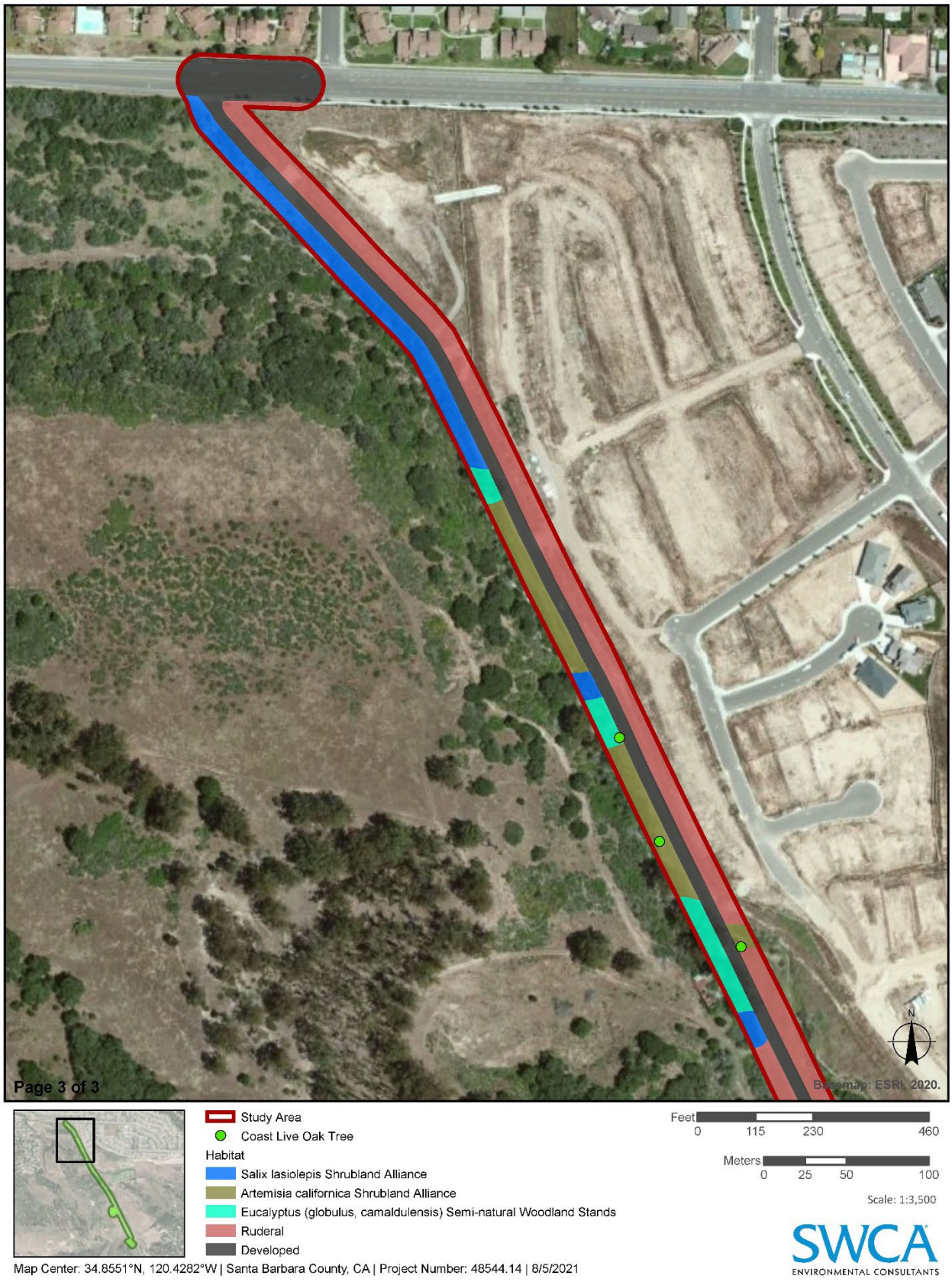

Figure 5. Habitat map (page 3 of 3).

3.2.2 Arroyo Willow Thicket

Salix lasiolepis Shrubland Alliance (Arroyo willow thickets) are similar in definition to central coast riparian scrub. Arroyo willow thickets consist of scrubby streamside thickets that are dominated by arroyo willow (Sawyer et al. 2009). The thickets vary in density from partially open to impenetrable. The understory commonly supports species such as California blackberry (*Rubus ursinus*) and stinging nettle (*Urtica dioica*) in drier sites, and cattail and rushes in mesic (moist) sites. Arroyo willow thickets occur on many soil types, including sand and gravel bars in areas close to groundwater or surface water.

3.2.3 Coyote Brush Scrub

Baccharis pilularis Shrubland Alliance (Coyote brush scrub) is similar in definition to central coastal scrub. Coyote brush scrub is a shrubland community that is dominated by coyote brush and includes other scrub species at lesser densities. The coyote brush scrub in the BSA has occurrences of poison oak (*Toxicodendron diversilobum*), California sagebrush (*Artemisia californica*), and mock heather (*Ericameria ericoides)*. This community is indicative of disturbed places that are in the process of being recolonized by native shrubs. The reservoir site supports dense coyote brush scrub, as does portions of the waterline alignment.

3.2.4 California Sagebrush Scrub

Artemisia californica-Salvia mellifera Shrubland Alliance (California sagebrush-black sage scrub) generally supports shrubs that are 1–2 meters high, typically characterized by California sagebrush, black sage (*Salvia mellifera*), and sticky monkeyflower (*Diplacus aurantiacus*). The California sagebrush scrub in the BSA is dominated by California sagebrush and includes coyote brush and black sage. The understory is sparse and includes species such as native and nonnative annual grasses and coast morning-glory (*Calystegia macrostegia*). Coastal scrub provides habitat for a number of wildlife species, including western fence lizard (*Sceloporus occidentalis*), various bird species, small rodents such as deer mice (*Peromyscus* spp.) and rabbits (*Sylvilagus* spp.).

3.2.5 Annual Brome Grassland

Bromus (*diandrus, hordeaceus*)-*Brachypodium distachyon* Semi-Natural Herbaceous Stands (annual brome grasslands) occur adjacent to the pipeline alignment and in the understory at the reservoir site. Annual brome grasslands typically include a composition of both nonnative and native grasses but are dominated or co-dominated by ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), and false brome (*Brachypodium distachyon*). In the BSA, patches of slender oat (*Avena barbata*), Italian rye grass (*Festuca perennis*), purple needlegrass (*Stipa pulchra*), and foxtail barley (*Hordeum murinum*) are present within the annual brome grasslands. Annual brome grassland communities are often associated with numerous species of wildflowers, especially in years of favorable rainfall. Germination occurs with the onset of late fall rains, and growth, flowering, and seed-set occurs from winter through spring. The plants typically die during the summer-fall dry season and persist as seeds until the growing season.

3.2.6 Ruderal

Ruderal habitats often occur in abandoned agricultural fields, along roadsides, near developments, and in other areas experiencing severe ground surface disturbance. This vegetation type is dominated by weedy species. Common plant species found in ruderal areas include poison hemlock (*Conium maculatum*), perennial veldt grass (*Ehrharta calycina*), ripgut brome, sea fig (*Carpobrotus chilensis*), perennial mustard (*Hirschfeldia incana*), sweet fennel (*Foeniculum vulgare*), castor bean (*Ricinus communis*), wild oat (*Avena fatua*), Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis*), Canada

horseweed (*Erigeron canadensis*), and bristly oxtongue (*Helminthotheca echioides*). Ruderal vegetation is widespread along the pipeline alignment adjacent to Orcutt Hill Road. The existing staging area also includes patches of ruderal vegetation but largely consist of bare ground due to the heavy equipment traffic.

3.3 Special-Status Species

The following describes those sensitive biotic resources that have been documented within the reviewed USGS quadrangles.

3.3.1 Special-Status Plant Species

For the purposes of this section, special-status plant species are defined as the following:

- Plants listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (Code of Federal Regulations [CFR] Title 50, Section 17.12 for listed plants and various notices in the *Federal Register* for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the ESA.
- Plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (State CEQA Guidelines Section 15380).
- Plants considered by CNPS to be "rare, threatened, or endangered" in California (CNPS Ranks 1, 2, and 3).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (CNPS Rank 4).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (California Code of Regulations [CCR] Title 14, Section 670.5).
- Plants listed under the California Native Plant Protection Act of 1977 (NPPA) (California Fish and Game Code [CFGC] Section 1900 et seq.).
- Plants considered sensitive by other federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state and local agencies, or jurisdictions.

Based on the literature review for this project, a total of 37 special-status plant species have been documented in the queried quadrangles (Table 1). Because the plant list presented in Table 1 is regional, SWCA evaluated the listed species to identify which special-status plant species have the potential to occur in the BSA. SWCA compared the known habitat requirements of those 37 species to the BSA's existing conditions, elevation, and soils. The analysis determined that the BSA supports at least marginal conditions for 21 of the evaluated plant species (see Table 1). Only one of these 21 plant species was observed in the BSA.

Three individuals of black flowered figwort (*Scrophularia atrata*) were observed on the bank of the unnamed drainage on the east side of Orcutt Hill Road (see Figure 3). The three individuals are in a tight group and nestled under and against a large coast live oak (*Quercus agrifolia*) tree (see Appendix A: Photos A-12 and A-13). Project activities in this location will be confined to the road surface and will not affect the occurrences. An avoidance measure is provided to ensure that project activities avoid the black flowered figwort occurrences.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Hoover's bent grass *Agrostis hooveri*	Occurs in sandy sites in chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 60–600 meters.	April–July	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
Santa Ynez groundstar *Ancistrocarphus keilii*	Annual herb that occurs in sandy soil among chaparral and cismontane woodland. Known only from the Santa Ynez River drainage. Elevation: 40–130 meters.	March–April	--/--/1B.1	**Suitable Conditions Present; Species Absent:** The BSA does not occur in the Santa Ynez River drainage. Species not observed in the BSA during surveys conducted in the appropriate season.
aphanisma *Aphanisma blitoides*	Annual herb in the Chenopodiaceae family. Occurs in coastal bluff scrub, coastal dunes, and coastal scrub. Found in sandy or clay soil. Elevation: 1–305 meters.	March–June	--/--/1B.2	**Suitable Conditions Absent; Species Absent:** The BSA is not located on coastal bluff or dune habitat. Species not observed in the BSA during surveys conducted in the appropriate season.
Eastwood's brittle-leaf manzanita *Arctostaphylos crustacea* ssp. *eastwoodiana*	Perennial evergreen shrub that occurs on sandy maritime soils in chaparral. Only known from Santa Rosa Island. Elevation: 60–500 meters.	March	--/--/1B.1	**Suitable Conditions Absent; Species Absent:** The BSA is not on the Channel Islands. Species not observed in the BSA during surveys conducted in the appropriate season.
La Purisima manzanita *Arctostaphylos purissima*	Perennial evergreen shrub that occurs in sandy soil among chaparral and coastal scrub. Elevation: 60–390 meters.	November–May	--/--/1B.1	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
sand mesa manzanita *Arctostaphylos rudis*	Evergreen shrub that occurs in maritime chaparral and coastal scrub with sandy soils. Elevation: 25–322 meters.	November–February	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
Refugio manzanita *Arctostaphylos refugioensis*	Occurs in chaparral and sandstone. Elevation: 300–800 meters.	December–May	--/--/1B.2	**Suitable Conditions Absent; Species Absent:** The elevation of the BSA is lower than the range of this species. Species not observed in the BSA during surveys conducted in the appropriate season.
marsh sandwort *Arenaria paludicola*	Occurs in marshes and swamps, and grows through dense mats of *Typha*, *Juncus*, *Scirpus*, etc. in freshwater marsh. Elevation: 10–170 meters.	May–August	FE/SE/1B.1	**Suitable Conditions Absent; Species Absent:** The BSA does not support freshwater marsh habitat. Species not observed in the BSA during surveys conducted in the appropriate season.
Miles' milk-vetch *Astragalus didymocarpus* var. *milesianus*	Annual herb that occurs in coastal scrub on clay soils. 20–90 meters.	March–June	--/--/1B.2	**Suitable Conditions Absent; Species Absent:** The BSA does not include clay soils. Species not observed during survey conducted in the appropriate period.
Santa Barbara ceanothus *Ceanothus impressus* var. *impressus*	Perennial shrub that occurs in chaparral on sandy soils. Elevation: 40–470 meters.	February–April	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
coastal goosefoot *Chenopodium littoreum*	Annual herb that occurs on coastal dunes. Elevation: 10–30 meters.	April–August	--/--/1B.2	**Suitable Conditions Absent; Species Absent:** The BSA does not occur on coastal dunes. Species not observed in the BSA during surveys conducted in the appropriate season.
Bolander's water-hemlock *Cicuta maculata* var. *bolanderi*	Perennial herb that occurs in marshes and swamps and coastal, fresh, or brackish water. Elevation: 0–200 meters.	July–September	--/--/2B.1	**Suitable Conditions Absent; Species Absent:** The BSA does not support marsh habitat. Species not observed in the BSA during surveys conducted in the appropriate season.
La Graciosa thistle *Cirsium loncholepis*	Occurs in coastal dunes, brackish marsh, riparian scrub, and sandy wet areas. Elevation: 5–185 meters.	May–August	FE/ST/1B.1	**Suitable Conditions Absent; Species Absent:** Although the sandy soil is appropriate, the BSA does not support brackish wet areas or coastal dunes. Species not observed in the BSA during surveys conducted in the appropriate season.
surf thistle *Cirsium rhothophilum*	Occurs in coastal dunes, coastal bluff scrub, and open areas in central dune scrub; usually in coastal dunes. Elevation: 3–60 meters.	April–June	--/ST/1B.2	**Suitable Conditions Absent; Species Absent:** The BSA does not contain coastal dunes and is not coastal. Species not observed in the BSA during surveys conducted in the appropriate season.
California sawgrass *Cladium californicum*	Rhizomatous herb That occurs in meadows and seeps, and marshes and swamps (alkaline or freshwater). Elevation: 60–600 meters.	June–September	--/--/2B.2	**Suitable Conditions Present; Species Absent:** A small wetland occurs at the northern end of the BSA; the project will avoid the wetland. Species not observed in the BSA during surveys conducted in the appropriate season.
seaside bird's beak *Cordylanthus rigidus* ssp. *littoralis*	Annual herb that occurs in closed-cone coniferous forest, chaparral, cismontane woodland, coastal dunes, and coastal scrub with sandy soils; often found in disturbed sites. Elevation: 0–425 meters.	April–October	--/SE/1B.1	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
Gaviota tarplant *Deinandra increscens* ssp. *villosa*	Annual herb in the Asteraceae family that occurs in coastal bluff scrub, coastal scrub, and valley and foothill grassland; typically associated with sandy soils. Elevation: 35–430 meters.	May–October	FE/SE/1B.1	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
dune larkspur *Delphinium parryi* ssp. *blochmaniae*	Perennial herb that occurs in maritime chaparral and coastal dunes with sandy or rocky soils. Elevation: 0–200 meters.	April–May	--/--/1B.2	**Suitable Conditions Absent; Species Absent:** The BSA does not support maritime chaparral of coastal dunes. Species not observed in the BSA during surveys conducted in the appropriate season.
Vandenberg monkeyflower *Diplacus vandenbergensis*	Annual herb that occurs in sandy soil among chaparral, cismontane woodland, and coastal dunes. Elevation: 60–120 meters.	April–June	FE/--/1B.1	**Suitable Conditions Absent; Species Absent:** The BSA does not support the appropriate habitat and is not on coastal dunes. Species not observed in the BSA during surveys conducted in the appropriate season.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
beach spectaclepod *Dithyrea maritima*	Occurs in coastal dunes and coastal scrub, and on seashores, sand dunes, and sandy places near the shore. Elevation: 3–50 meters.	March–May	--/ST/1B.1	**Suitable Conditions Absent; Species Absent:** The BSA is not on the seashore. Species not observed in the BSA during surveys conducted in the appropriate season.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	Occurs in coastal scrub, chaparral, and valley and foothill grassland habitats on rocky outcrops in clay or serpentine soils. Elevation: 5–450 meters.	April–June	--/--/1B.1	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
Blochman's leafy daisy *Erigeron blochmaniae*	Perennial rhizomatous herb that occurs in coastal dunes and coastal scrub on sandy soils. Elevation: 3–45 meters.	July–August	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
Lompoc yerba santa *Eriodictyon capitatum*	Evergreen shrub that occurs in closed-cone coniferous forest and maritime chaparral with sandy soil. Elevation: 40–900 meters.	May–August	FE/SR/1B.1	**Marginal Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
mesa horkelia *Horkelia cuneata* ssp. *puberula*	Perennial herb that occurs in chaparral, cismontane woodlands, and coastal scrub; in sandy or gravelly sites. Elevation: 70–810 meters.	February–September	--/--/1B.1	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
Kellogg's horkelia *Horkelia cuneata* ssp. *sericea*	Perennial herb that occurs in closed-cone coniferous forest, maritime chaparral, and coastal scrub with sandy or gravelly openings. Elevation: 10–200 meters.	April–September	--/--/1B.1	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
beach layia *Layia carnosa*	Annual herb that occurs in coastal dunes and coastal scrub on sandy soils. Elevation: 0–60 meters.	March–July	FT/SE/1B.1	**Suitable Conditions Absent; Species Absent:** The BSA is not located on the coast and is at a higher elevation than the range of this species. Species not observed in the BSA during surveys conducted in the appropriate season.
Pale yellow layia *Layia heterotricha*	Annual herb that occurs in cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland; usually associated with alkaline or clay soils. Elevation: 300–1,705 meters.	March–June	--/--/1B.1	**Suitable Conditions Absent; Species Absent:** The BSA is located at a lower elevation than the range of this species and does not support the appropriate soils. Species not observed in the BSA during surveys conducted in the appropriate season.
Santa Barbara honeysuckle *Lonicera subspicata* var. *subspicata*	Occurs in chaparral, cismontane woodland, and coastal scrub. Elevation: 35–1,000 meters.	May–December	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
southern curly-leaved monardella *Monardella sinuata* ssp. *sinuata*	Occurs in chaparral, in cismontane woodland, on coastal dunes, and with coastal scrub. Elevation: 0–300 meters.	April–September	--/--/1B.2	**Suitable Conditions Present**; **Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
crisp monardella *Monardella undulata* ssp. *crispa*	Rhizomatous herb that occurs on coastal dunes and with coastal scrub and sandy soils. Elevation: 10–120 meters.	April–August	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
San Luis Obispo monardella *Monardella frutescens*	Rhizomatous herb that occurs on coastal dunes and with coastal scrub and sandy soils. Elevation: 10–200 meters.	May–September	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
aparejo grass *Muhlenbergia utilis*	Perennial grass that occurs in coastal sage scrub, creosote bush scrub, and wetland/riparian areas. Elevation: N/A.	October-May	--/--/2B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
Gambel's watercress *Nasturtium gambelii*	Rhizomatous herb that occurs in marshes and swamps (freshwater or brackish). Elevation: 5–330 meters.	April–October	FE/ST/1B.1	**Suitable Conditions Absent; Species Absent:** The BSA does not support marshes or swamps. Species not observed in the BSA during surveys conducted in the appropriate season.
black flowered figwort *Scrophularia atrata*	Occurs in closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub. Around swales and in sand dunes. Sand, diatomaceous shale and soils derived from other parent material. Elevation: 10–250 meters.	March–April	--/--/1B.2	**Suitable Conditions Present: Species Present:** Three black flowered figwort plants were observed on the bank of the unnamed drainage during the May 2020 survey. The project activities will avoid the occurrences.
chaparral ragwort *Senecio aphanactis*	Occurs in chaparral, cismontane woodlands, and coastal scrub/alkaline. Elevation: 15–800 meters.	January–April	--/--/2B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
San Bernardino aster *Symphyotrichum defoliatum*	Rhizomatous herb that occurs in cismontane woodland, coastal scrub, and foothill grassland near ditches and springs. Elevation: 2–2,040 meters.	July–November	--/--/1B.2	**Suitable Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted in the appropriate season.
woven-spored lichen *Texosporium sancti-jacobi*	Occurs in chaparral openings on soil, small mammal pellets, dead twigs, and *Selaginalla* spp. Elevation: 60–660 meters.	N/A	--/--/3	**Marginal Conditions Present; Species Absent:** Species not observed in the BSA during surveys conducted.

General references: Baldwin et al. 2012. All plant descriptions paraphrased from CNPS 2016.

Status Codes

--= No status
Federal: FE = Federal Endangered; FT=Federal Threatened
State: SE=State Endangered; ST= State Threatened; SR= State Rare

CNPS California Rare Plant Rank (CRPR): ***1B*** **=** rare, threatened, or endangered in California and elsewhere; ***2*** **=** rare, threatened, or endangered in California, but more common elsewhere; ***3*** **=** plants that about which more information is needed;

Threat Code: ***0.1*** **=** Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat); ***0.2*** **=** Fairly endangered in California (20–80% occurrences threatened)

Rationale Terms: ***Species Present:*** Species was or has been observed in the survey area. ***Species Absent:*** Based on appropriate survey efforts, absence of the species was confirmed. ***Suitable Conditions Present:*** The appropriate habitat, soils, and elevation are present in the survey area. ***Marginal Conditions Present:*** The appropriate habitat and/or soils are present but other factors (past disturbances, elevation range) may preclude species occurrence. ***Suitable Conditions Absent:*** The survey area did not support the appropriate habitat, soils, and/or elevation for the species.

3.3.2 Special-Status Animal Species

For the purposes of this section, special-status animal species are defined as the following:

- Animals listed or proposed for listing as threatened or endangered under the ESA (50 CFR 17.11 for listed animals and various notices in the *Federal Register* for proposed species).
- Animals that are candidates for possible future listing as threatened or endangered under the ESA.
- Animals that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
- Animal species of special concern to CDFW.
- Animal species that are fully protected in California (CFGC Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Based on a CNDDB query and a review of existing literature, a total of 39 special-status wildlife species have been documented as occurring in the queried quadrangles (Table 2). Because this list of species is considered regional, an analysis of the range and habitat preferences of those animal species was conducted to identify which sensitive wildlife species have the potential to occur in the BSA. SWCA determined that the following 14 special-status animal species and migratory birds have potential to occur in the BSA:

- monarch butterfly (*Danaus plexippus*)
- Northern California legless lizard (*Anniella pulchra*)
- coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- California tiger salamander (CTS) (*Ambystoma californiense*)
- California red-legged frog (CRLF) (*Rana draytonii*)
- western spadefoot toad (*Anaxyrus californicus*)
- southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- southwestern willow flycatcher (*Empidonax traillii extimus*)
- California horned lark (*Eremophila alpestris actia*)
- yellow warbler (*Setophaga petechia*)
- least Bell's vireo (*Vireo bellii pusillus*)
- Class Aves
  Other migratory bird species (nesting)
- Townsend's big-eared bat (*Corynorhinus townsendii*)
- western red bat (*Lasiurus blossevillii*)
- hoary bat (*Lasiurus cinereus*)
- American badger (*Taxidea taxus*)

Based on presence of suitable foraging, roosting, or nesting habitat, the parcel supports suitable conditions for the species listed above and nesting birds. Although all the species listed above have potential to occur on the parcel, none were observed during the surveys.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Insects			
monarch butterfly *Danaus plexippus*	Occurs along the coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind-protected tree groves (eucalyptus, Monterey pine [*Pinus radiata*], and cypress [*Cupressus* spp.]), with nectar and water sources nearby.	--/SA/--	**Suitable Conditions Present:** The eucalyptus woodland in and adjacent to the BSA could support wintering species.
El Segundo blue butterfly *Euphilotes battoides allyni*	Historically extended over much of the 3,200 acre El Segundo Dunes of Los Angeles County. Occupies areas in dunes with high sand content and its host plant, coast buckwheat (*Eriogonum parvifolium*). Endemic to coastal sand dunes and is now found in this habitat in Los Angeles County extending from Palos Verdes Peninsula north to Ballona Wetlands; has also been found in Santa Barbara County.	FE/--/--	**Suitable Conditions Absent:** The BSA is outside the range of this species and does not support the necessary host plant.
Branchiopods			
vernal pool fairy shrimp *Branchinecta lynchi*	Occurs in vernal pool habitats, including depressions in sandstone to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/-- /--	**Suitable Conditions Absent**: The BSA does not support vernal pools.
Fish			
arroyo chub *Gila orcutti*	Occurs in coastal streams throughout southern California, specifically in Arroyo Seco.	--/--/SSC	**Suitable Conditions Absent:** The BSA does not support permanent waterbodies.
tidewater goby *Eucyclogobius newberryi*	Occurs in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	FE/--/SSC	**Suitable Conditions Absent:** The BSA does not support any shallow lagoon habitat or other permanent waterbodies.
unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	Small freshwater fish (up to 5 centimeters, standard length) that inhabits slow-moving reaches or quiet-water streams and rivers. Favorable habitats are usually shaded by dense and abundant vegetation. Current range is restricted to upper Santa Clara River and its tributaries in Los Angeles County, San Antonio Creek on Vandenberg Air Force Base in Santa Barbara County, and Shay Creek vicinity in San Bernardino County (USFWS 2009).	FE/SE/FP	**Suitable Conditions Absent:** The BSA does not support any stream or river habitat or other permanent waterbodies.
Southern California Coast steelhead Distinct Population Segment (DPS) *Oncorhynchus mykiss irideus*	Occurs in clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	FT, PCH /-- /SSC	**Suitable Conditions Absent:** The BSA does not support any stream or river habitat or other permanent waterbodies.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Amphibians			
California tiger salamander *Ambystoma californiense*	Occurs in grasslands or oak woodlands that support natural ephemeral pools or ponds that mimic them. Requires seasonal water for breeding and small mammal burrows, crevices in logs, piles of lumber, and shrink-swell cracks in the ground for refuges. To be suitable, aquatic sites must retain at least 30 centimeters of water for a minimum of ten weeks in the winter.	FT/ST/SSC	**Suitable Conditions Present:** The BSA does not support any ephemeral pools or seasonal water suitable for breeding. However, two cattle stock ponds are located 100 feet east of the BSA. According to the USFWS, the northernmost pond (ORCU-2) supports potential breeding habitat for this species, and the southernmost pond (ORCU-1) does not have the appropriate hydro period to support breeding. Project activities will be confined to the existing street in this location. The reservoir site is within dispersal distance of ORCU-2 and, therefore, is potential upland habitat for this species. The nearest CNDDB documented occurrence of this species is 2.2 miles east of the BSA.
arroyo toad *Anaxyrus californicus*	Inhabits coastal southern California from Salinas River Basin in Monterey and San Luis Obispo Counties to Arroyo San Simón in northern Baja California, Mexico. Occupies riparian habitats with sandy streambeds and adjacent pools. Typical vegetation may include cottonwood, sycamore, and willow trees. Some populations occur in streams within coniferous forests.	FE/--/SSC	**Suitable Conditions Absent:** The BSA does not support sandy riverbeds with adjacent pools.
California red-legged frog *Rana draytonii*	Occurs in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Prefers presence of fairly sturdy underwater supports such as cattails.	FT /-- /SSC	**Marginal Conditions Present:** The BSA does not support any pools suitable for breeding, and the cattle ponds support water during and immediately after rain events but lack emergent vegetation. The reservoir site, Pine Canyon Creek, and the drainages provide marginal dispersal habitat.
western spadefoot *Spea hammondii*	Inhabits vernal pools in primarily grassland. but is also in valley and foothill hardwood woodlands.	--/--/SSC	**Suitable Conditions Present:** The BSA does not support vernal pools. This species has been documented near the BSA; however, the mapping is “at best guess by CNDDB.” ORCU-2 located 100 feet east of the BSA supports potential breeding habitat for this species; therefore, the reservoir site includes potential upland habitat for this species.
Reptiles			
Northern California legless lizard *Anniella pulchra*	Occurs from southern edge of San Joaquin River in northern Contra Costa County south to Ventura County. Occurs in scattered locations in San Joaquin Valley, along southern Sierra Nevada mountains, and on desert side of Tehachapi Mountains and part of San Gabriel Mountains. Prefers sandy or loose loamy soils with high moisture content under sparse vegetation.	--/--/SSC	**Suitable Conditions Present**: The friable soil located on some portions of the road shoulder could support this species.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
western pond turtle *Emys marmorata*	Occurs in quiet waters of ponds, lakes, streams, and marshes, typically in the deepest parts with an abundance of basking sites.	--/--/SSC	**Suitable Conditions Absent:** The BSA does not support freshwater habitat with basking structures.
blunt-nosed leopard lizard *Gambelia sila*	Occurs in arid lands throughout San Joaquin Valley and adjacent foothills. Often found on parcels of undeveloped land.	FE/SE/FP	**Suitable Conditions Absent:** The BSA is not located within the San Joaquin Valley or adjacent foothills.
coast horned lizard *Phrynosoma coronatum (blainvillii* population)	Frequents a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub, and chaparral in arid and semi-arid climate conditions. Prefers friable, rocky, or shallow sandy soils.	--/--/SSC	**Suitable Conditions Absent:** The BSA does not support the appropriate lowland habitat.
coast patch-nosed snake *Salvadora hexalepis virgultea*	Slender moderately sized striped snake with a larger modified scale over its snout for burrowing. Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Occurs in California from northern Carrizo Plains in San Luis Obispo County, south through coastal zone, south and west of deserts, into coastal northern Baja California.	--/--/SSC	**Marginal Conditions Present:** The reservoir site and some portions of the road shoulder could support this species. However, the soils in these areas are compacted, which may render the area unsuitable for this species.
two-striped garter snake *Thamnophis hammondii*	Occurs in coastal California from Salinas to Baja California and occurs at elevations up to 7,000 feet. Found along streams with rocky beds and permanent freshwater.	--/--/SSC	**Suitable Conditions Absent:** The BSA does not contain suitable aquatic habitat for this species.
Birds			
tricolored blackbird *Agelaius tricolor*	(Nesting colony); requires open water, protected nesting substrate, such as cattails or tall rushes, and foraging area with insect prey.	MBTA/--/SSC	**Suitable Conditions Absent:** The BSA does not support freshwater marsh habitat for nesting.
southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	Habitat includes moderate to steep, dry, rocky, south-, west-, or east-facing slopes vegetated with low scattered scrub cover interspersed with patches of grasses and forbs or rock outcrops. Often occurs in coastal sage scrub dominated by California sagebrush but also may occur in coastal bluff scrub and low chaparral on serpentine outcrops. Generally absent from dense, unbroken stands of coastal sage scrub and chaparral (NatureServe Explorer 2018).	MBTA/--/WL	**Suitable Conditions Present:** Coastal sage scrub communities in and adjacent to the BSA may support this species.
burrowing owl *Athene cunicularia*	Occurs in open, dry grasslands, deserts, and scrublands. Subterranean nester, dependent upon burrowing mammals.	MBTA/-- /SSC	**Suitable Conditions Absent:** The wooded and shrubby conditions in the BSA are not conducive to this species.
western snowy plover *Charadrius alexandrinus nivosus*	Occurs on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting.	MBTA, FT/--/ SSC	**Suitable Conditions Absent:** The BSA does not support sandy dune or gravely habitat on the edge of a water body that would be suitable for nesting of this species.
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Occurs in valley foothill and desert riparian habitats in scattered locations throughout California. Prefers dense foliage cover of extensive deciduous trees and shrubs that abut slow-moving watercourses, backwaters, or seeps.	MBTA/FT/SE	**Suitable Conditions Absent:** The BSA does not support dense cover or dense understory foliage that would be suitable for nesting of this species.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
southwestern willow flycatcher *Empidonax traillii extimus*	Occurs in riparian woodlands of southern California.	FE/SE/--	**Marginal Conditions Present:** This species is an uncommon migrant to San Luis Obispo County, and there are no occurrences in the CNDDB. Small patches of suitable nesting habitat occur in the BSA but outside of the disturbance areas. These areas lack water during nesting period. Species not observed during the surveys.
California horned lark *Eremophila alpestris actia*	Occurs in short grass prairies, coastal plains, fallow grain fields, and alkali flats. Found in coastal regions from Sonoma to San Diego County, and west to the San Joaquin Valley.	MBTA/--/--	**Suitable Conditions Present:** The nonnative annual grassland located in and adjacent to the BSA could support this species.
peregrine falcon *Falco peregrinus*	Riparian areas and coastal and inland wetlands are important habitats yearlong, especially in nonbreeding seasons. Migrants occur along the coast, and in the western Sierra Nevada in spring and fall.	MBTA, Delisted/--/--	**Suitable Conditions Absent:** The BSA does not include tall cliff and rock faces or buildings necessary for nesting of this species.
yellow-breasted chat *Icteria virens*	Occurs in riparian woodland containing thickets of willow and other bushy tangles near watercourses. Breeds from early May into early August.	MBTA/--/SSC	**Marginal Conditions Present:** This species is an uncommon migrant in coastal California and in foothills of the Sierra Nevada.
yellow warbler *Setophaga petechia*	Usually found in riparian deciduous habitats in summer. Stays among cottonwoods, willows, alders, and other small trees and shrubs. Nest is an open cup placed 2–16 feet aboveground in a deciduous sapling or shrub.	--/--/SSC	**Suitable Conditions Present:** Potential nesting habitat exist in the arroyo willow thickets in the BSA.
California least tern *Sternula antillarum browni*	Largely a coastal species that feeds on fish and nests on sandy dunes or beaches. Once a common species in California; currently nesting colonies are isolated to Southern California and scattered Bay Area beaches.	FE/SE/--	**Suitable Conditions Absent:** The site does not contain suitable nesting habitat.
least Bell's vireo *Vireo bellii pusillus*	Summer resident of southern California. Occurs in low riparian areas in the vicinity of water or in dry river bottoms below 2,000 feet. Nests along the margins of bushes or twigs of willow, *Baccharis*, or mesquite.	FE/SE/--	**Marginal Conditions Present:** Small patches of suitable nesting habitat occur in the BSA but outside of the disturbance areas. These areas lack water during nesting period.
Class Aves Other migratory bird species (nesting)	Annual grasslands, coastal scrub, chaparral, and oak woodlands may provide nesting habitat.	MBTA/--/--	**Suitable Conditions Present:** Potential nesting habitat occurs throughout the site. Pre-disturbance nesting bird surveys are proposed to avoid impacts to nesting birds.
Mammals			
pallid bat *Antrozous pallidus*	Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and buildings.	--/--/SSC	**Suitable Conditions Absent**: The BSA does not support rocky outcrops or crevices for roosting.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Townsend's big-eared bat *Corynorhinus townsendii*	Occurs in a wide variety of habitats; most common in mesic (wet) sites. May use trees for day and night roosts; however, requires caves, mines, rock faces, bridges, or buildings for maternity roosts. Maternity roosts are in relatively warm sites.	--/--/SSC	**Marginal Conditions Present:** The trees located in and adjacent to the BSA could support roosting bats.
southern sea otter *Enhydra lutris nereis*	Occurs in nearshore areas along central California coastline, including areas of high human activity like harbors.	FT/--/--	**Suitable Conditions Absent:** The BSA does not support appropriate habitat and is not located near the Pacific Ocean.
silver-haired bat *Lasionycteris noctivagans*	Forest bat, associated primarily with northern temperate zone conifer and mixed conifer/hardwood forests with available water.	--/SA/--	**Suitable Conditions Absent:** The site does not support appropriate habitat types.
western red bat *Lasiurus blossevillii*	Roosts primarily in trees, often in edge habitats adjacent to streams, fields, or urban areas. Mating occurs in August and September and young are born from late May through early July.	--/--/SSC	**Marginal Conditions Present:** The trees located in and adjacent to the BSA could support roosting bats.
hoary bat *Lasiurus cinereus*	Occurs in open habitats and habitat mosaics with access to trees for cover. Roosts in dense foliage of medium to large trees.	--/SA/--	**Marginal Conditions Present:** The trees located in and adjacent to the BSA could support roosting bats.
Yuma myotis *Myotis yumanensis*	Occurs near ponds, streams, lakes, or other water sources supporting midges, moths, and other small insects. Maternity roosts are often found in caves, mines, buildings, or tree cavities.	--/SA/--	**Suitable Conditions Absent:** The ephemeral Pine Canyon Creek and unnamed drainage do not support water long enough to attract this species' prey.
San Diego desert woodrat *Neotoma lepida intermedia*	Ranges from Baja California northward to northern San Luis Obispo County. Typically occurs in woodlands and coastal scrub habitats. Desert woodrats build nests within cracks and rock crevices or in clumps of cactus.	--/--/SSC	**Suitable Conditions Absent:** The BSA does not support woodland communities with significant rock crevices. Species not observed during surveys.
American badger *Taxidea taxus*	Occurs in open stages of shrub, forest, and herbaceous habitats; needs uncultivated ground with friable soils.	--/--/SSC	**Suitable Conditions Present:** The reservoir could support this species.

General references: Unless otherwise noted, all habitat and distribution data provided by California Natural Diversity Database.

Status Codes

--= No status

Federal: FE = Federal Endangered; FT= Federal Threatened; FC= Federal Candidate; CH= Federal Critical Habitat; PCH= Proposed Federal Critical Habitat; MBTA= Protected by Federal Migratory Bird Treaty Act

State: SE= State Endangered; ST= State Threatened; SCT= State Candidate Threatened

California Department of Fish and Game: SSC= California Species of Special Concern; FP= Fully Protected Species; SA= Not formally listed but included in CDFW "Special Animal" List; WL= Watch List

Rationale Terms: ***Species Present:*** Species was or has been observed in the survey area. ***Suitable Conditions Present:*** The survey area is within the species' range and supports the appropriate habitat, soils, and elevation. ***Marginal Conditions Present:*** The survey area is in the species' range and supports the appropriate habitat and/or soils but other factors (past disturbances, presence of predators) may preclude species occurrence. ***Suitable Conditions Absent:*** The survey area is not within the species' range and/or does not support the appropriate habitat, soils, and/or elevation for the species.

3.4 Sensitive Natural Communities

The CDFW maintains a list of special communities that ranks natural communities by their rarity or threat and applies a global and state ranking to them. The global and state ranking system does not imply that specific actions are required in review of projects that may impact the community; however, regulatory agencies may request that impacts to these communities be addressed in environmental documents. The arroyo willow thickets associated with Pine Canyon Creek and the northern drainage have a "G4" and "S4" ranking and are considered sensitive communities by the CDFW. Coyote brush scrub has "G5" Global Rarity and "S5" State Rarity rankings, which indicates it is secure in its range. Coyote brush scrub is not considered a sensitive natural community. Ruderal vegetation, coastal scrub, eucalyptus woodland, and annual brome grassland are not assigned rarity rankings and are not considered sensitive natural communities.

3.5 Designated Critical Habitat

Based on the IPaC, the BSA is in designated Critical Habitat units for La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*) and Lompoc yerba santa (*Eriodictyon capitatum*). Critical habitat designations do not affect activities by private landowners if there is no federal nexus (no federal funding or permits). Under CEQA, the SWRCB must evaluate the project for significant impacts to the designated critical habitat, and the impacts would need to be mitigated if they are deemed potentially significant.

3.6 Jurisdictional Waters

SWCA conducted and prepared a focused Aquatic Resources Delineation in the BSA (see Appendix D). There are three features in the BSA that were evaluated for potential jurisdictional constraints: an unnamed creek (Pine Canyon Creek), an unnamed drainage, and a topographic dip in the reservoir site.

Pine Canyon Creek and the unnamed drainage support bed, bank, and sporadic OHWM. Based on the presence of these features in Pine Canyon Creek and the unnamed drainage, these waterways meet the criteria to be Waters of the State under the CDFW and Regional Water Quality Control Board (RWQCB) jurisdictions. Because the unnamed drainage is a tributary to Pine Canyon Creek, and Pine Canyon Creek is a tributary to Orcutt Creek, there is potential that the USACE would also take jurisdiction over these features. However, according to the upcoming Navigable Waters Protection Rule these features would need to "flow more often than just after a single precipitation event…" Since these features are ephemeral it is likely that they would not be Waters of the United States (WotUS) after June 22, 2020, if the Navigable Waters Protect Rule is implemented.

A three-parameter wetland occurs in the flood plain of Pine Canyon Creek near East Rice Ranch Road. This wetland meets the definition of a federal wetland and directly abuts the Pine Canyon Creek path. Therefore, if Pine Canyon Creek is determined to be WotUS, the wetland would be considered an adjacent wetland WotUS under USACE jurisdiction. Since the feature is a three-parameter wetland, the feature would likely fall under jurisdiction of the RWQCB as Waters of the State.

The topographic dip in the reservoir tank site did not support riparian vegetation, bed, bank, or OHWM features. Due to the lack of these features, it is unlikely that the topographic dip would be a WotUS or Waters of the State.

4 REGULATORY OVERVIEW

4.1 Federal Policies and Regulations

4.1.1 Federal Endangered Species Act of 1973

The ESA provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or the applicant to formally consult with the USFWS or National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a species. If the USFWS or NOAA Fisheries determine that impacts to a federally listed species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. The USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

4.1.2 Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the USFWS, and potential impacts to species protected under the MBTA are evaluated by USFWS in consultation with project proponents. Working with project proponents on migratory bird conservation is an integral mission of the USFWS; therefore, the USFWS maintains that potential impacts to migratory birds should be addressed during project review. If incidental take of migratory birds or their nests cannot be avoided during project activities, the project proponent must obtain an MBTA Incidental Take Permit (ITP) for the taking. The project area supports habitat for nesting birds. If proposed ground-disturbing activities were implemented during the nesting season, pre-disturbance nesting bird surveys will be conducted to avoid impacts to nesting birds.

4.2 State Policies and Regulations

4.2.1 California Endangered Species Act and Species of Concern

The CESA ensures legal protection for plants listed as rare or endangered and wildlife species formally listed as endangered or threatened. The state also maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFW is empowered to review projects for their potential to impact special-status species and their habitats. Under the CESA, the CDFW reserves the right to request the replacement of lost habitat that is considered important to the continued existence of CESA-protected species.

4.2.2 California Fish and Game Code

CFGC Section 3503, Protections of Bird's Nests, includes provisions to protect the nests and eggs of birds. Section 3503 states: "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Per CFGC Section 2835, in the absence of a CDFW-approved Natural Community Conservation Plan, the CDFW cannot authorize take of a Fully Protected species. The classification of Fully Protected was the state's initial effort in the 1960s to identify and provide additional protection to those animals that were

rare or faced possible extinction. Most "fully" protected species have been listed as threatened or endangered species under the CESA. Fully Protected Species lists were created for fish, mammals, amphibians, reptiles, birds, and mammals. CFGC Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) include provisions to protect Fully Protected species, such as: (1) prohibiting take or possession "at any time" of the species listed in the statute, with few exceptions; (2) stating that "no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" a species that has been designated as Fully Protected; and (3) stating that no previously issued permits or licenses for take of these species "shall have any force or effect" for authorizing take or possession. Unless an applicant has developed a CDFW-approved Natural Community Conservation Plan, CDFW is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species.

The CDFW also manages the California NPPA (CFGC Section 1900 et seq.), which was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, plant species with CNPS Ranks 1A, 1B, 2A, 2B, and 3 are considered "rare" under the NPPA. Impacts to plants with these rarity rankings must be fully evaluated under CEQA. Plants with CNPS Rank 4 have limited distributions but are not necessarily eligible for listing. It is recommended that impacts to plants with CNPS Rank 4 also be evaluated per CEQA.

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the CFGC, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." The CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." The CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

5 IMPACT ASSESSMENT AND MITIGATION

This impact assessment focuses on identifying potential impacts associated with implementation of the project. The impact analysis is based on the site's existing conditions, survey data, regulatory setting, and the project description. The emphasis is on determining the potential effects of the project on special-status species, habitats, and jurisdictional areas within the BSA. Adverse impacts could occur if the project would result in take of special-status species and/or temporary or permanent modification to sensitive habitats or habitats occupied by special-status species. Where potential impacts to resources have been identified, measures for avoiding, minimizing, or mitigating adverse effects are recommended.

5.1 Sufficiency of Biological Data

The biological surveys conducted in support of this BRA were sufficient to inventory the biological resources in the BSA. Additional field surveys are not needed to determine which resources may be impacted by the proposed project and the appropriate avoidance/mitigation measures.

5.1.1 Project Effect on Unique or Special-Status Species or their Habitats

5.1.1.1 SPECIAL-STATUS PLANT SPECIES

Three individuals of black flowered figwort were observed on the bank of the unnamed drainage on the east side of Orcutt Hill Road (see Figure 3). The three individuals are in a tight group and nestled under and against a large coast live oak tree. Project activities in this location will be confined to the road surface and will not affect the occurrences. Measures BIO-1 through BIO-3 are provided to facilitate avoidance of the black flowered figwort plants.

5.1.1.1.1 Designated Critical Habitat

Based on the IPaC, the BSA is in designated Critical Habitat units for La Graciosa thistle and Lompoc yerba santa. La Graciosa thistle occurs in coastal dunes, brackish marsh, riparian scrub, and occasionally sandy wet areas. The BSA does not support coastal dunes or brackish marsh. The BSA does support riparian scrub and sandy wet areas; however, the project has been designed to avoid the riparian scrub and sandy wet areas. Therefore, significant impacts to La Graciosa thistle critical habitat will be avoided.

Lompoc yerba santa occurs in closed-cone coniferous forest and maritime chaparral with sandy soil. The BSA does not support closed-cone coniferous forest or maritime chaparral. In addition, Lompoc yerba santa was not observed in the BSA during botanical surveys conducted in the appropriate season. Since the appropriate habitat for Lompoc yerba santa is absent from the BSA and the species does not occur in the BSA, adverse modification to Lompoc yerba santa critical habitat will not occur.

5.1.1.2 SPECIAL-STATUS WILDLIFE SPECIES

5.1.1.2.1 Nesting Birds

The habitats occurring in the BSA provide suitable nesting habitat for a variety of bird species. Common passerines and raptors may use the trees for nesting and/or foraging. The nesting habitat could be impacted by project activities including grading and vegetation removal. If the project activities are conducted between March and September, birds may be nesting within or adjacent to the affected area and the individuals could be directly or indirectly impacted. Direct impacts may include the loss of active nests during vegetation removal. Noise or other disturbances may cause an individual to abandon a nest resulting in an indirect impact. Measure BIO-4 is included to avoid impacts to nesting birds.

5.1.1.2.2 Northern California Legless Lizard and Coast Patch-Nosed Snake

Northern California legless lizard and coast patch-nosed snake have potential to occur in the reservoir tank site. Northern California legless lizard is a fossorial species that spends most of its life underground; therefore, they are difficult to detect without shallow excavation of the soil surface. The coast patch-nosed snake occurs on the ground surface and burrows underground in search of prey. Although these reptiles were not observed in the BSA during the surveys, their presence in the BSA cannot be ruled out. Grading for development of the reservoir site could result in the direct take of Northern California legless lizards and coast patch-nosed snake. Direct take may include being struck by equipment, entrapped in stockpiled materials or trenches, or trampled or collected by construction personnel. Measure BIO-5 is included to minimize impacts to Northern California legless lizards, coast patch-nosed snake, and other reptiles during project implementation.

5.1.1.2.3 Monarch Butterfly

The reservoir tank site and portions of the Orcutt Hill Road right-of-way support eucalyptus trees that could support wintering monarch butterfly roosts. Overwintering monarch butterflies have not been documented in the area and the eucalyptus trees are not known monarch overwintering sites. However, the trees could support overwintering monarchs in the future. If project construction requires removal of all or parts of the trees or use of noise-producing heavy equipment, and monarchs were present during the activities, overwintering monarch butterflies could be adversely impacted by the tree removal and/or construction activities. Direct adverse impacts could include direct mortality of overwintering monarch butterflies; indirect adverse impacts could include excessive noise from construction equipment prompting the overwintering monarchs to abandon the site. Measure BIO-6 is included to avoid impacts to monarch butterflies during project implementation.

5.1.1.2.4 Bats

The trees in the reservoir tank site and adjacent to the Orcutt Hill Road right-of-way support roosting habitat for a variety of bat species. The proposed project will remove one pepper tree (*Schinus mole*) and three dead trees from the reservoir site. Bats may roost in the trees during the daylight hours. If the trees are removed while bats are roosting in the trees, the bats could be fatally wounded. Measure BIO-7 is included to avoid impacts to roosting bats during project implementation.

5.1.1.2.5 American Badger

The reservoir site supports suitable habitat for American badger. If American badgers are present during grading activities, the individuals could be fatally wounded by the grading equipment. To minimize the potential for this impact to occur, GSWC's monitoring biologist should conduct American badger den surveys prior to grading the site. Measure BIO-8 is included to avoid impacts to American badgers during project implementation.

5.1.1.2.6 California Red-Legged Frog

The nearest known CRLF occurrence is 1.6 miles south of the project area. Two cattle stock ponds are located approximately 100–150 feet east of the pipeline alignment, identified by the USFWS as ORCU-1 (the southernmost pond) and ORCU-2 (the northernmost pond). ORCU-2 supports seasonally ponding water but does not support sturdy emergent vegetation for egg mass attachment. Due to the ephemeral hydrology and lack of emergent vegetation in ORCU-2, CRLF breeding in ORCU-2 is unlikely. However, if CRLF were to breed in ORCU-2, the reservoir site, unnamed drainage, and Pine Canyon Creek would be within dispersal range of the species. There is an unlikely potential for CRLF to disperse through the unnamed drainage, Pine Canyon Creek, and the reservoir site.

The unnamed drainage and Pine Canyon Creek are dry most of the time and only support surface water during and immediately after rain events. However, if project activities were to occur while these features supported water, there is a slight chance CRLF could disperse through the area. Since the project proposes trenchless technology to install the pipeline, activities within bed/banks of these features are not expected to occur. However, if the pipeline was installed while water was present in the features and there was an accidental drilling fluid discharge into the feature(s), personnel may need to enter the features to clean up the fluids.

The reservoir site does not support aquatic features that are suitable for CRLF aquatic habitat. ORCU-2 supports marginal habitat for CRLF when water is present. If CRLF were using ORCU-2 during the rainy season, the CRLF could disperse from ORCU-2 and enter the reservoir site or the drainages. SWCA coordinated with Rachel Henry of the USFWS regarding the potential for CRLF to occur in ORCU-2 and

the project area. Ms. Henry determined that seasonal restrictions on when work is conducted is sufficient to avoid impacts to CRLF (Henry 2020). Measure BIO-11 provides seasonal restrictions to project activities and is included to avoid impacts to CRLF during project implementation.

5.1.1.2.7 Western Spadefoot Toad

Western spadefoot toad (*Spea hammondii*) has been documented near the BSA, potentially associated with the two cattle stock ponds (ORCU-1 and ORCU-2). The CNDDB mapping is listed as having 80 meters accuracy. ORCU 1 and ORCU-2 are located 100–150 feet east of the BSA. Project activities near the stock ponds will include installation of the pipeline, which will be confined to the existing street in this location. Therefore, installation of the pipeline will not affect suitable western spadefoot toad habitat. The reservoir site is within western spadefoot toad dispersal distance of the cattle stock ponds. Therefore, western spadefoot toad could take upland refuge in small mammal burrows in the reservoir site. If western spadefoot toad(s) were in the reservoir site during grading activities, the toads could be directly injured by equipment and grading activities. Measure BIO-12 is provided to minimize the potential effect on western spadefoot toad.

5.1.1.2.8 California Tiger Salamander

The project area is in the documented range of CTS, and the nearest CNDDB documented occurrence of CTS is 2.2 miles east of the project area. Coordination with the USFWS has confirmed that this occurrence is the closest occurrence to the project area. The project area does not support any ephemeral pools or seasonal water suitable for CTS breeding. SWCA coordinated with the USFWS to determine if ORCU-1 or ORCU-2 support suitable breeding habitat for CTS. The USFWS determined that ORCU-1 does not support the necessary hydroperiod for CTS breeding and that ORCU-2 does support the appropriate hydroperiod for CTS breeding; therefore, ORCU-2 supports potential breeding habitat for CTS. Due to the presence of ORCU-2 and its potential CTS breeding habitat, the upland areas around the pond provide potential upland CTS habitat. Project activities near ORCU-2 will be confined to the existing street; therefore, installation of the pipeline is not expected to affect CTS or CTS upland habitat. The proposed reservoir site supports annual grasslands and coyote brush scrub. SWCA conducted focused small mammal burrow surveys throughout the project area. Few gopher/vole burrows were observed in the reservoir site. SWCA discussed the project with USFWS Biologist Ms. Henry regarding potential take of CTS. Due to the presence of ORCU-2 near the reservoir site and small mammal burrows in the reservoir site, Ms. Henry recommended GSWC either conduct protocol CTS surveys to attempt to establish absence of the species or infer presence of CTS and obtain an ITP for CTS (Henry 2020). GSWC has not conducted protocol CTS surveys in or near the project area and has chosen to infer presence of CTS in the upland habitats in the project area. Inferring presence of CTS in the reservoir site will require GSWC to obtain an ITP from the USFWS and a Consistency Determination (CD) or a 2081-ITP from CDFW.

GSWC has initiated the ITP process with the agencies and has drafted a Habitat Conservation Plan (HCP). While drafting the HCP, GSWC coordinated with the USFWS to obtain a Searcy Model dataset for the project to determine the potential impacts to CTS upland habitat. The Searcy Model Results are shown in Table 3.

Table 3. Summary of Searcy Model Results for the Kelt Reservoirs Project

Impact Type	Reproductive Value Impacts
Reservoir and Access Road Footprint	88
Deficit Wedge	1,375
Sum of Reproductive Value Impacts	1,462
20% Correction for Mitigating at a Conservation Bank	1,755

Note: The Searcy Model was run for the proposed project by the USFWS, and the listed results were provided to GSWC by the USFWS on November 24, 2020.

GSWC is seeking ITP coverage for the project; Measure BIO-13 is provided to ensure that GSWC completes the HCP and obtains the ITP for the potential take of CTS and CTS upland habitat resulting from the proposed project.

5.1.2 Project Effect on Extent, Diversity, or Quality of Native or Other Important Vegetation

There are 44 coast live oak trees adjacent to the Orcutt Hill Road right-of-way. The County maintains policies to protect oak trees in place or to mitigate the loss of oak trees that must be removed for a project. Since the coast live oak trees are located adjacent to the exiting Orcutt Hill Road asphalt, it is likely that the trees will not need to be removed to install the pipeline. However, trenching in the road may require the tree roots or select tree branches to be trimmed. Improper trimming or cutting of oak tree branches and roots can result in windthrow, root rot, or branch rot. Measures BIO-9 and BIO-10 are included to minimize impacts to coast live oak trees during project implementation.

5.1.3 Project Effect on Wetland or Riparian Habitat

The BSA supports an adjacent three-parameter wetland and riparian habitats associated with the ephemeral Pine Canyon Creek and unnamed drainage. The project has been designed to avoid any disturbance to the three-parameter wetland. The pipeline will cross Pine Canyon Creek and the unnamed drainage in three locations. To minimize impacts to the ephemeral features, GSWC has included trenchless pipeline installation techniques at the crossings. Implementing trenchless technologies at these crossings will avoid direct impacts to the creek and drainage. Therefore, impacts to wetland or riparian habitats are not expected. However, the CDFW regulates activities that occur in, over, and under creeks and drainages that are subject to Division 2, Chapter 6, Sections 1600–1602 of the CFGC. Prior to implementing the project, GSWC will need to enter into a Streambed Alteration Agreement with CDFW. The Streambed Alteration Agreement must include provisions for a Frac-out Contingency Plan that outlines how the contractors and GSWC will address an accidental release of drilling fluids into the surface environment.

5.1.4 Project Effect on Movement of Resident or Migratory Fish and Wildlife Species

The proposed pipeline alignment will be installed in an existing street and underground. Therefore, installation and operations of the pipeline will not interfere with the movement of resident or migratory wildlife. The reservoir site is currently undeveloped and allows passage of wildlife through the site. Upon completion of the project, the reservoir site will be contained within a chain-link fence that will impede common wildlife (e.g., deer, pig, turkey, etc.) from going through the reservoir site. However, wildlife will be able to go around the fenced area with no limitations. Since wildlife in the area will be able to go

around the fenced area, the project's effects on the movement of wildlife in the area are less than significant without the need for mitigation.

5.2 Avoidance and Mitigation Measures

The following measures are provided to avoid, minimize, and/or mitigate the potential impacts of the proposed project.

BIO-1 Prior to ground disturbance, the applicant shall retain a qualified biologist to act as an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the development permit measures. The monitor shall be responsible for: (1) ensuring that procedures for verifying compliance with environmental mitigations are implemented; (2) establishing lines of communication and reporting methods; (3) conducting compliance reporting; (4) conducting construction crew training regarding environmentally sensitive areas and protected species; (5) facilitating the avoidance of black flowered figwort plants; (5) maintaining authority to stop work; and (6) outlining actions to be taken in the event of non-compliance. Monitoring shall be conducted full time during the initial disturbances (site clearing) and be reduced to twice a week following initial disturbances or a frequency and duration determined by the applicant in consultation with the County.

BIO-2 Prior to the commencement of site grading, the environmental monitor shall conduct an environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the special-status species that may occur in the project area, including black flowered figwort, Northern California legless lizard, bats, monarch butterfly, and nesting birds. Topics of discussion shall include descriptions of the species' habitats, general provisions and protections afforded by CEQA, measures implemented to protect special-status species, review of the project boundaries and special conditions, the monitor's role in project activities, lines of communication, and procedures to be implemented in the event a special-status species is observed in the work area.

BIO-3 Black flowered figwort occurs adjacent to the pipeline alignment. GSWC has designed the project to avoid the black flowered figwort occurrences. GSWC and their contractors shall avoid the black flowered figwort occurrences during construction of the project. Avoidance shall be achieved by including the location of the plant occurrences on the project plans and erecting temporary exclusion fencing between the project disturbance area and the occurrences. Prior to the commencement of trenching for the pipeline, the environmental monitor shall coordinate with the project contractors to ensure avoidance of the black flowered figwort. The monitor shall assist the contractors in identifying the black flowered figwort occurrences and directing the placement of highly visible exclusion fencing to protect the occurrences from accidental damage. The temporary exclusion fencing shall remain in place and functional throughout the duration of the project.

BIO-4 Prior to any vegetation removal or ground disturbance that occurs during the nesting season (March 1–September 30), the environmental monitor shall conduct a nesting bird survey no more than 2 weeks prior to construction to determine presence/absence of nesting birds within the disturbance area. If active nests are observed, work activities shall be avoided within 100 feet of active passerine nests and 300 feet of active raptor nests until young birds have fledged and left the nest. The nests shall be monitored weekly by the environmental monitor with expertise on nesting birds. The buffer may be reduced if deemed appropriate by the biologist. If any ESA- or CESA-listed bird species or California Fully Protected bird species are observed nesting in or near the project area, the environmental monitor shall

coordinate with the USFWS, the SWRCB, the CDFW, and/or GSWC before any disturbances occur within 500 feet of the nest. Readily visible exclusion zones will be established in areas where nests must be avoided. GSWC shall be contacted if any federally or state-listed bird species are observed during surveys. Bird nests, eggs, or young covered by the MBTA and CFGC shall not be moved or disturbed until the end of the nesting season or until young fledge, nor will adult birds be killed, injured, or harassed at any time. Pursuant to CFGC Section 3503.5, nests of raptors (owls, hawks, falcons, eagles) shall not be removed prior to coordination with and approval from the CDFW.

BIO-5 Three months prior to grading the reservoir site and during site grading, the environmental monitor shall conduct surveys for Northern California legless lizards, coast patch-nosed snake, and other reptiles. The surveyor shall utilize cover board methods in areas of disturbance where reptiles are expected to be found (e.g., under shrubs, other vegetation, or debris). The cover board methods shall commence at least 3 months prior to the start of construction. The cover boards shall be placed in the disturbance areas 3 months prior to disturbances. The environmental monitor shall search/survey the cover boards and remove them from the site no more than 48 hours prior to disturbances. All native wildlife that are found under the cover boards shall be relocated out of the project area in adjacent habitat.

Hand search surveys shall be completed during grading activities. During grading activities, the environmental monitor shall walk with the grading equipment to capture reptiles that are unearthed by the equipment. The surveyor shall capture and relocate any reptiles observed during the survey effort. The captured individuals shall be relocated from the construction area and placed in suitable habitat outside of the work area. Following the survey and monitoring efforts, the environmental monitor shall submit a project completion report to GSWC that documents the number of Northern California legless lizards, coast patch-nosed snake, and other reptiles captured and relocated, and the number of reptiles mortally wounded during grading activities.

BIO-6 One living pepper tree and three dead trees will be removed for the project. Tree removal should be avoided during the fall and winter migration of the monarch butterfly (late October–February) to the greatest extent feasible. If tree removal is necessary during the fall and winter migration, the environmental monitor shall conduct a preconstruction survey for overwintering monarch butterflies in the trees slated for removal. If overwintering monarch butterflies are detected, tree removal shall be postponed until after the overwintering period or until the environmental monitor determines monarch butterflies are no longer utilizing the trees for overwintering.

BIO-7 Prior to removal of any trees for the project, to the environmental monitor shall conduct roosting bat surveys in the trees to be removed. Pre-disturbance surveys for bats shall include two dusk surveys no more than 30 days prior to the tree removal to determine if bats are roosting in the trees. The surveys shall incorporate acoustic survey techniques and determine if bats are roosting in the trees to be removed. If bats are present in the trees to be removed, the environmental monitor shall identify the nature of the bat utilization of the trees (i.e., night roost, day roost, or maternity roost). If no roosts are identified, tree removal may proceed without further measures. If a maternity roost is identified in the trees that are slated for removal, removal of the roost tree(s) shall be delayed until the bats have left the area. If a day or night roost is identified in the trees to be removed, tree removal shall be conducted under the supervision of the environmental monitor. During tree removal and where potential bat roosts are identified, the environmental monitor shall be present and tree removal will begin with portions of the tree that do not provide suitable roost habitat (e.g., low limbs

lacking forage). Trees will be disassembled at a speed in coordination with the environmental monitor that allows any roosting bats to vacate the tree.

BIO-8 American badgers were not observed in the project area during the surveys. However, the reservoir site supports suitable habitat for American badgers and an individual could have taken occupancy of the site since the surveys were completed. Therefore, this measure is provided to ensure an American badger that may have moved into the site is evacuated prior to grading the reservoir site.

Prior to ground-disturbing activities, the environmental monitor shall conduct a preconstruction survey for American badger dens. The badger survey shall be conducted no more than 2 weeks prior to construction. If the survey results are negative (no badger dens observed), no additional work will be necessary. If the results are positive (badger dens observed), the environmental monitor shall contact GSWC within 24 hours; work in the area shall be delayed until GSWC and the environmental monitor have determined the appropriate steps to avoid or minimize impacts to American badgers. The following guidelines for minimizing impacts to badgers shall be implemented if a den is discovered:

- If the environmental monitor determines that potential dens are inactive, the biologist shall excavate the dens with a shovel to prevent badgers from reusing them.
- If the environmental monitor determines that dens may be active, the environmental monitor shall install a game camera for 3 days and 3 nights to determine if the den is in use. If the game camera does not capture an individual entering/exiting the den, the den shall be excavated as discussed above. If the camera captures badger use of the den, the environmental monitor shall install a one-way door in the den opening and continue use of the game camera. Once the camera captures the individual exiting the one-way door, the den can be excavated as discussed above.

BIO-9 Construction equipment staging and storage areas shall be located outside of coast live oak tree canopy areas. No construction equipment shall be parked, stored, or operated within the coast live oak tree canopy dripline. No fill soil, rocks, or construction materials shall be stored or placed within the coast live oak tree canopy dripline.

BIO-10 No oak trees over 5 inches diameter at breast height may be removed. Any roots or branches that are 1 inch or greater in diameter and require trimming/cutting shall be cleanly cut and sealed.

BIO-11 Initial grading activities within the reservoir site shall occur in the dry season (June 1–September 30). Initial grading activities in the reservoir site may not occur during the rainy season (October 1–May 30) or when greater than 0.5 inch of precipitation is forecast to occur within 48 hours of the scheduled grading.

Work shall not occur during rain events, 48 hours prior to significant rain events (>0.5 inch), or during the 48 hours after these events, to the extent practicable. If work must occur 48 hours prior to significant rain events (>0.5 inch), or during the 48 hours after these events, the environmental monitor shall conduct a pre-activity survey to ensure that the work area is clear of CRLF.

Installation of the pipeline under the drainages shall be prohibited if water is present in the drainage within 50 feet up- or downstream of the pipeline location. Prior to installation of the pipeline under the drainages, the environmental monitor shall survey for CRLF in the drainages within 50 feet up- and downstream of the pipeline location. If any life stage of

CRLF are observed, the pipeline installation under the drainage shall be delayed until the individuals have left the area on their own accord, or the SWRCB and GSWC have coordinated with the USFWS to determine if impacts to CRLF may occur. Unless previously authorized by the USFWS, CRLF shall not be captured, harassed, or taken during project activities.

BIO-12 Prior to initial grading of the reservoir site, the environmental monitor shall conduct pre-disturbance capture and relocation surveys for western spadefoot toad while conducting the CTS capture and relocation surveys (see BIO-13). Small mammal burrows that have potential to be occupied by western spadefoot toad and that occur in the disturbance area shall be excavated using hand tools or through gentle excavation using construction equipment, under the direct supervision of the environmental monitor, until it is certain that the burrows are unoccupied. For the purposes of this measure, "gentle excavation" is an excavation technique involving slow and shallow single passes with a backhoe/excavator bucket perpendicular to the burrow alignment that allows for burrow inspection for individuals after each pass. Individual western spadefoot toad that are encountered will be relocated out of harm's way.

The environmental monitor shall relocate any western spadefoot toad(s) found within the project footprint to an active rodent burrow system located no more than 300 feet outside of the project area. If an active rodent burrow system is not available within 300 feet of the project disturbance area, the environmental monitor shall create a burrow for the relocated individual. The created burrow may include burying 3–4 feet of 2-inch or greater corrugated polyvinyl chloride (PVC) pipe at a slight downward angle that is closed at the buried end. The individual(s) shall be handled with clean and wet hands. During relocation, they will be placed in a clean, covered plastic container with a wet non-cellulose sponge. Captured individuals shall be relocated immediately; individuals shall not be stored for lengthy periods or in heated areas. The relocation container shall be kept out of direct sunlight.

BIO-13 Development of the reservoir site will result in permanent impacts to CTS upland habitat and has the potential to result in take of CTS. GSWC coordinated with the USFWS and CDFW and has inferred presence of CTS in the project area. Therefore, GSWC shall develop an HCP and obtain an ITP from the USFWS and a CD or a 2081-ITP from the CDFW. The HCP and resulting ITP and CD shall include measures that fully mitigate the potential impacts to CTS and loss of CTS upland habitat. The measures shall be reviewed and approved by the USFWS and CDFW. The CTS minimization measures shall include, but not be limited to, capture and relocation surveys for CTS, installation of exclusionary fencing, seasonal work restrictions, periodic site monitoring, and environmental awareness trainings. Compensatory mitigation for the loss of upland habitat shall include either purchase of CTS credits at an agency-approved mitigation bank or purchase and preservation of lands that support CTS. The proposed project shall not commence until GSWC has consulted with the USFWS and CDFW and obtained an ITP and CD (or 2081-ITP) from the agencies.

BIO-14 Pursuant to the reservoir site easement agreement with the property owner, GSWC must install trees at the front of the tank site to screen the tanks from the remainder of the property. To maintain consistency with the surrounding lands, reduce the need for irrigation, and reduce the potential to alter the upland conditions for local amphibian species, GSWC shall only plant coast live oak for the tank screening. The coast live oak trees shall be irrigated with drip (flood or bubbler) irrigation or hand watered for no more than 5 years. Under no circumstances shall the irrigation system include sprinklers (e.g., fixed spray, gear driven, multiple stream, pop-up, rotary, etc.) or any system that produces a spray that mimics rain conditions. Irrigation lines shall be temporary and installed aboveground.

BIO-15 Prior to project implementation, GSWC shall prepare a brief erosion control and site restoration plan that includes the methods and materials required to restore the temporarily disturbed portions of the reservoir site inclusive of earthen stormwater basins. The erosion and site restoration plan shall include finish grading of the temporary disturbance areas to match the adjacent undisturbed contours; application of a hydroseed mix that includes soil-binding mulch and locally consistent native annual and perennial grasses, forbs, and shrubs; and a 5-year invasive species management plan. GSWC shall implement the erosion control and site restoration plan immediately following completion of the water tank installation. GSWC shall implement the invasive species management actions for a minimum of 5 years.

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APPENDIX A

Photo Documentation

Photo A-1. View of Orcutt Hill Road and right-of-way in the northern segment of the proposed pipeline. Photo taken April 16, 2020.

Photo A-2. Representative view of the northern section of the Orcutt Oil Field Road alignment. Photo taken September 7, 2018.

Photo A-3. View of Orcutt Hill Road and right-of-way in the central segment of the proposed pipeline. Photo taken April 16, 2020.

Photo A-4. View looking north over the Orcutt Oil Field Road alignment. The arroyo willow thicket and associated drainages are on both sides of the road. Photo taken September 7, 2018.

Photo A-5. Representative view of the vegetation in the Orcutt Oil Field Road alignment. Photo taken September 7, 2018.

Photo A-6. View of Orcutt Hill Road and right-of-way in the central segment of the proposed pipeline. Photo taken February 10, 2020.

Photo A-7. Representative view of the Orcutt Oil Field Road alignment in the BSA. Photo taken September 7, 2018.

Photo A-8. View of Orcutt Hill Road and right-of-way in the southern segment of the proposed pipeline. Photo taken April 16, 2020.

Photo A-9. View of the reservoir tank site looking west. Photo taken April 16, 2020.

Photo A-10. View of the reservoir tank site looking east. Photo taken February 3, 2020.

Photo A-11. Overview of the reservoir tank site. Photo taken February 3, 2020.

Photo A-12. View of a black flowered figwort that was observed adjacent to Orcutt Hill Road. Photo taken on May 19, 2020.

Photo A-13: View of a black flowered figwort that was observed adjacent to Orcutt Hill Road. Photo taken on May 19, 2020.

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APPENDIX B

CNDDB and IPaC Data

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Orcutt (3412074) OR Twitchell Dam (3412083) OR Sisquoc (3412073) OR Lompoc (3412064) OR Santa Maria (3412084) OR Casmalia (3412075) OR Los Alamos (3412063))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Agrostis hooveri Hoover's bent grass	PMPOA040M0	None	None	G2	S2	1B.2
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Ambystoma californiense pop. 2 California tiger salamander - Santa Barbara County DPS	AAAAA01182	Endangered	Threatened	G2G3T2	S2	WL
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2	SSC
Ancistrocarphus keilii Santa Ynez groundstar	PDASTD5020	None	None	G1	S1	1B.1
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aphanisma blitoides aphanisma	PDCHE02010	None	None	G3G4	S2	1B.2
Arctostaphylos crustacea ssp. eastwoodiana Eastwood's brittle-leaf manzanita	PDERI041H4	None	None	G4T2	S2	1B.1
Arctostaphylos purissima La Purisima manzanita	PDERI041A0	None	None	G2	S2	1B.1
Arctostaphylos refugioensis Refugio manzanita	PDERI041B0	None	None	G3	S3	1B.2
Arctostaphylos rudis sand mesa manzanita	PDERI041E0	None	None	G2	S2	1B.2
Astragalus didymocarpus var. milesianus Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Ceanothus impressus var. impressus Santa Barbara ceanothus	PDRHA040L1	None	None	G3T3	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Chenopodium littoreum coastal goosefoot	PDCHE091Z0	None	None	G1	S1	1B.2
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
Cirsium rhothophilum surf thistle	PDAST2E2J0	None	Threatened	G1	S1	1B.2
Cirsium scariosum var. loncholepis La Graciosa thistle	PDAST2E1N0	Endangered	Threatened	G5T1	S1	1B.1
Cladium californicum California saw-grass	PMCYP04010	None	None	G4	S2	2B.2
Cordylanthus rigidus ssp. littoralis seaside bird's-beak	PDSCR0J0P2	None	Endangered	G5T2	S2	1B.1
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Danaus plexippus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	Candidate	None	G4T1T2	S2	
Deinandra increscens ssp. villosa Gaviota tarplant	PDAST4R0U3	Endangered	Endangered	G4G5T2	S2	1B.1
Delphinium parryi ssp. blochmaniae dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2
Diplacus vandenbergensis Vandenberg monkeyflower	PDSCR1B381	Endangered	None	G1	S1	1B.1
Dithyrea maritima beach spectaclepod	PDBRA10020	None	Threatened	G1	S1	1B.1
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Erigeron blochmaniae Blochman's leafy daisy	PDAST3M5J0	None	None	G2	S2	1B.2
Eriodictyon capitatum Lompoc yerba santa	PDHYD04040	Endangered	Rare	G2	S2	1B.2
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	AFCPA03011	Endangered	Endangered	G5T1	S1	FP

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
Icaricia icarioides moroensis Morro Bay blue butterfly	IILEPG801B	None	None	G5T2	S2	
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Lasiurus frantzii western red bat	AMACC05080	None	None	G4	S3	SSC
Layia carnosa beach layia	PDAST5N010	Threatened	Endangered	G2	S2	1B.1
Layia heterotricha pale-yellow layia	PDAST5N070	None	None	G2	S2	1B.1
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lonicera subspicata var. subspicata Santa Barbara honeysuckle	PDCPR030R3	None	None	G5T2?	S2?	1B.2
Monardella sinuata ssp. sinuata southern curly-leaved monardella	PDLAM18161	None	None	G3T2	S2	1B.2
Monardella undulata ssp. crispa crisp monardella	PDLAM18070	None	None	G3T2	S2	1B.2
Monardella undulata ssp. undulata San Luis Obispo monardella	PDLAM180X0	None	None	G2	S2	1B.2
Muhlenbergia utilis aparejo grass	PMPOA481X0	None	None	G4	S2S3	2B.2
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Nasturtium gambelii Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	Candidate Endangered	G5T1Q	S1	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S4	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Scrophularia atrata black-flowered figwort	PDSCR1S010	None	None	G2?	S2?	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3S4	SSC
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Trimerotropis occulens Lompoc grasshopper	IIORT36310	None	None	G1G2	S1S2	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

Record Count: 69

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Santa Barbara County, California

Local office

Ventura Fish And Wildlife Office

(805) 644-1766
(805) 644-3958
FW8VenturaSection7@FWS.Gov

2493 Portola Road, Suite B
Ventura, CA 93003-7726

https://www.fws.gov/Ventura

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor Gymnogyps californianus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
Least Bell's Vireo Vireo bellii pusillus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo Coccyzus americanus There is final critical habitat for this species.Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is final critical habitat for this species.Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Endangered

Fishes

NAME	STATUS
Unarmored Threespine Stickleback Gasterosteus aculeatus williamsoni Wherever found There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/7002	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is final critical habitat for this species.Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Gambel's Watercress Rorippa gambellii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4201	Endangered
La Graciosa Thistle Cirsium loncholepis Wherever found There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/6547	Endangered

Lompoc Yerba Santa Eriodictyon capitatum — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/364

Marsh Sandwort Arenaria paludicola — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2229

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
La Graciosa Thistle Cirsium loncholepis https://ecos.fws.gov/ecp/species/6547#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Swift Cypseloides niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

California Gull Larus californicus — Breeds Mar 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Willet Tringa semipalmata — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted

Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

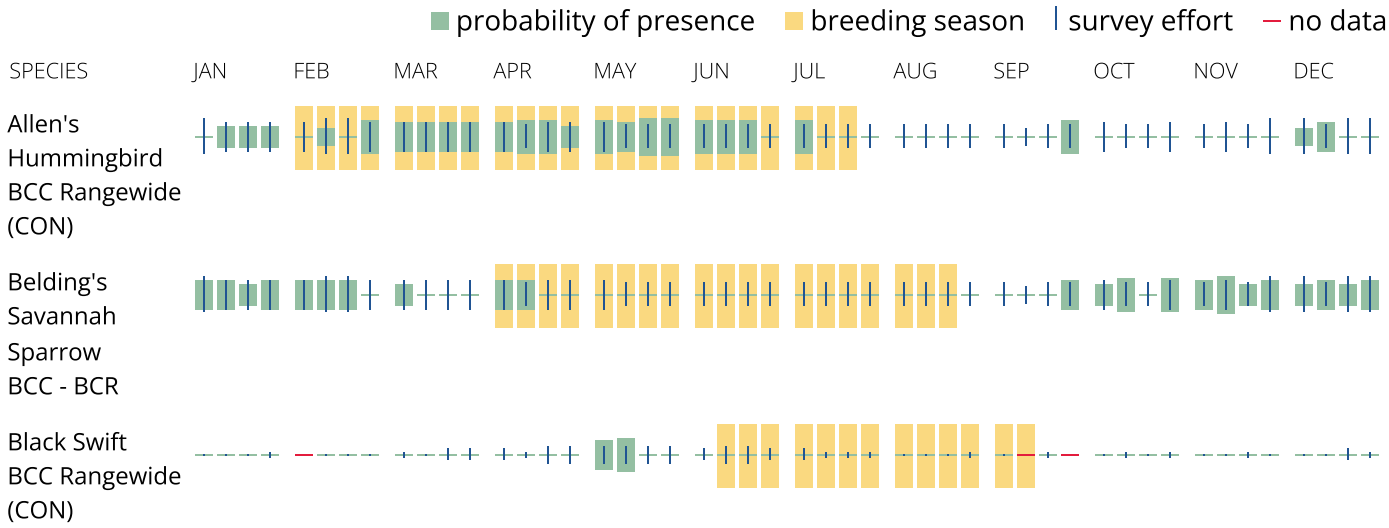
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn

more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER POND

PUSAh

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX C

List of Species Observed

Table C-1. Kelt Reservoir Observed Plant List (September 7, 2018, and February 10, April 16, and May 19, 2020)

Scientific Name	Common Name	Native	Species Status* / Notes
Vascular Plants nomenclature follows *The Jepson Manual* and http://ucjeps.berkeley.edu/interchange.html.			
Lycophytes			
Selaginellaceae	**Spike-moss family**		
Selaginella bigelovii	Bigelow's moss fern	Yes	
Angiosperms (Dicots)			
Anacardiaceae	**Sumac family**		
Schinus molle	Peruvian pepper tree	No	Invasive weed
Toxicodendron diversilobum	poison oak	Yes	
Apiaceae	**Carrot family**		
Conium maculatum	poison hemlock	No	Cal-IPC: Moderate
Foeniculum vulgare	sweet fennel	No	Cal-IPC: High
Asclepiadaceae	**Milkweed family**		
Asclepias fascicularis	narrow leaf milkweed	Yes	
Asteraceae	**Sunflower family**		
Achyrachaena mollis	blow wives	Yes	
Ambrosia artemisiifolia	annual ragweed	No	
Ambrosia acanthicarpa	annual burrweed	Yes	
Artemisia californica	California sagebrush	Yes	
Baccharis pilularis var. *consanguinea*	coyote brush	Yes	
Carduus pycnocephalus	Italian thistle	No	Cal-IPC: Moderate
Cirsium vulgare	bullthistle	No	Invasive weed
Deinandra fasciculata	fascicled tarweed	Yes	
Ericameria ericoides	mock heather	Yes	
Gamochaeta ustulata	purple cudweed	Yes	
Helminthotheca echioides	bristly ox-tongue	No	
Heterotheca grandiflora	telegraph weed	Yes	
Lactuca serriola	prickly lettuce	No	
Lasthenia gracilis	needle goldfields	Yes	
Logfia filaginoides	California cottonrose	Yes	
Logfia gallica	narrow-leafed filago	No	
Madia sativa	coastal tarweed	Yes	
Matricaria discoidea	pineapple weed	Yes	
Pseudognaphalium californicum	ladies' tobacco	Yes	
Pseudognaphalium beneolens	cudweed	Yes	
Pseudognaphalium luteoalbum	Jersey cudweed	No	
Psilocarphus tenellus	slender woolly heads	Yes	
Silybum marianum	milk thistle	No	Cal-IPC: Limited
Sonchus asper	prickly sow thistle	No	

Scientific Name	Common Name	Native	Species Status* / Notes
Stephanomeria sp.	wirelettuce	Yes	No flower or fruit structures
Boraginaceae	**Borage family**		
Amsinckia menziesii	small flowered fiddleneck	Yes	
Heliotropium curassavicum	salt heliotrope	Yes	
Brassicaceae	**Mustard family**		
Brassica nigra	black mustard	No	
Hirschfeldia incana	summer mustard	No	
Raphanus sativus	wild radish	No	Cal-IPC: Limited
Caprifoliaceae	**Honeysuckle family**		
Lonicera interrupta	honeysuckle	Yes	
Caryophyllaceae	**Pink family**		
Cardionema ramosissimum	sand mat	Yes	
Cerastium glomeratum	mouseear chickweed	No	
Spergula arvensis	corn spurry	No	
Spergularia rubra	purple sand spurry	No	
Stellaria media	chickweed	No	
Chenopodiaceae	**Goosefoot family**		
Atriplex semibaccata	Australian saltbush	No	
Salsola australis	Russian thistle	No	
Convolvulaceae	**Morning glory family**		
Calystegia macrostegia	coast morning glory	Yes	
Crassulaceae	**Stonecrop family**		
Crassula connata	pigmy weed	Yes	
Cucurbitaceae	**Gourd family**		
Marah fabaceus var. *fabaceus*	wild cucumber	Yes	
Euphorbiaceae	**Spurge family**		
Croton californicus	desert croton	Yes	
Croton setiger	turkey-mullein	Yes	
Fabaceae	**Pea family**		
Acmispon americanus	Spanish lotus	Yes	
Acmispon glaber	deerweed	Yes	
Lupinus albifrons	silver bush lupine	Yes	
Lupinus bicolor	miniature lupine	Yes	
Melilotus indicus	sourclover	No	
Medicago polymorpha	bur clover	No	Cal-IPC: Limited
Vicia sativa	spring vetch	No	
Vicia villosa	hairy vetch	No	Invasive
Fagaceae	**Oak family**		
Quercus agrifolia	coast live oak	Yes	

Scientific Name	Common Name	Native	Species Status* / Notes
Geraniaceae	**Geranium family**		
Erodium cicutarium	red stemmed filaree	No	Cal-IPC: Limited
Erodium moschatum	white stemmed filaree	No	
Pelargonium grossularioides	Gooseberry geranium	No	
Lamiaceae	**Mint family**		
Marrubium vulgare	white horehound	No	
Montiaceae	**Miner's lettuce family**		
Claytonia perfoliata ssp. *perfoliata*	miner's lettuce	Yes	
Myrsinaceae	**Myrsine family**		
Lysimachia arvensis	scarlet pimpernel	No	
Myrtaceae	**Myrtle family**		
Eucalyptus sp.	eucalyptus	No	
Onagraceae	**Evening primrose family**		
Camissoniopsis micrantha	Spencer primrose	Yes	
Orobanchaceae	**Broomrape family**		
Castilleja exserta ssp. *exserta*	purple owl's clover	Yes	
Oxalidaceae	**Woodsorrel family**		
Oxalis corniculata	creeping wood sorrel	No	
Papaveraceae	**Poppy family**		
Eschscholzia californica	California poppy	Yes	
Phrymaceae	**Lopseed family**		formally Scrophulariaceae
Diplacus aurantiacus	sticky monkeyflower	Yes	
Plantaginaceae	**Plantain family**		
Nuttallanthus texanus	blue toadflax	Yes	
Polygonaceae	**Buckwheat family**		
Lastarriaea coriacea	leather spineflower	Yes	
Polygonum aviculare	prostrate knotweed	No	
Rumex acetosella	sheep sorrel	No	Cal-IPC: Moderate
Rumex pulcher	fiddle dock	No	
Rhamnaceae	**Buckthorn family**		
Ceanothus cuneatus var. *cuneatus*	wedgeleaf ceanothus	Yes	
Frangula californica	California coffeeberry	Yes	
Rhamnus crocea	redberry	Yes	
Rosaceae	**Rose family**		
Heteromeles arbutifolia	toyon	Yes	
Salicaceae	**Willow family**		
Salix lasiolepis	arroyo willow	Yes	
Salix laevigata	red willow	Yes	

Scientific Name	Common Name	Native	Species Status* / Notes
Scrophulariaceae	**Figwort family**		
Scrophularia atrata	black flowered figwort	Yes	CRPR 1B.2
Solanaceae	**Nightshade family**		
Nicotiana glauca	tree tobacco	No	Invasive
Verbenaceae	**Verbena family**		
Verbena lasiostachys	common vervain	Yes	
Angiosperms (Monocots)			
Cyperaceae	**Sedge family**		
Schoenoplectus acutus var. *occidentalis*	tule	Yes	
Juncaceae	**Rush family**		
Juncus occidentalis	slender juncus	Yes	
Juncus patens	rush	Yes	
Juncus phaeocephalus	brown headed rush	Yes	
Poaceae	**Grass family**		
Avena barbata	slender oat	No	Cal-IPC: moderate
Bromus diandrus	ripgut brome	No	Cal-IPC: moderate
Bromus hordeaceus	soft chess	No	Cal-IPC: limited
Bromus madritensis ssp. *madritensis*	foxtail chess	No	
Bromus madritensis ssp. *rubens*	red brome	No	
Cynodon dactylon	Bermuda grass	No	
Elymus glaucus	blue wildrye	Yes	
Elymus triticoides	creeping wild-rye	Yes	
Festuca bromoides	brome fescue	No	
Festuca myuros	rattail fescue	No	Cal-IPC: moderate
Festuca perennis	Italian rye grass	No	
Hordeum brachyantherum	meadow barley	Yes	
Hordeum murinum ssp. *leporinum*	foxtail barley	No	Cal-IPC: moderate
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	No	Cal-IPC: moderate
Lamarckia aurea	goldentop	No	

*** California Invasive Plant Council (Cal-IPC) Ratings:**
***High*:** These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
***Moderate*:** These species have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
***Limited*:** These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Table C-2. Kelt Reservoir Observed Wildlife List (September 7, 2018, and February 10, April 16, and May 19, 2020)

Scientific Name	Common Name	Notes
Birds		
Wading Birds		
Ardea herodias	great blue heron	
Diurnal Raptors		
Cathartes aura	turkey vulture	
Buteo jamaicensis	red-tailed hawk	
Falco sparverius	American kestrel	
Upland Game Birds		
Callipepla californica	California quail	
Meleagris gallopavo	wild turkey	
Pigeons and Doves		
Zenaida macroura	mourning dove	
Streptopelia decaocto	Eurasian collared-dove	
Hummingbirds		
Calypte anna	Anna's hummingbird	
Woodpeckers		
Colaptes auratus	northern flicker, red-shafted	
Melanerpes formicivorus	acorn woodpecker	
Tyrant Flycatchers		
Sayornis nigricans	black phoebe	
Jays, Crows, and Allies		
Aphelocoma californica	California scrub-jay	
Corvus brachyrhynchos	American crow	
Chickadees, Nuthatches, and Allies		
Baeolophus inornatus	oak titmouse	
Psaltriparus minimus	bushtit	
Wrens		
Thryomanes bewickii	Bewick’s wren	
Dippers and Wrentits		
Chamaea fasciata	Wrentit	Detected by vocalization
Thrushes		
Sialia mexicana	western bluebird	
Toxostoma redivivum	California thrasher	
Mimids		
Mimus polyglottos	northern mockingbird	
Waxwings, Silky-Flycatchers, and Starlings		
Sturnus vulgaris	European starling	

Scientific Name	Common Name	Notes
Wood-warblers		
Setophaga coronata	yellow-rumped warbler	
Emberizine Sparrows and Allies		
Zonotrichia leucophrys	white-crowned sparrow	
Melospiza melodia	song sparrow	
Melozone crissalis	California towhee	
Icterids		
Icterus bullockii	Bullock's oriole	
Icterus cucullatus	hooded oriole	
Sturnella neglecta	western meadowlark	
Agelaius phoeniceus	red-winged blackbird	
Euphagus cyanocephalus	Brewer's blackbird	
Finches and Old World Sparrows		
Haemorhous mexicanus	house finch	
Mammals		
Canidae		
Canis latrans	coyote	Scat
Lagomorphs		
Sylvilagus bachmani	brush rabbit	
Rodents		
Spermophilus beecheyii	California ground squirrel	
Ruminantia		
Odocoileus hemionus californicus	black-tailed deer	Scat; tracks
Reptiles		
Elgaria coerulea	northern alligator lizard	
Sceloporus occidentalis	western fence lizard	
Pituophis catenifer annectens	San Diego gopher snake	
Crotalus viridis	western rattlesnake	

APPENDIX D

Aquatic Resources Delineation

APPENDIX B

Aquatic Resources Delineation

Aquatic Resources Delineation for the Kelt Reservoirs Project, Orcutt, Santa Barbara County, California

JUNE 2020

PREPARED FOR

Golden State Water Company

PREPARED BY

SWCA Environmental Consultants

AQUATIC RESOURCE DELINEATION FOR THE KELT RESERVOIRS PROJECT, ORCUTT, SANTA BARBARA COUNTY, CALIFORNIA

Prepared for

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Prepared by

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SWCA Project No. 48544.14

June 2020

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1 INTRODUCTION

SWCA Environmental Consultants (SWCA) has prepared this Aquatic Resources Delineation report at the request of the Golden State Water Company (GSWC). This report summarizes the existing soil, hydrology, and vegetative conditions observed in the 1.0 Million Gallon Kelt Reservoir Project (project) study area in Orcutt, Santa Barbara County, California. This report is intended for use by the GSWC, State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW), U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) while evaluating the project. This report identifies potential Waters of the United States (WOTUS), as defined by the Clean Water Act (CWA), and Waters of the State, as defined by California Water Code Section 13050(e) and California Fish and Game Code Section 1602.

Findings reported herein are based on information gathered in the field and SWCA's understanding of the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (Lichvar and McColley 2008), and federal and state guidelines for delineation of jurisdictional waters. It is understood that this report will be subject to jurisdictional review by the USACE, RWQCB, and CDFW.

1.1 Project Description

GSWC proposes to install a new approximately 1.2-mile-long water pipeline and two new 1-million-gallon (MG) reservoir water tanks along Orcutt Hill Road near the southern boundary of the community of Orcutt. GSWC proposes to immediately construct the 1.2-mile-long water pipeline and Tank A, a 1-MG reservoir tank, and the reservoir site would be designed and constructed to facilitate the future construction of Tank B, a second 1-MG reservoir tank located adjacent to Tank A.

As part of GSWC's Water Master Plan (WMP) for the Orcutt System, system storage analyses are conducted to determine if adequate storage is available within the water system. This analysis considers a cumulative look at operational, fire, and emergency storage. The analysis resulted in a storage deficiency of roughly 1.5 MG. The proposed project would remedy the 1.5-MG storage deficiency for the Orcutt Zone as well as optimize operations within the Orcutt Zone.

1.1.1 *Pipeline*

The proposed project would install a new water pipeline within Orcutt Hill Road that would connect the proposed Kelt Reservoirs to the existing GSWC distribution system. Approximately 1.2 miles of 24-inch transmission pipeline would be installed within the County of Santa Barbara (County) right-of-way using an open trench method, except where the pipeline would cross drainage features.

The pipeline alignment is within the existing Orcutt Hill Road right-of-way and extends southeast approximately 1.2 miles from the intersection of East Rice Ranch Road to the reservoir site. The pipeline corridor parallels and crosses Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in several locations. The project proposes to extend the pipeline under the drainages (e.g., through jack-and-bore or horizontal directional drilling techniques) to avoid the need to trench through these features.

1.1.2 *Reservoir Site*

The project proposes to install two 1-MG reservoir water tanks and an access road on a 2-acre portion of Assessor's Parcel Number (APN) 101-010-023. The proposed reservoir site is located within a southeastern portion of the parcel, on the west side of Orcutt Hill Road.

The proposed project includes site design for two new 1-MG steel tank reservoirs at the site. Installation of Tank A would occur immediately upon approval of this project. The site has been designed to accommodate a second water tank, Tank B, which would be constructed at a future date when required by Orcutt area water demand. Each new water tank would be approximately 83 feet in diameter and 30 feet in height. The project would also include the installation of a 15-foot-wide paved access road that would extend from Orcutt Hill Road to the new tank location, a 15-foot-wide paved access road that would extend from the site entrance on Orcutt Hill Road around the tanks, and a chain-link fence surrounding the site.

Excess tank overflow and stormwater would be captured in a new 6-foot concrete drainage channel and a series of drainpipes and directed to three catch basins within the access road circling the tanks.

1.1.3 *Project Construction*

Project construction would result in approximately 6.36 acres of total disturbance, including 2 acres of disturbance at the tank site and 4.36 acres within the existing right-of-way along Orcutt Hill Road and East Rice Ranch Road. Excavated soils would be replaced with an aggregate base to meet compaction requirements. The project site would be accessed via existing paved and dirt roads and staging areas and laydown sites would be located within the project site.

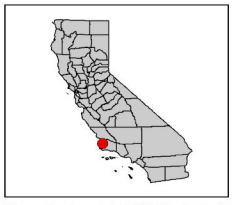
2 PROJECT LOCATION

The project study area is in Orcutt, Santa Barbara County, California and includes a 1.2-mile waterline that extends south along Orcutt Hill Road from East Rice Ranch Road and Orcutt Hill Road intersection. The southern terminus of the project study area includes an approximately 2-acre portion of Assessor's Parcel Number (APN) 101-020-078. The project study area is included in Sections 14 and 23, Township 9, and Range 34 west of the Orcutt, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (USGS 1984). The central portion of the study area is located at 34.848755, -120.422700 (latitude, longitude). Figure 1 shows the project vicinity and Figure 2 shows the project study area.

3 METHODS

A delineation of potentially jurisdictional waters was conducted in the entire study area on February 10 and May 19, 2020, by a Wetland Training Institute-trained SWCA biologist/wetland delineator. The delineation was conducted in the beginning of the growing season; as such, the field conditions were indicative of spring following winter rains.

Prior to conducting the field survey, existing information was reviewed including aerial photography, the National Wetlands Inventory (NWI) (U.S. Fish and Wildlife Service [USFWS] 2020), and soil survey data (U.S. Department of Agriculture Natural Resources Conservation Service [NRCS] 2020).



Legend

Study Area

Feet
0 1,000 2,000 4,000

Meters
0 250 500 1,000

Scale: 1:24,000

Map Center: 34.8511°N, 120.4238°W | Santa Barbara County, CA | Project Number: 48544.14 | 6/12/2020

SWCA ENVIRONMENTAL CONSULTANTS

Figure 1. Site vicinity map.

Figure 2. Study area map.

3.1 Waters of the United States

This Aquatic Resources Delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (Lichvar and McColley 2008).

3.2 Waters of the State (SWRCB/RWQCB)

Potential jurisdictional boundaries for Waters of the State under RWQCB jurisdiction were delineated using the latest available recommended procedures per the California Water Boards' (defined as the SWRCB and nine RWQCBs) *State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State* (California Water Boards 2019). Under the *Procedures*, the Water Boards would rely on delineations approved by USACE within the boundaries of WOTUS. Where federal jurisdiction does not extend to state waters, the *Procedures* direct applicants to use the methods described by Environmental Laboratory (1987) and USACE (2008a). For the purposes of this delineation, Waters of the State extend from the channel bed to the top of a bank or outer edge of riparian canopy (whichever is greater) of ephemeral drainages and include adjacent wetlands and non-federal isolated waters, where applicable.

3.3 California Department of Fish and Wildlife

CDFW jurisdiction was mapped in areas that had evidence of cut bank and channel, or evidence of historical flows, to the point where no confining feature was present. CDFW jurisdiction was delineated to the top of ephemeral drainages banks, or outer edge of the riparian vegetation when riparian vegetation was present.

4 EXISTING CONDITIONS

4.1 Landscape Setting

The project study area includes a 50-foot corridor that is centered on Orcutt Hill Road and terminates at the proposed reservoir site at the southern end of the study area. Orcutt Hill Road travels north to south from East Rice Ranch Road to the foot slope Solomon Hills area (see Figure 2). The topography of the study area is gently sloping to the north with elevations ranging from 400 feet in the north to 500 feet in south. Photos of the project study area are included in Appendix A.

At the East Rice Ranch Road intersection with Orcutt Hill Road (northern end of the alignment), residential development exists on the north side of East Rice Ranch Road and the east side of Orcutt Hill Road. Open space occurs on the south side of East Rice Ranch Road and the west side of Orcutt Hill Road. The open space includes an unnamed creek (herein referred to as Pine Canyon Creek), which supports arroyo willow thicket.

The project corridor is within and adjacent to the existing Orcutt Hill Road right-of-way. Except for the residential community discussed above, the project corridor is bordered by undeveloped lands. The undeveloped lands include established but unpaved parking areas, equipment staging areas, borrow pits, landscape areas, and cattle lands. These areas include a variety of vegetative communities, including but

not limited to ruderal vegetation, arroyo willow thicket, eucalyptus woodland, California sagebrush scrub, annual brome grassland, and coyote brush scrub. The project corridor parallels and crosses Pine Canyon Creek and an unnamed tributary to Pine Canyon Creek in several locations.

The proposed reservoir site is at the southern terminus of the project corridor and includes a 2.17-acre polygon on the south side of Orcutt Hill Road. The elevation of the reservoir site is approximately 500 feet above mean sea level and the topography is gently sloping to the east. A steep, northeast-facing slope borders the southeastern side of the reservoir site; a west-facing slope borders the east side of the reservoir site. A small remnant asphalt road traverses the eastern border of the reservoir site. The road appears to have been long abandoned and is partially overgrown with pioneering vegetation.

The vegetation types in the reservoir site include annual brome grassland at Orcutt Oil Field Road and extending into the central portion of the site, coyote brush scrubland in the southern portion of the site, and California sagebrush scrub on the bordering slopes. Several mature Eucalyptus trees occur in the annual brome grasslands. Coyote brush (*Baccharis pilularis* ssp. *consanguinea*) is the dominant species in the reservoir site. This species commonly establishes in sites following disturbances. The presence of this habitat type in combination with the remnant asphalt road indicates that the lands in the reservoir site were subject to clearing activities at one time. The reservoir site does not include any waterways.

4.1.1 *Vegetation*

The vegetation in the Pine Canyon Creek and Unnamed Drainage corridors includes a mix of eucalyptus woodland, arroyo willow thickets, coyote brush scrub, coastal sage scrub, coast live oak (*Quercus agrifolia*) trees, and annual grasslands. The vegetation in the Pine Canyon Creek flood plain wetland includes arroyo willow thicket with an understory of brown-headed rush (*Juncus phaeocephalus*). More detailed discussion of the vegetation observed in the sample plots is included in Section 4.2.2, Sample Plots.

4.1.2 *Soil*

The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) maps the following soil types in the project study area:

- Botella loam, 2 to 15 percent slopes, eroded in the project study area, occurs in valleys along toeslopes. Its parent material is alluvium derived from acidic sandstone and shale.
- Elder sandy loam, 0 to 2 percent slopes and 2 to 15 percent slopes, occurs in alluvial fans along footslopes. Its parent material is alluvium derived from acidic sandstone and shale.
- Terrace escarpments, sandy, occurs on escarpments and is derived from sandy alluvium.

None of these soil types are listed hydric soils. Figure 3 includes a map of the soils in and adjacent to the project study area.

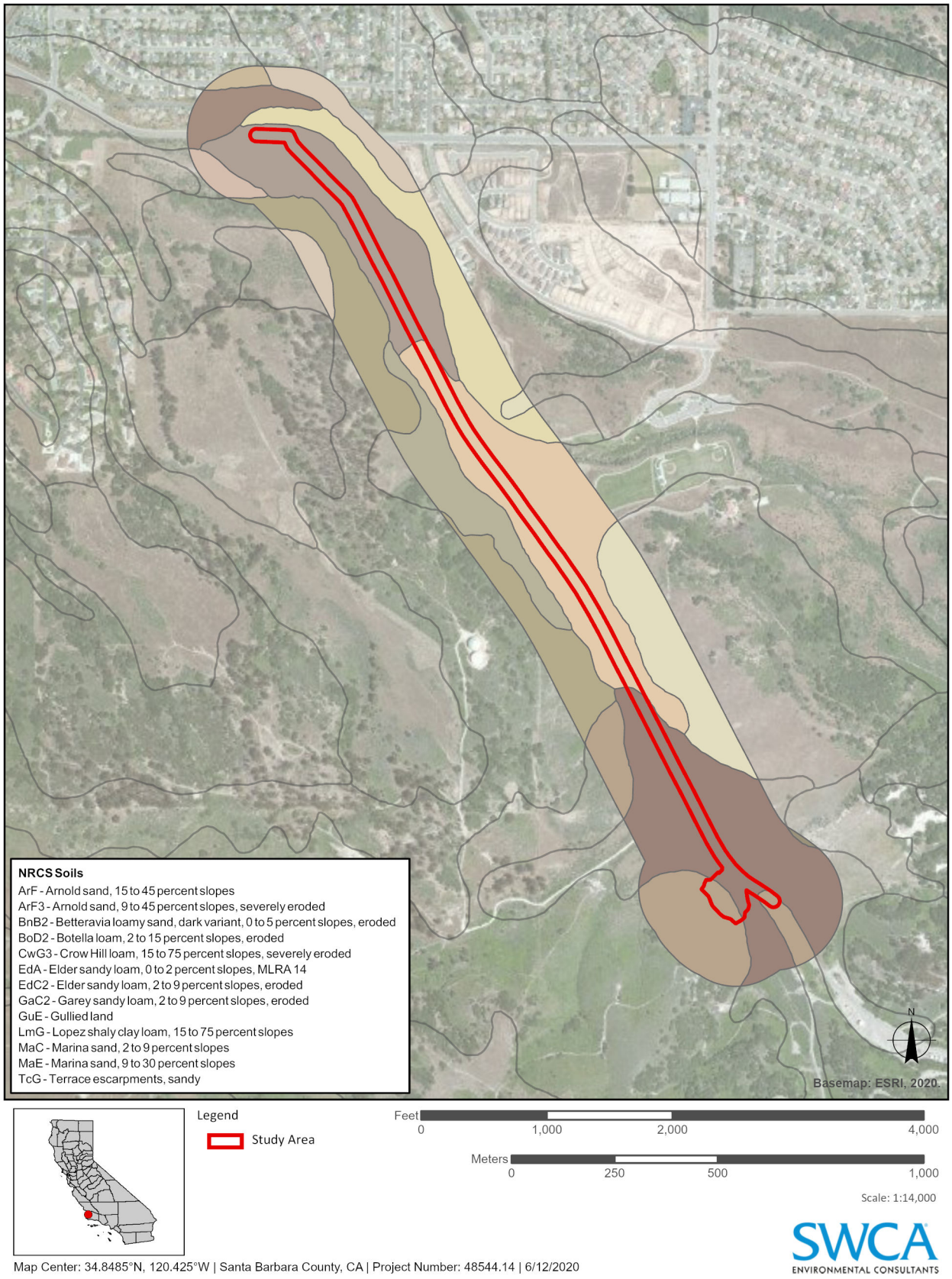


Figure 3. Soils map.

4.1.3 *Hydrology*

The project study area is in the Orcutt Creek Watershed, which is within the larger Santa Maria Watershed Hydrologic Unit Code 18060008 (National Water Quality Monitoring Council 2020). Within the study area, the Unnamed Drainage is a tributary to Pine Canyon Creek (National Hydrography Dataset Plus [NHD+] Reach 17624817), which is the only waterway in the project corridor that is designated as a "blue line" feature on the most recent Orcutt, California USGS 7.5-minute topographic quadrangle map (USGS 1984). Pine Canyon Creek converges with Orcutt Creek approximately 1.5 miles north of the study area. Orcutt Creek eventually flows to the Betteravia Lakes area south of the city of Guadalupe. According to *U.S. v. Adam Bros. Farming, Inc*., the U.S. District Court, C.D. California, Western Division found that because water in Orcutt Creek flowed through a set of "gravity flow pipes" underneath a farm road and out of the Betteravia lakes area, a hydrological connection existed between Orcutt Creek and the Pacific Ocean (Casetext 2004).

4.2 Aquatic Resources

Descriptions of the aquatic resources observed in the study area are included below. Photos of the aquatic resources are included in Appendix A; maps of the aquatic resources in and adjacent to the study area are provided in Appendix B.

4.2.1 *Overview*

The unnamed creek (herein referred to as Pine Canyon Creek) is a "blue line" feature and is the largest waterway in the project corridor. The headwater to Pine Canyon Creek is at Graciosa Ridge, which is located south of the project corridor. From Graciosa Ridge, the creek flows north through Pine Canyon and enters the project area at the creek's intersection with Orcutt Hill Road. At its intersection with Orcutt Hill Road, Pine Canyon Creek flows through a culvert (herein referred to as Culvert 5) under Orcutt Hill Road. Once on the west side of Orcutt Hill Road, Pine Canyon Creek parallels the west side of Orcutt Hill Road until it reaches East Rice Ranch Road. At East Rice Ranch Road, Pine Canyon Creek abruptly turns west and parallels East Rice Ranch Road as a roadside ditch. Pine Canyon Creek eventually combines with Orcutt Creek approximately 1.5 miles northwest of the project corridor. Pine Canyon Creek supports riparian vegetation, definable bed and bank features, and ordinary high water marks (OHWMs). Most of the creek reach in the project area is intermittent and lacks evidence of wetland indicators. However, the creek channel fans out and becomes a floodplain just south of the East Rice Ranch Road and Orcutt Hill Road intersection. Wetland indicators were observed in the floodplain area and the reach of Pine Canyon Creek that is alongside East Rice Ranch Road.

In addition to Pine Canyon Creek, an unnamed drainage feature (herein referred to as Unnamed Drainage) and a cattle pond occur in and/or adjacent to the project corridor. The Unnamed Drainage begins at a culvert (herein referred to as Culvert 1) and flows north. Culvert 1 is at an unnamed connector road that intersects Orcutt Hill Road, approximately 1.0 mile south of the Orcutt Hill Road and East Rice Ranch Road intersection. The Unnamed Drainage flows north along the western side of Orcutt Hill Road, and eventually crosses under Orcutt Hill Road at a second culvert (herein referred to as Culvert 2). Between Culverts 1 and 2, the Unnamed Drainage is a roadside ditch with faint evidence of bed and bank and no OHWM. After Culvert 2, the Unnamed Drainage continues north into a cattle pond that captures the water and has a concrete spillway. Based on the field survey observations, it does not appear that water exits the pond very often. Between Culvert 2 and the cattle pond, the Unnamed Drainage supports bed and bank features but does not have OHWMs. After the cattle pond, the Unnamed Drainage continues north outside of the project area until it is crossed by a private driveway. A culvert (herein referred to as Culvert 3) occurs at the private driveway and its Unnamed Drainage crossing. The Unnamed Drainage continues

north after exiting Culvert 3 and is directly adjacent to Orcutt Hill Road until it reaches a fourth culvert (herein referred to as Culvert 4). At Culvert 4, the Unnamed Drainage crosses under Orcutt Hill Road and continues north until it converges with Pine Canyon Creek. The reach of the Unnamed Drainage that is north of the cattle pond, supports riparian vegetation, bed and bank features, and OHWM.

Table 1. Aquatic Resources within the Survey Area

Aquatic Resource	Location	Classification*	Size**
Pine Canyon Creek	34.853 N, -120.426418 W	Riverine intermittent streambed	0.027 ac / 1,559 lf
Pine Canyon Creek	34.857195 N, -120.429869 W	Palustrine seasonally flooded	0.221 ac / 296 lf
Unnamed Drainage	34.849117 N, -120.423354 W	Riverine intermittent streambed	0.105 ac / 1,552 lf

* Cowardin 1979

** ac = acre; lf = linear feet

Pine Canyon Creek and the Unnamed Drainage are intermittent waterways that function to convey seasonal flows during and immediately after significant rain events. These features are not used for interstate or foreign commerce or recreation.

4.2.1.1 NATIONAL WETLAND INVENTORY

The National Wetland Inventory (NWI) map for the study area is included in Appendix C. The NWI identifies Pine Canyon Creek as Riverine Intermittent Streambed Seasonally Flooded (R4SBC). NWI does not identify the Unnamed Drainage in its map set. NWI does not identify the cattle pond in its map set. NWI falsely includes a 0.47-acre Palustrine Unconsolidated Shore Temporarily Flooded Diked/ Impounded (PUSAh) freshwater pond in its map set. The alleged freshwater pond is a parking and staging area that is used by the local oil industry. The cattle pond is located across Orcutt Hill Road from the alleged freshwater pond. It is possible that NWI mapping has mis-documented the location of the cattle pond; however, the NWI-mapped freshwater pond is far bigger than the cattle pond.

4.2.2 *Sample Plots*

The following sections describe the aquatic features at the observed sample plots. Each section correlates with the datasheets included in Appendix D.

4.2.2.1 RESERVOIR TANK SITE

The reservoir tank site includes a flat area at a toeslope. The flat area is dominated by coyote brush and annual grasses including foxtail (*Hordeum murinum*), goldentop (*Lamarckia aurea*), and rattail sixweeks grass (*Vulpia myuros*). A small topographic dip occurs in the flat area that is approximately 1 foot deep by 2 feet wide and did not include OHWM, banks, or channel. The topographic dip ceases immediately downslope from the reservoir site (Appendix C: Reservoir Site Datasheet). Due to the lack of OHWM, banks, and channel, the topographic dip was not mapped as a potential waterway.

4.2.2.2 CULVERT 1: UNNAMED DRAINAGE

The Unnamed Drainage at Culvert 1 consists of a roadside drainage that parallels Orcutt Hill Road. The sampled area did not show any evidence of wetland indicators; therefore, an Arid West Ephemeral and Intermittent Stream OHWM Datasheet was completed in the plot (Appendix C: Culvert 1 Datasheet). The drainage includes gently U-shaped bed and banks. The eastern bank of the drainage appears to be created by the elevated road shoulder which is mowed, and supports an aboveground steel pipe. The bed is

largely flat and barely perceptible from the banks. The bed to bank transition does not show any evidence of OHWM. The eastern bank and the bed of the ditch support upland annual grasses including foxtail. The western bank is approximately 1 foot taller than the bed and supports coyote brush and California sagebrush (*Artemisia californica*). The culvert outlet does not show any evidence of ponding.

The mapped boundaries of the Unnamed Drainage in this location included the top of bank on each side of the channel. The eastside boundary is essentially the top of the road shoulder, whereas the westside boundary followed the top of the low bank. This location does not support riparian vegetation or OHWM. The drainage upstream from Culvert 1 is less perceptible than downstream of the culvert. The only feature upstream of Culvert 1 is the road shoulder, which is slightly elevated above the native grade in the area. No mapping was collected upstream of Culvert 1 due to the lack of bed and bank, riparian vegetation, and OHWM.

4.2.2.3 CULVERT 2: UNNAMED DRAINAGE

The Unnamed Drainage continues under Orcutt Hill Road at Culvert 2. At the Culvert 2 inlet, the drainage channel is like the channel described at Culvert 1. The channel briefly ceases at the Culvert 2 outlet but becomes defined again approximately 50 feet north of the culvert outlet. The area between the culvert outlet and the redefined channel includes a shallow vegetated depression that supports rattail sixweeks grass, foxtail, and bur clover (*Medicago polymorpha*). The vegetation at the culvert outlet did not pass the hydrophytic vegetation or wetland hydrology tests; therefore, a soil sample was not investigated.

Downstream of Culvert 2 the drainage resumes outside of the project area until it enters a cattle stock pond. The cattle stock pond supported minimal vegetation and approximately 1 foot of surface water during the survey.

4.2.2.4 CULVERT 3: UNNAMED DRAINAGE

The Unnamed Drainage is crossed by a private driveway at Culvert 3. This area is characterized by an incised channel and arroyo willow thicket. Culvert 3 is a 16-inch culvert with stacked concrete bag wingwalls that is adjacent to Orcutt Hill Road. Vegetation had been manually cleared from the culvert outlet area just prior to the investigation. An OHWM was not present at the culvert outlet; however, OHWM were present 50 feet downstream of the culvert outlet (Appendix C: Culvert 3 Datasheet).

4.2.2.5 CULVERT 4: UNNAMED DRAINAGE

At Culvert 4 the Unnamed Drainage crosses under Orcutt Hill Road to continue north on the west side of Orcutt Hill Road. The Unnamed Drainage is characterized by steep banks, sparse upland vegetation, and a narrow (approximately 2 feet) OHWM. The OHWM is demarcated by a reduction of vegetative cover in the drainage bed and a break in slope. The break in slope at the base of the banks creates an incised thalweg, which showed no evidence of recent flows during the investigation. The dominant upland vegetation included wild oats (*Avena barbata*), rip gut brome (*Bromus diandrus*), coyote brush, and California sagebrush. Mugwort (*Artemisia douglasiana*) was the only wetland indicator species observed in the plot; however, arroyo willow thicket occurs just outside of the sample plot and on the east side of the culvert.

The mapped boundaries of the Unnamed Drainage in this location included the top of bank on the west side of the culvert and the outer extent of riparian vegetation (arroyo willow thicket) on the east side of the culvert. The outer extent of riparian vegetation follows the edge of Orcutt Hill Road between Culverts

3 and 4. The channel between Culverts 3 and 4 include approximately 3-foot-wide OHWMs (Appendix C: Culvert 4 Datasheet).

4.2.2.6 CULVERT 5: PINE CANYON CREEK

Pine Canyon Creek crosses under Orcutt Hill Road at Culvert 5 to converge with the Unnamed Drainage on the west side of Orcutt Hill Road. The culvert is very old and has failing sheet metal wingwalls that are being supported by metal pipe kickers (Appendix A: Photo A-6). The channel is characterized by a nearly vertical northern bank that supports California sagebrush and coyote bush shrubs. A low terrace dominated by upland annual grasses occurs at the toe of the southern bank on the eastern side of Orcutt Hill Road. The banks on the western side of Orcutt Hill Road are nearly vertical and the channel is incised. The OHWM is demarcated by a reduction in vegetative cover in the channel bed and a break in slope at the toe of each bank. Although the channel was very dry, indicators of past hydrology included drift deposits (woody debris and trash).

The mapped boundaries of Pine Canyon Creek at its convergence with the Unnamed Drainage included the top of bank on each side of the culvert. The channel in this reach of Pine Canyon Creek includes an approximately 3-foot-wide OHWM, which was also mapped.

4.2.2.7 WELTAND DETERMINATION PLOTS 1 AND 2

Approximately 500 feet south of the East Rice Rand Road and Orcutt Hill Road intersection, the Pine Canyon Creek channel dissipates into a flat low-lying area that supports arroyo willows (*Salix lasiolepis*) and other hydrophytic plant species. SWCA investigated one Arid West Wetland Determination plot in this area to determine if wetland indicators were present. The vegetation in the area includes an open arroyo willow thicket with brown-headed rush (*Juncus phaeocephalus*) and creeping wildrye (*Elymus triticoides*) in the understory. The dominance of these facultative wetland (FACW) species was sufficient to pass the dominance test for hydrophytic vegetation. Soil in the plot included loamy sand with prominent concentrations in the pore linings and the matrix starting at 1 inch below the surface; these characteristics meet the S5 hydric soil indicator (sandy redox). Wetland hydrology indicators included surface soil cracks in a crust layer and oxidized rhizospheres in living root channels. Due to the presence of hydrophytic plants, hydric soil indicators, and wetland hydrology indicators, the low-lying area was mapped as three-parameter wetlands.

The low-lying area transitions to an engineered channel that runs along the side of East Rice Ranch Road. The engineered channel supports arroyo willows, cattails (*Typha* sp.), and surface water. Due to these characteristics the engineered channel was included in the wetland boundary mapping.

Wetland determination Plot 2 was located approximately 100 feet west of Plot 1 in the same flood prone area as Plot 1. The vegetation in Plot 2 was dominated by hydrophytic species; however, the soils did not include any hydric soil indicators and wetland hydrology indicators were absent (Appendix C: Plot 2 Arid West Datasheet). Plot 2 was determined to be outside of the mapped wetland area.

5 REGULATORY SETTING

5.1 Clean Water Act / U.S. Army Corps of Engineers

Regulatory protection for water resources throughout the United States is under the jurisdiction of the USACE. Section 404 of the CWA prohibits the discharge of dredged or fill material into WOTUS without formal consent from the USACE. Policies relating to the loss of aquatic habitats generally stress the need

for no net loss of wetland resources. Under Section 404, actions in WOTUS may be subject to an individual permit, nationwide permit, or general permit, or may be exempt from regulatory requirements.

The protection of federal jurisdictional WOTUS has been historically contentious and subject to numerous legal decisions. In recent years, federal jurisdictional WOTUS protected under the CWA were defined in a 2015 Final Rule by the U.S. Environmental Protection Agency (USEPA) and U.S. USACE (USEPA and USACE 2015); however, the Sixth Circuit U.S. Court of Appeals issued an order staying the new Clean Water Rule nationwide, pending a determination by the court on jurisdiction to review the rule. The 2015 Clean Water Rule was stayed, and the prior regulations published in 1986 (USACE 1986), along with some changes in 2008 as a result of the Rapanos U.S. Supreme Court decision (USACE 2008b) remained in effect.

On February 28, 2017, the Trump Administration issued Executive Order 13778, "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States' Rule." The Executive Order directed the USACE and EPA to review the 2015 Rule for consistency with the policy outlined in Section 1 of the order and to issue a proposed rule rescinding or revising the 2015 Rule as appropriate and consistent with law On September 12, 2019, the USEPA and USACE repealed the 2015 Rule and restored the previous regulatory regime as it existed prior to finalization of the 2015 Rule (USEPA and USACE 2019). This final rule, "Definition of 'Waters of the United States'—Recodification of Pre-Existing Rules" was published in the *Federal Register* on October 22, 2019 (USEPA and USACE 2019).

On January 23, 2020, the USEPA and the U.S. Department of the Army (Army) issued the Navigable Waters Protection Rule to define WOTUS (USEPA and Army 2020a). The agencies streamlined the definition so that it includes four simple categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never been defined before. The U.S. Congress, in the CWA, explicitly directed the agencies to protect "navigable waters." The Navigable Waters Protection Rule regulates these waters and the core tributary systems that provide perennial or intermittent flow into them. The final rule would fulfill Executive Order 13788, reflect legal precedent set by key Supreme Court cases, and replace previously published rules. The final rule is expected to become effective June 22, 2020.

The Navigable Waters Protection Rule outlines four clear categories of waters that are considered WOTUS (USEPA and Army 2020b). These four categories protect the nation's navigable waters and the core perennial and intermittent tributary systems that flow into those waters:

- **Territorial Seas and Traditional Navigable Waters (TNWs)**
  - Under the final rule, the territorial seas and traditional navigable waters (TNWs) include large rivers and lakes and tidally influenced waterbodies used in interstate or foreign commerce.
- **Tributaries**
  - Under the final rule, tributaries include perennial and intermittent rivers and streams that contribute surface flow to TNWs in a typical year.
  - These naturally occurring surface water channels must flow more often than just after a single precipitation event—that is, tributaries must be perennial or intermittent.
  - Tributaries can connect to a TNW or territorial sea in a typical year either directly or through other WOTUS through channelized non-jurisdictional surface waters, artificial features (including culverts and spillways), or natural features (including debris piles and boulder fields).
  - Ditches are to be considered tributaries only where they satisfy the flow conditions of the perennial and intermittent tributary definition and either were constructed in or relocate a

tributary or were constructed in an adjacent wetland and contribute perennial or intermittent flow to a TNW in a typical year.

- **Lakes, Ponds, and Impoundments of Jurisdictional Waters**
  - Lakes, ponds, and impoundments of jurisdictional waters are jurisdictional where they contribute surface water flow to a TNW or territorial sea in a typical year either directly or through other WOTUS through channelized non-jurisdictional surface waters, artificial features (including culverts and spillways), or natural features (including debris piles and boulder fields).
  - Lakes, ponds, and impoundments of jurisdictional waters are also jurisdictional where they are flooded by a WOTUS in a typical year, such as certain oxbow lakes.
- **Adjacent Wetlands**
  - Wetlands that physically touch other jurisdictional waters are "adjacent wetlands."
  - Wetlands separated from a WOTUS by only a natural berm, bank or dune are also "adjacent."
  - Wetlands inundated by flooding from a WOTUS in a typical year are "adjacent."
  - Wetlands that are physically separated from a jurisdictional water by an artificial dike, barrier, or similar artificial structure are "adjacent" so long as that structure allows for a direct hydrologic surface connection between the wetlands and the jurisdictional water in a typical year, such as through a culvert, flood or tide gate, pump, or similar artificial feature.
  - An adjacent wetland is jurisdictional in its entirety when a road or similar artificial structure divides the wetland, as long as the structure allows for a direct hydrologic surface connection through or over that structure in a typical year.

With the 2020 Final Rule, there remains a clear distinction between federal waters and waters subject to the sole control of the states, their governmental subdivisions, and tribes; many states, localities, and tribes have existing regulations and programs that apply to waters within their borders, whether or not they are considered WOTUS (USEPA and Army 2020b).

5.2 Clean Water Act Section 401 and Porter-Cologne Water Quality Control Act / Regional Water Quality Control Board

The SWRCB and nine RWQCBs regulate discharge of fill and dredged material in California, under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), through the State Water Quality Certification Program. State Water Quality Certification is necessary for all projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State.

For a Section 404 permit to be valid, CWA Section 401 requires a Water Quality Certification or waiver to be obtained. The Water Quality Certification (or waiver) acknowledges that the permitted activities will not violate water quality standards individually or cumulatively over the term of the action. Water Quality Certification must be consistent with the requirements of the CWA, California Environmental Quality Act (CEQA), California Endangered Species Act (CESA), and Porter-Cologne Act.

Discharges of dredged or fill material to Waters of the State not subject to CWA Section 404 (i.e., non-USACE jurisdictional) are regulated by the RWQCB under the Porter-Cologne Act Article 4 Individual or General Waste Discharge Requirements (WDR). The WDR permit requirements ensure that the permitted activities comply with state water quality standards over the term of the action, and are consistent with the

requirements of CEQA, the CESA, and the Porter-Cologne Act. Procedures for WDR regulations are very similar to Section 401 procedures. If the project is not eligible to use a WDR, the SWRCB may authorize the project under an Individual Order. Applications for an Individual Order must address the procedures for regulating discharges to Waters of the State, and include all items listed in 23 California Code of Regulations (CCR) Section 3856, an alternatives analysis, and additional information as required by the permitting authority.

California Water Code Section 13050(e) defines Waters of the State as: "any surface water or groundwater, including saline waters, within the boundaries of the state." Broadly construed, this includes all waters in the state's boundaries, whether private or public, including waters in both natural and artificial channels. Waters of the State may include all WOTUS, all surface waters that are not WOTUS, groundwater, and territorial seas.

5.3 California Fish and Game Code Section 1602 / California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the California Fish and Game Code, the 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. CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

In practice, CDFW usually extends its jurisdictional limit to the top of a stream or lake bank, or outer edge of the riparian vegetation, whichever is wider. CDFW can be expected to take jurisdiction over all areas that have evidence of cut bank and channel, or evidence of historical flows, to the point where no confining feature is present.

6 JURISDICTIONAL EVALUATION

Pine Canyon Creek and the Unnamed Drainage support bed, bank, and sporadic OHWMs. Based on the presence of these features in Pine Canyon Creek and the Unnamed Drainage, these waterways meet the criteria to be Waters of the State under RWQCB and CDFW jurisdictions. Because the Unnamed Drainage is a tributary to Pine Canyon Creek and Pine Canyon Creek is a tributary to Orcutt Creek, there is potential that the USACE would also take jurisdiction over these features. However, according to the upcoming Navigable Waters Protection Rule these features would need to "flow more often than just after a single precipitation event . . ." Since these features are ephemeral, it is likely that they would not be WOTUS after June 22, 2020, if the Navigable Waters Protect Rule is implemented.

The three-parameter wetland in the floodplain of Pine Canyon Creek meets the definition of a federal wetland and directly abuts the Pine Canyon Creek path. Therefore, if Pine Canyon Creek is determined to be WOTUS, the wetland would be considered an adjacent wetland WOTUS under USACE jurisdiction.

The topographic dip in the reservoir tank site did not support riparian vegetation, bed, bank, or OHMM features. Due to the lack of these features, it is unlikely that the topographic dip would be a WOTUS or Waters of the State. Since the feature is a three-parameter wetland, the feature would likely fall under jurisdiction of the RWQCB as Waters of the State.

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APPENDIX A

Photo Documentation

Photo A-1. View of Culvert 1 outlet from the Orcutt Hill Road shoulder. Photo taken February 10, 2020.

Photo A-2. View of the road shoulder at the Culvert 1 inlet. Photo taken February 10, 2020.

Photo A-3. View of the Unnamed Drainage at the Culvert 3 inlet. Photo taken May 19, 2020.

Photo A-4. View of the Unnamed Drainage at the Culvert 3 outlet. Photo taken May 19, 2020.

Photo A-5. View of the Unnamed Drainage channel immediately downstream of the Culvert 4 outlet. Photo taken February 10, 2020.

Photo A-6. View of the Culvert 5 inlet where Pine Canyon Creek flows under Orcutt Hill Road. Photo taken February 10, 2020.

Photo A-7. View of the Arid West Wetland Delineation Plot 1 located near the East Rice Ranch Road and Orcutt Hill Road intersection. Photo taken February 10, 2020.

Photo A-8. View of Pine Canyon Creek reach that runs along East Rice Ranch Road. Photo taken February 10, 2020.

APPENDIX B

Aquatic Resources Maps

Figure B-1. Aquatic resources map (page 1 of 7).

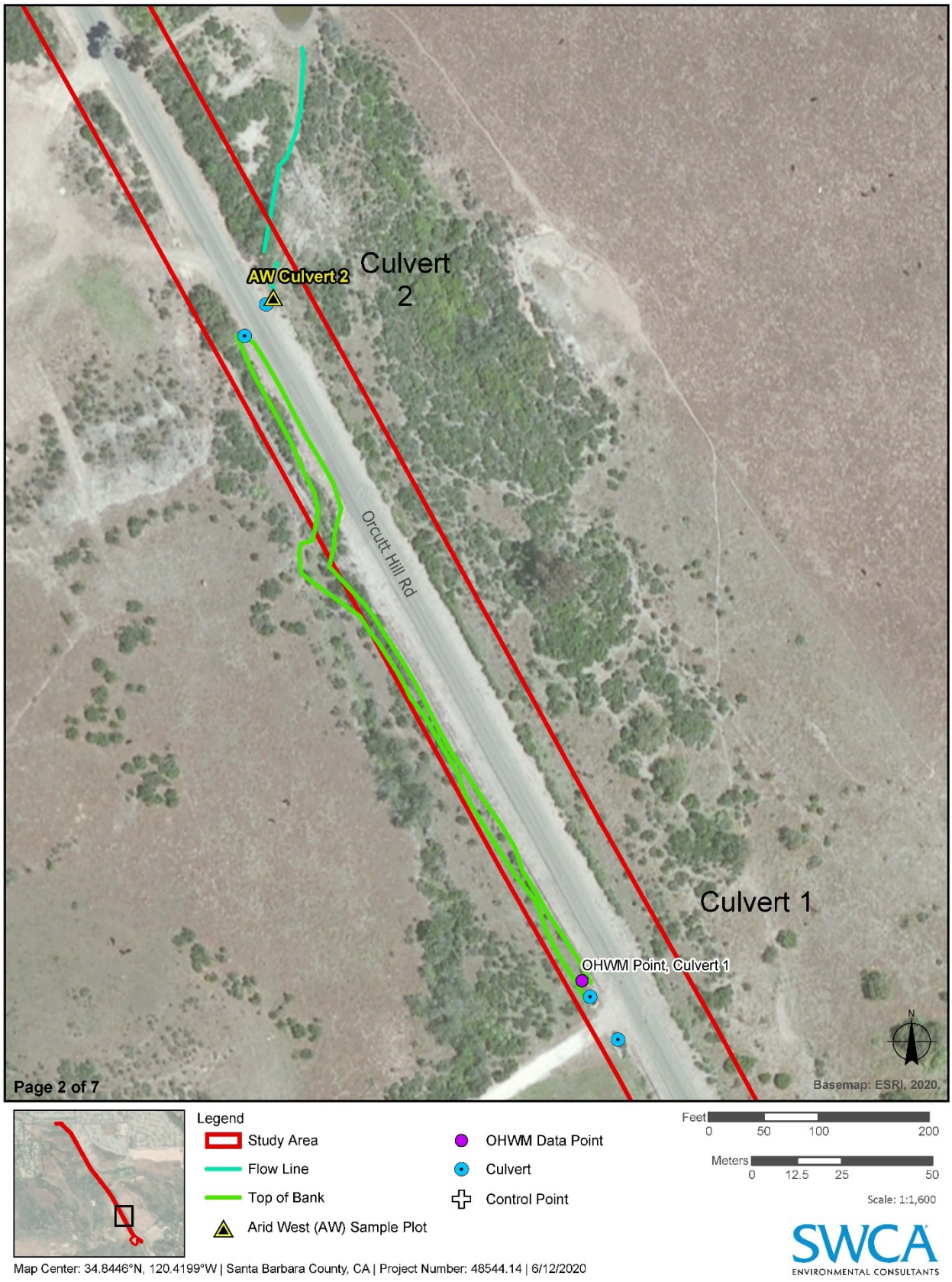

Figure B-2. Aquatic resources map (page 2 of 7).

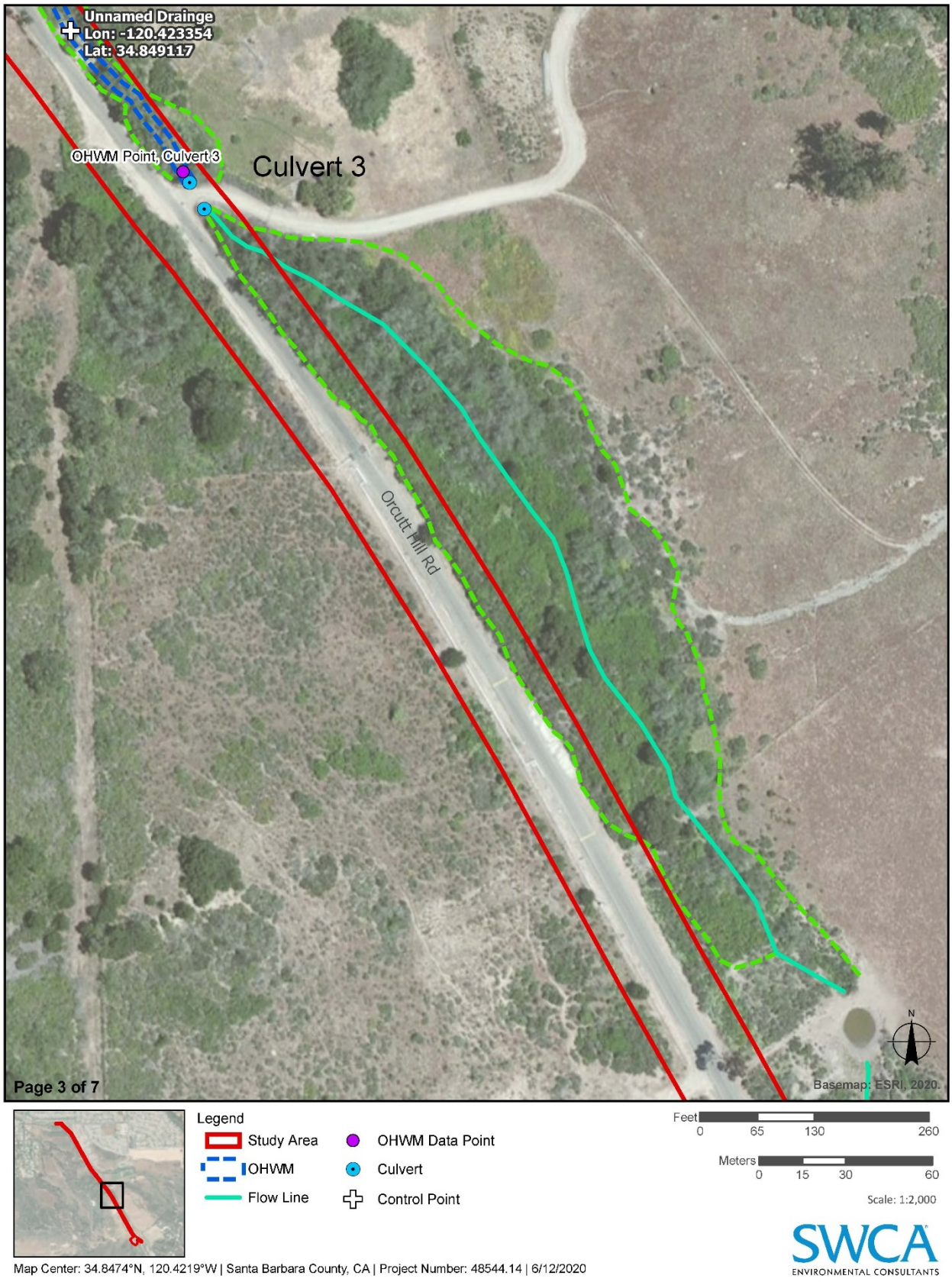

Figure B-3. Aquatic resources map (page 3 of 7).

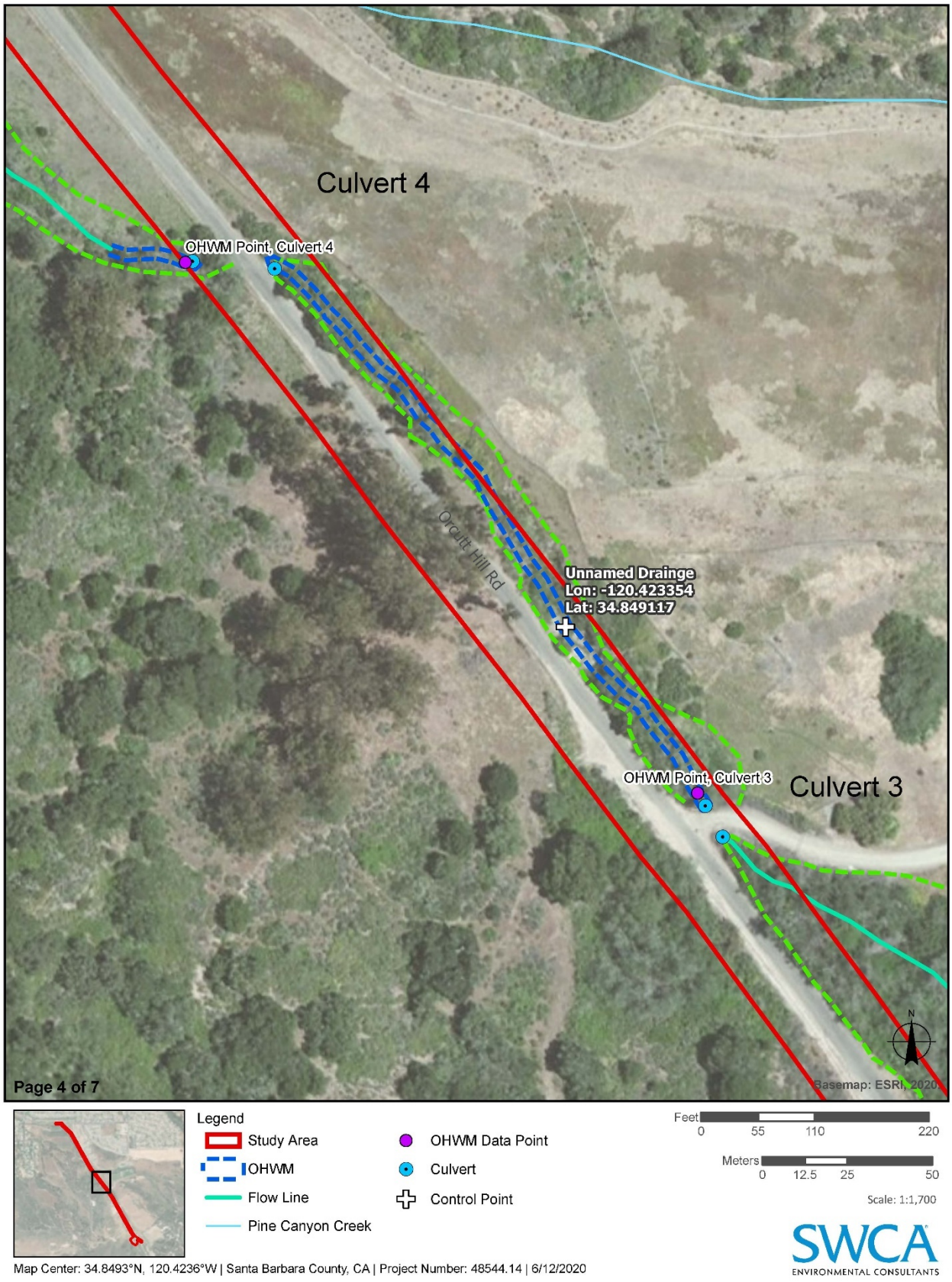

Figure B-4. Aquatic resources map (page 4 of 7).

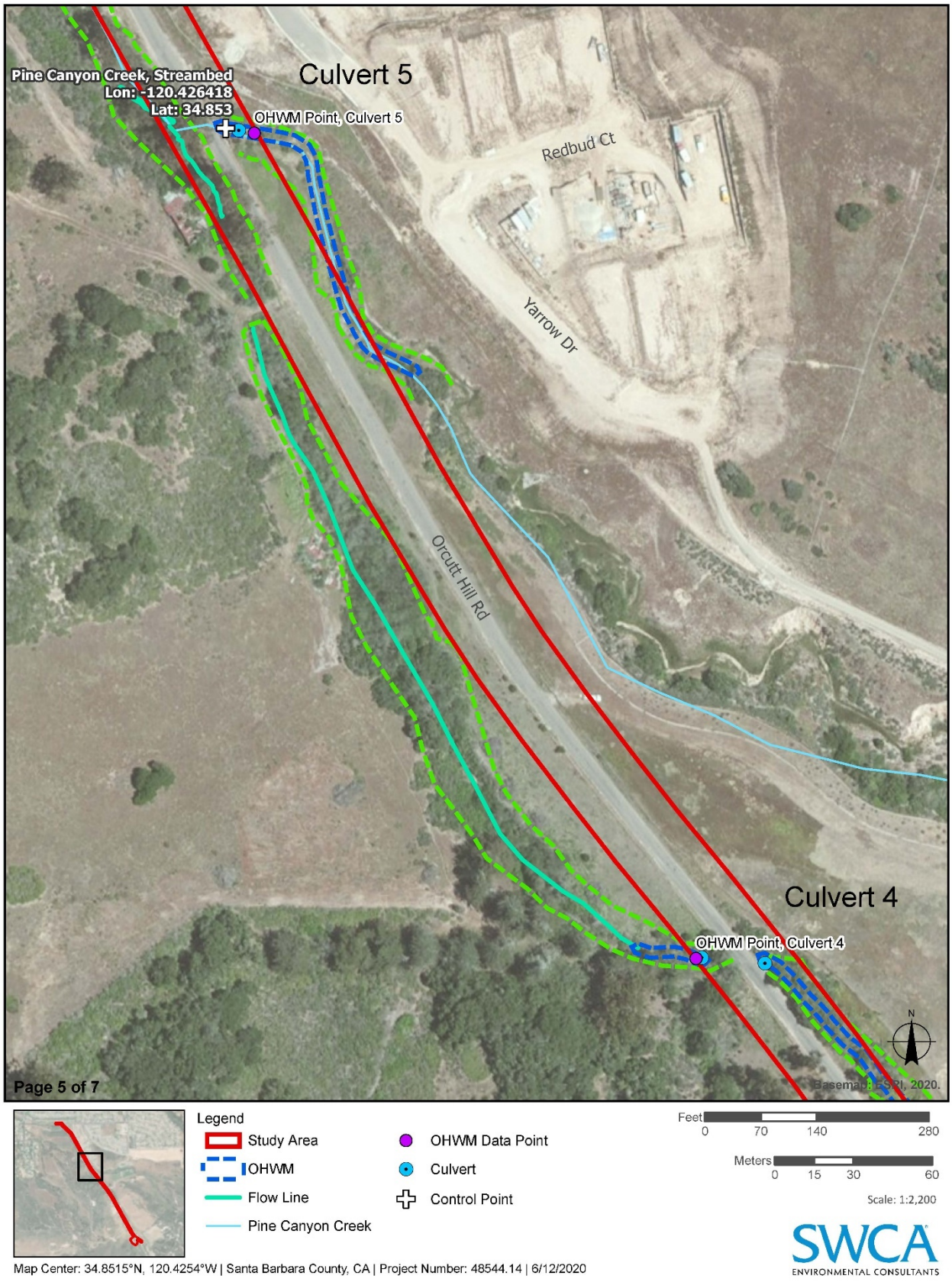

Figure B-5. Aquatic resources map (page 5 of 7).

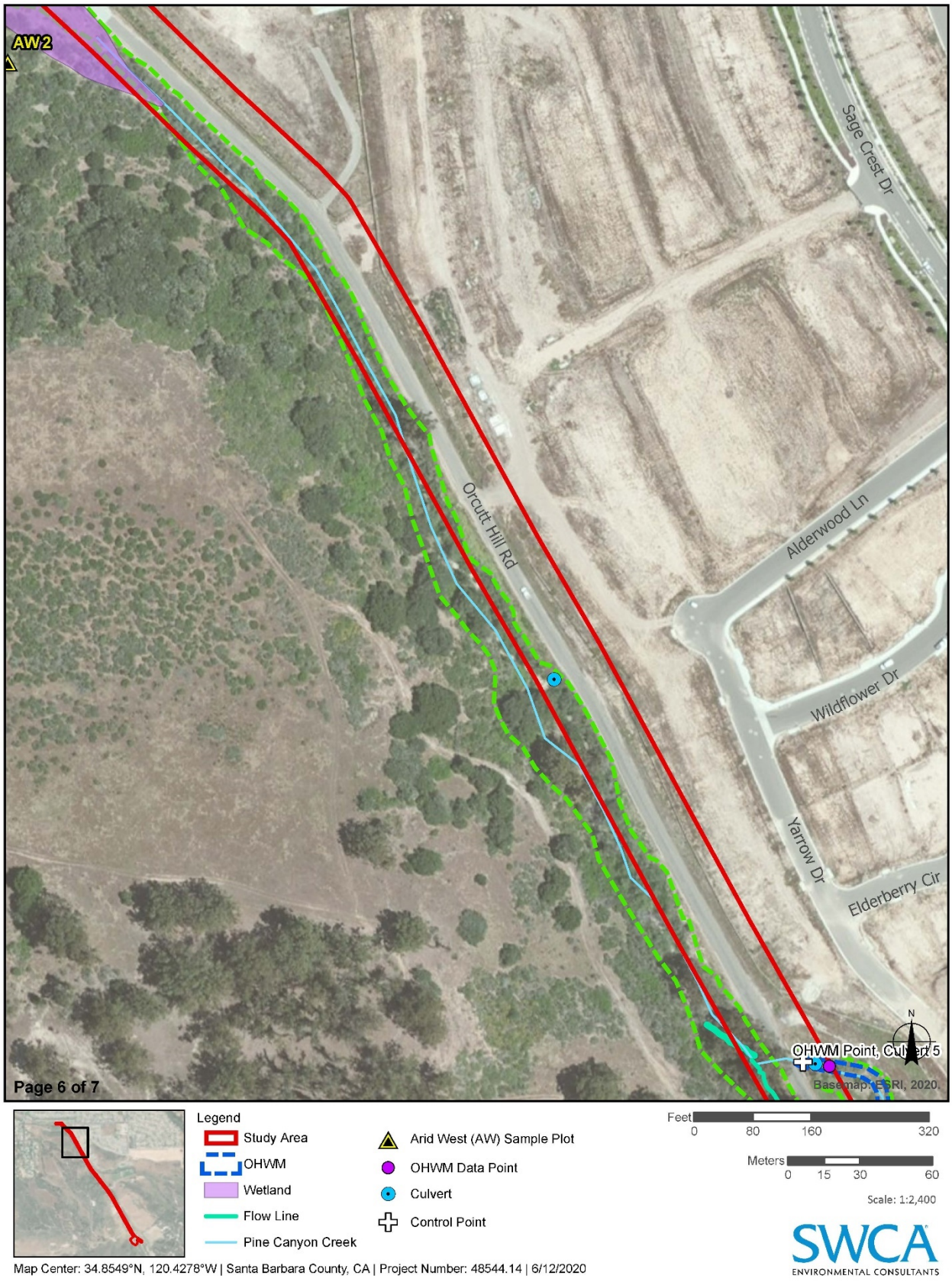

Figure B-6. Aquatic resources map (page 6 of 7).

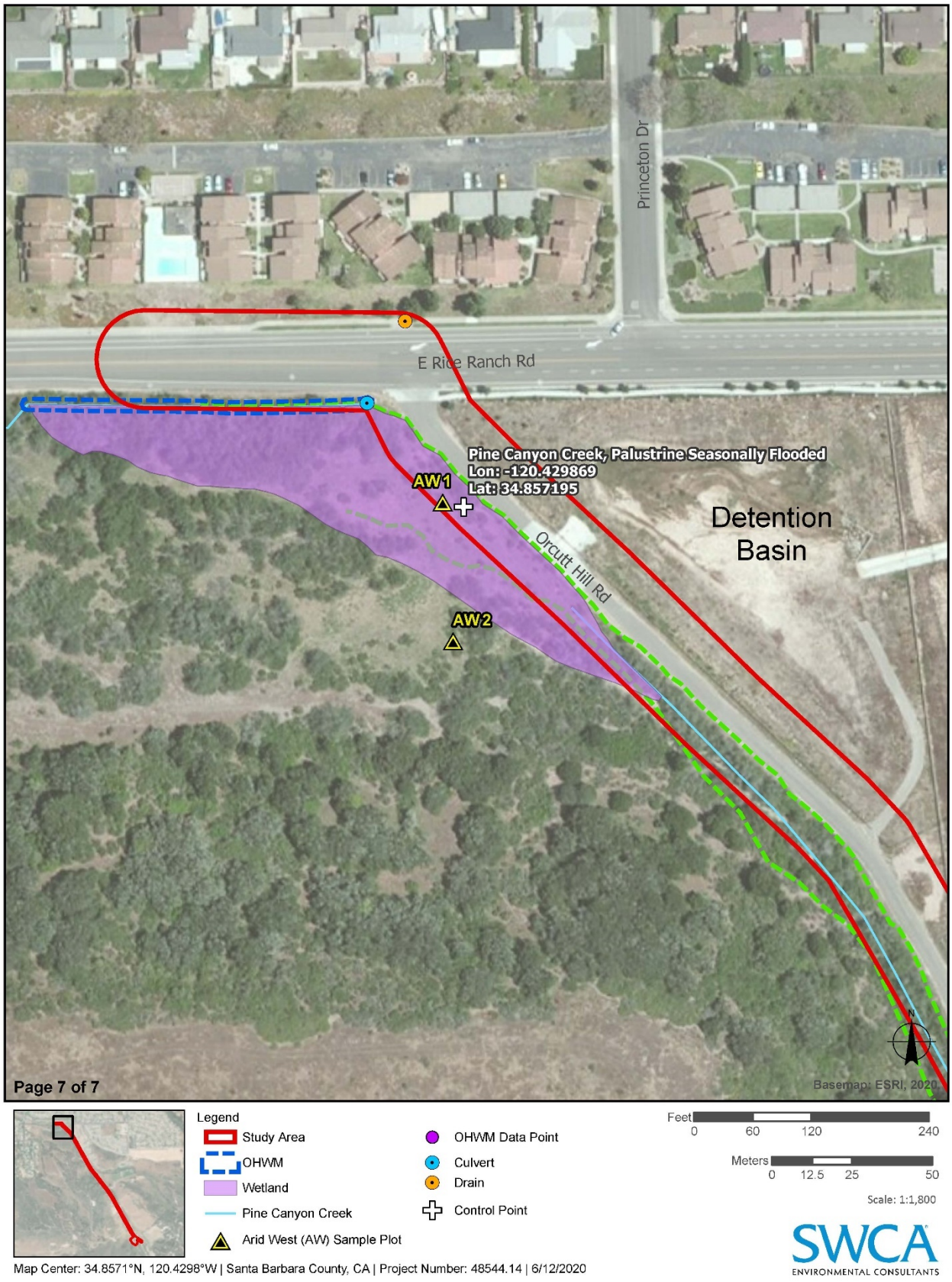

Figure B-7. Aquatic resources map (page 7 of 7).

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APPENDIX C

National Wetland Inventory Map

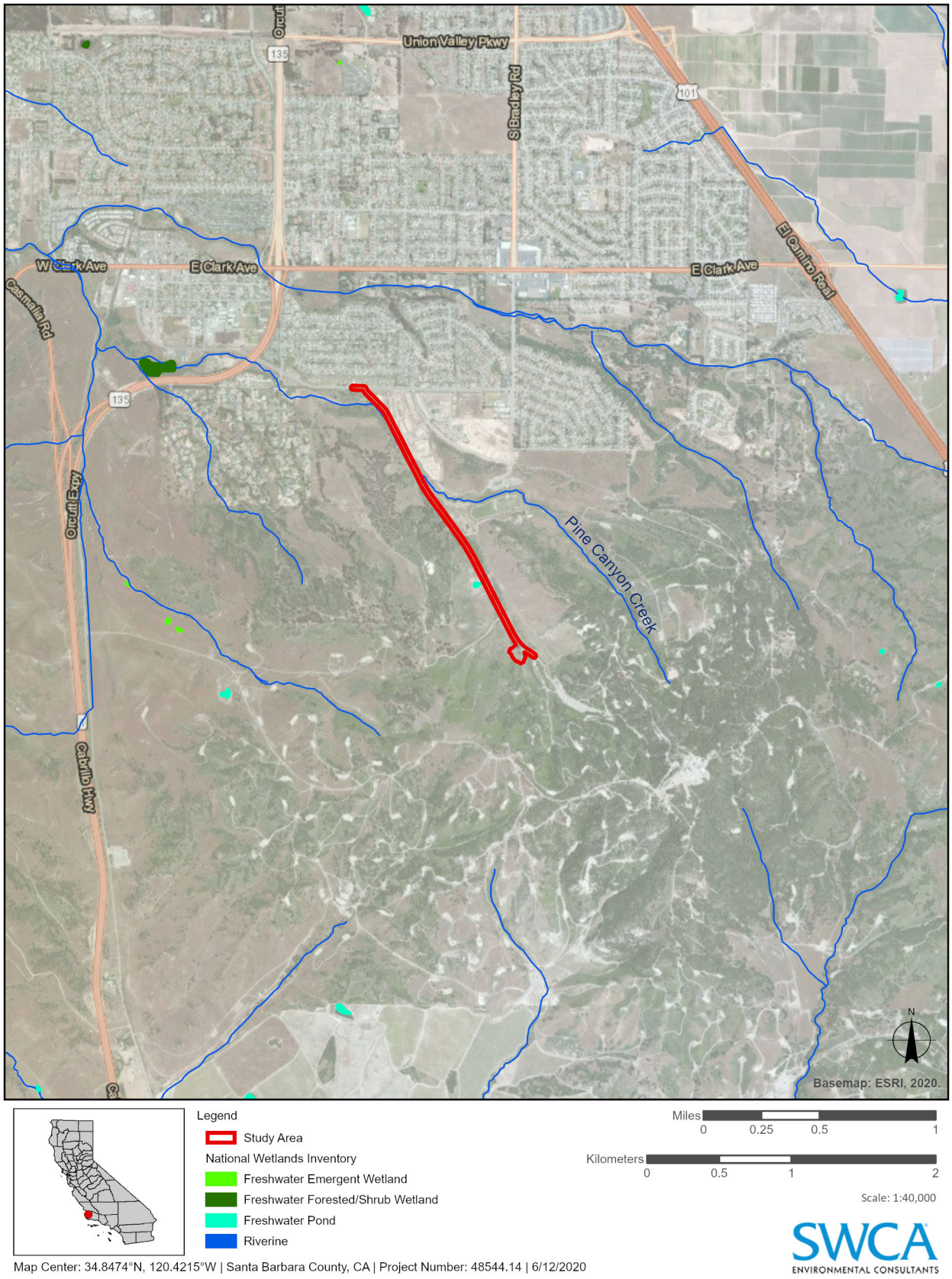

Figure C-1. National Wetlands Inventory map.

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APPENDIX D

Arid West Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kelt Reservoirs City/County: Orcutt / Santa Barbara Sampling Date: 2.10.2020
Applicant/Owner: Golden State Water Company State: CA Sampling Point: 1
Investigator(s): Travis Belt Section, Township, Range: 14, 9N, 34W
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Slight Convex Slope (%): 1%
Subregion (LRR): C Lat: 34.857213 Long: -120.42994 Datum:
Soil Map Unit Name: Elder Sandy Loam 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? No Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (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: Plot is in a low lying area adjacent to existing pond. No channel or banks are present. Riparian vegetation is present

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. Arroyo Willow (Salix lasiolepis)	15%	Y	FACW
2.			
3.			
4.			
	15% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Baccharis pilularis	10%	Y	–
2.			
3.			
4.			
5.			
	10% = Total Cover		
Herb Stratum (Plot size: 15')			
1. Juncus phaeocephalus	40%	Y	FACW
2. Juncus bakeri	5%	N	FACW
3. Conium maculatum	1%	N	FACW
4. Elymus triticoides	30%	Y	FAC
5.			
6.			
7.			
8.			
	76% = Total Cover		
Woody Vine Stratum (Plot size: 15')			
1. –	–	–	–
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (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:
15% Arroyo Willow cover is canopy cover. Only one tree is located in plot, so basal area is less than 5%.

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0	10YR 4/2	100					—	Sediment crust surface, Dry
1-4	10YR 4/2	99%	5YR 4/6	1	C	PL	Loamy Sand	Moist
4-18"	10YR 4/2	90%	5YR 4/6	5	CS	M	Sand	Moist

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes ✓ No ___

Remarks: Dry hard surface crust w/ cracks, Loamy sand in upper 4" w/ concentrations in the pore linings, sand increases w/ depth. Concentrations in sand are blotchy/patchy.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks: No evidence of surface flow, OHWM, or banks, site appears to collect water from channel upslope. ~~[illegible]~~ Water is likely subsurface most the growing season.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kelt Reservoir City/County: Orcutt / Santa Barbara Sampling Date: 2.10.2020

Applicant/Owner: Golden State Water Company State: CA Sampling Point: 2

Investigator(s): T. Belt Section, Township, Range: 14, 9N, 34W

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): C Lat: 34.856822 Long: -120.429917 Datum:

Soil Map Unit Name: Elder sandy loam 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: Plot is located in a flood prone area. Two trails traverse the area

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10)			
1. Baccharis pilularis	60	Yes	None
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 10)			
1. Artemisia douglasiana	10	Yes	FAC
2. Juncus patens	5	Yes	FACW
3. Lysimachia arvensis	3	No	FAC
4. Descurainia pinnata	2	No	None
5.			
6.			
7.			
8.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: 10)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 60

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (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: Few dead Willows located outside of plot. Dominance of coyote brush suggests past disturbance.

SOIL

Sampling Point: 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
0-3	10YR 3/1	100					SL	MOIST
3-7	10YR 3/3	85					LS	MOIST
	10YR 3/1	15					LS	MOIST LOAM INCLUSIONS
7-16	10YR 3/3	99	5YR 3/4	1	C	M	SL	MOIST W/FEW CONC.

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Depth & Percentage of concentrations DO NOT MEET S5.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

NO hydrology indicators observed

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Kelt Reservoir
Project Number: 48544.14
Stream: topographic Dip
Investigator(s): T. BELT

Date: 2/10/2020 **Time:** 4:00 PM
Town: ORLAND **State:** CA
Photo begin file#: **Photo end file#:**

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

Y ☐ / N ☐ Is the site significantly disturbed?

Location Details:
Reservoir site, topographic Dip
Projection: 34.841153 **Datum:** NAD 84
Coordinates: -120.418287

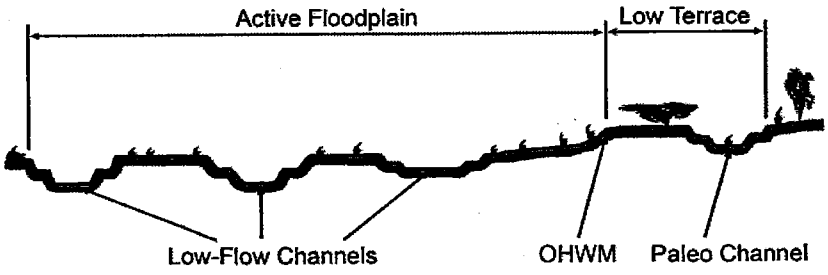
Potential anthropogenic influences on the channel system:
Signs of recent mowing Drove through the area

Brief site description:
This is a low lying Dip in a gently sloped upland area
Dominant Vegetation is Eucalyptus, Coyote Brush, and annual grasses

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

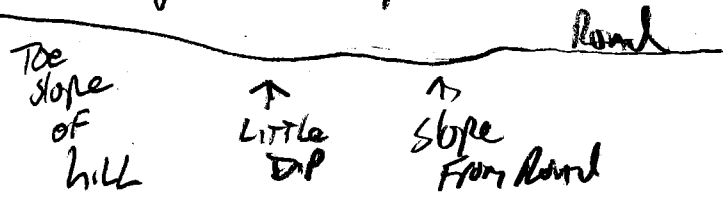


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

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:

Project ID: Kelt **Cross section ID:** topographic DIP Reservoir site **Date:** 2/10/20 **Time:** 4:00 pm

Cross section drawing: Looking Down slope



OHWM

GPS point: OHWM 3

Indicators:

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

Comments:

No OHWM, Bank, BED, or channel. This is a topographic DIP in the upland area. DIP leases to EXIST down slope from here.

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

GPS point: _____

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: KCLT Reservoirs
Project Number: 48544.14
Stream: UNNAMED Drainage, culvert 1
Investigator(s): TRAVIS BECT

Date: 2/10/2020 **Time:** 3:30 pm
Town: ORCUTT **State:** CA
Photo begin file#: **Photo end file#:**

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

Location Details: Roadside Ditch along ORCUTT Hill Road, CULVERT 1
Projection: 34.843448 **Datum:**
Coordinates: -120.419635

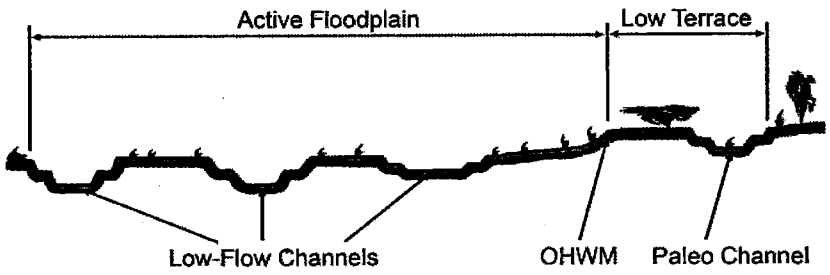
Potential anthropogenic influences on the channel system: The UNNAMED Drainage is adjacent TO EXISTING ORCUTT Hill Road. AN above Ground PIPE is LAID along the NORTHERN Edge of the DITCH. DITCH & Roadside appears TO be MOWED.

Brief site description: The channel is a roadside DITCH that WAS LIKELY created when ORCUTT Hill Road and/or the pipe were installed. A CULVERT is LOCATED JUST UPSLOPE of the PLOT but there is NO EVIDENCE of RECENT SURFACE FLOW.

Checklist of resources (if available):

- [X] Aerial photography
  Dates: Multiple
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] 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

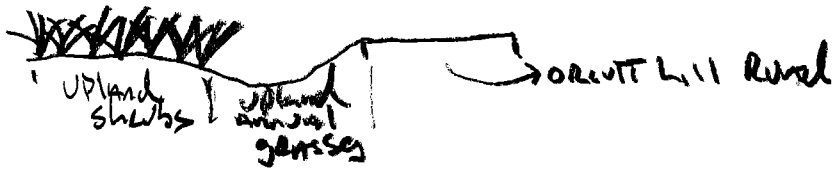


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

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
   - [X] GPS
   - [ ] Other:

Project ID: Kelt **Cross section ID:** Culvert 1 **Date:** 2/10/2020 **Time:** 3:30 pm

Cross section drawing: Looking Downstream From Culvert 1



OHWM

GPS point: Culvert 1

Indicators:

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

Comments: No evidence of recent flow or OHWM observed. The change from upland shrubs to upland annual grasses is likely a result of roadside mowing.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: Culvert 1

Characteristics of the floodplain unit:

Average sediment texture: medium sand

Total veg cover: 95 % Tree: 0 % Shrub: 25 % Herb: 70 %

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: The vegetation appears to be altered by mowing and includes upland shrubs and annual grasses. The elevated road creates a "bank" on the east side. A lower and less defined bank but is covered by shrubs occurs on the west side. The bed is "U-shaped" and does not have definable OHWM.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kelt Reservoirs Culvert 2 City/County: Orcutt / Santa Barbara Sampling Date: 5.19.20

Applicant/Owner: Golden State Water Company State: CA Sampling Point: Culvert 2

Investigator(s): T. Beck Section, Township, Range: 14, 9N, 34W

Landform (hillslope, terrace, etc.): Road culvert outlet Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR): C Lat: 34.845217 Long: -120.420544 Datum: _____

Soil Map Unit Name: Elder Sandy Loam 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:

Site is at a culvert outlet from a road side ditch. The ditch is discontinous + does not exist in the location. Few willows are located outside of plot where ditch continues.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 10')			
1. Festuca Myuros	40	Yes	None
2. Hordeum Murinum	15	Yes	FACU
3. Medicago polymorpha	15	Yes	FACU
4. Bromus Hordeaceus	10	No	FACU
5. Hordeum Murinum	17	No	FAC
6. Bromus diandrus	3	No	None
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (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 X

Remarks:

Bare ground is at culvert outlet where soil is moist but not saturated

SOIL

Sampling Point: Culvert 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

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

Vegetation did not meet Hydrophytic Dominance test. No soil sample 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)**
- X Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

Drift deposits are at base of an old pipe line that travels through the culvert.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Kelt Reservoirs
Project Number: 48544.14
Stream: Ephemeral drainage/culvert 3
Investigator(s): T. Belt

Date: May 19, 2020 **Time:** 2:30pm
Town: Olcott **State:** CA
Photo begin file#: **Photo end file#:**

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

Y ☐ / N ☐ Is the site significantly disturbed?

Location Details:
Culvert 3

Projection: 34.848624 **Datum:**
Coordinates: -120.822918

Potential anthropogenic influences on the channel system:
Human Pedestrian traffic + Dumping

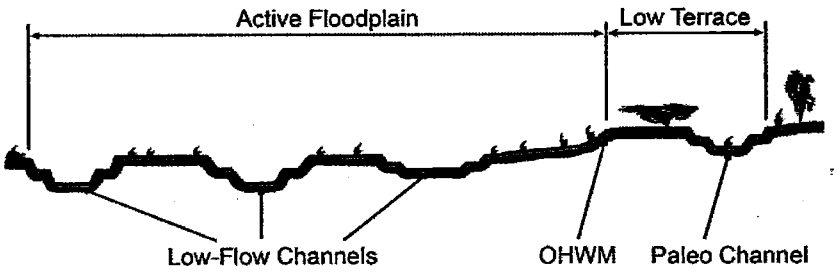
Brief site description:
A small 16" culvert w/stacked concrete bags wing walls. Vegetation has been cleared from culvert outlet. Culvert provides a crossing for a private driveway off of Olcott Hill Road.

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

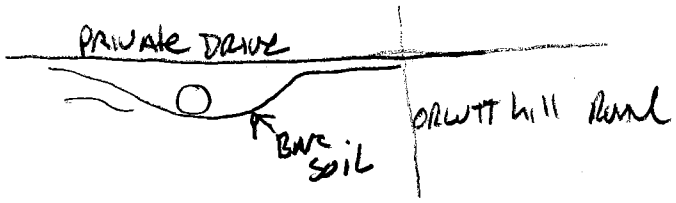


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

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:

Project ID: 48544.14 **Cross section ID:** Culvert 3 **Date:** May 19, 2020 **Time:** 2:30 pm

Cross section drawing:



OHWM

GPS point: _____

Indicators:

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

Comments:

OHWM is not evident at culvert outlet. OHWM is evident 50' down flow of culvert outlet and upstream of culvert inlet. The ohwm up + downstream is evident by a break in slope.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Sand

Total veg cover: 90 % Tree: 80 % Shrub: 0 % Herb: 10 %

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:

Veg is cleared out from inlet + outlet. Willows dominate 10' up + down stream of inlet + outlet. Drift/Debris is branches at inlet mouth.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: KELT Reservoirs
Project Number:
Stream: UNNAMED Drainage - Culvert 4
Investigator(s): TRAVIS BELT

Date: 2/10/2020
Town: ORLAND
Photo begin file#:

Time: 2:30 pm
State: CA
Photo end file#:

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

Y ☐ / N ☑ Is the site significantly disturbed?

Location Details:
Culvert 4

Projection: 34.852013 **Datum:** NAD 84
Coordinates: -120.424524

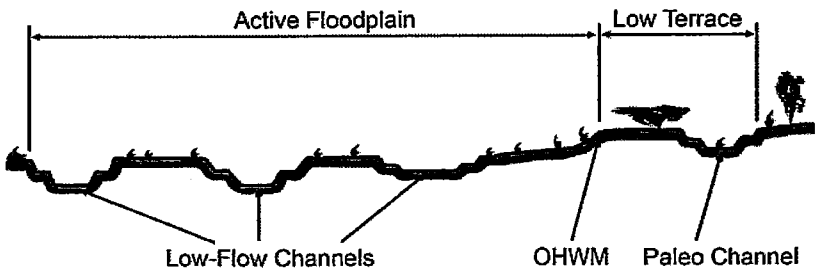
Potential anthropogenic influences on the channel system:
Road + culvert crossing channel

Brief site description:
This is an Ephemeral channel with an existing road on top of right bank & associated culvert. Vegetation is dominated by upland species

Checklist of resources (if available):

- ☑ Aerial photography
  Dates: Multiple
- ☑ 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

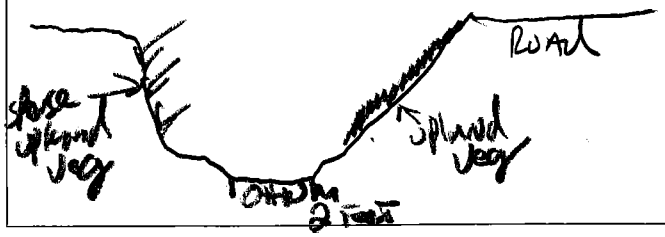


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

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
   - ☑ GPS
   - ☐ Digitized on computer
   - ☐ Other:

Project ID: Kelt **Cross section ID:** Culvert 4 **Date:** 2/10/2020 **Time:** 230

Cross section drawing: Looking Down stream



OHWM

GPS point: Culvert 4

Indicators:

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

Comments:

Channel is Dry. Ephemeral flow is confined w/in a 2 Foot Valley That is confined by steep banks

Floodplain unit:

☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

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: Kelt Reservoir
Project Number: 48544.14
Stream: Pine Canyon Creek, Culvert 5
Investigator(s): T. Belt

Date: 2.10.2020 **Time:** 2:00pm
Town: Orlott **State:** CA
Photo begin file#: **Photo end file#:**

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

Y ☐ / N ☑ Is the site significantly disturbed?

Location Details:
Culvert 5 Pine Canyon Creek

Projection: 34.852953 **Datum:** NAD 84
Coordinates: -120.426363

Potential anthropogenic influences on the channel system:
Old delapidated culvert, pedestrian "hiker" visitation.

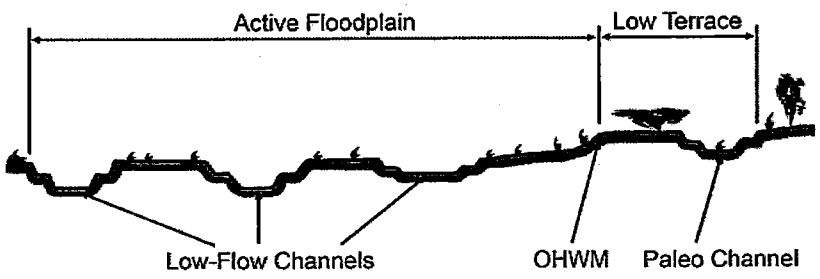
Brief site description:
This is an ephemeral stream with incised channel, old debris, and a very old culvert with failing wingwalls

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

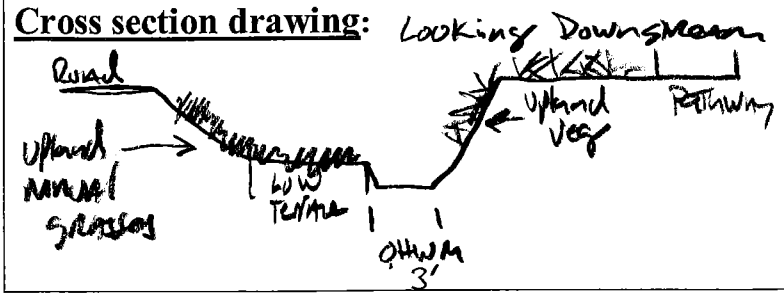


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

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:

Project ID: Kelt **Cross section ID:** Culvert 5 **Date:** 2/6/2020 **Time:** 200

Cross section drawing: Looking Downstream



OHWM

GPS point: Culvert 5

Indicators:

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

Comments:

In low channel the OHWM is demarcated by a narrow incised channel that is sparsly vegetated. Some saltgrass occurs in channel but channel is mostly Bare Soil/sediment.

Floodplain unit:

☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace

GPS point: None

Characteristics of the floodplain unit:

Average sediment texture: Silt

Total veg cover: 80 % Tree: 5 % Shrub: 15 % Herb: 60 %

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:

Drift deposits include old pipes, sticks, Branches, Trash

APPENDIX C

Historic Archaeological Site Evaluation

Confidential, not for public access

APPENDIX D

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
Air Quality				
AQ-1	**Fugitive Dust Control Measures.** The project proponent shall implement the SBCAPCD's Standard Fugitive Dust Control Measures (SBCAPCD 2010b), where applicable: 1. During construction, use water trucks or sprinkler systems to keep areas of vehicle movement damp to prevent dust from leaving the site and from exceeding the SBCAPCD's limit of 20% opacity for greater than three minutes in any 60-minute period. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained wind speed exceeds 15 miles per hour (mph). Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption. 2. On-site vehicle speeds shall be no greater than 15 mph when traveling on unpaved surfaces. 3. Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track-out of dirt, such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems. 4. If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin. 5. Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, using roll-compaction, revegetating, or spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible. 6. Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (greater than 25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by on-site operations from becoming a nuisance or hazard.	Review final project plans prior to approval; final project plans shall include requirements; regular site inspections throughout construction	Prior to approval of final project plans and prior to any ground-disturbing or construction activities; throughout construction activities	GSWC; SWRCB; SBCAPCD

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	7. The contractor or builder shall designate a person or persons to monitor the dust control measures to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to prevent transport of dust off-site at 20% opacity for more than three minutes in any 60 minute period. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SBCAPCD prior to start of construction; 8. For fill material, cover, keep moist, or treat soil stockpiled for more than two days, and tarp trucks transporting fill material to and from the site. 9. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, revegetating, or spreading soil binders until the area is paved or otherwise developed.			
AQ-2	**Diesel Particulate and NOx Emission Reduction Measures.** The project proponent shall comply with the requirements of Section 2485 of Title 13 of the California Code of Regulations (CCR), which limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. Additionally, the following is a list of regulatory requirements and control strategies that should be implemented to the maximum extent feasible: 1. All portable diesel-powered construction equipment greater than 50 brake horsepower (bhp) shall be registered with the state's portable equipment registration program or shall obtain an SBCAPCD permit. 2. Fleet owners of diesel-powered mobile construction equipment greater than 25 hp are subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR 2449), the purpose of which is to reduce NOx, DPM, and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Off-road heavy-duty trucks shall comply with the State Off-Road Regulation. For more information, see www.arb.ca.gov/msprog/ordiesel/ordiesel.htm. 3. Fleet owners of diesel-fueled heavy-duty trucks and buses are subject to CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation (13 CCR 2025), the purpose of which is to reduce NOx, DPM, and other criteria pollutants from in-use (on-road) diesel-fueled vehicles. For more information, see www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. 4. All commercial off-road and on-road diesel vehicles are subject to 13 CCR 2449(d)(3) and 13 CCR 2485, respectively, limiting engine idling time. Off-road vehicles subject to the State Off-Road Regulation are limited to idling no more than five minutes. Idling of heavy-duty	Review final project plans prior to approval; final project plans shall include requirements; regular site inspections throughout construction	Prior to approval of final project plans and prior to any ground-disturbing or construction activities; throughout construction activities	GSWC; SWRCB; SBCAPCD

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	diesel trucks during loading and unloading shall be limited to five minutes, unless the truck engine meets the optional low-NOx-idling emission standard, the truck is labeled with a clean-idle sticker, and it is not operating within 100 feet of a restricted area. 5. Diesel equipment meeting the CARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines should be used to the maximum extent feasible. 6. On-road heavy-duty equipment with model year 2010 engines or newer should be used to the maximum extent feasible. 7. Diesel-powered equipment should be replaced by electric equipment whenever feasible. Electric auxiliary power units should be used to the maximum extent feasible. 8. Equipment/vehicles using alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel, should be used on-site where feasible. 9. Catalytic converters shall be installed on gasoline-powered equipment, if feasible. 10. All construction equipment shall be maintained in tune per the manufacturer's specifications. 11. The engine size of construction equipment shall be the minimum practical size. 12. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time. 13. Construction worker trips should be minimized by requiring carpooling and by providing for lunch on-site whenever feasible. 14. Construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions whenever feasible. 15. Proposed truck routes should minimize to the extent feasible impacts to residential communities and sensitive receptors. 16. Construction staging areas should be located away from sensitive receptors, such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows. Prior to grading / building, all requirements shall be shown as conditions of approval on grading/building plans. Conditions shall be adhered to throughout all grading and construction periods. The contractor shall retain the Certificate of Compliance for CARB's In-Use Regulation for Off-Road Diesel Vehicles onsite and have it available for inspection. The Lead Agency shall ensure measures are			

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	on project plans. The Lead Agency staff shall ensure compliance on-site. SBCAPCD inspectors will respond to nuisance complaints.			
Biological Resources				
BIO-1	Prior to ground disturbance, the applicant shall retain a qualified biologist to act as an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the development permit measures. The monitor shall be responsible for: 1. ensuring that procedures for verifying compliance with environmental mitigations are implemented; 2. establishing lines of communication and reporting methods; 3. conducting compliance reporting; 4. conducting construction crew training regarding environmentally sensitive areas and protected species; 5. facilitating the avoidance of black-flowered figwort plants; 6. maintaining authority to stop work; and 7. outlining actions to be taken in the event of non-compliance. Monitoring shall be conducted full time during the initial disturbances (site clearing) and be reduced to twice a week following initial disturbances or a frequency and duration determined by the applicant in consultation with the USFWS, CDFW, and SWRCB.	Retain qualified biologist to act as environmental monitor for all measures requiring environmental mitigation to ensure compliance with the development permit measures	Prior to ground-disturbing activities	GSWC in coordination with the CDFW, USFWS, and SWRCB; qualified biologist
BIO-2	Prior to the commencement of site grading, the environmental monitor shall conduct an environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the special-status species that may occur in the project area, including black-flowered figwort, California legless lizard, bats, monarch butterfly, CRLF, CTS, and nesting birds. Topics of discussion shall include descriptions of the species' habitats, general provisions and protections afforded by CEQA and the federal and state ESAs, measures implemented to protect special-status species, review of the project boundaries and special conditions, the environmental monitor's role in project activities, lines of communication, and procedures to be implemented in the event a special-status species is observed in the work area.	Conduct environmental awareness training for all project personnel; personnel shall show proof of attendance	Prior to commencement of site grading	Environmental monitor; GSWC
BIO-3	Black-flowered figwort occurs adjacent to the pipeline alignment. GSWC has designed the project to avoid the black-flowered figwort occurrences. GSWC and their contractors shall avoid the black-flowered figwort occurrences during construction of the project. Avoidance shall be achieved by including the location of the plant occurrences on the project plans and erecting temporary exclusion	Show plant occurrence on project plans; environmental monitor shall ensure	Prior to commencement of trenching for the pipeline	Environmental monitor; GSWC and contractors

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	fencing between the project disturbance area and the occurrences. Prior to the commencement of trenching for the pipeline, the environmental monitor shall coordinate with the project contractors to ensure avoidance of the black-flowered figwort. The monitor shall assist the contractors in identifying the black-flowered figwort occurrences and direct the placement of highly visible exclusion fencing to protect the occurrences from accidental damage. The temporary exclusion fencing shall remain in place and functional throughout the duration of the project.	compliance with avoidance measures for plant occurrences onsite; show avoidance measures on final project plans if applicable		
BIO-4	Prior to any vegetation removal or ground disturbance that occurs during the nesting season (March 1 to September 30), the environmental monitor shall conduct a nesting bird survey no more than two weeks prior to construction to determine presence/absence of nesting birds within the disturbance area. If active nests are observed, work activities shall be avoided within 100 feet of active passerine nests and 300 feet of active raptor nests until young birds have fledged and left the nest. The nests shall be monitored weekly by the biologist with expertise on nesting birds. The buffer may be reduced if deemed appropriate by the environmental monitor. If any state or federal endangered species acts listed bird species or California fully protected bird species are observed nesting in or near the project area, the environmental monitor shall coordinate with GSWC, the SWRCB, the USFWS, and/or the CDFW before any disturbances occur within 500 feet of the nest. Readily visible exclusion zones will be established in areas where nests must be avoided. GSWC shall be contacted if any state or federally listed bird species are observed during surveys. Bird nests, eggs, or young covered by the MBTA and FGC shall not be moved or disturbed until the end of the nesting season or until young fledge, nor will adult birds be killed, injured, or harassed at any time. Pursuant to FGC Section 3503.5, nests of raptors (owls, hawks, falcons, eagles) shall not be removed prior to coordination with and approval from the CDFW.	Conduct nesting bird surveys no more than two weeks prior to construction; show avoidance measures on final project plans if applicable; coordination with GSWC, SWRCB, USFWS, and CDFW as applicable	Prior to any vegetation removal or ground-disturbing activities that occurs during the nesting season (March 1 to September 30)	GSWC in coordination with the CDFW, USFWS, and SWRCB; environmental monitor
BIO-5	Three months prior to grading the reservoir site and during site grading, the environmental monitor shall conduct surveys for Northern California legless lizards, coast patch-nosed snake, and other reptiles. The surveyor shall utilize cover board methods in areas of disturbance where reptiles are expected to be found (e.g., under shrubs, other vegetation, or debris). The cover board methods shall commence at least three months prior to the start of construction. The cover boards shall be placed in the disturbance areas three months prior to disturbances. The environmental monitor shall search/survey the cover boards and remove them from the site no more than 48 hours prior to disturbances. All native wildlife that are found under the cover boards shall be relocated out of the project area in adjacent habitat.	Monitoring prior to and during construction activities; document any occurrences of Northern California legless lizard and submit to GSWC; show avoidance measures on final project plans if applicable	Three months prior to grading reservoir site and during site grading	Environmental monitor; GSWC and contractors

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	Hand search surveys shall be completed during grading activities. During grading activities, the environmental monitor shall walk with the grading equipment to capture reptiles that are unearthed by the equipment. The surveyor shall capture and relocate any reptiles observed during the survey effort. The captured individuals shall be relocated from the construction area and placed in suitable habitat outside of the work area. Following the survey and monitoring efforts, the environmental monitor shall submit a project completion report to GSWC that documents the number of Northern California legless lizards, coast patch-nosed snake, and other reptiles captured and relocated, and the number of reptiles mortally wounded during grading activities.			
BIO-6	One living pepper tree and three dead trees will be removed for the project. Tree removal shall be avoided during monarch butterfly fall and winter migration (late October through February) to the greatest extent feasible. If tree removal is necessary during monarch butterfly fall and winter migration, the environmental monitor shall conduct a preconstruction survey for overwintering monarch butterflies in the trees slated for removal. If overwintering monarch butterflies are detected, tree removal shall be postponed until after the overwintering period or until the environmental monitor determines monarch butterflies are no longer utilizing the trees for overwintering.	Avoid tree removal as feasible; if tree removal is necessary, environmental monitor shall survey the area and not allow work to occur unless monarch butterflies are absent from area; show avoidance measures on final project plans if applicable	Prior to tree removal during monarch butterfly fall and winter migration (late October through February)	Environmental monitor
BIO-7	Prior to removal of any trees for the project, GSWC shall retain an environmental monitor to conduct roosting bat surveys in the trees to be removed. Pre-disturbance surveys for bats shall include two dusk surveys no more than 30 days prior to the tree removal to determine if bats are roosting in the trees. The surveys shall incorporate acoustic survey techniques and determine if bats are roosting in the trees to be removed If bats are roosting in the trees to be removed, the environmental monitor shall identify the nature of the bat utilization of the trees (i.e., night roost, day roost, or maternity roost). If no roosts are identified, tree removal may proceed without further measures. If a maternity roost is identified in the trees that are slated for removal, removal of the roost tree(s) shall be delayed until the bats have left the area. If a day or night roost is identified in the trees to be removed, tree removal shall be conducted under the supervision of the environmental monitor. During tree removal and where potential bat roosts were identified, the environmental monitor shall be present and tree removal will begin with portions of the tree that do not provide suitable roost habitat (e.g., low	Retain environmental monitor to conduct roosting bat surveys in trees to be removed; tree removal shall be conducted under supervision of environmental monitor; show avoidance measures on final project plans if applicable	Prior to removal of any trees for project	GSWC; environmental monitor

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	limbs lacking forage). Trees will be disassembled at a speed in coordination with the environmental monitor that allows any roosting bats to vacate the tree.			
BIO-8	American badgers were not observed in the project area during the surveys. However, the reservoir site supports suitable habitat for American badgers and an individual could have taken occupancy of the site since the surveys were completed. Therefore, this measure is provided to ensure an American badger that may have moved into the site is evacuated prior to grading the reservoir site. Prior to ground-disturbing activities, the environmental monitor shall conduct a preconstruction survey for American badger dens. The badger survey should be conducted no more than two weeks prior to construction. If the survey results are negative (no badger dens observed), no additional work will be necessary. If the results are positive (badger dens observed), the environmental monitor shall contact GSWC within 24 hours; work in the area shall be delayed until GSWC and the biologist have determined the appropriate steps to avoid or minimize impacts to badgers. The following guidelines for avoiding impacts to badgers should be considered if a den is discovered: 1. If the environmental monitor determines that potential dens are inactive, the biologist shall excavate the dens with a shovel to prevent badgers from reusing them. 2. If the environmental monitor determines that dens may be active, the environmental monitor shall install a game camera for three days and three nights to determine if the den is in use. If the game camera does not capture an individual entering/exiting the den, the den shall be excavated as discussed above. If the camera captures badger use of the den, the environmental monitor shall install a one-way door in the den opening and continue use of the game camera. Once the camera captures the individual exiting the one-way door, the den can be excavated as discussed above.	Conduct preconstruction survey for American badger dens; if badger dens observed, environmental monitor shall contact GSWC within 24 hours; work in area shall be delayed until GSWC and environmental monitor have determined appropriate steps to avoid or minimize impacts to badgers; show avoidance measures on final project plans if applicable	Prior to ground-disturbing activities	Environmental monitor; GSWC; qualified biologist
BIO-9	Construction equipment staging and storage areas shall be located outside of coast live oak tree canopy areas. No construction equipment shall be parked, stored, or operated within the coast live oak tree canopy dripline. No fill soil, rocks, or construction materials shall be stored or placed within the coast live oak tree canopy dripline.	Construction equipment staging and storage areas shall be located outside of coast live oak tree canopy areas; shown on final project plans	During construction activities	GSWC; construction contractors

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
BIO-10	No oak trees over five inches diameter at breast height may be removed. Any roots or branches that are one inch or greater in diameter and require trimming/cutting shall be cleanly cut and sealed.	Avoid removal of trees over five inches diameter at breast height; shown on final project plans as applicable	During construction activities	GSWC; Construction contractors
BIO-11	Initial grading activities within the reservoir site shall occur in the dry season (June 1 to September 30). Initial grading activities in the reservoir site may not occur during the rainy season (October 1 to May 3) or when greater than 0.5 inch of precipitation is forecast to occur within 48 hours of the scheduled grading. Work shall not occur during rain events, 48 hours prior to significant rain events (>0.5 inch), or during the 48 hours after these events, to the extent practicable. If work must occur 48 hours prior to significant rain events (>0.5 inch), or during the 48 hours after these events, the environmental monitor shall conduct a pre-activity survey to ensure that the work area is clear of CRLF. Installation of the pipeline under or over the drainages shall be prohibited if ponding water is present in the drainage within 50 feet up- or downstream of the pipeline location. Prior to installation of the pipeline under or over the drainages, a environmental monitor shall survey for CRLF in the drainages within 50 feet up- and downstream of the pipeline location. If any life stage of CRLF are observed, the pipeline installation under or over the drainage shall be delayed until the individuals have left the area on their own accord, or GSWC and the SWRCB have coordinated with the USFWS to determine if impacts to CRLF may occur. Unless previously authorized by the USFWS, CRLF shall not be captured, harassed, or taken during project activities. If the pre-disturbance survey does not identify CRLF in the drainages, work may proceed, and no further action is necessary.	Initial grading activities within reservoir site shall occur in dry season; if CRLF are present, GSWC shall coordinate with SWRCB and USFWS; show avoidance and other measures on final project plans if applicable	During initial grading activities	GSWC in coordination with SWRCB and USFWS
BIO-12	Prior to initial grading of the reservoir site, the environmental monitor shall conduct pre-disturbance capture and relocation surveys for western spadefoot toad while conducting the CTS capture and relocation surveys (see BIO-13). Small mammal burrows that have potential to be occupied by western spadefoot toad and that occur in the disturbance area shall be excavated using hand tools or through gentle excavation using construction equipment, under the direct supervision of the environmental monitor, until it is certain that the burrows are unoccupied. For the purposes of this measure, “gentle excavation” is an excavation technique involving slow and shallow single passes with a backhoe/excavator bucket perpendicular to the burrow alignment that allows for burrow inspection for individuals after each pass. Individual western spadefoot toad that are encountered will be relocated out of harm’s way.	Conduct pre-disturbance capture and relocation surveys for western spadefoot toad while conducting CTS capture and relocation surveys; new burrows shall be avoided	Prior to initial grading of reservoir site	Environmental monitor

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	The environmental monitor shall relocate any western spadefoot toad(s) found within the project footprint to an active rodent burrow system located no more than 300 feet outside of the project area. If an active rodent burrow system is not available within 300 feet of the project disturbance area, the environmental monitor shall create a burrow for the relocated individual. The created burrow may include burying three to four feet of two-inch or greater corrugated polyvinyl chloride (PVC) pipe at a slight downward angle that is closed at the buried end. The individual(s) shall be handled with clean and wet hands. During relocation, they will be placed in a clean, covered plastic container with a wet non-cellulose sponge. Captured individuals shall be relocated immediately; individuals shall not be stored for lengthy periods or in heated areas. The relocation container shall be kept out of direct sunlight.			
BIO-13	Development of the reservoir site will result in permanent impacts to CTS upland habitat and has the potential to result in take of CTS. GSWC coordinated with the USFWS and CDFW and has inferred presence of CTS in the project area. Therefore, GSWC shall develop an HCP and obtain an ITP from the USFWS and a CD or a 2081-ITP from the CDFW. The HCP and resulting ITP and CD shall include measures that fully mitigate the potential impacts to CTS and loss of CTS upland habitat. The measures shall be reviewed and approved by the USFWS and CDFW. The CTS minimization measures shall include, but not be limited to, capture and relocation surveys for CTS, installation of exclusionary fencing, seasonal work restrictions, periodic site monitoring, and environmental awareness trainings. Compensatory mitigation for the loss of upland habitat shall include either purchase of CTS credits at an agency-approved mitigation bank or purchase and preservation of lands that support CTS. The proposed project shall not commence until GSWC has consulted with the USFWS and CDFW and obtained an ITP and CD (or 2081-ITP) from the agencies. GSWC shall submit copies of the ITP and CD (or 2081-ITP) to the SWRCB prior to implementing the HCP measures and initiating construction of the project.	Submit copies of ITP and CD (or 2081-ITP) to SWRCB	Prior to implementing HCP measures and initiating construction activities	GSWC in coordination with CDFW and USFWS; SWRCB
BIO-14	Pursuant to the reservoir site easement agreement with the property owner, GSWC must install trees at the front of the tank site to screen the tanks from the remainder of the property. To maintain consistency with the surrounding lands, reduce the need for irrigation, and reduce the potential to alter the upland conditions for local amphibian species, GSWC shall only plant coast live oak trees for the tank screening. The coast live oak trees shall be irrigated with drip (flood or bubbler) irrigation or hand watered for no more than five years. Under no circumstances shall the irrigation system include sprinklers (e.g., fixed spray, gear driven, multiple stream, pop-up, rotary, etc.) or any system that produces a spray that mimics rain conditions. Irrigation lines shall be temporary and installed aboveground.	Only plant coast live oak for tank screening; shown on final project plans	Following installation of tanks	GSWC

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
BIO-15	Prior to project implementation, GSWC shall prepare a brief Erosion Control and Site Restoration Plan that includes the methods and materials required to restore the temporarily disturbed portions of the reservoir site inclusive of earthen stormwater basins. The Erosion Control and Site Restoration Plan shall include finish grading the temporary disturbance areas to match the adjacent undisturbed contours; application of a hydroseed mix that includes soil binding mulch and locally consistent native annual and perennial grasses, forbs, and shrubs; and a five-year invasive species management plan. GSWC shall implement the Erosion Control and Site Restoration Plan immediately following completion of the water tank installation. GSWC shall implement the invasive species management actions for a minimum of five years.	Prepare brief Erosion Control and Site Restoration Plan; GSWC shall implement the Erosion Control and Site Restoration Plan immediately following completion of water tank installation	Prior to project implementation	GSWC
Cultural Resources				
CR-1	In the event that new archaeological resources are discovered during the project, all ground-disturbing activities in the vicinity of the find shall cease, and an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (National Park Service 1983) shall be retained to evaluate the find. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section15064.5 [f]). If the archaeological resource is Native American in origin, the Santa Ynez Band of Chumash Indians will also be notified and shall be provided information and invited to perform a site visit when the archaeologist makes his/her assessment, to provide tribal input on the evaluation. After the assessment is completed, the archaeologist shall submit a report to the State Water Board describing the significance of the discovery with cultural resource management recommendations. If a resource is determined by the State Water Board, based on recommendations of the qualified archaeologist, and SYBMI as appropriate, to constitute a "historical resource" or "unique archaeological resource", time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2 for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be offered to a public, non-profit institution with a research interest in the materials, such a history museum, if such an institution agrees to accept the material. If no	Retain qualified archaeologist; qualified archaeologist shall ensure measures are implemented as necessary	In the event that archaeological resources are encountered during the project; during ground disturbance activities	Qualified archaeologist in consultation with SWRCB, GSWC (and SYBMI if discovery is Native American)

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes. If the find is Native American, the SWRCB, GSWC, and landowner shall, in good faith, consult with SYBCI on the disposition and treatment of any Native American artifacts or other cultural materials encountered during the project. If human remains are found, State of California Health and Safety Code Section 7050.5 shall be followed.			
Geology and Soils				
GEO-1	As part of the SWPPP, prior to project grading and construction activities, the owner/applicant shall prepare an Erosion Control Plan for SWRCB review and approval. This plan shall include the design and installation of erosion control measures and BMPs. These measures shall be listed on all grading and construction plans.	Prepare an Erosion and Sedimentation Control Plan; measures shall be listed on all grading and construction plans	Prior to project grading and construction activities	GSWC; SWRCB
GEO-2	If paleontological resources are encountered during ground-disturbing activities, activities in the immediate area of the find shall be halted and a qualified paleontologist shall be retained to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology.	Retain qualified paleontologist to evaluate the discovery and recommend appropriate treatment options to be implemented during ground disturbance activities as necessary	If paleontological resources are encountered during ground-disturbing activities; during ground-disturbing activities	Qualified paleontologist
Hazards and Hazardous Materials				
HAZ-1	To minimize potential construction related fire hazards, a Fire Awareness and Avoidance Plan shall be prepared. The plan shall include the following measures: 1. Fire preventative measures addressing cutting, grinding, and welding; 2. Maintaining fire extinguishers in every vehicle on-site and appropriate locations within the work area; 3. Communication with emergency response agencies; and	Prepare Fire Awareness and Avoidance Plan; requirements shall be noted in plan specifications and Fire Awareness and	During construction activities	GSWC; Project contractor

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	4. Methods for ensuring compliance with the Santa Barbara County Fire Prevention Ordinance Chapter 15 of the municipal code. These requirements shall be noted in plan specifications and the Fire Awareness and Avoidance Plan shall be included in the project plans.	Avoidance Plan shall be included in the project plans		
Noise				
NS-1	Construction activity within proximity to residential units shall be limited to eight hours between 7:00 a.m. and 7:00 p.m. on weekdays, and between 8:00 a.m. and 6:00 p.m. on Saturdays. No construction shall occur on Sundays or federal or state holidays. Construction equipment maintenance shall be limited to the same hours. Non-noise-generating construction activities without mechanical equipment are not subject to these restrictions.	Construction activity within proximity to residential units shall be limited to eight hours between 7:00 a.m. and 7:00 p.m. on weekdays; timing shall be included on final project plans	During construction activities	GSWC; construction contractors
NS-2	Internal combustion engines shall be equipped with the muffler recommended by the manufacturer. Internal combustion engines shall not be operated on the project site without the appropriate muffler.	Internal combustion engines shall not be operated on project site without appropriate muffler; regular site inspections throughout construction	During construction activities	GSWC; construction contractors
NS-3	All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, is generated. Stockpiling and vehicle staging areas shall be located as far as practical from sensitive noise receptors. Every effort shall be made to create the greatest distance between noise sources and sensitive receptors during construction activities.	All equipment shall be properly maintained; regular site inspections throughout construction	During construction activities	GSWC; construction contractors