

# Final Mitigated Negative Declaration

## Geotechnical Investigations on the Santa Clara River near Saticoy, CA

August 8, 2012



United Water Conservation District



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## **Attachments**

- A Wetland Delineation Report
- B Mitigation Monitoring and Reporting Plan
- C Comments and Responses

## 1.0 Introduction

United Water Conservation District (United) is developing a habitat conservation plan (HCP) to obtain an incidental take permit under the Endangered Species Act (ESA) for, among other activities, its operations of the Freeman Diversion Facility on the Santa Clara River in Saticoy, Ventura County, California. United is proposing to make a major modification to the Freeman Diversion as part of the conservation measures for the HCP intended to minimize take of the endangered southern California steelhead (*Oncorhynchus mykiss*) and rare Pacific lamprey (*Entosphenus tridentatus*). The proposed modification is the installation of a hardened ramp at the diversion structure. This would involve laying back an 80-foot (+/-) wide portion of the dam structure on its upstream side to roughly a 6 percent slope creating a concrete ramp approximately 387 feet long. These dimensions are estimates based on conceptual designs. United will conduct hydraulic modeling of the ramp to complete a final design and refine these dimensions. This ramp has been identified as a means to improve passage conditions for steelhead and the Pacific lamprey compared to passage conditions afforded by the current fish ladder.

## 1.1 Purpose and Need

In order to properly design the ramp's foundation, geotechnical information is needed regarding the subsurface fill, alluvium, and bedrock. To acquire this information, access for exploratory boring equipment is required. This information will help United design a foundation for the ramp that can withstand the high water flows that occur in the Santa Clara River along with the materials that these flows move down the river.

## 1.2 CEQA Process

The California Environmental Quality Act (CEQA) was established to ensure state, local, and other agencies evaluate and disclose the environmental implications of their actions. Furthermore, its purpose is to prevent or minimize the environmental effects of agency actions by requiring agencies to avoid or reduce, when feasible, the significant environmental impacts of their actions. When a project is subject to the requirements of CEQA, an Initial Study (IS) is prepared to identify the potential environmental effects of a project. If any project activities are determined to have the potential for significant environmental effects, the Lead Agency will generally either revise the project to incorporate features that would lessen the environmental effects below a level of significance or develop mitigation measures to avoid or reduce these effects to less-than-significant levels. If impacts cannot be avoided or reduced, an Environmental Impact Report (EIR) is prepared. If impacts are avoided or reduced through mitigation, the appropriate CEQA documentation consists of a Draft Initial Study/Mitigated Negative Declaration (IS/MND) which is circulated for public review. The public review period is 30 days when a state agency review is required and 20 days when state agency review is not required.

For the Proposed Project, United is the Lead Agency under CEQA for the preparation of this IS/MND. Comments received during the 30-day public review period will be considered by the United Board of Directors at a public meeting. Prior to approving the project, the Board must consider the Draft IS/MND together with any comments received on the document during the public review process. The Board must then find that there is no substantial evidence that the proposed project will have a significant effect on the environment and that the CEQA document reflects the Board's independent judgment and analysis.

## **2.0 Project Description**

### **2.1 Project Location**

The project is located adjacent to the upstream side of the Freeman Diversion Dam (Figure 1). Much of the exploration area is typically inundated with a few inches to several feet of water, the depth fluctuating with location, river discharge, sediment transport, and diversion operations. The work site will be dewatered as much as possible prior to work beginning. All areas of excavation and fill are to be set back a minimum of 10 feet from the zone of substantial riparian vegetation (figure 2).

### **2.2 Site Access**

The site will be accessed via a dirt road on the Todd Barranca County Jail Property located adjacent to the north bank of the river. Access to the work site will be along the dam crest from the northwest abutment (figure 3). Equipment will enter the top of the diversion dam (flat concrete) and travel approximately 1,200 feet across the dam to the point of entry into the dewatered section of the river. This is where excavation will begin at the borrow area to construct the pad for the drilling equipment. One to three overhanging willow trees on the north end of the dam may need minor to major pruning, and possible but not likely removal, to allow access.

### **2.3 Construction Schedule**

The project will take approximately 21 working days, from beginning to end: approximately 8 days to construct the pad, approximately 5 days for boring and sampling, and approximately 8 days to regrade the site to its original configuration including returning excavated materials. United is proposing to conduct this work as soon as the necessary permits and approvals are in place, but outside of storm events. United intends on conducting the project in November 2012. However, depending on the status of permitting and specific river conditions, United may find it necessary and acceptable to complete the work at a later date.

### **2.4 Project Activities**

The variable water depths in the area to be surveyed preclude using either floating or land surface boring equipment. Accordingly, United is proposing to temporarily dewater the survey area and to construct a temporary earthen pad. The pad will be constructed with material borrowed from the adjacent river alluvium (Figure 2).

United is proposing to dewater the work site with an approach that will be the least invasive and require the least amount of physical manipulation of the river channel. Due to conditions outside of our control, United will have to assess what approach is feasible at the time of the work.

Approaches considered include:

1. The optimal approach would require the least amount of physical manipulation and would be achieved through management of United's facility operations. This would consist of opening the flushing channel gate, allowing water to flow downstream (out of the work site). Once the area is dewatered, United could then control the amount of impounded water through its operations, keeping the work site free of water.

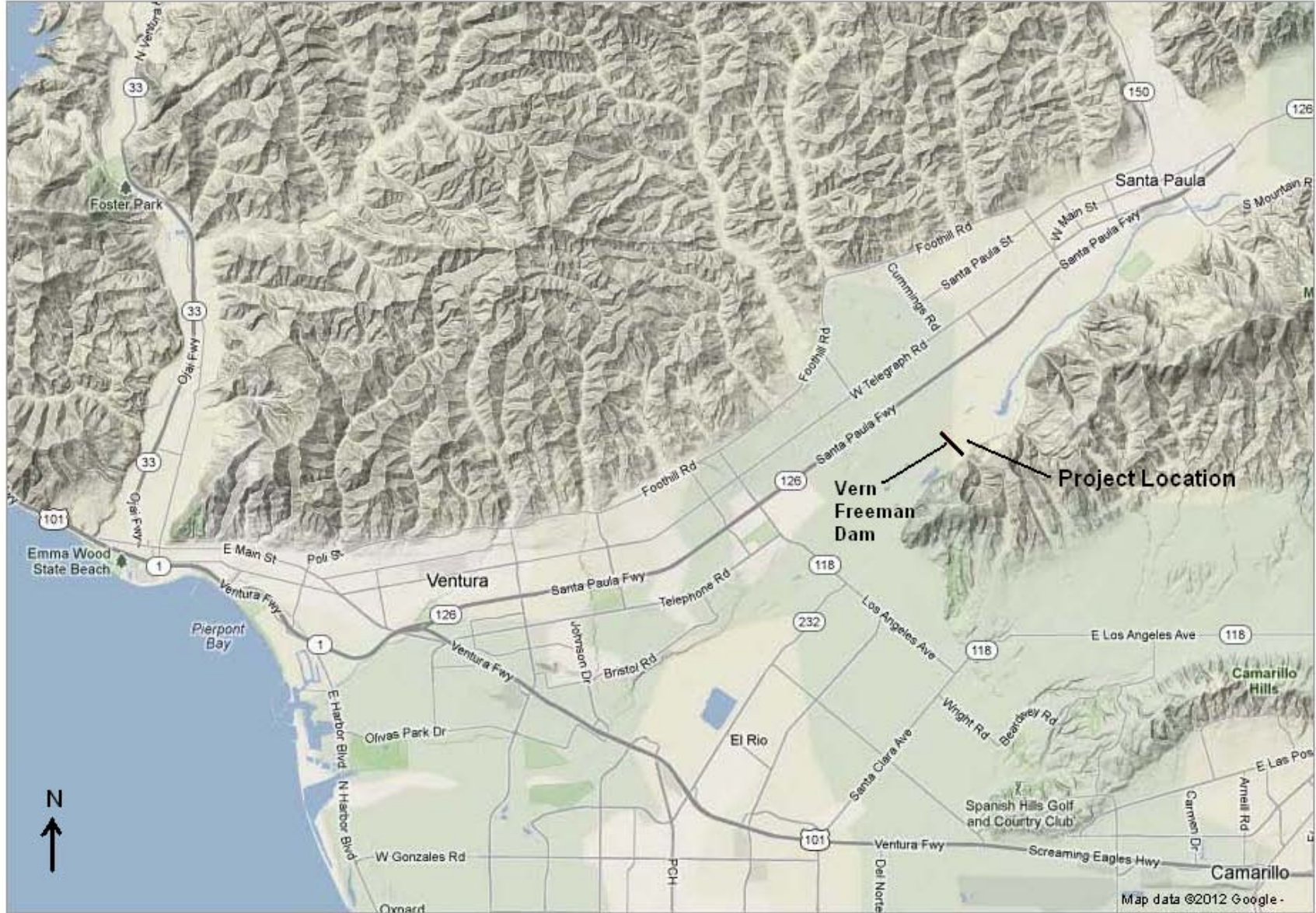


Figure 1 Project Location

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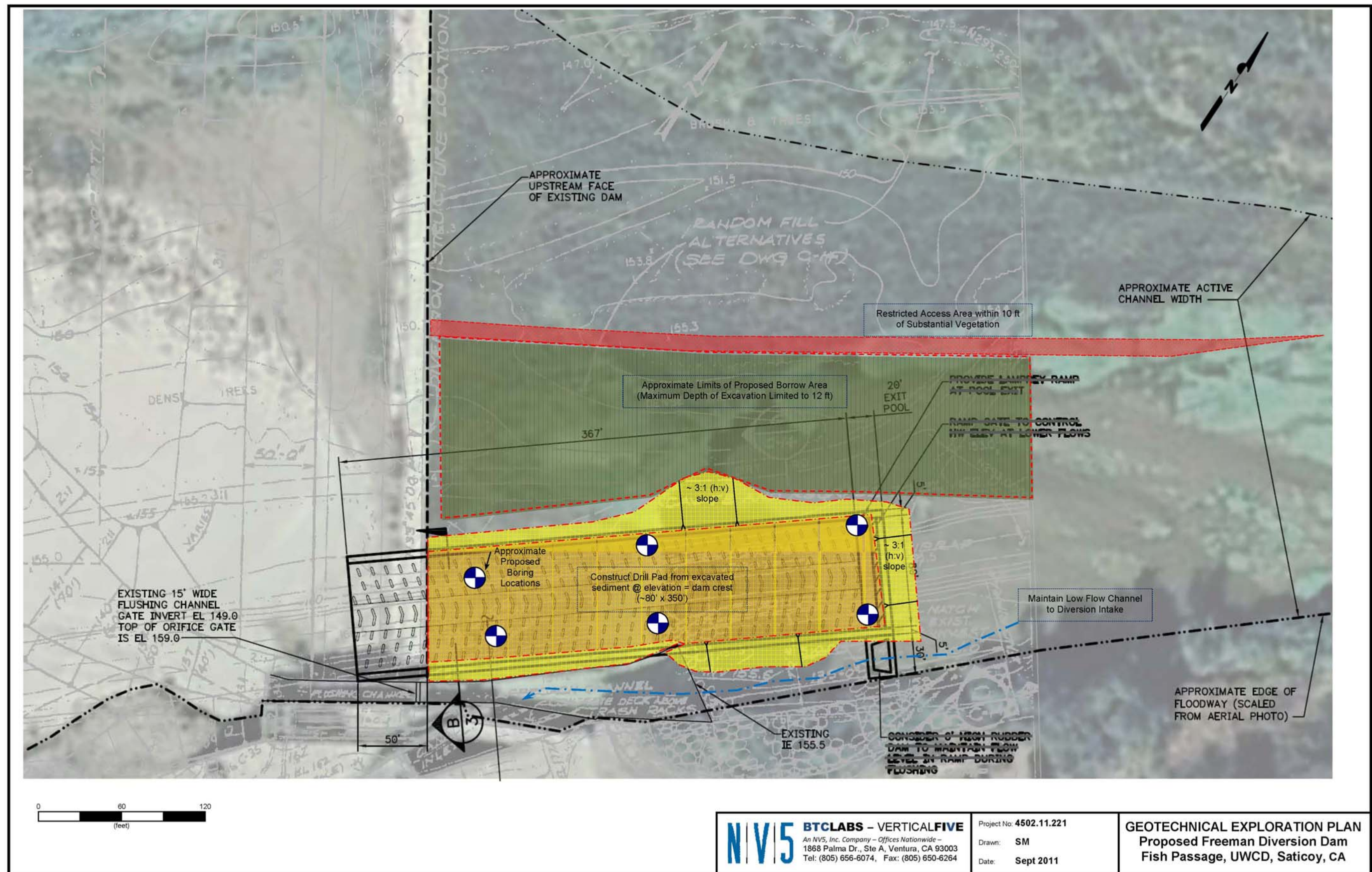


Figure 2 Geotechnical Exploration Plan

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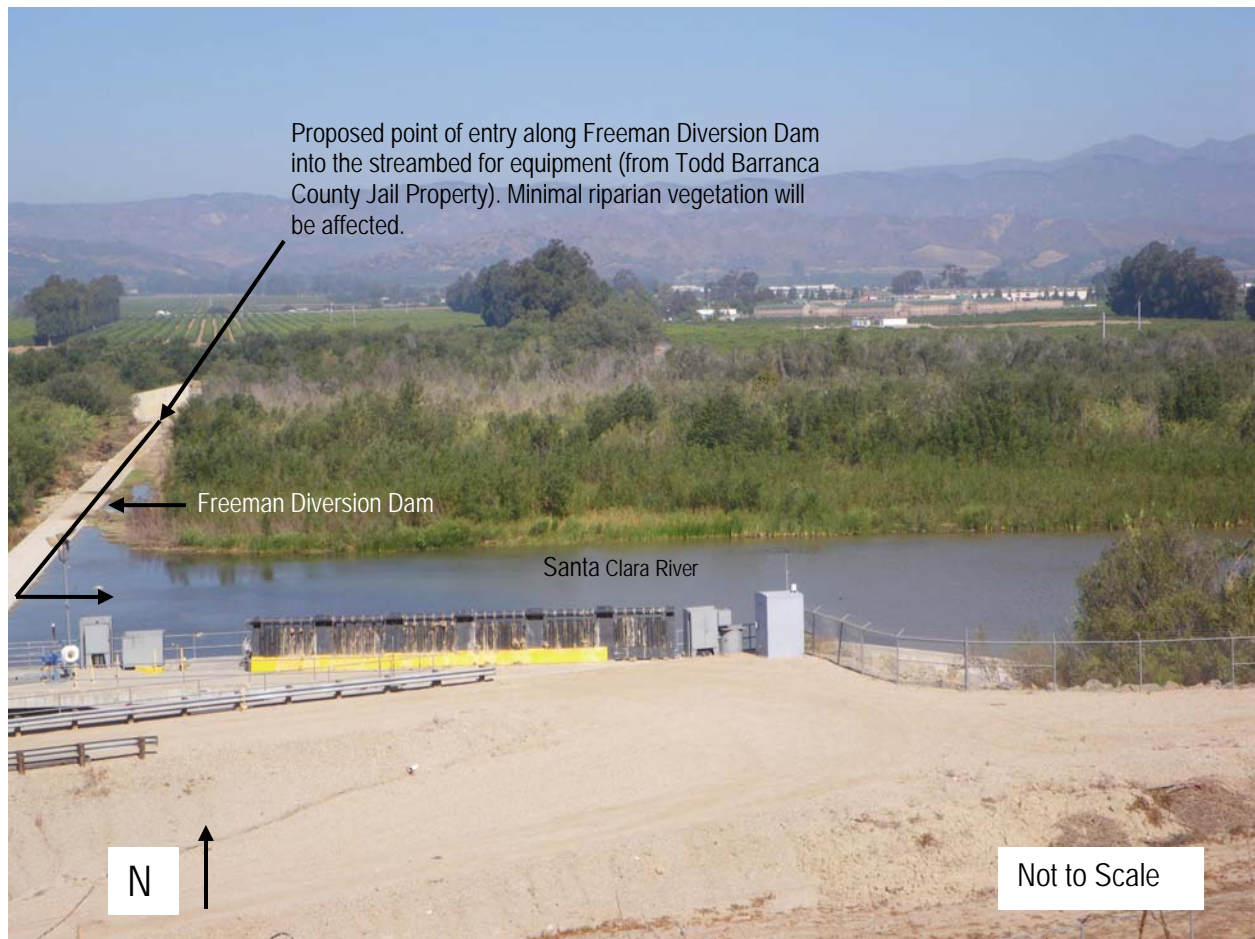


Figure 3 Proposed Equipment Entry Route to Project Site

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2. If Approach 1 is not feasible, due to unforeseen circumstances, the next approach would be achieved through the installation of a temporary diversion structure upstream of the work site (figure 4). This would consist of constructing a weir system with an earthen berm (made of native streambed material), plywood, sandbags, and fence posts upstream of the work site. This would keep stream flow in the river along the south bank, away from the work site (the usual course of the river during this time of year). Corrugated plastic pipe (CPP) may also be installed at the weir, but is not anticipated. Pumps may be utilized, if necessary.

The pad might require as much as 3,500 cubic yards (CY) of fill (80 feet wide x 350 feet long x 3.5 feet average height). This material would be obtained from the borrow area using an excavator. Filling would proceed from the diversion dam eastward with the excavator working on the fill after it is placed. To reach portions of the borrow area away from the dam and the pad, material may need to be placed in a narrow path into the borrow area for excavator access. Fill and nominal compaction is proposed to be accomplished with a bulldozer.

Once the pad is in place, the mud-rotary-wash drill rig will drill approximately 6 borings to depths extending approximately 20 feet into bedrock (anticipated depths range from 40 to 70 feet). The borings will be backfilled with bentonite chips to near the surface and finished with drill spoils. The testing will allow:

- The strength of the existing alluvium and fills to be assessed.
- The depth to bedrock to be determined.
- Small samples of the various materials encountered to be acquired for laboratory analyses.

Upon completion of the sampling, the project site will be returned to roughly the pre-project contours of the river with the same equipment used to excavate and construct the pad. The material taken from the borrow area will be returned to that area and contoured to as close as possible to pre-project conditions.

## 2.5 Equipment

Noise levels for the equipment are discussed in sections 4.3 and 4.8. Every effort will be made to avoid having equipment in any water in the river.

Pad construction:

- D8T bulldozer
- 345 excavators (2)
- 930K loaders (2)

Anticipated Field Exploration Techniques:

- Mud-rotary-wash drill (CME 75)
- 416 backhoe bucket

#### Possible Field Exploration Techniques (Not Anticipated):

- Becker hammer
- Bucket auger
- Sonic drilling

#### Potential Water Diversions:

- Corrugated plastic pipe (CPP)
- Fence posts
- Sandbags
- Plywood sheets
- Water pumps
- D8T bulldozer

## 2.6 Size of Affected Area

The project footprint is estimated to be:

- Drill pad (80 feet wide x 350 feet long)
- Borrow area (115 feet wide x 420 feet long)
- Water diversions (10 feet wide x 160 feet long) with weir, berm, and diversion pipe (CPP) (3 feet wide x 500 feet long)

A maximum total of 2.1 acres of riverbed will be temporarily disturbed.

A maximum total of 60 acres (including the work site) could be temporarily disturbed by noise above 69 decibels (i.e., 500 feet out from the work site).

## 2.7 Environmental Commitments

- Best management practices will be used for all work and management of equipment to avoid spills of equipment fluid and drill mud. Equipment will be well maintained prior to site entry and drill mud will be entirely confined to the sampling hole and the circulation tank. It will then be hauled off-site for disposal. Any spilled drilling mud will be picked up, collected, and removed from the stream, to the extent feasible. Native streambed material will be used to fill in the excavated areas.

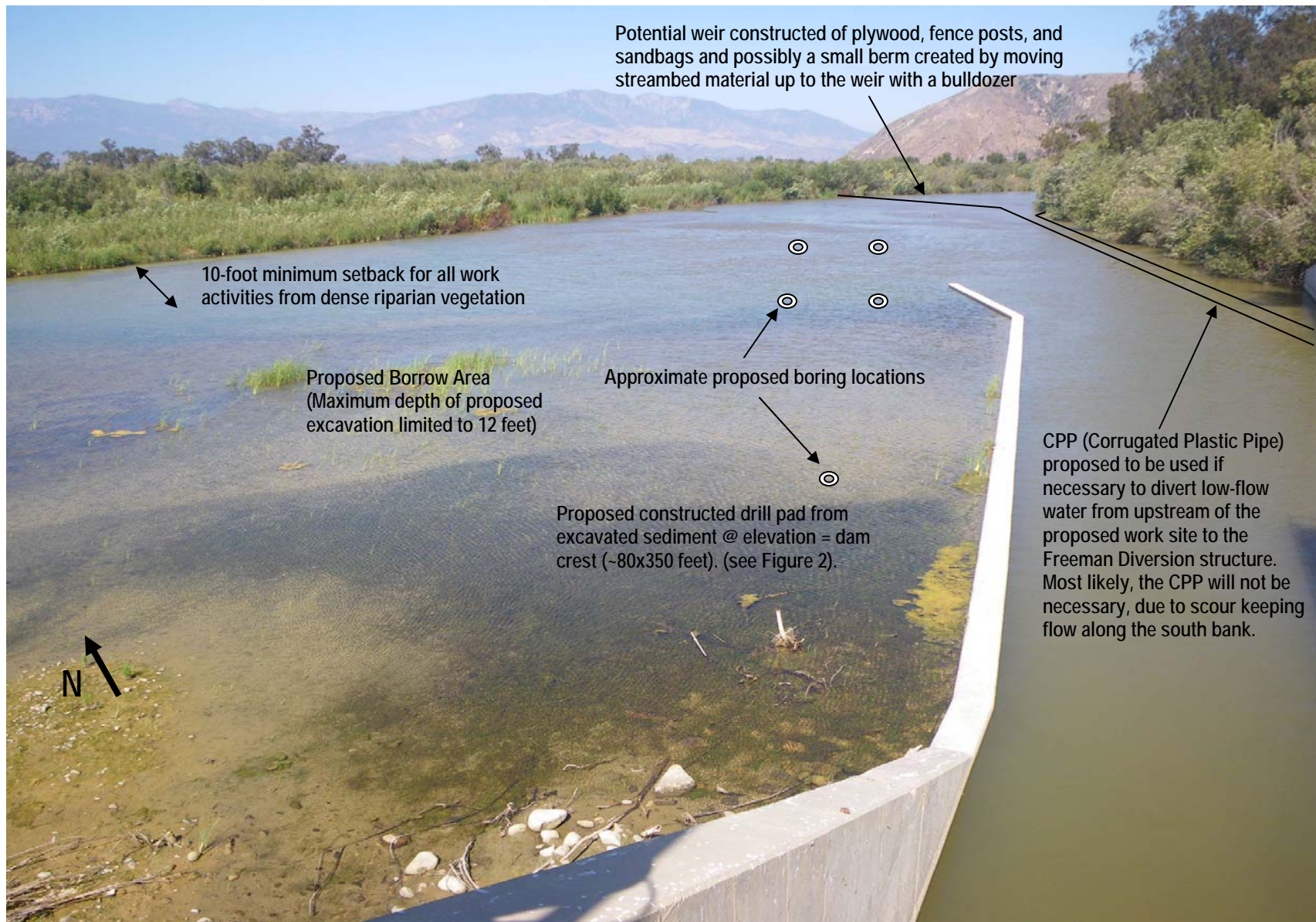


Figure 4 Proposed Work Site and Potential Diversion Location

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The following measures will be implemented to minimize and avoid effects on sensitive species:

- The work site will be flagged, and excavation work will be monitored to ensure that the footprint is minimized and does not extend outside the boundaries of the site.
- A qualified biological monitor(s) will be on-site to survey the area for any aquatic sensitive or other native species prior to and during the project. If any native aquatic species are found in the project site they will be relocated to nearby suitable habitat outside of the project site. Southern California steelhead, Pacific lamprey, southwestern pond turtle, two-striped garter snake, and partially-armored threespine stickleback are known to at least periodically occur in the area to be directly affected by the project.
- The work site will be dewatered as much as possible, and work will not occur during any rain events. If rain does occur, all work will be halted until conditions return to pre-rain conditions.
- Native streambed material will be used to build the pad from the adjacent borrow site. After the geotechnical survey is completed, the site will be returned to roughly original lines and grades.
- Protocol bird surveys for least the Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo, and spot mapping for yellow warblers and yellow-breasted chats during the 2012 nesting season are being conducted for the project area and surrounding riparian habitat by a qualified biologist(s).
- A qualified biological monitor will be on-site during the project to assess potential effects of noise on nesting birds.

## 2.8 Alternatives

No feasible alternatives to the proposed project have been identified to provide the information needed to support design of the fish passage facilities.

## 3.0 Regulatory Setting

Regulations applicable to this project are described below.

### 3.1 Federal Regulations

**Endangered Species Act (ESA).** The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over candidate species, or species proposed, or listed as threatened or endangered under the ESA. Enacted in 1973, the ESA prohibits the "take" of, possession, sale or transport of proposed, candidate, or listed species. Take is broadly defined as "...the action of harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct." Projects that would result in "take" of any federally-listed threatened or endangered species are required to obtain authorization from the National Marine Fisheries Service (NMFS) and/or USFWS through either Section 7 (interagency consultation) or section 10(a) (incidental take permit) of ESA, depending on whether the federal government is involved in permitting or funding the Project. The Section 7 authorization process is used to determine if a project with a federal nexus would jeopardize the continued existence of a listed

species and what mitigation measures would be required to avoid jeopardizing the species. The Section 10(a) process allows take of endangered species or their habitat in non-federal activities.

**Section 404 of the Clean Water Act (CWA).** The U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) regulate the discharge of dredge or fill material into Waters of the United States under Section 404 of the CWA (“Waters of the United States” include wetlands and lakes, rivers, streams, and their tributaries). Wetlands are defined for regulatory purposes as areas “...inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions” (333 CFR 328.3, 40 CFR 230.3). Project proponents must obtain a permit from the Corps for all discharges of fill material into waters of the United States, including wetlands, before proceeding with a proposed action.

**Section 401 of the CWA.** CWA Section 401 compliance is required for any project requiring a federal action (i.e., Corps permit or federal funding) with construction that could have an impact on surface water quality. In California, Section 401 is administered by the State Regional Water Quality Control Board (RWQCB).

**Section 402 of the CWA.** As with Section 401, Section 402 is administered by the state. A Statewide General Construction Stormwater Discharge (GCSD) Permit (Order No. 2009-0009-DWQ) was adopted by the State Water Resources Control Board on September 2, 2009 for construction projects that disturb greater than one acre or have the potential to impair water quality. A permit is required regardless of the time of year that construction occurs. This permit requires a Notice of Intent to be submitted, a Stormwater Water Pollution Prevention Plan (SWPPP) to be developed and implemented, and monitoring to be conducted. The SWPPP must contain Best Management Practices (BMPS), other measures to prevent pollution, and a construction timeline. The SWPPP shall demonstrate compliance with erosion and sediment control standards and identify responsible parties. Furthermore, a BMP maintenance program is required by the SWPPP, which should include proper installation and thorough and frequent inspection to ensure the effectiveness of specific BMPs.

**Migratory Bird Treaty Act (MBTA).** The MBTA (16 USC Section 668) protects migratory bird species from take through setting hunting limits and seasons, and protecting occupied nests and eggs.

**Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands).** These Executive Orders require Federal agencies to provide leadership to protect the natural and beneficial values served by floodplains and wetlands. Federal agencies are directed to avoid development in floodplains where possible, and to minimize the destruction or degradation of wetlands.

**Section 106 of the National Historic Preservation Act (NHPA).** Section 106 requires that Federal agencies take into account the effects of their undertakings on historic properties and afford the State Historic Preservation Officer (SHPO), and, if appropriate, the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. Federal undertakings include Federal projects, permits, grants, and loans. The purpose of section 106 is to avoid unnecessary impacts on historic properties from Federal undertakings.

### 3.2 State Regulations

**California Endangered Species Act (CESA).** The California Department of Fish and Game (CDFG) has jurisdiction over species listed as threatened or endangered under section 2080 of the California Fish and Game Code. CESA prohibits take of state-listed threatened and endangered species. The state act differs from the federal act in that it does not include habitat destruction in its definition of take. The California Fish and Game Code defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CDFG may authorize take under CESA through Section 2081 agreements.

**Fish and Game Code Section 1600.** Under Section 1600, CDFG issues Streambed Alteration Agreements for activities that will affect streams or lakes.

### 3.3 Required Permits

The following permits and compliance are required for the project:

- U.S. Fish and Wildlife Service – Section 7 Consultation under the Endangered Species Act
- National Marine Fisheries Service – Section 7 Consultation under the Endangered Species Act
- U.S. Army Corps of Engineers – Section 404 permit under the CWA
- Regional Water Quality Control Board – Section 401 Certification under the CWA
- California Department of Fish and Game – Streambed Alteration Agreement under Section 1600 of the Fish and Game Code
- National Historic Preservation Act – Section 106 Compliance

### 4.0 Environmental Checklist

**Project Title:** Geotechnical Investigations on the Santa Clara River near Saticoy, CA

**Lead Agency Name & Address:** United Water Conservation District, 106 N 8<sup>th</sup> Street, Santa Paula, CA 93060

**Contact Person & Phone Number:** Sara Dowey, Project Manager; 805-525-4431

**Project Location:** East (upstream) side of the Vern Freeman Diversion Dam and extending up to 500 feet eastward (Figure 1).

**Applicant:** United Water Conservation District

**General Plan Designation:** Open Space (10 acres minimum)

**Zoning:** OS-80 ac/MRP

**Project Description:** See Section 2.0 above

**Surrounding Land Uses & Setting:** Land use along the north side of the Santa Clara River in the project vicinity is primarily agriculture dominated by orchards, scattered commercial development and a jail. On the south side of the river, land use is primarily open space with the United diversion facilities to the west of the dam. Topography is nearly flat northward from the river for over 2.5 miles. To the southeast, topography is hilly changing to a flat plain southwest of the dam. The low-flow channel in the river is generally less than 150 feet wide in the project area, except at the dam where it is about 250 feet wide. Resource specific descriptions for all areas potentially affected by the project area provided below.

A number of the environmental factors in the CEQA checklist would not be affected by the project and are not addressed below. These include:

Environmental Factor	Reason for No Impact
Agricultural resources	No agricultural resources are present at the project site, and adjacent agriculture would not be affected by project activities. a. No prime, unique, or statewide importance farmland would be affected. b. No conflict with existing zoning for agricultural use or a Williamson Act contract. c. Would not result in conversion of farmland to non-agricultural uses.
Cultural resources	No intact cultural or historic materials would be present in the river bed, and Freeman Diversion Dam would not be altered. a. Significance of a historical resource as defined in §15064.5 would not be substantially changed. b. Significance of an archaeological resource as defined in §15064.5 would not be substantially changed. c. No unique paleontological resource or geologic feature would be destroyed. d. No human remains would be disturbed.
Land use/ planning	Land use in the project area would not be altered. a. No established communities would be divided. b. No conflict with any applicable land use plan, policy, or regulation would occur. c. No conflict with any applicable habitat conservation plan or natural community conservation plan would occur.
Mineral resources	The only known mineral resource at the site is sand and gravel in the river bed. The project would temporarily disturb but not remove this resource. a. Availability of a known mineral resource would not be lost. b. Availability of a locally-important mineral resource recovery site would not occur.
Population/ housing	The project is not growth-inducing and would not affect housing. a. Population growth would not be induced. b. No existing housing would be displaced. c. No people would be displaced.
Public services	The project does not require or affect a) fire protection, b) police protection, c) schools, d) parks, or e) other public facilities.
Recreation	No public recreation occurs at the project site. a. Use of existing recreational facilities would not be increased. b. No new recreational facilities are included or required in the project.
Utilities/service systems	The project does not require any: a/b/e. Wastewater or water treatment (a portable toilet will be provided for temporary sanitary wastes), c. Stormwater drainage, d. Water supply, or f/g. Solid waste disposal.

Resources that could be affected include aesthetics, air quality, biological resources, geology/soils, hazards and hazardous materials, hydrology/water quality, noise, and transportation/traffic. These are discussed below.

#### 4.1 Aesthetics

The project site is located in a rural area surrounded by open space (undeveloped hills) to the south and agricultural fields and orchards to the north with the river channel to the east and west. The closest public roadways are State Route (SR) 126 nearly a mile to the north and SR 118 over 2 miles to the west with a bridge over the river. No public roadways are present in the hills to the south of the site.

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a,c)** Less than Significant Impact: The project site is not visible from SR 126 due to distance, flat topography between that roadway and the project site, and intervening vegetation, such as orchards and the riparian woodland along the north side of the river. The site is over 2 miles eastward from the SR 118 crossing of the river with limited opportunity to view the project site while driving over the bridge. Equipment would be present for up to three week and then would be removed, and the site would be restored to approximate pre-project contours.

**b,d)** No Impact: No trees or other scenic resources would be damaged, and no new light or glare would be created by the project.

The project would not result in cumulatively considerable impacts on aesthetics.

#### 4.2 Air Quality

Air quality is regulated by the Federal Clean Air Act and the California Clean Air Act. The U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) have established ambient air quality standards for protection of human health and welfare (VCAPCD 2001). Ventura County is in attainment of all but the ozone and particulate standards (VCAPCD 2012).

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Project equipment would be brought to the site and then operated over approximately 21 days during the daytime for construction of the pad, drilling, and restoring the work area. Workers would access the site daily in light vehicles such as pickup trucks. Once the work is complete, the equipment would be removed from the site. The drill rig would only be present and operated for approximately five days while the other equipment could be present for the duration of the project but most would not be operated during the drilling. All vehicles and registered portable equipment would be exempt from permit by the Ventura County Air Pollution Control District (VCAPCD) as they would not comprise permanent stationary sources of emissions.

**a,d,e) No Impact:** The short duration of the project would not result in any conflicts with implementation of the Ventura County Air Quality Management Plan, which contains county-wide emissions allowances for construction-related activities. No sensitive receptors are located near the project, and the project would not produce objectionable odors that would affect a substantial number of people (Saticoy is 2.5 miles [4 kilometers] upwind of the site).

**b) Less Than Significant Impact:** The relatively small quantity of vehicles and equipment would not emit sufficient mass of engine exhaust to affect overall ambient air quality in the general vicinity of the site. The project would not generate noticeable fugitive dust (particulate matter) emissions as materials moved to and from the pad will be wet or moist sand which is relatively coarse and would not be entrained in the wind.

**c) Less Than Significant Impact:** Equipment and vehicles would emit less than 25 pounds per day of nitrogen oxides (NOx) or reactive organic compounds (ROC) that could affect ozone levels and thus would not exceed the County's CEQA thresholds for construction activities.

Emissions would permanently cease upon completion of work and would not be cumulatively considerable over the long-term.

### 4.3 Biological Resources

The project is located within the Santa Clara River bed on the upstream side of the Freeman Diversion Dam. The amount of water present varies with river flow, amount of sediment deposition from recent runoff events, and operations of the diversion facilities. Dense riparian vegetation dominated by willows (*Salix* spp.) is present on the north bank of the river with areas of cattails (*Typha* sp.) and riparian scrub, particularly in areas more recently scoured by high river flows (i.e., closer to the existing open water). A band of emergent wetland plants dominated by cattails and Olney's three-square bulrush (*Schoenoplectus americanus*) is also present along the margin of the existing open water.

Inundated sediments provide habitat for aquatic invertebrates while the water column provides habitat for aquatic invertebrates, fish, and filamentous algae. Southwestern pond turtles (*Emys marmorata pallida*) use the water as well as the banks both upstream and downstream of the dam. Common fish present include partially armored threespine stickleback (*Gasterosteus aculeatus microcephalus*), arroyo chub (*Gila orcutti*), Owens sucker (*Catostomus fumeiventris*), Santa Ana sucker (*Catostomus santaanae*), hybrid suckers, and mosquitofish (*Gambusia affinis*). Of these species only the partially armored threespine stickleback is considered to be native to this drainage.

A variety of water-associated bird species use the project area for resting and foraging, such as herons, egrets, and ducks. A variety of common birds may use adjacent riparian and scrub habitats including black phoebe (*Sayornis nigricans*), house finch (*Carpodacus mexicanus*), Brewer's blackbird (*Euphagus cyanocephalus*), common yellowthroat (*Geothlypis trichas*), California towhee (*Melospiza crissalis*), bushtit (*Psaltirius minimus*), and scrub jay (*Aphelocoma californica*). Mammals expected to at least periodically use the riparian areas include mule deer (*Odocoileus hemionus*), striped skunk (*Mephitis mephitis*), opossum (*Didelphis virginiana*), and wood rat (*Neotoma fuscipes*). Reptiles and amphibians that could be present in or adjacent to the project area include gopher snake (*Pituophis melanoleucus*), rattlesnake (*Crotalus* sp.), garter snakes (*Thamnophis* spp.), western fence lizard (*Sceloporus occidentalis*), southwestern pond turtle (*Emys marmorata pallida*), western toad (*Anaxyrus boreas*), and Pacific chorus frog (*Pseudacris regilla*).

#### 4.3.1 Special-Status Species

Several special-status species are known or have the potential to be present in or adjacent to the project site (Table 1). Protocol surveys are being conducted in the spring to summer of 2012 for the least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo. Observations of yellow warbler and yellow-breasted chat are also being recorded during these surveys. Results of the surveys through mid June 2012 indicate that least Bell's vireo pairs are present within 500 feet of the work area (including at the point of access at the north end of the dam) with several other pairs within about 1,000 feet of the work area. Southwestern willow flycatchers have not been detected, as of mid June. United intends to complete the work outside of the nesting season for these species (i.e., after September 15 and before March 1). However, depending on the

status of permitting and specific river conditions, United may find it necessary and acceptable to complete the work during the nesting season.

Steelhead are known to migrate through the project area, moving both up and downstream. Two adults were recorded on video passing through the ladder at the Freeman Diversion in April 2012. Numerous smolts are observed every migration season passing downstream. Juvenile steelhead have the potential to be present in waters adjacent to the project area year round. However, adults are only likely to be present during the times of upstream or downstream migration. United intends to complete the work outside the migration season. However, depending on the status of permitting and specific river conditions, United may find it necessary and acceptable to complete the work during the migration season.

The numbers of Pacific lamprey captured at the Freeman Diversion have decreased substantially since the late 1990s with no adults found after 2001 (Swift and Howard 2009). Based on this information, few if any individuals would be expected to be present at or adjacent to the project site.

Table 1 Special-status species potentially in project area

Common Name	Scientific Name	Federal Status	State Status	Notes
Southern California steelhead	<i>Oncorhynchus mykiss</i>	E	SSC	Migrates through project area; juveniles could be present all year. Adults and juveniles were present during 2012 migration season.
Least Bell's vireo	<i>Vireo bellii pusillus</i>	E	E	Suitable habitat in riparian woodland on north side of river. Two pairs detected within 500 feet of work area by mid June 2012.
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E	E	Suitable habitat in riparian woodland on north side of river; critical habitat proposed in project area (USFWS 2011). None detected within 500 feet of work area as of mid June, 2012.
Yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	C	E	Suitable habitat in riparian woodland on north side of river. None detected within 500 feet of work area as of mid June, 2012.
Yellow warbler	<i>Dendroica petechia brewsteri</i>	--	SSC	Suitable habitat in riparian woodland on north side of river. Eight territorial singing males detected within 500 feet of work area, as of mid June, 2012.
Yellow-breasted chat	<i>Icteria virens</i>	--	SSC	Suitable habitat in riparian woodland on north side of river. One territorial singing male detected within 500 feet of work area, as of mid June, 2012.
Pacific lamprey <sup>1</sup>	<i>Entosphenus tridentatus</i>	--	--	Migrates through project area; few individuals possible. A single juvenile was last observed in 2006 and adults were last observed in 2001 at Freeman Diversion.
Southwestern pond turtle	<i>Emys marmorata pallida</i>	--	SSC	Captured in fish trap at diversion; observed in pool on downstream side and ponded area on upstream side of Freeman Diversion and expected throughout project area.
Two-striped garter snake	<i>Thamnophis hammondi</i>	--	SSC	Captured in fish trap at diversion, observed in dry fish ladder and near project area, and could be present in or near project area.
<sup>1</sup> Not currently listed or of special concern but is in the United HCP due to concerns regarding future status. Note: E = endangered; C = candidate; SSC = species of special concern				



#### 4.3.2 Waters of the U.S. and Wetlands

The project site is in the Santa Clara River bed and is located within waters of the U.S. Small areas of sediment accumulation causing very shallow water within the area where the temporary pad would be constructed to support a drilling rig currently support wetland vegetation and meet the three criteria used by the U.S. Army Corps of Engineers to define wetlands. The combined size of these areas is 0.025 acre. Such areas are scoured during high river flows and develop again when sediment deposits and low flows are present, but the exact locations and sizes of the wetland patches are likely to change from year to year. A narrow band of wetland also is present along the water's margin along the north bank with patches of wetland within the riparian habitat where topography is low.

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any 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/National Marine Fisheries Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Less than Significant Impact with Mitigation: If the project is conducted outside the bird nesting season (i.e., after September 15 and before March 1), no effects would occur on sensitive riparian bird species. However, if United is unable to avoid the nesting season, noise from the project could affect nesting special status birds.

Noise from equipment operated during construction of the pad for the geotechnical testing and returning the area to pre-project grades (estimated to last 8 days each) is calculated to be greater than 69 dB(A) within 500 feet of the equipment. The 60 dB(A) noise contour would extend approximately 1,409 feet from the equipment, although the dense riparian woodland on the north side of the river would cause noise to attenuate faster than in areas with little or no vegetation. The equipment would work within an area that is approximately 240 feet by 440 feet located near the south bank of the river (see Figure 2), except when being driven across the top of the dam. For the geotechnical testing (approximately 5 days), work would be in an area that is 80 feet by 350 feet in the southwestern part of the total work area. Noise from the drill rig and backhoe operated simultaneously is calculated to be 57.5 dB(A) at 50 feet from the equipment. That noise would decrease to 50 dB(A) at 119 feet from the equipment and is not expected to adversely affect special-status or other riparian bird nesting.

The area within 500 feet of the project work area, including access along the top of the dam is approximately 60 acres. However, only about 24 acres of that is potential habitat for nesting riparian birds (i.e., contains riparian vegetation). Currently, two identified least Bell's vireo pairs are within 500 feet of the primary work area, and noise from project construction activities has the potential to disrupt nesting at that location. For the four identified pairs located greater than 500 feet from the primary work, and particularly for those in the dense woodland, the potential for disruption of nesting is lower. One of the two pairs is near the north end of the dam where short duration noise from equipment being driven to or from the work area could affect that location. Additional pairs, however, could establish nesting territories within 500 feet of the work area during the 2012 nesting season; however, as of mid June 2012, no additional nesting pairs have been detected. Based on the known least Bell's vireo territory size range of 0.5 to 7.5 acres (USFWS 1998), as many as 3 to 48 pairs could nest within 500 feet of the work and access area (assuming 24 acres of suitable habitat present).

Southwestern willow flycatcher and yellow-billed cuckoo nesting could also be affected if pairs establish nests within about 500 feet of the work area. For the southwestern willow flycatcher, breeding territories generally range from 0.25 to 5.7 acres (USFWS 2002). Assuming 24 acres of suitable habitat within 500 feet of the work and access area 4 to 96 pairs could establish nests in that area. As of mid June, 2012 there has been no southwestern willow flycatchers or yellow-billed cuckoos detected within 500 feet of the work area.

A qualified biologist will monitor to determine if project noise is adversely affecting nesting birds (MM BIO-1).

For steelhead, the project area is a migration corridor and potential rearing habitat. It does not support spawning habitat. Adult steelhead are not expected to be present outside the migration season (i.e., before January 1 and after July 1). These migration season dates are supported by data collected by United since the early 1990s. Adult steelhead are also unlikely to be present if the project occurs when the mouth of the river is not open to the ocean, such as in early winter

prior to substantial rainfall events. The current schedule is to conduct the work in November 2012, but if permits are not completed or river conditions are not suitable, the work could occur at a later date. Depending on flow conditions, the work may occur either early in the migration season (January-February) or late in the season (June-July) if low-flow conditions exist in the river, where there is not a migratory connection to the ocean. Low-flow conditions could exist in January-February if no substantial rain events have occurred at that point in the season. Low-flow conditions could exist in June-July if substantial time has passed since a storm event had occurred. Flow in the river adequate for adult steelhead migration would be too high for project activities to occur. Baseflow conditions (minus any storm events) in the Santa Clara River at the Freeman Diversion for the month of November averaged 22.0 cubic feet per second (cfs) over a five year period (from 2007 to 2011) with the minimum being 12.8 cfs and the maximum being 64.7 cfs. Juvenile steelhead, however, could be present in the pool on the upstream side of the diversion at the time of project implementation. Lowering the water level in the pool to facilitate project activities would reduce the amount of potential habitat for juvenile steelhead. But the area to be dewatered is currently very shallow with little to no cover for steelhead. Deeper water with overhanging trees is present on the south side of the river outside the work area and would provide a refuge for any juveniles present.

If release of water via the flushing channel (i.e., a flush, the optimal approach) is conducted to lower water levels in the impounded area above the diversion (dewatering the work area) to allow construction of the temporary pad, temporary isolated pools could form above the dam as the area is dewatering. This process has the potential to result in stranding of sensitive aquatic species. It is also likely that sensitive aquatic species may become temporarily displaced and/or stranded downstream of the dam as the water is flushed downstream. Biological monitors will be on site during the flush to rescue and relocate any stranded sensitive aquatic species (MM BIO-2). Any connection to flowing water in the dewatered work area upstream of the dam will be blocked using a block net to prevent any sensitive aquatic species from re-entering the area (MM BIO-3).

If a flush is not feasible to lower water levels in the impounded area above the dam (dewatering the work area), due to unforeseen circumstances, then a temporary diversion structure upstream of the work area would be to put in place (see Figure 4). This would consist of constructing a weir system with an earthen berm (made of native streambed material), plywood, sandbags, and fence posts. This would keep low-flow stream flow in the river along the south bank, away from the work site (the usual course of the river during the fall). This process has the potential to result in stranding of sensitive aquatic species if temporary isolated pools form above the dam as the area is dewatering. Biological monitors will be on site during the diversion installation to rescue and relocate any sensitive species that may become stranded (MM BIO-2). Any connection to flowing water in the dewatered work area will be blocked using a block net to prevent any sensitive aquatic species from re-entering the area (MM BIO-3).

Excavation in the borrow area and placement of the material to form the pad for geotechnical testing has the potential to result in increased suspended sediments (turbidity) in adjacent waters, depending on how much of the work area is actually dewatered by lowering the pool level. Such turbidity would temporarily degrade the aquatic habitat for steelhead, possibly for about one week during pad construction and another week when the pad is removed and the area returned

to approximate pre-project contours. In addition, excavation of material from the borrow area could create a pool of water if excavation goes below the shallow water table. Juvenile steelhead could enter that pool, if a surface water connection exists during the project, and be subject to harassment or injury from excavation activities and when the material is returned to that area. Noise from the equipment is not expected to enter the water at levels that would adversely affect any juvenile steelhead present because the noise would be generated in the air and have to pass through the air-water interface. Drilling of up to six bore samples would be in the pad and river bed sediments and would not cause sound pressure waves in the adjacent water that could affect steelhead.

Because United is obtaining a section 404 permit from the Corps, prior to issuing the permit, the Corps will conduct informal consultation with the USFWS under Section 7 of the ESA if the project would occur outside the bird nesting season for the federally listed least Bell's vireo and southwestern willow flycatcher and formal consultation to obtain take authorization from noise effects on these species if the work would occur during the nesting season. The Corps will conduct formal consultation with NMFS for potential take of steelhead. The Corps and United, as the permit holder, will be required to implement all terms and conditions resulting from these consultations.

**b) Less than Significant Impact:** A small amount of riparian habitat would be affected by the project. One to three willow trees that are overhanging at the north end of the dam will need minor to major pruning, and possible but not likely removal, to allow equipment to enter the work area. However, noise and human presence nearby could reduce the quality of that habitat for wildlife for the short duration of the work (approximately 21 working days). No other sensitive natural communities, except wetlands discussed in (c) below, would be affected by the project.

**c) Less than Significant Impact:** A total of 0.025 acre of wetland would be temporarily lost as a result of constructing the pad. These wetlands are not permanent and provide minimal ecological functions due to their small size and relatively sparse vegetation. They do not provide cover or nesting habitat for birds or measurably improve water quality/quantity. Removal of the pad materials after testing is complete would allow these wetlands to resprout from underground parts or recolonize the shallow water areas.

**d) Less than Significant Impact:** The project would not substantially interfere with movement or migration of bird species using the adjacent riparian habitat due to the short duration of the disturbance and abundance of riparian habitat in the region. Driving equipment to the work site and workers walking along the top of the dam would be within an open area with no trees and would occur at intervals during the day for approximately 21 working days. Although these limited activities could cause a few individual birds to alter the timing or flight path in this area, they would not substantially interfere with bird movement between riparian habitats on both sides of the dam.

The work would be conducted during low-flow conditions in the Santa Clara River, which is outside the normal migration period for steelhead and Pacific lamprey. Thus, the work would not interfere with migration by these species [see (a) above for other impacts to these species]. Movement of fish within the remaining water upstream of the dam would not be substantially

impaired even though the amount of water present would be reduced during the project. Adequate water for fish movements related to foraging would remain.

e) Less than Significant Impact: The project would not be in conflict with any policies (Section 1.5.2 of the General Plan) for protection of biological resources. A qualified biologist has evaluated the project for impacts and developed mitigation measures to offset impacts with the potential to be significant. Even though the project is located within the Santa Clara River, no significant wetlands would be affected by project activities. The USFWS, NMFS, and CDFG are being consulted regarding project effects on biological resources within their jurisdiction. The project may be within 100 feet of significant wetlands along the north river bank, but the type of activities and their short duration would not adversely affect these wetlands. Thus a buffer of less than 100 feet will be used.

f) No Impact: No adopted habitat or natural community conservation plans cover the project area.

Mitigation Measures: **BIO-1.** If the project is implemented during bird nesting season (between March 1 and September 15), United will secure all required state and federal permits before the project begins. A qualified biological monitor will observe any nesting birds within 500 feet of the work at the start of construction activities, particularly during peak noise times, to determine if the noise is adversely affecting them. If effects are noted, the biological monitor will have the equipment either change location or have the numbers of equipment be reduced to lower the noise level so that no effects are observed.

**BIO-2.** Biological monitors (8 individuals) will be on site during a flush to lower the water level in the work area with dip nets, seines, buckets, coolers, and aerators. Four of these monitors will be stationed upstream of the flushing channel to monitor the area for stranding as the dewatering occurs. Four of these monitors will be stationed downstream of the flushing channel along the wetted perimeter. All monitors will be ready to rescue and relocate, to nearby suitable habitat, any sensitive aquatic species that may be stranded upstream or flushed downstream during the operation. If a flush is not feasible and a temporary diversion is installed, biological monitors (4 individuals) will be on site during diversion installation with dip nets, seines, buckets, coolers, and aerators. The monitors will be stationed in and around the area as the dewatering occurs and will be ready to rescue and relocate, to nearby suitable habitat, any sensitive species that may become stranded.

**BIO-3.** If a surface water connection is present between the work area and the flowing river after dewatering occurs, a block net will be placed across that connection prior to excavation and fill activities to prevent juvenile steelhead from entering the work area. The net shall be checked at least once daily and maintained for integrity.

Monitoring: As described in Section 2.7, a qualified biological monitor will be present during all project activities and will assess effects of noise on nesting birds, relocate any stranded aquatic species, and check the net for integrity. The monitors will record the numbers of each aquatic species relocated as well as observations during monitoring.

Residual Impact: Residual impacts would be less than significant.

The project would not result in cumulatively considerable impacts on biological resources.

#### 4.4 Geology/Soils

Soils in the project area are alluvial deposits of the Santa Clara River. The project is located in wash deposits that are unconsolidated silt, sand, and gravel with stream terrace deposits to the north that contain clayey sand, sandy clay, and gravel (Siang et al. 2004). The Oak Ridge Fault traverses the project area from west to east and is inferred in this area. The project area is not in an Official Earthquake Fault Zone (Department of Conservation 2002). No known landslides are present in the project area. The purpose of the project is to determine depth to bedrock and sediment composition from the surface to bedrock.

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on strata 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) **No Impact:** The only structures adjacent to the project site are those of the Freeman Diversion. The jail facilities on the north side of the river are 0.6 mile away. The project would not cause rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure such as liquefaction, or landslides that could damage either of those facilities.
- b) **Less Than Significant Impact:** Temporary movement of sediments from the river bed to form a pad for the geotechnical testing could result in minor erosion or sediment movement due to the high water content of the materials being moved. Once the project is completed, natural river flows would redistribute sediments in the project area but would not result in substantial erosion as a result of the project.
- c) **Less Than Significant Impact:** The area where the pad is to be constructed has saturated sediments that could be unstable. However, the area is flat so that and lateral spreading or subsidence would be minimal and would not affect any structures or people. Once the project is completed, the sediments placed in the pad would be moved back to the borrow area.
- d,e) **No Impact:** The project is not located in an area of expansive soils, and no septic systems are proposed for the area.

The project would not result in cumulatively considerable impacts on geology and soils.

#### 4.5 Greenhouse Gas Emissions

Greenhouse Gases (GHG) and climate change are a cumulative global issue. CARB and EPA regulate GHG emissions within the State of California and the United States, respectively, with CARB having the primary regulatory responsibility within the state.

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a,b) **Less Than Significant Impact:** Because the CARB reporting thresholds are for stationary sources, they do not apply to the temporary mobile sources which would be employed for the project. Thus, project effects cannot be quantitatively assessed. However, the small amount and short duration of project emissions are considered less than significant. The small amount and short duration of emissions from project equipment would not conflict with any existing regulations for GHG which are mainly focused on permanent stationary sources and

developments. Emissions would permanently cease upon completion of work and would not be cumulatively considerable over the long-term.

#### 4.6 Hazards and Hazardous Materials

No known hazardous materials sites are located in the Santa Clara River at or near the project location (DTSC 2012). The only hazardous materials associated with the project would be fuels, lubricants, and hydraulic fluids in the equipment.

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Less than Significant Impact:** The project would not involve the routine disposal of hazardous materials. Small amounts of fuel would be transported to the site for refueling of construction equipment used on site. This routine transport and use of fuel would occur over a period of approximately three weeks. Fuel would likely come from Santa Paula using a fuel truck and existing roadways. Normal operation of equipment would not result in the release of any fuel to the environment. Thus, fuel transport and use would not create a significant hazard to the public or environment.

**b) Less than Significant Impact with Mitigation:** An accidental spill of fuels or lubricants from the equipment is unlikely to occur, but if it did, the release has the potential to adversely affect the environment in the immediate vicinity of the spill. Because the work area is to be dewatered to the extent feasible, such a spill would likely only affect a small area of riverbed sediments. Members of the public would not be affected by such a spill.

**c-h) No Impact:** No existing schools are located within one-quarter mile of the project site, and no recorded hazardous material sites are located within the project vicinity (DTSC 2012). No public airports are within 2 miles of the site, and no private airstrips are nearby. The project would not interfere with any adopted emergency response plans or emergency evacuation plans, and its location in the Santa Clara River bed would not pose a risk for wildfires that could expose people or structures to a significant risk of loss, injury, or death.

The project would not result in cumulatively considerable impacts on hazards and hazardous materials.

**Mitigation Measures:** Mitigation measures **WQ-1** and **WQ-2** would apply.

## 4.7 Hydrology and Water Quality

The Santa Clara River watershed encompasses approximately 1,629 square miles in Los Angeles and Ventura counties. Hydrology of the river is highly variable, and flow varies seasonally with high flows during winter to spring storm runoff events. Maximum daily flows can exceed 20,000 cubic feet per second (cfs) while minimum flows can be zero (Vern Freeman Dam Fish Passage

Panel 2010). Releases of water from Pyramid Lake also can influence flows. The project is located within the Santa Clara River bed on the upstream side of the Freeman Diversion Dam. Water is diverted by this structure into facilities for settling suspended solids prior to placement in percolation ponds for groundwater recharge. Water quality varies by season with high levels of turbidity during runoff events and low turbidity during low-flow conditions. Water temperature varies by season and flow as does dissolved oxygen.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j)	Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a)** Less than Significant Impact: Although the work area would be dewatered to the extent feasible by managing flow through the diversion facilities, some water may be present in parts of the work area. Excavation and placement of riverbed sediments to form the work pad would result in some runoff of suspended sediments to the adjacent water, causing localized turbidity. This would occur primarily during pad construction and demolition. The suspended sediments would settle out, returning the water to pre-disturbance quality. Once the project is completed and river flow allowed into the disturbed area, such water movement over disturbed sediments could result in temporary suspension of sediments that would settle rapidly.

**b)** No Impact: Construction and removal of the drilling pad as well as drilling for geotechnical testing of subsurface materials would not affect groundwater quantity because no groundwater would be extracted.

**c)** Less than Significant Impact: A small area of the river bed would be temporarily modified through excavation and filling for the drilling pad. The materials excavated would be returned to approximately the same location from which they were removed after the testing is completed. All of this would occur over approximately four weeks time while the water level on the upstream side of the dam is managed at a low level by United. Thus, the drainage pattern in a portion of the river channel would only be temporarily altered. This alteration would not result in substantial erosion or siltation on- or off-site due to the flat topography in the project area and the presence of the dam.

**d,e)** No Impact: The project would not alter drainage or surface runoff that could result in on- or off-site flooding because the work would be limited to a small area within the river channel adjacent to the dam and existing contours would be restored to the extent feasible at the end of the project. The project would not create or contribute runoff to any storm drains as none are present at or near the site. No substantial additional sources of polluted runoff would be created by the project.

**f)** Less than Significant Impact with Mitigation: Operation of equipment in the river channel during low-flow conditions for approximately 8 days to construct the pad and then 8 days after the drilling to remove the pad would not substantially degrade water quality. Although

the equipment would be clean and free of leaks before entering the site, a low potential exists for small leaks of lubricants, fuels, or hydraulic fluids to occur with degradation of sediments and/or water at the site of the leak.

**g,h) No Impact:** No structures would be placed within the 100-year flood hazard area as part of the project.

**i) No Impact:** The minor temporary disturbance in the river bed caused by the project would not increase the risk of structure loss or personal injury or death due flooding. The structural integrity of Vern Freeman Dam would not be compromised by the project.

**j) No Impact:** The project would not cause inundation by a seiche, tsunami, or mud flow, nor would it contribute to other causes of such events.

**Mitigation Measures: WQ-1.** All equipment will be maintained prior to entering the site and inspected daily during use at the site. Any leaks found will be repaired immediately with cleanup of any materials contacting the ground or water.

**WQ-2.** Contractor shall obtain a Construction General Storm Water Permit and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) for the work to protect water quality of the Santa Clara River. The plan will include location of equipment refueling outside the river bed in an area where spills can be contained and cleaned up. Materials to contain and cleanup any leaks or spills will be maintained on site and workers will be trained in their use.

**Monitoring:** United will review equipment maintenance records provided by the Contractor and the SWPPP. Vehicle inspections for leaks shall be performed daily by United or their designee and recorded in a monitoring log.

**Residual Impact:** Residual impacts would be less than significant.

The project would not result in cumulatively considerable impacts on hydrology and water quality.

## 4.8 Noise

Noise is defined as unwanted or objectionable sound. The measurement of sound takes into account three variables: 1) magnitude, 2) frequency, and 3) duration. Magnitude is the measure of a sound's "loudness" and is expressed in decibels (dB) on a logarithmic scale. Decibel levels diminish (attenuate) as the distance from the noise source increases – approximately 6 dB for every doubling of distance. Frequency of a sound relates to the number of times per second the sound vibrates. One vibration per second equals one Hertz (Hz). Normal human hearing can detect sounds ranging from 20 to 20,000 Hz. Duration is a measure of the time that a noise receptor is exposed to the noise.

Sensitive noise receptors are defined as users or types of uses that are interrupted (rather than merely annoyed) by relatively low levels of noise. These can include residential neighborhoods, schools, hospitals, certain open space areas, and public assembly places. The only sensitive

receptors near the project site are special status bird species as described under Biological Resources, Section 4.3.

The project is located in a rural area where background noise is primarily related to wind, water flow in the river, and farm equipment. Operation of equipment during the project would add to that background noise. Table 2 provides the noise produced by equipment planned to be used at the site. Construction and demolition of the pad would involve use of two excavators, two loaders, and one bulldozer. Test drilling would use the drill rig and a backhoe. Pickup trucks would be used to transport workers and small equipment to the site. Large equipment would be brought to and removed from the site using a semi-tractor and trailer.

Table 2 Construction equipment noise emission levels

Equipment Description	Actual Measured $L_{max}$ @ 50 feet (dBA, slow) (Samples Averaged)
416 backhoe	52
D8T bulldozer	85
CME 75 Drill rig	56
345 excavator	82
930K front end loader	79
Pickup truck	75
Source: U.S. Department of Transportation 2006; equipment specifications	

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a)** Less than Significant Impact: The Ventura County General Plan sets a noise standard for noise generation by project at 1-hour noise equivalent level (Leq) of 55 dB(A) between 6:00 AM and 7:00 PM, or ambient noise plus 3 dB(A) when ambient is greater than 55 dB(A). Noise from two excavators, two loaders, and one bulldozer operating simultaneously during construction/removal of the pad is calculated to be 89 dB(A) at a distance of 50 feet from the equipment. During the drilling phase of the project, noise from the drill rig and a backhoe is calculated to be 57.5 dB(A) at 50 feet from the equipment. However, the County standard does not apply to construction noise. For the drilling, noise would be just above the standard at 50 feet and at the standard at 67 feet from the equipment. The drilling noise level would not exceed the standard at the habitat for sensitive bird species or where people could be present.

**b,c)** No Impact: The project would not produce excessive ground borne vibration or ground borne noise that could affect people or wildlife. As the project would only last for about four weeks, no substantial permanent increase in ambient noise levels would occur due to the project.

**d)** Less than Significant Impact: Construction and removal of the pad would produce a temporary increase in noise levels above ambient levels without the project as described in (a) above. The noise would decrease to below the standard at a distance of 2,506 feet or less from the equipment. This distance includes a portion of the dense riparian corridor along the north bank of the river as well as portions of agricultural fields north of that. To the south, that distance includes open space as well as some of the United diversion facilities. The noise would occur for about 8 days, daytime only, during pad construction and 8 days during pad removal. Impacts of this noise on birds are discussed in the Biological Resources section.

**e,f)** No Impact: The project is not within an airport land use plan or two miles of a public airport, nor is it in the vicinity of a private airstrip.

The project would not result in cumulatively considerable impacts on noise.

#### 4.9 Transportation and Traffic

The project would not directly affect any public roadways although equipment and personnel would use public roadways to access the site. SR 126 parallels the north side of the Santa Clara River with West Telegraph Road just north of that. Site access from Ventura would be via SR 126, Wells Road, West Telegraph Road, and Todd Road (or Telegraph Road and Todd Road) to

the County Jail then along the Jail road to a dirt road that ends at the north abutment of the diversion dam. From the east, access would be via SR 126, Briggs Road, West Telegraph Road, and Todd Road.

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a,b) Less than Significant Impact:** The small amount (a few trips per day) and short duration (three weeks) of traffic related to the project would not decrease the level of service (LOS) at any intersections along the access routes to the site. The amount and type of traffic would not conflict with any goals, policies, or programs in the General Plan.

**c) No Impact:** Air traffic patterns would not be changed as a result of the project.

**d) No Impact:** The project would not affect any design features or result in incompatible uses of local roadways.

e) No Impact: Emergency access in the project vicinity would not be affected by the project. Access to the project site in case of an accident is available via the same routes used by equipment and personnel.

f) No Impact: The project would not conflict with any adopted policies, plans, or programs supporting alternative transportation. No existing or planned bus stops or bicycle lanes in the area would be affected.

The project would not result in cumulatively considerable impacts on transportation or traffic.

#### 4.10 Mandatory Findings of Significance

	Potential for Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
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 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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# Attachment A: Wetland Delineation Report

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# Vern Freeman Dam Fish Passage Project Geotechnical Testing Wetland Delineation

June 8, 2012

Prepared For  
United Water Conservation District



# Vern Freeman Dam Fish Passage Project Geotechnical Testing Wetland Delineation

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June 8, 2012

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## Chapter 1

# Introduction

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This report describes a wetland delineation conducted for a United Water Conservation District (United) geotechnical testing project site located adjacent to the upstream side of the Vern Freeman Diversion Dam (Figure 1). This site is located along the Santa Clara River in Ventura County, approximately 11 miles inland from the Pacific Ocean. Surrounding land use includes agricultural operations and undeveloped open space (mostly grassland and coastal scrub).

United is developing a habitat conservation plan (HCP) to obtain an incidental take permit under the Endangered Species Act (ESA) for, among other activities, its operations of the Freeman Diversion facilities on the Santa Clara River in Saticoy, Ventura County, California. United is proposing to make a major modification to the Freeman Diversion as part of the conservation measures for the HCP intended to minimize take of the endangered southern California steelhead (*Oncorhynchus mykiss*) and rare Pacific lamprey (*Entosphenus tridentatus*). The proposed modification is the installation of a hardened ramp at the diversion structure. This would involve laying back an 80-foot (+/-) wide portion of the dam structure on its upstream side to roughly a 6 percent slope creating a concrete ramp approximately 387 feet long. These dimensions are estimates based on conceptual designs. United will conduct hydraulic modeling of the ramp to complete a final design and refine these dimensions. This ramp has been identified as a means to improve passage conditions for steelhead and the Pacific lamprey compared to passage conditions afforded by the current fish ladder.

The testing area is located on the upstream side of the Freeman Diversion Dam adjacent to the existing diversion facilities on the south river bank (Figure 1). Much of the exploration area is typically inundated with a few inches to several feet of water, the depth fluctuating with location, river discharge, sediment transport, and diversion operations. Prior to designing the ramp structure, geotechnical testing of the sediment in the construction area is necessary. Geotechnical testing will consist of temporarily dewatering the survey area and constructing a temporary earthen pad with material borrowed from the adjacent river alluvium.

The majority of the project area is mapped as sandy alluvial land (Soil Survey Staff 2010). This soil type is typical of alluvial areas of the Santa Clara River and is somewhat excessively well-drained.

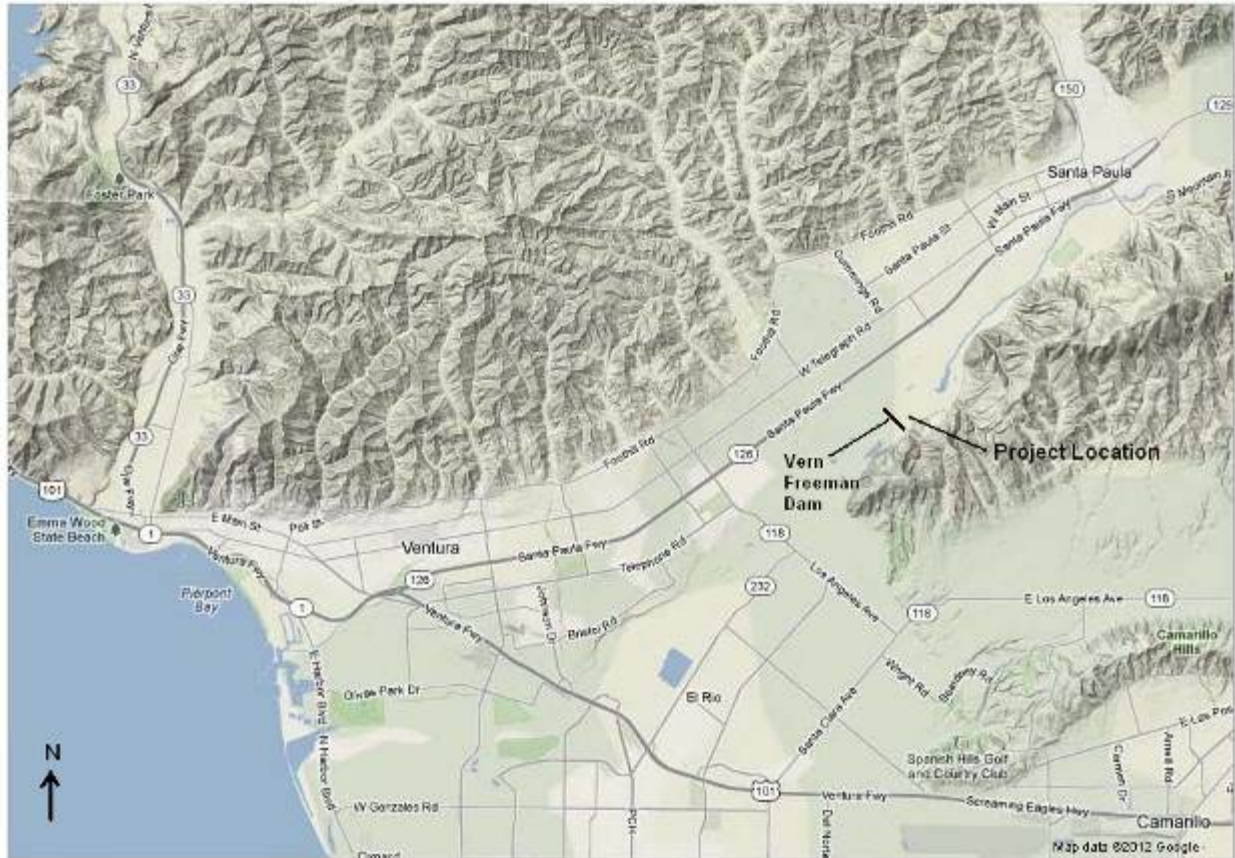


Figure 1 Project Location

## Chapter 2

# Methods

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### 2.1 Definitions

Under Section 404 of the Clean Water Act, wetlands are areas that are “inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (United States Environmental Protection Agency [USEPA], 40 CFR 230.3 and United States Army Corps of Engineers [USACE], 33 CFR 328.3).

Jurisdictional wetlands are a subset of Waters of the U.S., which include wetlands as defined above and areas subject to the ebb and flow of the tide and areas that are within the limits of ordinary high water. Waters are currently described as any areas that might be considered waterways, either for commerce or recreation, even on a limited scale. Frequently, the term "wetlands and other Waters of the U.S." is used when describing areas under USACE jurisdiction.

Although the term ordinary high water continues to be refined, it can be generally defined as the average annual level of high flows (not necessarily the highest flood level) within a system period over a 2-year return interval flow level. In the field, an initial assessment of ordinary high water can be determined using some line or other evidence that was “established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, or the presence of litter and debris” (USACE 2008a).

### 2.2 Regulatory Setting

Federal wetlands and other Waters of the U.S. have legal protection in accordance with Section 404 of the Clean Water Act (33 U.S.C. Section 1344). The USACE generally requires the issuance of a permit, or coverage under an existing permit, for all actions that have the potential to degrade or modify these features.

Section 401 of the Clean Water Act (33 U.S.C. Section 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the United States to obtain certification from the State in which the discharge originates. As a result, proposed fill in waters and wetlands requires coordination with the appropriate Regional Water Quality Control Board (RWQCB) that administers Section 401, as well as the State Porter-Cologne Water Quality Control Act, and provides certification. The RWQCB also plays a role in review of water quality and wetland issues, including avoidance and minimization of impacts. Section 401 certification is required prior to issuance of a Section 404 permit.

Wetlands may also be subject to jurisdiction of the California Department of Fish and Game (DFG) in accordance with DFG Code Sections 1600-1607. The DFG regulates activities that

will alter the flow, bed, channel, or bank of streams and lakes by issuing Lake and Streambed Alteration Agreements. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Lake and Streambed Alteration Agreement obtained from the DFG.

## 2.3 USACE Sampling Protocol

Cardno ENTRIX biologists visited the project site on May 17, 2012 to conduct a wetland delineation. The area adjacent to the north side of the project site contains extensive wetlands intermixed with riparian areas that continue well-outside the project boundaries. For that reason, the wetland delineation was highly focused only on the areas in which project activities would be conducted. Potential wetland boundaries were determined in the field using vegetation communities, surface hydrologic features, and topography (e.g., drainage channels, ponding) to identify areas of wetlands or Waters of the U.S., as defined in the USACE 1987 Wetland Delineation Manual, the Arid West Regional Supplement to the 1987 manual (USACE 2008b), and guidance provided in a regulatory guidance letter prepared by the USACE and USEPA (USEPA 2008). Because the project site is located in a river channel and was inundated or saturated at the time of the survey, its hydrology can be assumed. For that reason, wetland vegetation was used as the primary indicator of wetland conditions. Wetland sample points were selected and the habitat at each sampling point was evaluated for the required three parameters: hydric soils, wetland hydrology, and hydrophytic vegetation. Wetland determination data forms are provided in Appendix A. Positive indicators of wetland conditions for all three parameters are normally present in USACE-jurisdictional wetlands, as defined below.

Hydrophytic vegetation is defined as vegetation that is adapted to, and occurs in, areas where soils are frequently or permanently saturated of sufficient duration to exert a controlling influence on the plant species present. In the arid west, the hydrophytic vegetation parameter is met when one of the following is true: (1) the dominant vegetation (more than 50 percent of the dominant plant species) is typically adapted to areas having wetland hydrology and hydric soil conditions, (2) the prevalent vegetation is typically adapted to areas having wetland hydrology and hydric soil conditions (as determined by a formula), or (3) morphological adaptations are observed to confirm that plant species are growing in inundated or saturated conditions. Plants are assigned a Wetland Indicator Status (WIS) based on their frequency of occurrence in wetland habitats, following the 1988 National List of Plant Species that Occur in Wetlands (Lichvar and Kartesz 2009):

- UPL (Obligate Upland) = occur in wetlands in another region, but almost always occur in uplands in the region specified.
- FAC (Facultative) = equally likely to occur in wetlands or nonwetlands (estimated probability 34-66%).
- FACW (Facultative Wetland) = usually occur in wetlands (estimated probability 67-99%), but occasionally found in nonwetlands.
- FACU (Facultative Upland) = usually occur in nonwetlands (estimated probability 67-99%), but occasionally found in wetlands (estimated probability 1-33%).

- OBL (Obligate Wetland) = occur almost always (estimated probability >99%) in wetlands under natural conditions.

NI (No Indicator) = Information insufficient to determine wetland indicator status

An (\*) following a regional indicator identifies tentative assignments based on limited information from which to determine the indicator status. Species without a WIS are not included on the National List of Plant Species that Occur in Wetlands.

Wetland hydrology refers to inundation and/or saturation of the soil by flooding or a shallow water table for a prolonged period during the growing season, such that the character of the soil and vegetation are substantially different from areas that do not experience inundation/saturation in this manner. The identification of wetland hydrology follows the USACE 1987 delineation manual. Geomorphic features associated with flooding (e.g., channels, shorelines) and sediment deposits are among the indicators of wetland hydrology.

Hydric soils, which are indicative of wetlands, are defined as soils that are sufficiently ponded, flooded, or saturated throughout the growing season to produce anaerobic conditions which favor the growth of hydrophytic vegetation (USACE 1987). Hydric soils are identifiable based on observable properties that result from prolonged saturated-anaerobic conditions.

Wetland boundaries were mapped by measuring from known points and plotting them on an aerial photograph in a geographic information system.

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## Chapter 3

# Results

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Detailed notes on wetland sampling points can be found on the wetland determination data forms in Appendix A. In general, the site consists of an expanse of shallow water where sediment has accumulated behind the existing Vern Freeman Dam. This area is inundated for a substantial part of the growing season and therefore meets the wetland hydrology criterion. In addition, soils investigated for this study meet the wetland soils criterion. The majority of this area is, however, unvegetated and therefore does not meet the wetland vegetation criterion. A total of five small (0.025 acre combined) patches of wetland vegetation were observed and are shown on Figure 2. In addition, wetlands are present at the northern edge of the water outside the project boundaries. The approximate location of the edge of those wetlands is shown in Figure 2. Photographs of the site are in Appendix B.

A list of plant species observed at the sampling locations is included in Table 1. The inundated areas were dominated by a variety of wetland plant species; most of them obligate wetland plants. The most common species include water speedwell (*Veronica anagallis-aquatica*) willow-herb (*Epilobium ciliatum*) and cattails (*Typha* sp.). Plant cover was highly variable from approximately 25 to 70 percent.

Table 1 Plant Species Recorded at Wetland Sample Points		
Common Name	Scientific Name	Indicator Status
Cattails	<i>Typha</i> sp.	OBL
Olney's three-square bulrush	<i>Schoenoplectus americanus</i> (= <i>Scirpus americanus</i> )	OBL
Rush	<i>Juncus torreyi</i>	FACW
Water speedwell	<i>Veronica anagallis-aquatica</i>	OBL
Willow-herb	<i>Epilobium ciliatum</i>	FACW

Soils at the project site are generally somewhat dark and appear to meet wetland soils criteria. Some areas had a lighter recently deposited layer of silt on the surface (e.g., Sample Point 1) and many had parent material of rock and sand at depth (e.g., Sample Point 2). Due to the depositional environment of this area, lack of hydrologic soils indicators does not exclude the site from being considered a jurisdictional wetland because soils have not had sufficient time to develop hydric characteristics. Despite this, some areas had gley soils (e.g., Sample Point 3), which is presumed to be due to the time that soil has been present on site. Hydrology at the site is influenced by storm runoff, releases from upstream reservoirs on tributaries to the Santa Clara River, and operation of the Vern Freeman Diversion facilities. The Vern Freeman Dam also impounds water in this area. All of the wetland sample points within the project area (numbers 2 and 3) were either inundated or saturated to the surface. Because the surveys were conducted well into the growing season and hydrologic indicators were still strong, this site is presumed to meet this parameter. In addition, Sample Point 1, which is outside the project area and slightly higher in elevation, had strong hydrologic indicators as well with saturation present 2 inches under the soil surface.



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Figure 2 Wetlands

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## Chapter 4

# Conclusions

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The proposed project would result in the temporary loss of 1,127 square feet (0.025 acre) of emergent wetlands. These wetlands are relatively temporary due their presence in the main channel of the Santa Clara River where high flows during storm runoff probably remove them annually. These wetlands have minimal ecological functions and values due to their small size, sparse vegetation, and temporary occurrence. High flows in the winter of 2012-2013 are expected to scour this area and redeposit sediments in the same or nearby areas that would be colonized by wetland plants during low flow conditions. The project, especially if conducted in the fall of 2012, would thus remove these plants just prior to winter runoff events.

Mitigation will consist of removal of the sediments placed for the pad immediately after the testing is completed (within one week) and allowing the wetland vegetation to resprout from underground parts or recolonize the shallow areas. Other mitigation will be implemented if required in project permit conditions.

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## Chapter 5

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Appendix A

# Wetland Delineation Forms





# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Vern Freeman Diversion City/County: Ventura County Sampling Date: 5/17/2012  
 Applicant/Owner: United Water Conservation District State: CA Sampling Point: 1  
 Investigator(s): Tamara Klug/Rosie Thompson Section, Township, Range: S-1/4 T3N R21W  
 Landform (hillslope, terrace, etc.): Riverbottom Local relief (concave, convex, none): ± Flat Slope (%): 0  
 Subregion (LRR): LRRC Lat: 34° 17' 59.92 N Long: 119° 06' 31.02 W Datum: NAD 83  
 Soil Map Unit Name: Sandy Alluvial Land NWI classification: Freshwater Emergent  
 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
= Total Cover					
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____	_____	_____	_____	OBL species <u>40</u> x 1 = <u>40</u>	
2. _____	_____	_____	_____	FACW species <u>-</u> x 2 = <u>-</u>	
3. _____	_____	_____	_____	FAC species <u>-</u> x 3 = <u>-</u>	
4. _____	_____	_____	_____	FACU species <u>-</u> x 4 = <u>-</u>	
5. _____	_____	_____	_____	UPL species <u>-</u> x 5 = <u>-</u>	
= Total Cover				Column Totals: <u>40</u> (A) <u>40</u> (B)	
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = <u>1</u>	
1. <u>Typha sp.</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators:	
2. <u>Scirpus schoenoplectus amer.</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>		<input checked="" type="checkbox"/> Dominance Test is >50%
3. <u>Juncus torreyi</u>	<u>10</u>	<u>N</u>	<u>FACW</u>		<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
4. <u>Veronica anagallis ag.</u>	<u>10</u>	<u>N</u>	<u>OBL</u>		<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
= Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover					
% Bare Ground in Herb Stratum <u>60/40</u> % Cover of Biotic Crust <u>0</u>					
Remarks:					

## SOIL

Sampling Point: 1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0.5	10YR 4/2	100%					silt	
3.5	2.5Y 3/2	100%					very fine sand	
3.5	10YR 3/2	100%					sand #	
5"	cannot determine - color of parent materials						coarse sand gravel	

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

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

Indicators for Problematic Hydric Soils<sup>3</sup>:

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

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup>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:

some minor mottling - indistinct

## HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              | <input type="checkbox"/> Water Marks (B1) (Riverine)               |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            | <input type="checkbox"/> Sediment Deposits (B2) (Riverine)         |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Invertebrates (B13)                   | <input type="checkbox"/> Drift Deposits (B3) (Riverine)            |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    | <input type="checkbox"/> Drainage Patterns (B10)                   |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2)               |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 | <input type="checkbox"/> Crayfish Burrows (C8)                     |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        | <input type="checkbox"/> Shallow Aquitard (D3)                     |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_Saturation Present? Yes ☒ No ☐ Depth (inches): 82Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Vern Freeman Diversion City/County: Ventura County Sampling Date: 5/17/2012  
 Applicant/Owner: United Water Conservation District State: CA Sampling Point: 2  
 Investigator(s): Tamara Klog/Rosic Thompson Section, Township, Range: S-14 T3N R21W  
 Landform (hillslope, terrace, etc.): River bottom Local relief (concave, convex, none): ± flat Slope (%): 0  
 Subregion (LRR): LRRC Lat: 34°17'56.92"N Long: 119°06'30.19"W Datum: WGS84  
 Soil Map Unit Name: Sandy Alluvial land NWI classification: Freshwater Emergent  
 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>60</u> x 1 = <u>60</u> FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>60</u> (A) <u>60</u> (B) Prevalence Index = B/A = <u>1</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Veronica anagallis ag.</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>60</u> x 1 = <u>60</u> FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>60</u> (A) <u>60</u> (B) Prevalence Index = B/A = <u>1</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>60</u> x 1 = <u>60</u> FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>60</u> (A) <u>60</u> (B) Prevalence Index = B/A = <u>1</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>40</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

Sampling Point:

2

## HYDROLOGY

### Wetland Hydrology Indicators:

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Vern Freeman Diversion City/County: Ventura County Sampling Date: 5/17/2012  
 Applicant/Owner: United Water Conservation District State: CA Sampling Point: 3  
 Investigator(s): Tamara Klug/Rosie Thompson Section, Township, Range: S-N/A T3N R21W  
 Landform (hillslope, terrace, etc.): River bottom Local relief (concave, convex, none):        Slope (%): 0  
 Subregion (LRR): LRR C Lat: 34° 17' 57.10" N Long: 119° 06' 29.56" W Datum: WGS 84  
 Soil Map Unit Name: Sandy Alluvial Land NWI classification: Freshwater emergent  
 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>      </u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
<u>      </u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species <u>30</u> x 1 = <u>30</u> FACW species <u>—</u> x 2 = <u>      </u> FAC species <u>—</u> x 3 = <u>      </u> FACU species <u>—</u> x 4 = <u>      </u> UPL species <u>—</u> x 5 = <u>      </u> Column Totals: <u>30</u> (A) <u>30</u> (B) Prevalence Index = B/A = <u>1</u>
Sapling/Shrub Stratum (Plot size: <u>      </u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
<u>      </u> = Total Cover				
Herb Stratum (Plot size: <u>      </u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Typha sp</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
6. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
7. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
8. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
<u>30</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>      </u> )	Absolute % Cover	Dominant Species?	Indicator Status	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
6. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
7. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
8. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
<u>      </u> = Total Cover				
% Bare Ground in Herb Stratum <u>70</u>	% Cover of Biotic Crust <u>0</u>			
Remarks:				



## SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
1	Silt	54	2.5/2				Silt	depth variable
1-2	Gley 2	2.5/5PB					Clay	Lots of leaves decomposing
2-3+		2.5/3/2					Silty sand	depth cannot be determined
							sand & gravel	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>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:  
Area of scour/deposition in river channel just above dam.

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No ☐ Depth (inches): 3"

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Appendix B

# Project Site Photographs







View of Vern Freeman Diversion Intake Structure from the dam looking south. Small patches with wetland vegetation, primarily cattails, are visible in the background. 17 May 2012.



Wetland vegetation on the north of side of open water habitat. 17 May 2012.

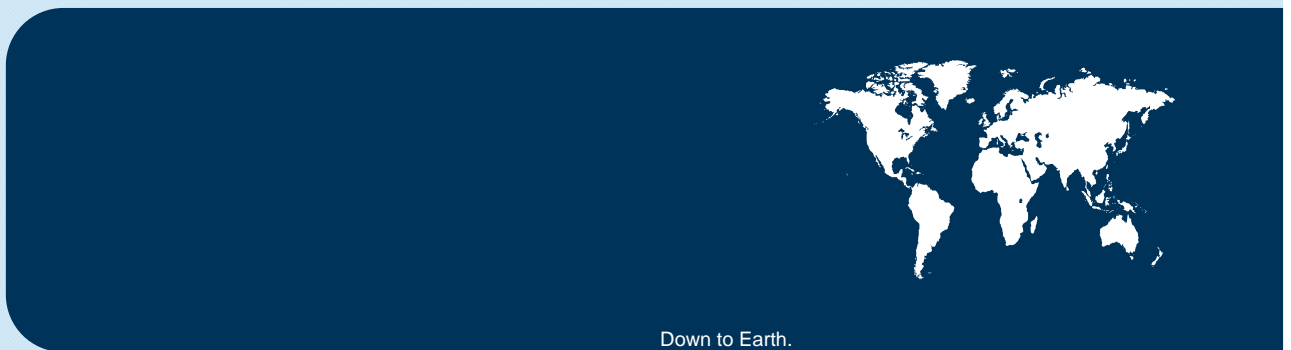




Water speedwell in saturated soil in small wetland polygon north of the diversion structure.  
17 May 2012.



Gley wetland soils in vegetated wetlands adjacent to diversion structure. 17 May 2012.



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## Attachment B: Mitigation Monitoring and Reporting Plan

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Pursuant to Section 21081.6 of the Public Resources Code and the *State CEQA Guidelines* Section 15097, a lead agency is required to adopt a mitigation monitoring and reporting plan (MMRP) for assessing and ensuring compliance with the required mitigation measures applied to a project for which an Initial Study has been prepared. United will have the primary responsibility for implementing the measures in the MMRP. The mitigation monitoring table below lists mitigation measures that are required to reduce significant effects of the Geotechnical Investigation Project. These measures correspond to those outlined in the Initial Study/Mitigated Negative Declaration and may also be included as conditions of approval of the project. Additional mitigation measures may be required as conditions of project permits that have not been issued at this time. Any such measures would be implemented by United.

**Geotechnical Investigations on the Santa Clara River near Saticoy Mitigation Monitoring and Reporting Plan**

Mitigation Measure	Implementation Procedure or Action	Organization Responsible for Implementation	Reporting/ Notification Requirement	Compliance Schedule	Verification of Compliance
BIO-1	If the project is implemented during bird nesting season (between March 1 and September 15), United will secure all required state and federal permits before the project begins. A qualified biological monitor will observe any nesting birds within 500 feet of the work at the start of construction activities, particularly during peak noise times, to determine if the noise is adversely affecting them. If effects are noted, the biological monitor will have the equipment either change location or have the numbers of equipment be reduced to lower the noise level so that no effects are observed.	United	United shall have qualified biologist on retainer with authority to reduce equipment use if noise adversely affects nesting birds	During pad construction and removal if during the nesting season	Daily monitoring log submitted to United
BIO-2	Biological monitors (8 individuals) will be on site during a flush to lower the water level in the work area with dip nets, seines, buckets, coolers, and aerators. Four of these monitors will be stationed upstream of the flushing channel to monitor the area for stranding as the dewatering occurs. Four of these monitors will be stationed downstream of the flushing channel along the wetted perimeter. All monitors will be ready to rescue and relocate, to nearby suitable habitat, any sensitive aquatic species that may be stranded upstream or flushed downstream during the operation. If a flush is not feasible and a temporary diversion is installed, biological monitors (4 individuals) will be on site during diversion installation with dip nets, seines, buckets, coolers, and aerators. The monitors will be stationed in and around the area as the dewatering occurs and will be ready to rescue and relocate, to nearby suitable habitat, any sensitive species that may become stranded.	United	Biological monitors to keep log of activities, including numbers of each species relocated	During lowering of water level above Freeman Diversion	Daily monitoring log submitted to United
BIO-3	If a surface water connection is present between the work area and the flowing river after dewatering occurs, a block net will be placed across that connection prior to excavation and fill activities to prevent juvenile steelhead from entering the work area. The net shall be checked at least once daily and maintained for integrity.	United	Biological monitor to keep log of activities and observations	During pad construction, testing, and pad removal	Daily monitoring log submitted to United

Mitigation Measure	Implementation Procedure or Action	Organization Responsible for Implementation	Reporting/ Notification Requirement	Compliance Schedule	Verification of Compliance
WQ-1	All equipment will be maintained prior to entering the site and inspected daily during use at the site. Any leaks found will be repaired immediately with cleanup of any materials contacting the ground or water.	Construction Contractor	Provide maintenance records to United	Prior to and during construction and testing	United to review records of equipment maintenance
WQ-2	Contractor shall obtain a Construction General Storm Water Permit and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) for the work to protect water quality of the Santa Clara River. The plan will include location of equipment refueling outside the river bed in an area where spills can be contained and cleaned up. Materials to contain and cleanup any leaks or spills will be maintained on site and workers will be trained in their use.	Construction Contractor	Obtain permit and prepare and implement SWPPP	Prior to and during construction and testing	United to review SWPPP; monitor to verify implementation of SWPPP



## Attachment C: Comments and Responses

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## **Comments and Response to Comments**

Listed below are the comments United received during the public comment period (July 2 – July 31, 2012) for its California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration (IS/MND) for the following proposed project, Geotechnical Investigations on the Santa Clara River near Saticoy, CA:

1. Scott Morgan, Director, State Clearinghouse, State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit, dated August 2, 2012 (attached as Letter 1).
2. Shawn O. Jones, Regional Engineer, Southern Region, Field Engineering Branch, Division of Safety of Dams, Department of Water Resources, dated July 25, 2012 (attached as Letter 2).
3. Dave Singleton, Program Analyst, Native American Heritage Commission, dated July 18, 2012 (attached as Letter 3).
4. Daniel S. Blankenship, Staff Environmental Scientist, California Department of Fish and Game, dated July 26, 2012 (attached as Letter 4).

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Letter 1 State of California, State of California Governor's Office of Planning and Research



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA

GOVERNOR'S OFFICE of PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

RECEIVED

AUG 06 2012

United Water  
Conservation District



KEN ALEX  
DIRECTOR

August 2, 2012

Sara Dowey  
United Water Conservation District  
106 N. 8th Street  
Santa Paula, CA 93060

Subject: Geotechnical Investigations on the Santa Clara River near Saticoy, CA  
SCH#: 2012061097

Dear Sara Dowey:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 30, 2012, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Enclosures  
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044  
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

# Letter 1-State of California, State of California Governor's Office of Planning and Research

## Document Details Report State Clearinghouse Data Base

**SCH#** 2012061097  
**Project Title** Geotechnical Investigations on the Santa Clara River near Saticoy, CA  
**Lead Agency** United Water Conservation District

**Type** MND Mitigated Negative Declaration

**Description** United is proposing to conduct geotechnical testing in order to properly design the foundation for a hardened ramp at the Freeman Diversion Dam. This ramp has been identified as a means to improve passage conditions for steelhead and the Pacific lamprey compared to passage conditions afforded by the current fish ladder. The testing would take place adjacent to the upstream side of the dam and involves construction of a temporary pad (80ft x 350ft), using adjacent river sediments, to support testing equipment. The pad would be removed immediately after testing is complete. Equipment includes a bulldozer, 2 excavators, 2 loaders, a drill rig, and a backhoe. The project would take approximately 21 working days and is scheduled for November 2012. The work area would be dewatered to the extent feasible by management of United's facility operations. Access is from the north via the top of the dam. Best management practices will be used during all work to minimize or prevent effects on water and sediment quality. A maximum of 2.1 acres of river bed would be temporarily disturbed, and noise from equipment would be above 69 decibels within 500 feet of the work site.

### Lead Agency Contact

<b>Name</b>	Sara Dowey		
<b>Agency</b>	United Water Conservation District		
<b>Phone</b>	805 525-4431	<b>Fax</b>	
<b>email</b>			
<b>Address</b>	106 N. 8th Street		
<b>City</b>	Santa Paula	<b>State</b> CA	<b>Zip</b> 93060

### Project Location

<b>County</b>	Ventura		
<b>City</b>	Oxnard		
<b>Region</b>			
<b>Lat / Long</b>	34° 17' 58" N / 119° 6' 29" W		
<b>Cross Streets</b>	LA Avenue and Vineyard Avenue		
<b>Parcel No.</b>	090019059, 090019057		
<b>Township</b>	3N	<b>Range</b>	21W
		<b>Section</b>	<b>Base</b>

### Proximity to:

<b>Highways</b>	Hwy 126
<b>Airports</b>	
<b>Railways</b>	
<b>Waterways</b>	Santa Clara River
<b>Schools</b>	
<b>Land Use</b>	Zoning - OS-80 ac/MRP; General Plan - Open Space (10 acres minimum)

**Project Issues** Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Cumulative Effects; Other Issues

Note: Blanks in data fields result from insufficient information provided by lead agency.

## Letter 1-State of California, State of California Governor's Office of Planning and Research

### Document Details Report State Clearinghouse Data Base

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<b>Reviewing Agencies</b>	Resources Agency; Department of Boating and Waterways; Department of Fish and Game, Region 5; Department of Parks and Recreation; Central Valley Flood Protection Board; Department of Water Resources; Caltrans, District 7; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 4; Native American Heritage Commission; State Lands Commission
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<b>Date Received</b>	06/29/2012	<b>Start of Review</b>	06/29/2012	<b>End of Review</b>	07/30/2012
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Note: Blanks in data fields result from insufficient information provided by lead agency.

Letter 1-State of California, State of California Governor's Office of Planning and Research

Response:

This comment indicates that the State Clearinghouse submitted the IS/MND to selected state agencies for review and that the review period closed on July 30, 2012. This letter acknowledges that United has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. This comment is acknowledged and the letter does not comment on any specific content of the IS/MND.



## Letter 2-Division of Safety of Dams, Department of Water Resources

STATE OF CALIFORNIA - CALIFORNIA NATURAL RESOURCES AGENCY

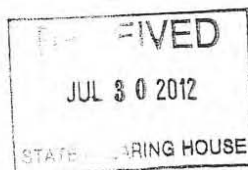
EDMUND G. BROWN JR., Governor

### DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836  
SACRAMENTO, CA 94236-0001  
(916) 653-5791



*7/30/12  
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JUL 25 2012

Ms. Sara Dowey  
United Water Conservation District  
106 North 8th Street  
Santa Paula, California 93060

SCH #2012061097, Draft Mitigated Negative Declaration for the Freeman Diversion Dam Project  
Ventura County

Dear Ms. Dowey:

We have reviewed the Draft Mitigated Negative Declaration for the above referenced project, which describes the modifications to the existing Freeman Diversion Dam. The dam height and reservoir storage capacity were not clearly identified. Therefore, it is unclear whether the dam is subject to State jurisdiction for dam safety.

As defined in Sections 6002 and 6003, Division 3, of the California Water Code, dams 25 feet or higher with a storage capacity of more than 15 acre-feet, and dams higher than 6 feet with a storage capacity of 50 acre-feet or more are subject to State jurisdiction. The dam height is the vertical distance measured from the maximum possible water storage level to the downstream toe of the barrier.

More detailed information regarding the barrier height and storage capacity will be required to determine the dam's jurisdictional status for dam safety. If the dam is subject to State jurisdiction, an alteration application, together with plans, specifications, and the appropriate filing fee must be filed with the Division of Safety of Dams for this project. All dam safety related issues must be resolved prior to approval of the application, and the work must be performed under the direction of a Civil Engineer registered in California. Sharon Tapia, our Design Engineering Branch Chief, is responsible for the application process and can be reached at (916) 227-4660.

If you have any questions or need additional information, you may contact Office Engineer Randy Fessler at (916) 227-4601 or me at (916) 227-4600.

Sincerely,

*Shawn O. Jones*

Shawn O. Jones, Regional Engineer  
Southern Region  
Field Engineering Branch  
Division of Safety of Dams

cc: (See attached list.)

Letter 2-Division of Safety of Dams, Department of Water Resources

cc: Ms. Nadell Gayou  
Resources Agency Project Coordinator  
Environmental Review Section  
Division of Statewide Integrated Water Management  
901 P Street  
Sacramento, California 95814

Governor's Office of Planning and Research ✓  
State Clearinghouse  
Post Office Box 3044  
Sacramento, California 95812-3044

Letter 2-Division of Safety of Dams, Department of Water Resources

Response:

As it states in section 4.0 Environmental Checklist, under Cultural Resources, “No intact cultural or historic materials would be present in the river bed, and Freeman Diversion Dam would not be altered.” This project does not propose modifications to the existing Freeman Diversion. To eliminate potential reductions to beach sand replenishment, the Freeman Diversion was intentionally designed and constructed with no water storage. This makes the project non-jurisdictional for California Division of Safety of Dams (DSOD) regulations. Correspondence between UWCD and DSOD documented this prior to the 1990 commencement of construction. The geotechnical investigation covered by the MND will make no changes to the existing facilities. The data acquired is to be used for consideration of a proposed hardened fish ramp. Even when constructed these new features will not introduce any storage of water, and the non-jurisdictional status of the project is expected to remain. This comment is acknowledged and no changes are necessary, as the diversion will not be altered.

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## Letter 3-Native American Heritage Commission

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

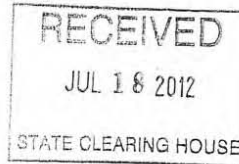
### NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364  
SACRAMENTO, CA 95814  
(916) 653-6251  
Fax (916) 657-5390  
Web Site [www.nahc.ca.gov](http://www.nahc.ca.gov)  
ds\_nahc@pacbell.net



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July 17, 2012



Ms. Sara Dowey

### United Water Conservation District

106 North 8<sup>th</sup> Street  
Santa Paula, CA 93060

2012061097

Re: SCH#2011061097; CEQA Notice of Completion: proposed Mitigated Negative Declaration for the Geotechnical Investigations on Santa Clara River near Saticoy, CA Project; located in the Community of Saticoy; Ventura County, California.

Dear Ms. Dowey:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3<sup>rd</sup> 604).

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. This area is known to the NAHC to be very culturally sensitive.

The NAHC 'Sacred Sites,' as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254 (r).

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American contacts, to see if your proposed project might impact Native American cultural resources and to

## Letter 3-Native American Heritage Commission

obtain their recommendations concerning the proposed project. Pursuant to CA Public Resources Code § 5097.95, the NAHC requests cooperation from other public agencies in order that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

Furthermore, the NAHC if the proposed project is under the jurisdiction of the statutes and regulations of the National Environmental Policy Act (e.g. NEPA; 42 U.S.C. 4321-43351). Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Confidentiality of "historic properties of religious and cultural significance" should also be considered as protected by California Government Code §6254( r) and may also be protected under Section 304 of the NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for inadvertent discovery of human remains mandate the processes to be followed in the event of a discovery of human remains in a project location other than a 'dedicated cemetery'.

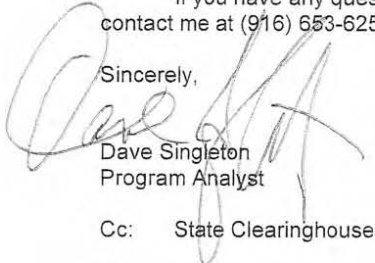
To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

Finally, when Native American cultural sites and/or Native American burial sites are prevalent within the project site, the NAHC recommends 'avoidance' of the site as referenced by CEQA Guidelines Section 15370(a).

## Letter 3-Native American Heritage Commission

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dave Singleton", is written over the typed name and title.

Dave Singleton  
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

### Letter 3-Native American Heritage Commission

#### Response:

As it states in section 4.0 Environmental Checklist, under Cultural Resources, “No intact cultural or historic materials would be present in the river bed, and Freeman Diversion Dam would not be altered.” This section further discusses that “No unique paleontological resource or geologic feature would be destroyed” and “No human remains would be disturbed.” This comment is acknowledged and no changes are necessary since no Native American cultural resources will be present.



## Letter 4- California Department of Fish and Game

### **Sara Dowey**

---

**From:** Daniel Blankenship [dsblankenship@dfg.ca.gov]  
**Sent:** Thursday, July 26, 2012 8:19 AM  
**To:** Sara Dowey  
**Subject:** SCH 2012061097 Geotech Studies Project

Dear Sara Dowey, Thank you for the opportunity to comment on this project. The only addition or clarification to the proposed biological mitigation measures is to add the need for an Incidental Take Permit for least Bell's vireo if the project extends into the breeding season. Please let me know if you have any questions. Thanks, Dan Blankenship

Daniel S. Blankenship  
Staff Environmental Scientist  
CA Department of Fish and Game  
P.O. Box 221480  
Newhall, CA 91322-1480  
phone (661) 259-3750  
cell (661)644-8469  
[dsblankenship@dfg.ca.gov](mailto:dsblankenship@dfg.ca.gov)

Letter 4-California Department of Fish and Game

Response:

The comment is acknowledged and the Mitigation Monitoring and Reporting Plan, Mitigation Measure BIO-1 under the Geotechnical Investigations on the Santa Clara River near Saticoy Mitigation Monitoring and Reporting Plan has been modified to state that:

“If the project is implemented during bird nesting season (between March 1 and September 15), United will secure all required state and federal permits before the project begins. A qualified biological monitor will observe any nesting birds within 500 feet of the work at the start of construction activities, particularly during peak noise times, to determine if the noise is adversely affecting them. If effects are noted, the biological monitor will have the equipment either change location or have the numbers of equipment be reduced to lower the noise level so that no effects are observed”.

The same change has been made in Mitigation Measure **BIO-1** on page 2