

Notice of Preparation

To: California State Clearinghouse
California Responsible and Trustee Agencies
Other Interested Public Agencies
Interested Parties and Organizations

Date: September 14, 2023

Subject: Updated Notice of Preparation by United Water Conservation District to Prepare a Draft Environmental Impact Report under the California Environmental Quality Act for the Freeman Diversion Multiple Species Habitat Conservation Plan and Associated Facility and Operations Modifications

Lead Agency: United Water Conservation District

Project Title: United Water Conservation District Freeman Diversion Multiple Species Habitat Conservation Plan and Associated Facility and Operations Modifications

Project Description Summary: United Water Conservation District (United) will prepare an Environmental Impact Report (EIR) to evaluate the environmental effects of its proposed Freeman Diversion Multiple Species Habitat Conservation Plan (MSHCP) and facility and operations modifications associated with implementation of the MSHCP (project). The MSHCP is being prepared by United as part of United's application package to the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW) (collectively referred to as the "resources agencies" in this Notice of Preparation [NOP]) for incidental take permits (ITPs) under Section 10(a)(1)(B) of the federal Endangered Species Act (ESA) and Sections 2080.1 and 2081(b) of the California Fish and Game Code (the California Endangered Species Act [CESA]). A NOP was originally issued for the MSHCP on November 8, 2013, and an updated NOP was issued for the MSHCP on July 31, 2019. An EIR was not completed after the initial or revised scoping efforts. This NOP initiates an updated scoping process for the MSHCP EIR.

The MSHCP will address various activities including, but not limited to, conservation measures, elements of existing and future operations, monitoring, adaptive management, and funding. Consistent with the requirements of the California Environmental Quality Act (CEQA), the EIR will focus on those activities that could result in a significant effect on the environment, defined in Section 15382 of the State CEQA Guidelines as "...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project..."

The primary elements of the project that could result in changes in the physical environment relative to the current physical conditions within the area affected by the project are the construction, operation, and maintenance of a new fish passage facility at the Freeman Diversion; modified water diversion operations and potential development of supporting infrastructure; maintenance of facilities and property; and habitat restoration and enhancement in the Santa Clara River watershed. These elements are primarily conservation measures of the MSHCP, although modified water diversion operations may include both decreases and increases in instantaneous diversions at the Freeman Diversion as well as other changes from historic operations. To facilitate the change in diversion operations, United will pursue a new water right through the State Water Resources Control Board (SWRCB).

Supported by the ecological benefits provided by the MSHCP conservation measures, United will ask the resources agencies to issue ITPs for a set of covered activities, including certain ongoing facility operations and maintenance activities. United is proposing that the ITPs authorize incidental take of

five species whose populations in the project area are currently listed as threatened or endangered under the ESA, CESA, or both. Three additional species are included in the MSHCP that are not currently listed as threatened or endangered but may become listed during the life of the permits. United is seeking a term of approximately 50 years for the ITPs.

Project Location: There are approximately 334 square miles within United's boundaries, located in central Ventura County in southern California, including: parts of the cities of Ventura, Oxnard, Port Hueneme, Santa Paula, and Fillmore; a portion of the Santa Clara River Valley; and the Oxnard Plain (Figure 1). The MSHCP and the EIR address activities that encompass a portion of this area, including the sites of conservation measures, the Freeman Diversion facility along the Santa Clara River near Saticoy, and several spreading ground facilities adjacent to the Santa Clara River near Saticoy and Oxnard (Saticoy, Noble, Rose, and Ferro). The project area also consists of the areas potentially affected by the operation and maintenance of these facilities (Figure 2), including the lower Santa Clara River from the estuary to just upstream of the Freeman Diversion.

The "plan area" identified in Figure 2 comprises all areas that will be used for any activities described in the MSHCP, including covered activities and the conservation program. The "permit area" identified in Figure 2 is a subset of the larger plan area and comprises the areas where ITP coverage is requested (i.e., the covered activities) and is under the control of, or otherwise under the jurisdiction of United. There may be conservation activities that are provided ITP coverage because, although beneficial to covered species, they may also temporarily disturb covered species while being implemented, such as enhancement or improvement of existing occupied habitat or rescue and relocation of covered aquatic species. If these conservation activities extend beyond the currently identified permit area, then the permit area will be expanded to include these areas.

PUBLIC SCOPING

The purpose of this NOP is to solicit the views of interested persons, organizations, and agencies as they relate to the scope and content of the information to be included and analyzed in the EIR. Agencies should comment on the elements of the environmental information that are relevant to their legal authority and statutory responsibilities in connection with the proposed project.

A NOP was originally issued for the MSHCP on November 8, 2013. A scoping meeting was held on December 12, 2013, and the scoping period ended on January 10, 2014. An updated NOP was issued on July 31, 2019, and two scoping meetings were held on August 27, 2019. The scoping period for the updated NOP ended on August 29, 2019. An EIR was not completed after either of these scoping efforts. Since that time, there have been various refinements to the MSHCP and other changes in circumstances affecting the project. Given the passage of time and modified circumstances, this new scoping process has been initiated. However, all scoping comments received in 2013/2014 and in 2019 will be considered during preparation of the EIR and scoping comments provided in 2013/2014 or 2019 need not be provided again.

The designated public scoping period will extend until October 13, 2023. Please send your written comments to United Water Conservation District at HCP_CEQA_Scoping@unitedwater.org or 1701 North Lombard Street, Suite 200, Oxnard, California, 93030. Responses should include the name of the commenter or a contact person at your agency or organization and reference to the United Freeman Diversion EIR in the subject line.

Two public scoping meetings will be conducted to provide an opportunity for interested persons to learn more about the proposed project and to provide oral or written comments to United as to the scope and content of the EIR. The scoping meetings will be held on September 28, 2023, from 3:00 to 5:00 p.m. and 6:00 to 8:00 p.m. Both meetings will be held at:

United Water Conservation District – Board Room
1701 North Lombard Street
Oxnard, CA 93030

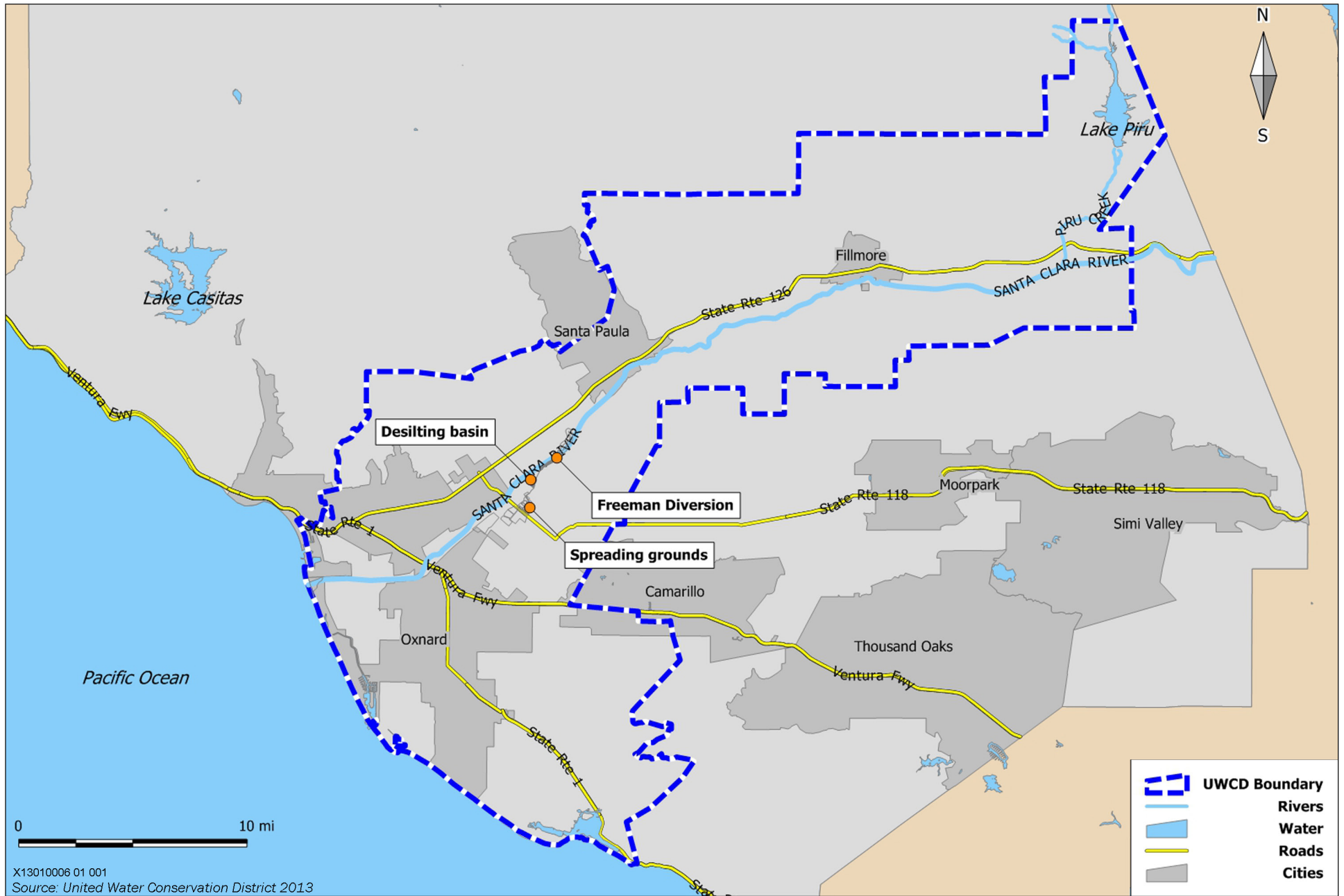


Figure 1 Regional Location and United Water Conservation District Boundaries

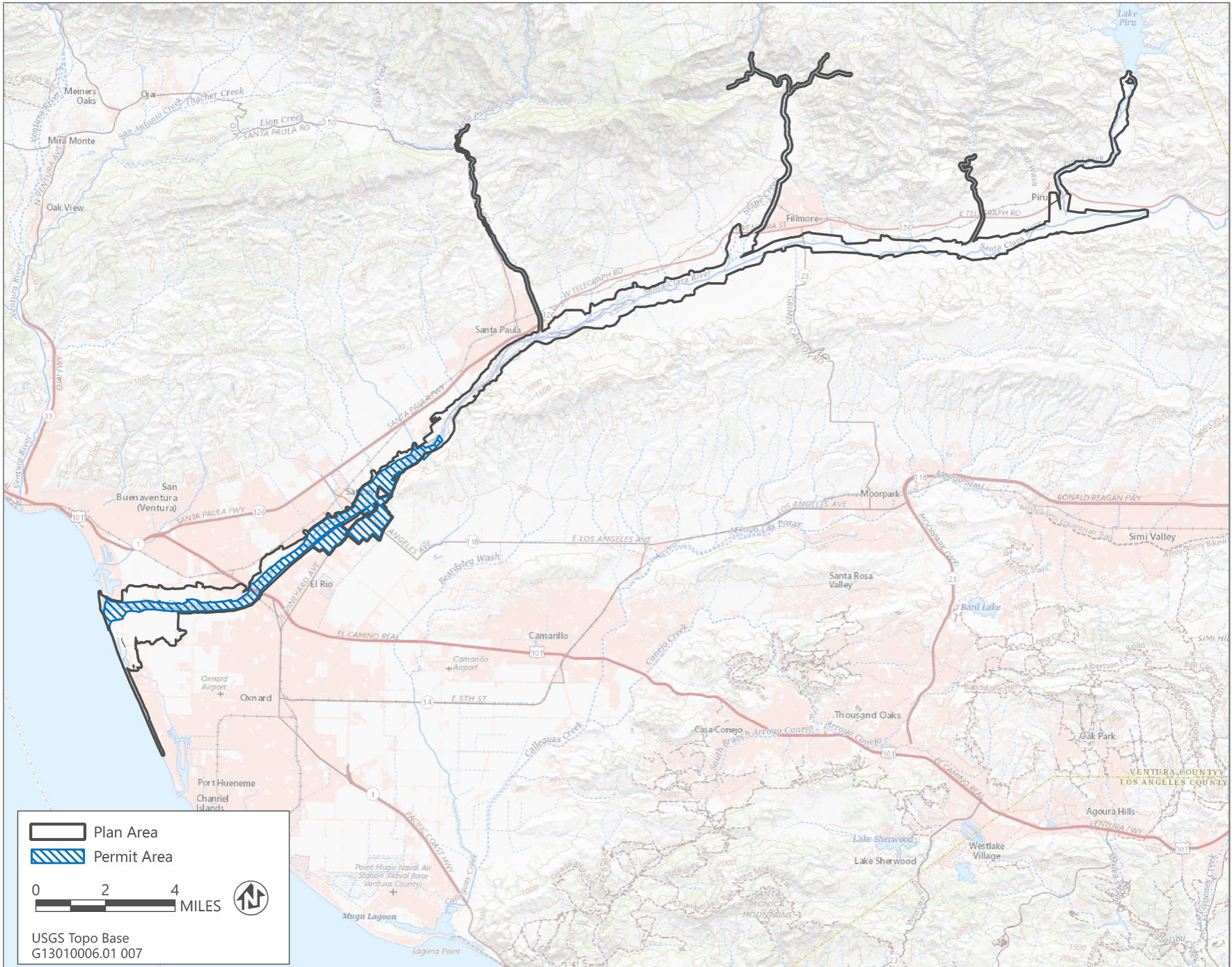


Figure 2 Project Area

Information on the MSHCP, United's operations, the environmental review process, and other topics will be provided at the scoping meeting. A brief description of the project and alternatives and anticipated environmental effects of project implementation are provided below. General information on the MSHCP is also available at United's Habitat Conservation Plan page: www.unitedwater.org/habitat-conservation-plan/.

United anticipates that, in the future, NMFS will publish a separate Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). The EIS will evaluate the environmental effects resulting from the NMFS and USFWS proposed issuance of ITPs for activities covered by the MSHCP and for the US Army Corps of Engineers proposed issuance of a Clean Water Act 404 permit. This federal process will be conducted separately, but in coordination with United's CEQA review and EIR. Scoping comments in response to the NOI should be provided separately when that notice is released.

THE PROPOSED PROJECT AND ALTERNATIVES

Background

United Water Conservation District

United is a California special district established in accordance with California Water Code Section 74000 et seq. Originally formed as the Santa Clara Water Conservation District in 1927, then transitioned to its current role by voter approval in 1950, United's mission is to manage, protect, conserve, and enhance the water resources of the Santa Clara River, its tributaries, and associated aquifers. United's boundaries encompass nearly 213,000 acres of central and southern Ventura County, including the Ventura County portion of the Santa Clara River Valley and the Oxnard Plain. Within this area, United operates and maintains a number of water facilities and associated water delivery infrastructure. These facilities directly and indirectly provide potable water to municipal customers and irrigation supplies in the Oxnard area, sometimes in lieu of coastal groundwater extractions. United's facilities are vital to groundwater recharge, combating seawater intrusion, and other issues resulting from groundwater overdraft across the Oxnard Plain, as well as providing water supply for municipal, industrial, and agricultural uses in Ventura County.

Groundwater level declines and seawater intrusion along the coast have long been a concern in the region. In response, since 1927 United and its predecessor (Santa Clara Water Conservation District) have diverted a portion of the flow in the Santa Clara River along the northern Oxnard Coastal Plain to spreading (recharge) basins where the entrained water infiltrates through the surface to recharge underlying groundwater resources as well as to pipelines that deliver surface water directly to users in lieu of pumping in critical areas ("conjunctive-use"). Much of the water diverted from the Santa Clara River consists of storm flows occurring in the wet season of above-average rainfall years. Additionally, imported water via the State Water Project, purchased by United and conveyed down the river and ultimately into recharge basins is another mechanism utilized by United to mitigate chronic groundwater overdraft on the Oxnard Coastal Plain. The historic use of surface water diverted from the Santa Clara River helped stabilize the water supply in southern Ventura County and allowed for development of the urban and agricultural economies that have thrived for decades now.

In response to concerns raised by the state regarding groundwater overdraft and seawater intrusion on the Oxnard Plain in the 1970's, United and Ventura County cooperated to develop the "208 areawide water quality management plan: 1979-1980" pursuant to Section 208 of the 1972 Federal Water Pollution Control Act, which was subsequently approved by the State of California. An integral aspect of the plan is the Seawater Intrusion Abatement Program (SIAP), phase two of which was the Freeman Diversion Improvement Project.

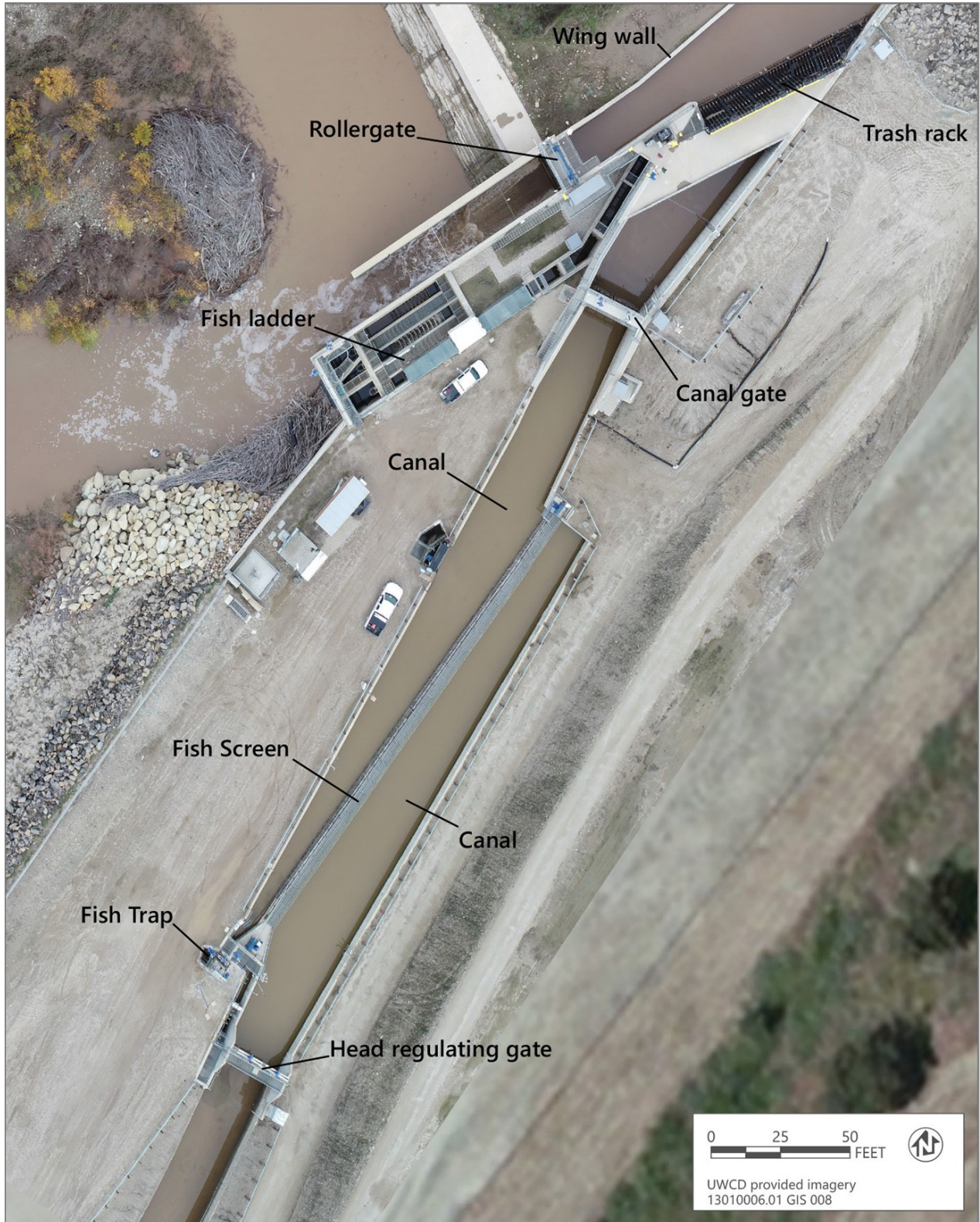
Implementation of the Freeman Diversion Improvement Project resulted in the construction of the current Freeman Diversion structure, which includes fish passage facilities, a Denil fish ladder,

designed and constructed in collaboration with the California Department of Fish and Game (now CDFW) and in accordance with their requirements of the time (Figures 1 and 3). The Freeman Diversion was constructed on the mainstem of the Santa Clara River in 1991 following a lengthy design and consultation process that began in the early 1980s. The purpose of the Freeman Diversion is to improve United's ability to divert Santa Clara River water (especially higher flows following large storm events), as well as releases from Lake Piru, for groundwater recharge to more effectively combat seawater intrusion, and to stabilize the elevation of the upstream river channel following decades of gravel mining by others in the mid-20th century. At the Freeman Diversion, flows enter the diversion facility first through a trash rack to remove coarse debris and subsequently through a fish screen before entering the diversion canal and passing into United's water distribution system and recharge basins. Water may also be directed to the existing fish ladder or may pass through a roller gate that can be opened to manage sediment loads and allow flows to bypass the diversion structure.

MSHCP and Freeman Diversion Fish Passage Facility Alternatives

United has engaged in substantial effort and study to identify covered species and activities to be included in the MSHCP, define the desired term of the ITPs, and develop conservation measures including modifications to facilities and operations for improved fish passage and migration. Only a subset of United's activities is proposed to be within the covered activities in the MSHCP. For activities not covered in the MSHCP or the EIR, United has determined that either they will not affect any federally or state listed species and do not trigger compliance with CEQA or other applicable regulation, or they will be addressed through other means (e.g., separate CEQA review; Section 7 consultation pursuant to ESA for activities permitted by a federal agency).

A key component of the MSHCP is construction of a new fish passage facility at the Freeman Diversion to replace the existing fish ladder (Figure 3). The existing fish ladder was designed to provide upstream passage for adult steelhead, and upstream passage has been documented, but the current fish ladder was judged to be inadequate by NMFS, a fish passage technical panel, and a court decision. During the scoping process conducted in 2013, the preferred option for a new fish passage facility was a hardened ramp design. In December 2018, the United States District Court, Central District of California, Southern Division, released an Amended Judgment and Permanent Injunction in the case of *Wishtoyo Foundation et al. vs. United Water Conservation District* (Case No.: CV 16-3869-DOC (PLAx) Document 248). This judgment required United to evaluate a minimum of four specified alternative fish passage facilities prior to selecting a preferred alternative: a hardened ramp facility, a "400-foot notch" design (Notch design), a vertical slot design, and a damless diversion in conjunction with an infiltration gallery. Since that time, United, in coordination with the resources agencies and the Court, has completed significant additional testing and evaluation on a vertical slot design and hardened ramp design, including physical modeling (i.e., large scale models of the fish passage facility options and the Santa Clara River to test water flows, sediment deposition, and other parameters). The result has been agreement by all parties on a physical design for a hardened ramp facility that forms the basis for the proposed project described further below. As also described below, a vertical slot design is retained as an alternative in the EIR.



Source: Data provided by United Water Conservation District in 2019.

Figure 3 Overview of the Freeman Diversion Facility

The MSHCP'S Covered Species

“Covered species” means those species for which coverage under an ITP is requested in the MSHCP. In cooperation with the USFWS, NMFS, and CDFW, United has identified seven species for proposed coverage in the MSHCP (Table 1). For five of these species, the populations in the project area are currently listed as threatened or endangered under the ESA, CESA, or both. Three additional species are not currently listed as threatened or endangered but are included in the MSHCP because they may become listed during the life of the ITPs. Species may ultimately be added or deleted in the course of plan development based on further analysis, new information, agency consultation, and public comment. The MSHCP will also include contingencies for amending the ITPs in the event that additional species need to be added to the permits (e.g., a non-covered species that occurs in the plan area is listed under ESA or CESA).

Table 1 Species Covered Under the Multispecies Habitat Conservation Plan

Species	Federal Status	State Status	Critical Habitat Present in the MSHCP Area ¹
Southern California steelhead (<i>Oncorhynchus mykiss</i>)	E	None	Yes
Pacific lamprey (<i>Entosphenus tridentatus</i>)	None	SSC	No
Tidewater goby (<i>Eucyclogobius newberryi</i>)	E	None	Yes
Western pond turtle (<i>Emys marmorata</i>)	None	SSC	No
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	E	E	No (designated critical habitat on the Santa Clara River falls outside MSHCP area)
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E	E	Yes
Two-striped garter snake (<i>Thamnophis hammondi</i>)	None	SSC	No
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	T	E	No

E = endangered, T = threatened, SSC = California Species of Special Concern

¹ Critical habitat for a threatened or endangered species, as designated by NMFS or USFWS under Section 4 of the ESA, is or is not present in the MSHCP covered area

Project Goals

United is preparing the MSHCP to obtain incidental take authorization for specific activities, referred to as “covered activities” that could result in take of covered species. United will seek to obtain ITPs for current and ongoing operations as well as for additional activities comprising the MSHCP. United’s goal is to implement necessary modifications to existing facilities or operations while ensuring sufficient water remains available to continue offsetting overdraft of groundwater aquifers through deliveries to customers and recharging groundwater aquifers.

Proposed Actions (the CEQA Project)

The proposed activities to be evaluated in the EIR are United’s adoption and implementation of the MSHCP and associated facility and operations modifications. The procedural step of considering adoption

of the MSHCP is what triggers the need for CEQA review; however, it is implementation of various elements of the MSHCP and related activities that could cause physical changes in the environment that will be analyzed in the EIR. In general, MSHCP activities and facility and operations modifications associated with implementation of the MSHCP can be divided into the following categories:

- ▲ renovation of the Freeman Diversion and associated fish passage system,
- ▲ water diversion operations,
- ▲ maintenance of facilities and property,
- ▲ habitat restoration and enhancement, and
- ▲ monitoring and adaptive management measures.

These are described further below.

Renovation of the Fish Passage Facility and Freeman Diversion

United currently operates and maintains an existing fish ladder at the Freeman Diversion (Figure 3). In collaboration with NMFS, United convened a panel of fish passage experts to evaluate the efficacy of, and alternatives to the existing ladder. While steelhead have been documented passing through the existing fish ladder, the panel found that it is not an adequate fish passage system for various reasons, including inadequate attraction flows, operational restrictions at high flows, and excessive turbulence in resting pools within the ladder. United proposes to implement various measures at the existing Freeman Diversion facility, focusing on construction, operation, and maintenance of a new fish passage facility, to improve fish passage through the diversion facility.

As discussed above, four primary designs for fish passage facilities have been studied: a hardened ramp, a Notch design, a vertical slot, and removal of diversion structure and installation of an infiltration gallery. Among these primary facility types, various iterations of each design have also been considered. After extensive evaluation and modeling, United, in collaboration with the resources agencies and the Court, has selected the hardened ramp design for inclusion in the MSHCP and will be evaluating this design as the proposed project in the EIR. All other fish passage designs that have been evaluated will be discussed as alternatives in the EIR.

The hardened ramp has been designed to be built into the existing Freeman Diversion grade control structure (crest), by removing an approximately 100-foot section of the structure and replacing it with the hardened ramp. Figure 4 provides a design overview for the proposed hardened ramp facility at the Freeman Diversion. The hardened ramp consists of a 30-foot wide roughened (rock-lined) channel low-flow section (i.e., provides the opportunity for upstream fish movement during low river flows) and a 60-foot wide baffled high-flow section (i.e., provides the opportunity for fish movement during high river flows) within its asymmetrical design. A photograph of one of the scale models mentioned above for testing fish passage designs is provided in Figure 5, showing the low flow section on the left and high flow section on the right. A 5 percent sloped ramp configuration is designed to function as a steepened channel segment in the river to provide upstream fish passage for southern California steelhead and Pacific lamprey (lamprey), while simultaneously conveying sediment and debris. Overshot crest gates (Obermeyer gates) across the upstream end of the hardened ramp are included in the design to protect the ramp from bedload transport during very high flow events. The secondary function of the gates includes providing operational flexibility for diversion and/or maintenance activities.

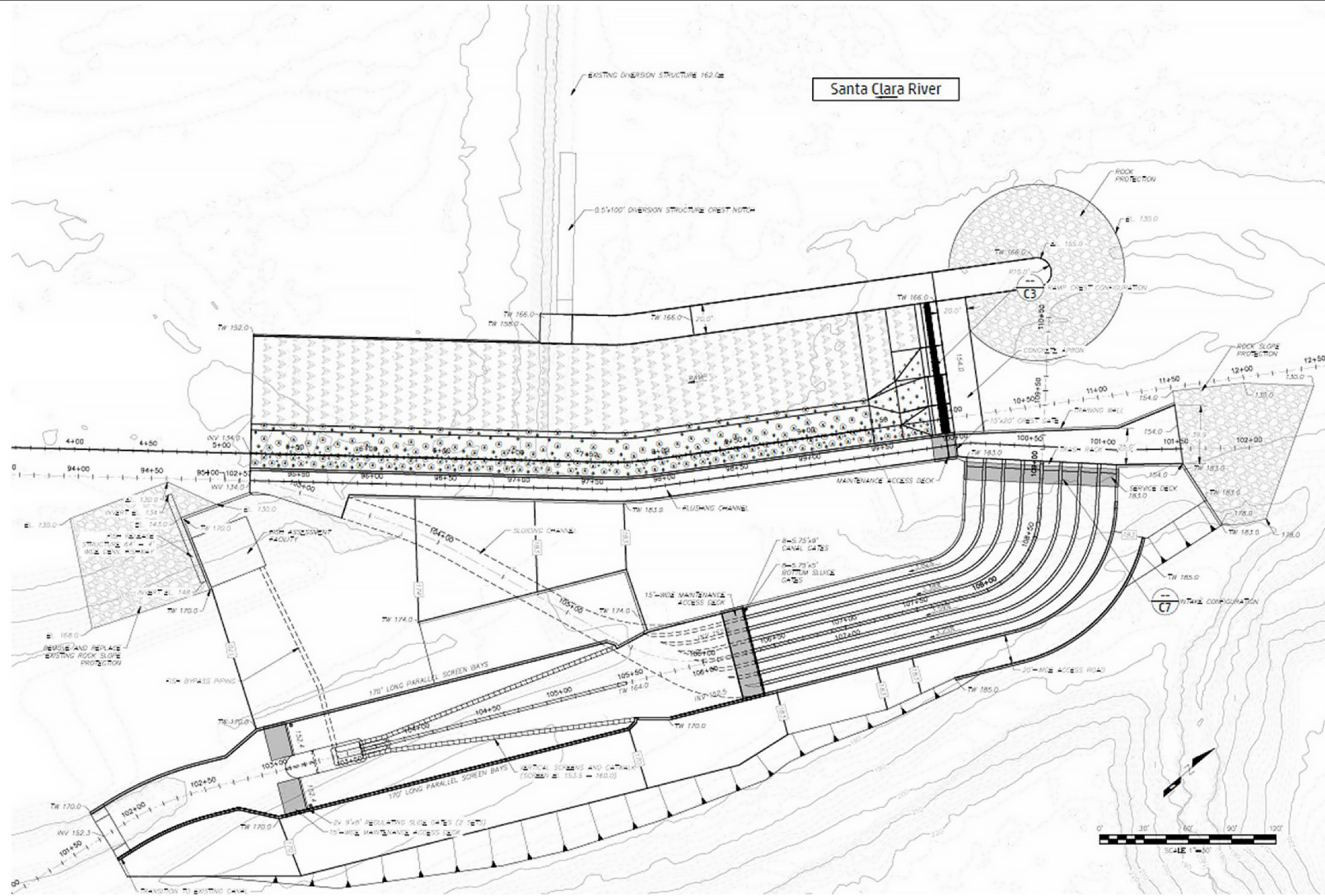
The hardened ramp design would include replacement of the existing fish screen at the Freeman Diversion with a new fish screen. Construction would be implemented during river low flow periods, and would include use of a concrete batch plant, installation of temporary staging areas and construction trailers, and use of public roadways. The north side of the Santa Clara River could be used for access during construction. United would coordinate access with landowners as needed if

this access option is used. Construction would require temporary dam construction to keep river water from entering the work area and dewatering of the work area and excavations. Any water pumped out of the work area could be placed in settling basins or otherwise treated consistent with Regional Water Quality Control Board construction dewatering standards. The treated water could either be pumped into United's water distribution system or released back into the Santa Clara River downstream of the construction area. Erosion control and water quality best management practices (BMPs) would be implemented consistent with applicable laws and regulations.

During construction, United is proposing to resurface any remaining portions of the downstream side of the existing diversion structure to repair existing damage caused by erosion and large debris flowing over the diversion structure. A material such as concrete or gunite (a cement and sand mixture) would be applied to the downstream side of the diversion structure to achieve the desired effect. The resurfacing would make the diversion structure more resilient to future erosive forces and debris damage, would seal existing cracks, which would minimize the seepage of water through the diversion structure, and would smooth the surface to minimize turbulence for fish passing over the diversion structure during high flows.

The construction phase of the renovation is estimated to consist of approximately 700 calendar days of active work with a maximum of 25 construction personnel anticipated during the most intensive construction period. The construction is anticipated to be completed in phases over 2 years to minimize in-channel work during the wet season and steelhead migration season to the extent feasible. Construction traffic would access the site via Highway 118 on the south side of the Freeman Diversion. Site preparation activities for the fish passage renovation would include improving existing access roads between Highway 118 and the Freeman Diversion, developing staging areas, and creating temporary access points to the riverbed work areas to facilitate an expedient project timeline.

The surface of the ramp would consist of raised friction elements (e.g., baffles) (Figures 4 and 5) to slow the flow of water. The width, length, slope, and shape of the ramp, along with the configuration and nature of the baffles are designed to provide appropriate water velocity, depth, and turbulence conditions to allow adult steelhead and lamprey to swim up and down the ramp under a variety of flow conditions in the Santa Clara River. The existing concrete diversion structure would be breached and earth and sediment behind the diversion structure would be excavated to create the space for the ramp. United proposes using excavated concrete, rock, and sediment as part of the facility's foundation construction, or removing it from the site.



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Figure 4 Hardened Ramp Design

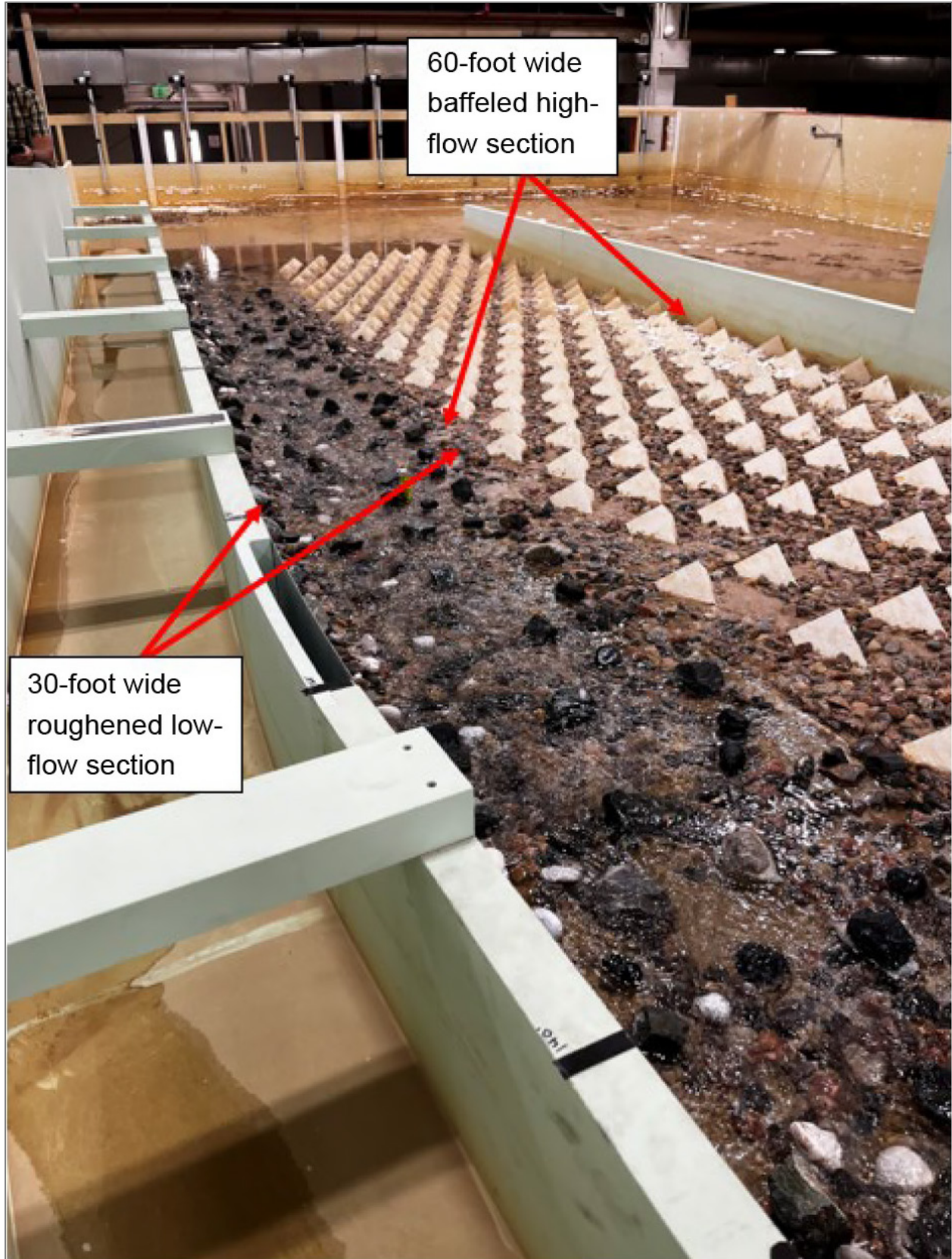


Figure 5 Hardened Ramp Physical Model

Water Diversion Operations

United's existing water rights and permits allow for diversion at the Freeman Diversion of up to 375 cubic feet per second (cfs) for groundwater recharge (including 38 cfs for surface water deliveries) at any given time and an annual maximum diversion limit of 144,000 acre-feet (AF). To maximize the potential for groundwater recharge, United historically attempted to divert as much water as possible, within the water right and permit limits, which include prescribed flows for steelhead. In more recent history, and under the MSHCP, a regime of restrictions on diversions and modified or increased bypass flows has been and may be implemented to provide more benefits to steelhead (which would also benefit lamprey and other native fish). Adult steelhead and lamprey migrate up the Santa Clara River during periods of sufficient flows related to storm events primarily between January 1 and May 31, although observed adult upstream movement at the Freeman Diversion has occurred over a more limited timeframe. Steelhead smolts (i.e., juveniles) typically migrate downstream between March 15 and May 31 and lamprey macrophthalmia (i.e., juvenile lamprey migrating from fresh water to the ocean) are thought to migrate during the peaks of storms. During the migration periods, United could consider making various adjustments to the volume of water diverted to the Freeman Diversion facility to allow for bypass flows downstream above what is called for in United's existing water rights. Any adjustments made to diversions would be based on the volume of flow within the Santa Clara River and whether the flow is resulting from a storm event that could trigger adult steelhead and lamprey migration. The specific changes to historical practices regarding diversion and flow regime are being evaluated by United in coordination with the resource agencies and any that are adopted will be described in the EIR. The changes may be similar to modifications United has implemented in recent years to generate more favorable conditions for steelhead and lamprey.

The proposed diversion practices will be developed to address several issues including:

- ▲ the need to release flows at the time, pattern, and duration for sufficient water depth in a portion of the Santa Clara River downstream of the Freeman Diversion (known as a "critical riffle") to provide a properly functioning migration corridor to allow passage of adult and juvenile steelhead and lamprey, and
- ▲ the need to maintain diversions of water into United's groundwater recharge and water conveyance system to minimize effects to existing water resources.

Related to the above-described modification of flow management, United is evaluating possible mechanisms to increase water yields from diversions to replace a portion of the yield that would be lost under the bypass flows proposed as part of the conservation measures described above. United has identified a potential future activity to be covered by the ITPs: specifically, United proposes to increase the existing 375 cfs instantaneous maximum diversion rate to a maximum of 750 cfs, dependent on United having sufficient water rights. To facilitate the change in diversion operations, United will pursue a new water right through the SWRCB.

In many normal and wet years, storm runoff in the Santa Clara River will often be over several thousand cfs for several days. Under this proposed future activity, United would be permitted to divert up to 750 cfs during these higher flow events while still allowing for sufficient water for the migration of steelhead and lamprey. To minimize potential effects on steelhead and lamprey from the increased diversion volume, United proposes to conduct diversions following a specific operational protocol intended to minimize potential adverse effects on these species. This operational protocol would promote conditions where the natural hydrograph is mimicked in the bypass flows when water levels are receding after a storm.

New construction would be necessary to accomplish increased diversions that are being considered. Currently, United passes diverted water through approximately 2,500 linear feet of canal and pipe with limited infrastructure or “pinch points” that provide a restrictive capacity of 375 cfs. Any such “pinch points” would require modification to allow for planned increases in diversions. Various water conveyance system improvements are anticipated such as upgrading existing canal/pipeline inlets and outlets, new culverts and pipeline segments at road crossings, and a segment of new canal (Figure 6). The installation of partitions in the Ferro Spreading Grounds to support more efficient management are also planned. The future decision for the physical modification of diversion capacity and the new facilities necessary to convey additional flows to recharge will be considered in the EIR and may also be subject to individual future CEQA considerations.

All applicable MSHCP impact minimization and conservation measures would be applied to the proposed increase in authorized peak diversion and any directly related infrastructure modifications.

Maintenance of Facilities and Property

The MSHCP includes as a covered activity maintenance of United’s grounds and facilities in the permit area. United conducts maintenance activities to upgrade and repair existing facilities, periodically tests equipment (e.g., canal gates), manages vegetation and landscaping, and ensures optimal performance of facilities. Covered maintenance usually falls into two categories: (1) routine maintenance, which would have a regular and predictable schedule (e.g., quarterly or annually), and (2) repair work, which would be infrequent, occur as-needed, and is dependent on year-to-year conditions at the facility.

Routine maintenance activities include:

- ▲ dewatering and flow rerouting (annually)
- ▲ routine facility maintenance (annually),
- ▲ vegetation control at engineered structures, access roads, and right of way (quarterly to annually),
- ▲ use of permit area roads and access points (daily/weekly), and
- ▲ access road grading, compaction, and fill (annually).

Infrequent repair activities include the following:

- ▲ facility repair and upgrade (buildings, hardened ramp components, fish screens, gates, canals, rip rap, bank stabilization structures, culverts, and drainages), and
- ▲ in-channel sediment and debris control.

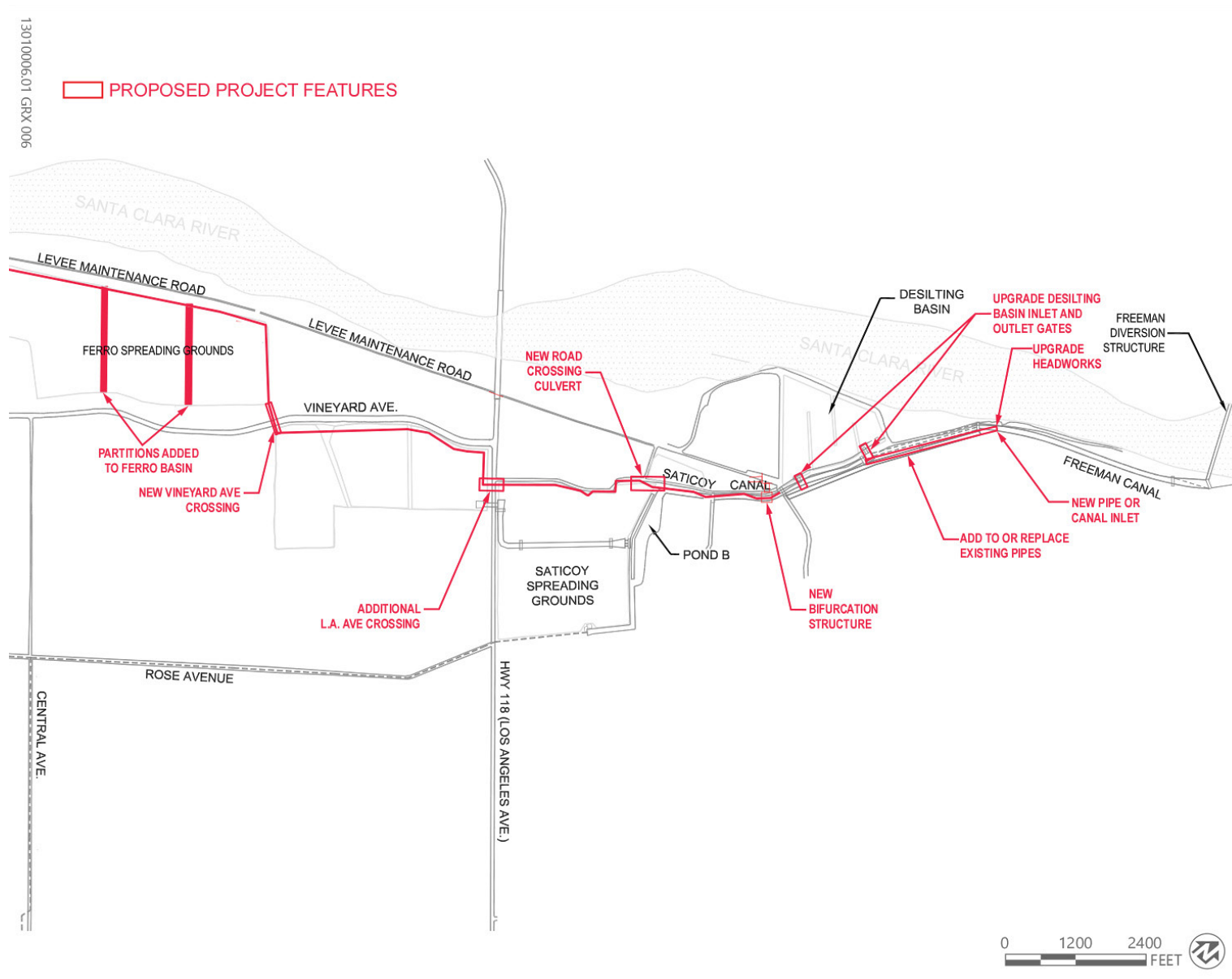


Figure 6 Potential Upgrades to Water Delivery/Infiltration Infrastructure

These activities will be conducted on an as-needed basis and may require the use of heavy equipment, depending on the extent and severity of damage sustained. Regular use of project roads and facilities can result in damage to the roads, necessitating periodic repairs beyond that of routine maintenance. This may include grading, excavating, importation of material/road base, and/or compaction.

Habitat Restoration and Enhancement

The MSHCP will include measures to compensate for unavoidable take of covered species resulting from United's activities. Such measures may include some form of habitat preservation, restoration, or enhancement. United may accomplish this in a number of ways, including conducting the preservation, restoration, or enhancement on land it owns or providing funding to others to implement such activities on appropriate lands. The type of habitat preserved/restored/enhanced will be consistent with the habitat affected. The specific location and extent of necessary habitat preservation/restoration/enhancement has not yet been determined. The MSHCP will include specific criteria and parameters for habitat preservation/restoration/enhancement activities.

Monitoring and Adaptive Management

United will include a monitoring and adaptive management program as part of the MSHCP that integrates the conservation measures, monitoring, and study of covered species, to assess achievement of MSHCP goals and objectives. Consistent with NMFS and USFWS policies, the adaptive management program will include 1) periodic accounting of incidental take, 2) surveys to determine species status, 3) assessment of habitat conditions, 4) progress reports on fulfillment of specific conservation measures, and 5) evaluations of conservation measures and the degree to which they are meeting the goals and objectives.

In support of the MSHCP and the adaptive management program, United may also undertake, fund, and or assist with scientific research on covered species and their habitat. This research may include the collecting, handling, marking/tagging, tracking, and relocating of individuals. Potential research projects include further evaluating the following:

- ▲ the relationship between river discharge and width and depth criteria that relate to the instream flow commitments,
- ▲ new data related to the steelhead adult and smolt migration periods for the Santa Clara River basin,
- ▲ smolt migration behavior in the plan area to understand smolt migration rates and habitat usage during a range of flows, temperatures, and other conditions,
- ▲ the results of different water diversion procedures,
- ▲ effects on the migration of adult steelhead from different concentrations of suspended sediment in the Santa Clara River.

Permit Duration

The proposed duration of the ITPs to be supported by the MSHCP is anticipated to be 50 years. A shorter permit term would not satisfy United's need for permit coverage because its mission, as well as operations intended to meet that mission, are ongoing, long-term undertakings. Furthermore, the anticipated significant investment in the MSHCP is not consistent with a permit of shorter term. Some project elements may have effects for a longer or shorter time than the term of the ITPs.

Alternatives to be Evaluated in the EIR

In accordance with the State CEQA Guidelines (14 CCR Section 15126.6), the EIR will describe a range of reasonable alternatives to the proposed project that are capable of meeting most of the project objectives and would avoid or substantially lessen any of the significant effects of the project. The EIR will also identify any alternatives that were considered but rejected by the lead agency as infeasible and briefly explain the reasons why. The EIR will provide an analysis of the No-Project Alternative and will also identify the environmentally superior alternative. The MSHCP will also include consideration of alternatives, with the focus being on minimizing effects on covered species. With this approach to alternatives development that is centered on specific species, the MSHCP may ultimately address a different or narrower range of alternatives than those considered in the EIR, which may include alternatives based on the avoidance of impacts to a variety of resources.

As discussed above, the fish passage facility designs that were not selected as the proposed project: the Notch design, vertical slot, and removal of diversion structure and installation of an infiltration gallery, will be considered as alternatives in the EIR. Other elements of the MSHCP may also serve as elements of EIR alternatives, with the objective of having alternatives result in the avoidance or substantial lessening of significant environment effects identified for the proposed project. Additional information on these fish passage facility options is provided below.

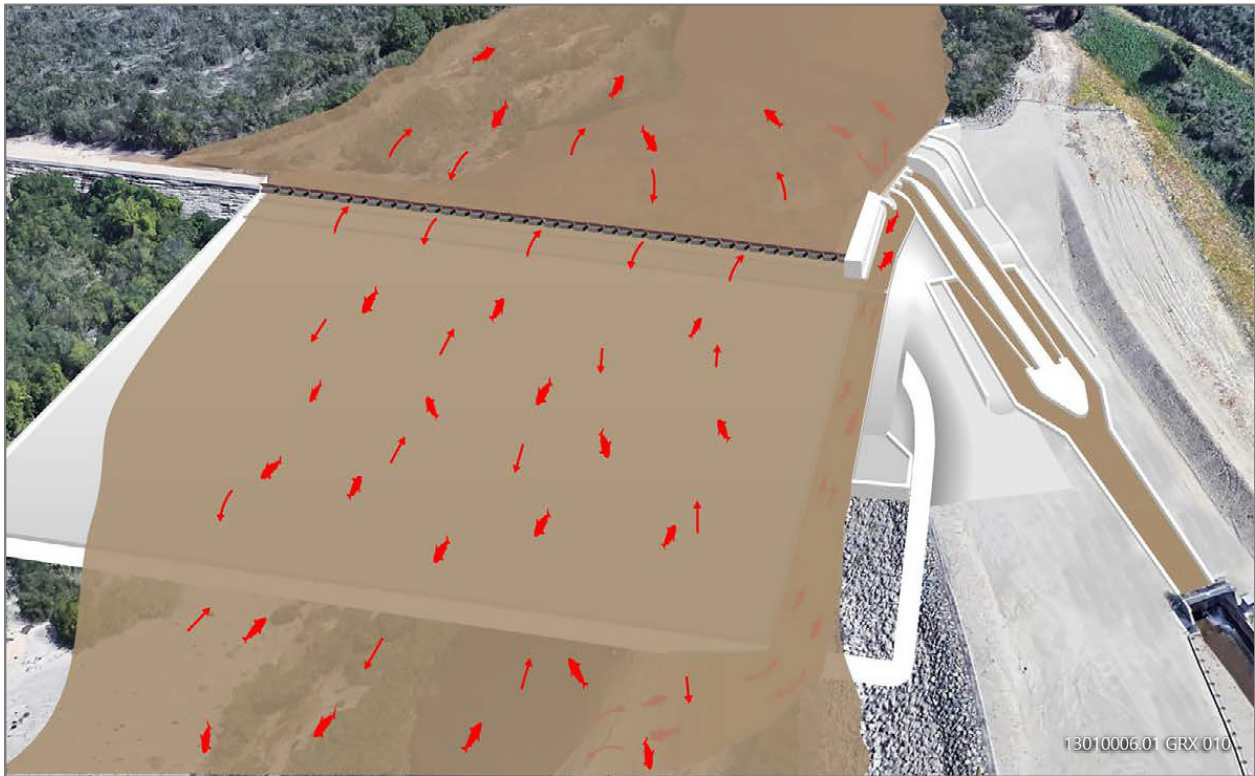
Other factors that may also be considered during alternatives development include, but are not limited to:

- ▲ construction methods for the new Freeman fish passage facility,
- ▲ parameters for selecting the type, location, and extent of habitat preservation, restoration, and enhancement,
- ▲ changes in diversion, bypass flow, and/or sediment management regimes,
- ▲ alternatives that may be identified in the MSHCP itself (if they result in the avoidance or lessening of significant environmental impacts of the proposed project), and
- ▲ input provided during the EIR scoping process.

Notch Fish Passage Design

The Notch fish passage design alternative would include reducing the height of a 400-foot wide portion of the existing Freeman Diversion structure, locally reducing the crest to a level that approximates that of the riverbed prior to construction of the Freeman Diversion (Figure 7). This reduction in the height of a portion of the Freeman Diversion crest would enable natural erosive forces to move sediment from upstream of the diversion structure to downstream and, over time, lower the current upstream channel profile (i.e., make the current upstream channel deeper).

Approximately twenty pneumatically-operated overflow gates would span the width of the notch opening (Figure 7), which would allow closure of the notch and diversion of water from the river for use by United. The notch, when opened, is intended to provide passable conditions for steelhead trout at river flows up to approximately 6,000 cfs.

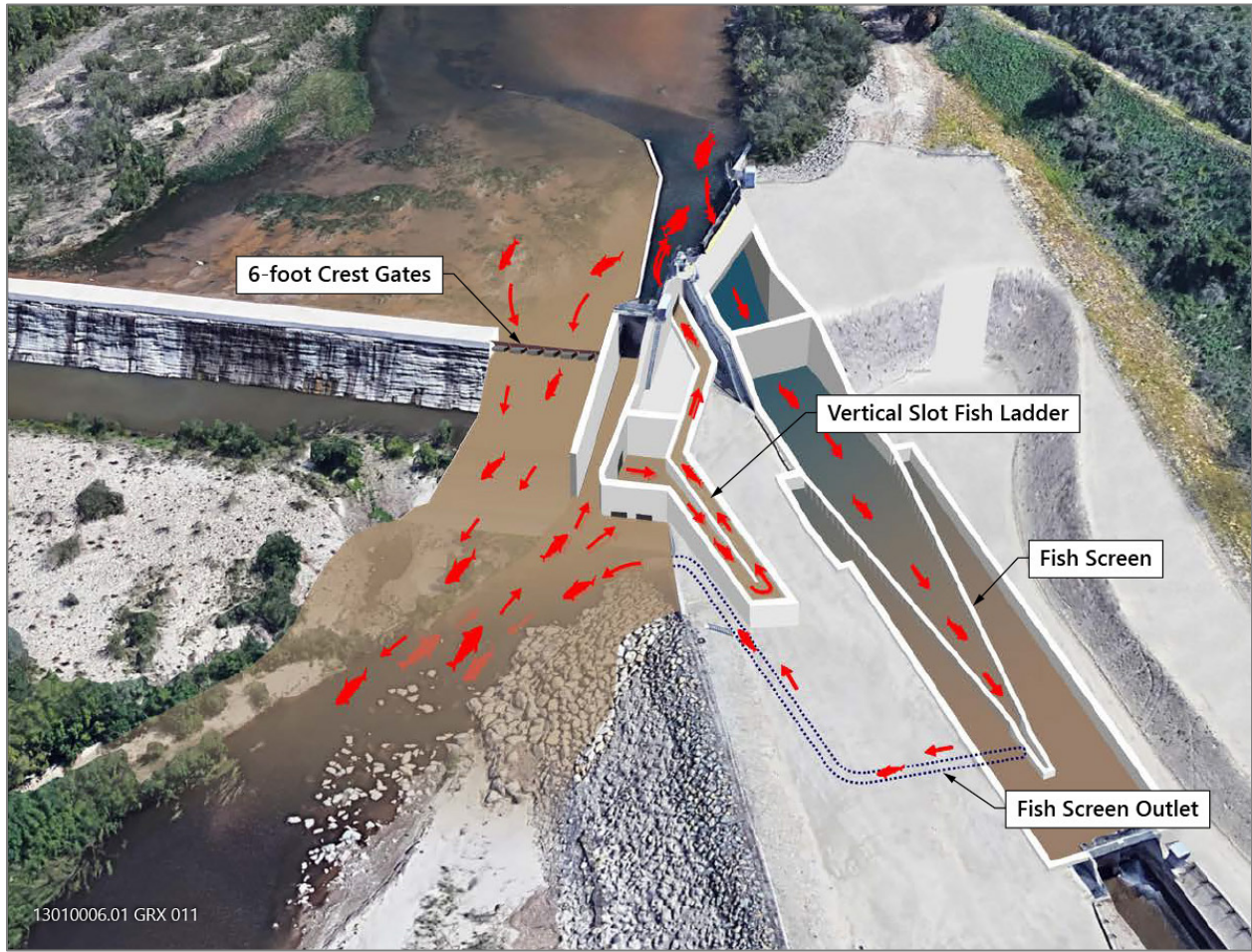


Source: Image prepared and provided by UWCD in 2019

Figure 7 Plan View of the Conceptual Notch with Connecting Ramp and Containment Wall

Vertical Slot Fish Passage Facility

The Vertical Slot fish passage facility alternative would replace the existing fish ladder with a vertical slot style fish ladder (Figures 8 and 9). The vertical slot design is intended to allow flow levels that better attract adult steelhead into the ladder. The total construction footprint for the vertical slot design would be approximately 8-9 acres. The vertical slot would be paired with three (3) 12-foot crest gates that would functionally decrease the width of the diversion and maintain the channel of the river to the side where the fish passage facility would be located. The downstream face of structure below the crest gate would be constructed to provide hydrologic conditions compatible with upstream and downstream fish movement. A fish screen would continue to be operated as part of the water diversion channel.



Source: Image prepared and provided by UWCD in 2019

Figure 8 Vertical Slot Fish Passage Facility Design



Source: Stantec 2018

Figure 9 Typical Vertical Slot Ladder Pool

Diversion Removal and Infiltration Gallery

This design option consists of removal of the existing Freeman Diversion structure and installation of an underground infiltration gallery in the Santa Clara River bed to collect and divert water. The infiltration gallery would consist of a network of perforated pipes placed underground within the channel of the Santa Clara River immediately upstream of the existing diversion structure. To achieve the desired water diversion capacity of up to 750 cfs, it is estimated that the infiltration gallery would need to place perforated pipes under approximately 21 acres of riverbed. To install the pipes, the riverbed would be excavated to an approximately 11-foot depth. The pipe network would be installed at the bottom of the trench and covered with gravel. Several feet of additional gravel would be placed over the pipes to act as an infiltration layer. Above the infiltration layer 2-3 feet of larger rock (rip-rap) would be installed to protect the infiltration gallery from scouring. Header pipes would carry flows from the collector pipes to a collection sump. The water would then be pumped vertically to a pump station facility, and then put into United's water conveyance system routed for delivery or percolation. Note that the "collection" of water in an infiltration gallery would have the same effect on limiting downstream water volumes as diverting water at the Freeman Diversion under the other three design options.

POTENTIAL ENVIRONMENTAL EFFECTS

The EIR will focus on disclosing the significant and potentially significant effects of the proposed project and alternatives on various environmental resources. Those resources for which little to no effect would occur will not require detailed analysis and will be identified in the EIR with rationale supporting their dismissal. These issues are anticipated to include land use and planning; mineral resources; forestry; population and housing; public services (fire protection, law enforcement, schools, and parks); and utilities and service systems related to wastewater treatment, stormwater

drainage, and solid waste. For each issue addressed in detail, the EIR section will include discussions of environmental setting, regulatory framework, environmental effects, and mitigation for significant impacts. The direct, indirect, and cumulative effects of the project will be considered. Per Section 15082(a)(1)(C) of the State CEQA Guidelines related to the contents of a NOP, the discussions below identify probable environmental effects of the project.

Aesthetics

Continuation of current activities would not alter existing aesthetic conditions in the MSHCP area. Implementation of some proposed MSHCP measures, particularly modifications at the Freeman Diversion, would result in temporary scenic effects during construction. There would be some permanent, but likely minor long-term changes in localized views from installation of modifications at the Freeman Diversion and habitat restoration (where it converts an existing land use to habitat). However, the Freeman Diversion is not visible from publicly accessible areas, and it is likely that habitat restoration and other MSHCP activities would not have a high number of viewers. However, potential changes to aesthetic conditions will be evaluated in the EIR.

Agricultural Resources

United's boundaries include substantial agricultural areas, and its operations benefit agriculture. United works to abate seawater intrusion into groundwater by conducting groundwater recharge activities and providing direct delivery of surface water for agriculture. Changes in bypass flow and diversion regimes under the MSHCP could affect the availability and quality of groundwater and surface water for agriculture. Most agriculture within United's boundary relies on groundwater pumping for irrigation. The areas supplied by aquifers recharged by the Freeman Diversion are subject to seawater and saline intrusion. Reductions in recharge with unchanged extractions would lead to increased seawater intrusion, which could result in long-term changes to groundwater salinity levels. Lands overlying intruded aquifers may become unsuitable for agriculture without mitigation. In addition, habitat restoration activities, if located on agricultural lands, could convert existing agricultural land to habitat. These issues will be evaluated in the EIR.

Air Quality, Greenhouse Gas Emissions, and Energy

The project area is located in the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD) in the South Central Coast Air Basin. Air emissions associated with the continuation of ongoing activities (e.g., vehicle trips associated with operations and maintenance) would not differ substantially from existing conditions. Near-term air quality impacts would primarily result from earthwork, vehicle and equipment emissions, onsite construction facilities such as a concrete batch plant, and related activities at the Freeman Diversion. Lesser emission levels would be associated with habitat restoration and enhancement activities, such as removal of non-native species and planting of native species. Increases in long-term emissions could result from increased energy used for groundwater pumping if changes in bypass flows and diversion regimes adversely affect the availability and quality of groundwater and surface water to agricultural customers. The air quality analysis in the EIR will estimate project-related emissions resulting from increased energy used for groundwater pumping, construction, and any operational emissions of criteria air pollutants and precursors (e.g., respirable particulate matter, fine particulate matter, reactive organic gases, and oxides of nitrogen) in accordance with guidance from VCAPCD (including VCAPCD's Ventura County Air Quality Assessment Guidelines). The potential effects of such emissions will be evaluated. Energy usage resulting from both changes in operations, as well as construction activities attributable to the MSHCP, will be calculated and addressed in the EIR.

Potential emissions of toxic air contaminants (TACs) will also be evaluated, with the TAC of primary concern being the exhaust emissions of diesel particulate matter generated by diesel trucks, heavy equipment, and other diesel-powered equipment. Construction and operation activities included in the MSHCP also would emit greenhouse gases (GHGs) associated with the operation of vehicles and heavy equipment as well as pumps and other facilities. However, habitat restoration could result in greater sequestration of GHGs in plants and woody material. Net emissions of GHGs from MSHCP implementation, addressing mechanisms that would both increase and decrease GHG emissions, will be evaluated in the EIR.

Biological Resources: Fisheries and Aquatic Resources

The EIR will address potential project effects on aquatic species including MSHCP covered aquatic species (see Table 1 above) and any other special-status aquatic species that may be present, federally protected wetlands, potential species nursery/breeding sites, and the use of aquatic habitats as movement corridors. The EIR will address anticipated beneficial effects (relative to existing conditions) associated with construction of a new fish passage facility at the Freeman Diversion, habitat restoration and enhancement activities, and other conservation measures. The EIR will also evaluate potential adverse effects that might result from construction of facilities as well as changes in diversion and other system operations. Impact mechanisms such as changes in habitat/instream flow relationships, disturbance of aquatic substrates, instream temperature, and water quality conditions will be considered. Handling of covered fish species as part of MSHCP monitoring and conservation activities will also be addressed.

Biological Resources: Terrestrial Biological Resources

The EIR will address potential project effects on MSHCP terrestrial species including covered terrestrial species (see Table 1 above) and any other special-status terrestrial species that may be present, potential wildlife nursery/breeding sites, and the potential disruption of habitats used as movement corridors. The EIR will address anticipated beneficial effects (relative to existing conditions) associated with habitat restoration and enhancement activities, and other conservation measures. The EIR will also evaluate potential adverse effects that might result from construction activities and system operations and maintenance. Impact mechanisms such as temporary and permanent losses of habitat resulting from facility construction (particularly high value habitats such as riparian vegetation), construction noise disturbance (e.g., resulting in nest abandonment by special-status bird species), and the potential for changes in flow regimes to affect terrestrial habitats will be considered. Potential handling of covered species as part of MSHCP monitoring and conservation activities will also be addressed.

Archeological, Historical, and Tribal Cultural Resources

No significant archeological, historical, or tribal cultural resources sites have been identified in areas that might be directly affected by MSHCP ground disturbance. However, cultural resources surveys have not been completed in all areas, and there is the potential to encounter currently unknown subsurface resources during ground disturbing activities. Further coordination with Native American groups will also be conducted regarding the potential for cultural resources to be present in the plan area. Because the site of the Freeman Diversion was highly disturbed during construction of that facility, it is unlikely that any significant cultural resources would be encountered during construction of a fish passage structure or implementation of other MSHCP covered activities at that facility. It is also unlikely that significant cultural resources would be encountered during other MSHCP covered activities given the regular inundation and disturbance within the Santa Clara River floodplain and past disturbance by mining, agriculture, and other activities in much of the MSHCP area. However,

potential adverse effects to archeological, historical, and tribal cultural resources and mechanisms to avoid or mitigate any significant adverse effects will be addressed in the EIR.

Geology and Soils

Soils in the project area primarily consist of alluvial deposits of the Santa Clara River. The Oak Ridge Fault occurs in the area and other faults in the region could generate ground shaking. MSHCP activities related to habitat restoration enhancement and general operations would not be affected by seismic activity, but a new fish passage facility could be adversely affected by strong ground shaking. However, the fish passage facilities being considered would not impound water in a way that could place people at risk if a seismic event damaged the structure. The MSHCP does not include any other elements that would directly or indirectly cause potential substantial adverse effects from seismic activity. If soils are not stabilized properly during ground disturbing activities associated with construction of a fish passage facility and possibly habitat restoration/enhancement (removal of non-native vegetation, ground preparation for planting of native species), substantial soil erosion could occur from wind, rain, or high river flows within the Santa Clara River floodway. The geologic units that compose the project area have a low to high paleontological potential. Thus, it is possible that previously unknown unique paleontological resources could be encountered during project construction. However, the probability of discovering paleontological resources during implementation of the MSHCP is limited given the regular inundation and disturbance within the Santa Clara River floodplain, the shallow level of ground disturbance associated with MSHCP activities outside the Santa Clara River floodplain, and past disturbance by agriculture and other activities in much of the MSHCP area. These issues will be addressed in the EIR.

Hazards and Hazardous Materials

The continuation of United's operations and maintenance would not alter the use, transport, generation, or disposal of hazardous materials relative to existing conditions, such as use of fuels and lubricants to operate vehicles and equipment. Construction activities associated with facility modifications at the Freeman Diversion and use of heavy equipment elsewhere, such as for site preparation for habitat restoration, would result in the storage, use, and transport of hazardous materials such as fuels, lubricants, hydraulic fluid, and or solvents. It is also possible that during ground disturbing activities previously unreported contamination sites could be encountered, creating a risk of exposure to construction personnel. These issues will be addressed in the EIR.

Hydrology and Water Quality

The EIR will evaluate multiple potential impact mechanisms related to water quality, groundwater hydrology, and flood risk. Construction and ground disturbing activities in (Freeman Diversion modifications) and near (site preparation for habitat restoration) the Santa Clara River and its tributaries could allow the mobilization of sediment that could adversely affect water quality. Accidental spills of lubricants, fuels, and other construction related materials could also result in water quality impacts. Ground disturbing activities in the Santa Clara River floodplain, if not properly stabilized after completion of these activities, could also lead to erosion and mobilization of sediment during high water events and could adversely affect water quality.

Implementation of the MSHCP may alter the timing and volume of diversions to United's spreading grounds and surface water delivery system, and therefore could affect groundwater recharge capabilities and the quantity and quality of groundwater available for extraction by groundwater users. The potential for the project to impede sustainable groundwater management will also be evaluated. Lowering water levels in the recharged coastal aquifers would allow for increased seawater intrusion.

Modifications to the Freeman Diversion, including construction of a new fish passage facility, would not impound, obstruct, or divert river flows during high water events. Therefore, these project elements would not increase flood risk or impede or redirect flood flows. In addition, the MSHCP is not expected to substantially increase the rate of surface runoff such that flooding would occur or the capacity of an existing stormwater system would be exceeded. Restoration of riparian habitat in the Santa Clara River floodway in locations where no woody vegetation currently exists could create an obstruction to water flows and increase upstream water elevations during high water events. This effect would be dependent on the location and extent of riparian restoration. These issues will be evaluated further in the EIR

Noise

The continuation of United's operations and maintenance would not alter noise generation relative to existing conditions. Equipment used for construction at the Freeman Diversion would generate noise, such as heavy equipment (e.g., excavators, loaders, dozers), trucks, and a concrete batch plant. However, there are no sensitive noise receptors, such as private homes, schools, and churches in the vicinity of the Freeman Diversion that would be affected. Trucks and vehicles travelling to and from the diversion structure could pass by sensitive receptors and potential increases in traffic noise will be evaluated in the EIR, as would potential construction and vehicle noise generated by habitat restoration activities. Potential effects of construction noise on terrestrial and aquatic wildlife would be evaluated in the discussion of biological resources.

Operation of new facilities (e.g., fish passage structure at the Freeman Diversion, habitat restoration sites) and potential modifications to the operation of existing facilities are not expected to generate significant increases in ambient noise levels and are unlikely to be located near sensitive noise receptors; however, this potential impact will be evaluated in the EIR.

Recreation

The project would not include or promote housing or similar development that would generate increased demand for recreational facilities. Development of habitat restoration sites could provide increased recreational opportunities (a beneficial effect) if public access is permitted.

Implementation of the MSHCP would not directly affect any existing recreation facilities. However, if there are potential changes in water diversions resulting from, and in response to, the project, this could affect downstream flows in the Santa Clara River and estuary, which may indirectly affect recreational uses and facilities. This issue will be evaluated in the EIR.

Transportation

The continuation of United's operations and maintenance would not alter traffic generation or effects on roadways, and operation and maintenance activities would be expected to generate minimal new trips. Construction of facilities would result in construction worker commute trips and haul truck trips (for delivery and transport of materials and equipment) to and from the facility sites, resulting in increased traffic levels on local roadways and a temporary increase in the number of total vehicle miles traveled relative to United's existing operations. Similar traffic generation, although on a smaller scale, could result from some habitat restoration and enhancement activities. Increased vehicle trips associated with construction activities could result in increased traffic hazards, roadway damage, and reduced emergency access due to increased traffic volumes. These issues will be evaluated in the EIR.

Utilities and Service Systems – Water Supply

As stated in the introduction to this section addressing potential environmental effects, the project is expected to have little to no effect on utilities and service systems related to wastewater treatment, stormwater drainage, and solid waste, and these issue areas would not be evaluated in detail in the EIR. However, water supply could be affected by implementation of the MSHCP. Although United is not a utility, water supplied for municipal, agricultural, and other human uses will be considered a utility for purposes of the EIR. Implementation of the MSHCP may alter the timing and volume of diversions to United's spreading grounds and surface water delivery system, and therefore could affect the quantity and quality of available water supply for customers and groundwater users. In response to this potential reduction in available water supply, the project includes the option for further modifications in diversion regimes to allow increased diversions during high water events, for which United is pursuing new or modified water rights. This could help to restore the available water supply. These issues will be evaluated further in the EIR.

Wildfire

Construction activities at the Freeman Diversion could increase the risk of an ignition of a wildland fire, with the possibility that the fire could spread to the urban/wildland interface and place development at risk. Habitat restoration or enhancement activities included in the MSHCP could result in increased wildland fuel loads and thereby increase wildfire risk. Given the types of activities included in the project and the limited geographic area affected by each activity, it is unlikely that implementation of the MSHCP and related activities would impair implementation of an emergency response plan or emergency evacuation plan. These issues will be evaluated further in the EIR.