

PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT

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APPLICATION FOR PERMIT Perris Dam Emergency Release Facility Project

Public Notice/Application No.: SPL-2022-00560 Project: Perris Dam Emergency Release Facility Project, Riverside County, CA Comment Period: February 2, 2023, through March 4, 2023 Project Manager: Antonia Nino; (213) 458-2426; Antonia.R.Nino@usace.army.mil

Applicant

David Sarkisian California Dept. of Water Resources (DWR) 715 P Street, Div. of O&M, Box #10 Sacramento, California 95814

<u>Contact</u>

May Lau Environmental Science Associates 626 Wilshire Boulevard, Suite 1100 Los Angeles, California 90017

Location

The proposed project is located in an unincorporated portion of western Riverside County approximately 15 miles south of the city of Riverside and partially within the city of Perris (Figure 1). The proposed project would be constructed partially within the Lake Perris State Recreation Area (SRA), Lake Perris Fairgrounds, and California Department of Water Resources (DWR) property north of Ramona Expressway (at: 33.8448083, -117.21308).

Activity

The proposed activity, requiring a permit, would discharge fill in waters of the U.S. associated with the construction of the Perris Dam Emergency Release Facility Project (project) to modify the existing emergency release structure for the Perris Dam and to construct a water conveyance facility to connect with the Perris Valley Channel in the event DWR executes an emergency drawdown to drain the reservoir (Figure 2). The proposed activity would consist of levee construction as well as construction of a conveyance channel, bank stabilization, and appurtenant structures. The proposed discharges would result in permanent fill of approximately 2.07 acres of non-wetland waters of the U.S. (Figures 3a-c). The proposed project would temporarily impact 0.24 acres of non-wetland waters of the U.S. In addition, once initial construction of the Perris Dam emergency release facility is complete, DWR also seeks authorization to temporarily impact waters of the U.S. within the new facility in order to implement its proposed Long-Term Maintenance Program. For more information, see the Additional Project Information section below and attached drawings.

Submittal of Public Comments

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to

review today's public notice and provide views on the proposed work. By providing substantive, sitespecific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied, under Section 404 of the Clean Water Act.

Please do not mail hard copy documents, including comments to any Regulatory staff. Instead, your comments should be submitted electronically to: Antonia.R.Nino@usace.army.mil. Should you have any questions or concerns about the Corps' proposed action or our comment period, you may contact Antonia Nino directly at (213) 458-2426.

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

<u>EIS Determination</u>- A preliminary determination has been made an environmental impact statement is not required for the proposed work.

<u>Water Quality</u>- The applicant is required to obtain water quality certification or waiver, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. The applicant has indicated they have applied for Section 401 certification. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

<u>Coastal Zone Management</u>- This project is located outside the coastal zone and preliminary review indicates it would not affect coastal zone resources. After a review of the comments received on this public notice and in consultation with the California Coastal Commission, the Corps will make a final determination of whether this project affects coastal zone resources.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH is affected by the proposed project.

<u>Cultural Resources</u>- Two cultural resources studies conducted by Environmental Science Associates (ESA) included records searches at the California Historical Resources Information System Eastern Information Center, Sacred Lands File searches through the California Native American Heritage Commission, a desktop geoarchaeological review, and cultural resources surveys covering the overall project area. Additionally, a new survey was conducted on 61 acres that were added to the project and not previously surveyed in the referenced two studies. No cultural resources were identified within the project area as a result of these studies or surveys.

One historic architectural resource, the Perris Valley Channel, was evaluated for listing in the National Register of Historic Places (NRHP). The Perris Valley Channel is a man-made drainage channel that serves as a primary collector of stormwater in the northern part of the cities of Perris and Moreno Valley. The Perris Valley Channel was initially constructed in 1955 and meets the 50-year age threshold for consideration as a historic property under Section 106 of the National Historic Preservation Act (NHPA). ESA conducted a pedestrian field survey of the Perris Valley Channel to document the current condition of the channel. The Perris Valley Channel is an approximately 9-mile-long water conveyance conduit that extends from Heacock Street at the southeastern perimeter of March Air Reserve Base (formerly March Field and later March Air Force Base) in the city of Moreno Valley through the city of Perris to its terminus at the San Jacinto River. It was initially constructed in 1955 by the Riverside County Flood Control and Water Conservation District to alleviate drainage

problems associated with the March Field Air Reserve Base. Since its initial construction, numerous improvements have been made to the channel, including erosion control features, modern box drains, and paving of the channel shoulders for bike paths, as well as alterations to the depth and width to allow for capacity expansions. Based on an analysis of criteria A/1–D/4 of the NRHP, the structure is recommended as being ineligible for listing. As such, it has been preliminarily determined the Perris Valley Channel would not qualify as a historic property under the NHPA.

Based on the above, it has been tentatively determined the proposed project would have no effect on NRHP-listed and -eligible properties under Section 106 of the NHPA.

Endangered Species- The project site does not contain critical habitat for federally listed species. However, the Stephens' kangaroo rat (SKR, *Dipodomys stephensi*), a federally listed as threatened species, occurs within the vicinity of the proposed project. SKR has been detected outside of the project site near the southern end of Perris Dam. Suitable habitat for SKR is present within the eastern portion of the project site. A habitat assessment for SKR was completed in November of 2018, and suitable habitat was observed within the project impact area. In March 2019, five nights of trapping were conducted within the proposed impact area and surrounding areas. The small mammal survey yielded four SKR captures. All four captures occurred outside of the project impact area. The one SKR capture located closest to impacted waters of the U.S. was located more than 500 feet from the proposed impact (easternmost impact within Drainage 4). Based on the above, the proposed project is not expected to affect SKR.

In addition, the federally endangered Least Bell's vireo (LBV, *Vireo bellii pusillus*) was last detected below the dam during protocol surveys in 2012 and incidentally observed (presumed nonbreeding) within 500 feet of project impact areas in 2019. Proposed project impacts would occur within Drainage 4 adjacent to (within 500 feet of) black willow thickets, which comprise marginally suitable LBV habitat. Proposed construction is not expected to result in a direct impact to this suitable habitat; however, given its close proximity to the project site and known occurrences of the species, LBV may be affected by project construction (noise). However, implementation of Mitigation Measure BIO-6 (see below and Appendix F, Mitigation, Monitoring, and Reporting Plan) would require a pre-construction survey and establishing non-disturbance buffers for any active nests if construction and vegetation removal cannot be avoided during the nesting bird season. Therefore, the proposed project may affect LBV.:

BIO-6: If construction and vegetation removal is proposed during the bird nesting period (February 1 through August 31) or nests are observed during the preconstruction surveys, then active nest sites located during the preconstruction surveys shall be avoided and a non-disturbance buffer zone established dependent on the species. The type and intensity of buffer will be determined in the field by the qualified biologist. Nest sites shall be avoided with nondisturbance buffer zones until the adults and young are no longer reliant on the nest site for survival, as determined by a qualified biologist.

Finally, approximately 28.84 acres of California buckwheat scrub occurs within and adjacent to the proposed project footprint. Scrub habitat is commonly associated with the federally threatened coastal California gnatcatcher (CAGN, *Polioptila californica californica*). However, the California buckwheat scrub within the project site is of low quality due to disturbances from access roads that have fragmented this community below the dam; the noise, vibration, and dust from the adjacent dirt bike track at the Lake Perris Fairgrounds; and the heavily trafficked Ramona Expressway. Numerous surveys were conducted for nesting birds from 2014 to 2017, and CAGN was not detected. Because CAGN is a non-migratory species, a resident gnatcatcher pair would be detectible for large parts of the year and would have been identified if present. Furthermore, the disturbed and generally low-

quality scrub habitat makes it unlikely that any gnatcatchers would set up a territory in the future; therefore, this species is considered absent from the project site and surrounding areas below the dam. Based on the above, the proposed project is not expected to affect CAGN.

Based on the above, the proposed project is not expected to affect the SKR or CAGN, and it is not expected to adversely affect LBV with incorporation of the above avoidance and minimization measure. Therefore, either formal or informal consultation under Section 7 of the Endangered Species Act would be initiated to account for potential effects to LBV.

<u>Public Hearing</u>- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

<u>Basic Project Purpose</u>- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). Because no fills are proposed within special aquatic sites, identification of the basic project purpose is not necessary.

<u>Overall Project Purpose</u>- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to modify the current emergency release structure for Perris Dam and to construct a water conveyance facility to reliably and safely control a reservoir release and convey emergency flows (up to the maximum design flow capacity of 3,800 cubic feet per second [cfs]) from Lake Perris to the Perris Valley Channel in the event of an emergency drawdown.

Additional Project Information

<u>Baseline information</u>- The project is located within the San Jacinto River watershed. A total of eight ephemeral drainages (Drainages 1 to 8) traverse the study area, along Ramona Expressway and within the Lake Perris State Recreation Area. Drainages 1 to 5, 7, and 8 convey aboveground, seasonal stormwater runoff downstream into Drainage 6 (Perris Valley Channel) or into uplands where runoff infiltrates into groundwater prior to reaching the Perris Valley Channel. Within the study area, the Perris Valley Channel is a man-made storm drainage channel designed to provide stormwater protection required by the Riverside County Master Drainage Plan and the Perris Valley Area Drainage Plan. The Perris Valley Channel is a tributary to Canyon Lake, a traditional navigable water. Drainages 2 and 7 are not considered waters of the U.S., as they are hydrologically isolated per the Solid Waste Agency of Northern Cook County (SWANNC) Supreme Court case and the AJD completed on January 19, 2023. Drainages 1, and 8 would not be impacted.

<u>Project description-</u> DWR proposes to implement the project to modify the existing emergency release structure for the Perris Dam and to construct a water conveyance facility to connect with the Perris Valley Channel in the event DWR executes an emergency drawdown to drain the reservoir. The Perris Dam's current (original) emergency release facility consists of a 12.5-foot-diameter steel-lined concrete pipe that transitions to a rectangular concrete outlet, where flow is controlled by a

12-foot-tall by 6-foot-wide slide gate. Downstream of the slide gate, the outlet is capped off by a bolted steel bulkhead.

As proposed, the existing bulkhead of the emergency release structure would be removed and replaced with an automated valve(s), which would add flexibility and redundancy to the system and makes the emergency release facility safer to operate. A new drain line (buried pipeline) connecting the de-watering sump of the release structure to an existing collection pipe would be required. This de-watering sump would collect any nuisance water that may collect in the outlet structure. As described in the project environmental impact report, the emergency release structure would be designed with a maximum capacity of 3,800 cfs of water, but would be operated in accordance to DWR's Perris Dam Emergency Release Facility Operations Plan to not exceed the capacity of the downstream Perris Valley Channel when operationally possible.

The emergency release facility would be constructed in three distinct sections consisting of the SRA Segment, Fairgrounds Segment, and Western Segment. During an emergency release, water would be directed from the emergency release structure to the Perris Valley Channel by a levee system across the open SRA land between the dam and Ramona Expressway (SRA Segment), a channel across the southern end of the Lake Perris Fairgrounds (Fairgrounds Segment), and finally a channel north of Ramona Expressway to the Perris Valley Channel (Western Segment). Upgrades would also be made to the release structure. Figure 2 illustrates the three distinct conveyance facility segments and release structure upgrades.

SRA Segment: Two levees, the Main Levee and North Training Levee, would be constructed as part of the emergency release conveyance facility within the SRA. The Main Levee would be approximately 6,000 feet long, up to 15 feet high, and up to 115 feet wide at the bottom, with 3:1 slopes. The North Training Levee would be approximately 700 feet long, up to 18 feet high, and up to 135 feet wide at the bottom with 3:1 slopes. All levees within the SRA would consist of soil covered by a layer of rock to protect the embankment from erosion during an emergency release. The rock would be overlain by a minimum of 2 feet of soil and would be revegetated with native grasses and shrubs to replace habitat that was temporarily disturbed during construction. A 20-foot-wide graveled access road would be constructed on top of each levee and at three levee ramp locations for periodic maintenance checks of the levee system. As part of SRA Segment construction, an approximately 0.08-acre (342-linear-foot) segment of Drainage 5 that runs north–south will be concrete-lined, resulting in a permanent discharge of fill (67 cubic yards (CY)). In addition, construction of the SRA Segment would result in a 0.42-acre (1,454 linear feet, 280 CY) permanent discharge of fill material into Drainage 4 where grading for the new levees would overlap waters of the U.S.

Fairgrounds Segment: The Fairgrounds Segment would receive water from the drainage basin in the SRA Segment and deliver it to the Western Segment. Water would be conveyed from this segment through an unlined trapezoidal channel (conveyance channel) approximately 140 feet wide at the top and 100 feet at the bottom with 2:1 side slopes. The conveyance channel would be 25 feet deep on the east end and 11 feet deep on the west end. Within the Fairgrounds Segment, the conveyance channel would cross under two roads: one at the Lake Perris Fairgrounds' eastern entrance at Avalon Parkway (Fair Way) and the other at Lake Perris Drive. Currently, Drainage 3 runs along Ramona Expressway and conveys runoff to the Perris Valley Channel. Once the proposed project is constructed, Drainage 3 would be re-graded as a swale and would continue to collect runoff. In addition, eight new drop inlets would be installed to convey existing flows from Drainage 3 to the new, adjacent conveyance channel. Construction of the Fairgrounds Segment would result in approximately 0.56 acres (2,071 linear feet, 3,500 CY) of permanent discharge of fill material into Drainage 3 where construction of the new conveyance channel would overlap waters of the U.S.

Western Segment: The Western Segment would be developed as an unlined, earthen, trapezoidal channel. The side slopes would be stabilized with rock for slope protection. The channel would be approximately 2,500 feet long, with a 120-foot top width and 80-foot bottom, and 9 feet deep with 2:1 side slopes. A permanent 15-foot access road would be required on both sides of the channel. The earthen channel would connect the Fairgrounds Segment to Drainage 6 (the Perris Valley Channel) parallel to Ramona Expressway within DWR's existing right-of-way. Similar to the other two road crossings in the Fairgrounds Segment, this segment would cross under Evans Road through a bridge to be constructed as part of the project. A control structure at the connection to the Perris Valley Channel would be constructed to control the flow depth within the channel. Either a concrete weir or a series of box culverts and an embankment across the channel would be constructed. In order to accommodate the design flow, prevent scour, and stabilize the banks of the Perris Valley Channel, approximately 5,000 CY of 18-inch or smaller crushed rock would be permanently placed on approximately 0.35 acres (229 linear feet) along the bottom and slopes of the Perris Valley Channel, where it would intercept flows from the new conveyance channel. In addition, Drainage 3 would be graded and 8 drop inlets would be installed to convey existing flows from Drainage 3 to the new conveyance channel. Permanent impacts to Drainage 3 would be associated with the placement of riprap along the slopes of the new conveyance channel and grading to allow for surface flows to enter the drop inlets. Finally, construction of a small 0.03-acre concrete ditch that would convey flows from the unimpacted upstream portion of Drainage 3 into the new channel would result in permanent fill of 11.5 CY. Overall, project construction of the Western Segment would result in approximately 0.63 acres (2,335 linear feet, 3,900 CY) of permanent discharge of fill material, and 0.24 acres (502 linear feet, 850 CY) of temporary discharge of fill material, into Drainage 3 where construction of the new conveyance channel would overlap waters of the U.S.

Long-Term Maintenance Program: Once initial construction of the Perris Dam emergency release facility is complete, DWR also seeks authorization to temporarily impact waters of the United States within the new facility in order to implement its proposed Long-Term Maintenance Program (Maintenance Program). A long-term maintenance construction period of 20 years is requested. Maintenance activities would result in temporary discharge of fill in up to approximately 17.27 acres of waters of the U.S. pursuant to Section 404 of the Clean Water Act of 1972. The requested permit would not authorize impacts beyond the maintenance baseline as determined by the as-built drawings to be approved by the Corps. Maintenance activities within the facility are expected to occur annually, but may occur up to several times during a storm season, or several times during and following a single storm event, depending upon the amount or intensity of water flow, amount of sediment/debris produced by the watershed or event, and extent of damage observed.

Specifically, DWR requests authorization to conduct the following long-term maintenance activities:

- Removal of Vegetation, Debris and Obstructions, and Sediment: Conduct removal of vegetation, debris and obstructions, and sediment within the conveyance channel as needed to restore the channel to its authorized maintenance baseline corresponding to Corpsapproved, as-built drawings, thereby maintaining the design capacity of the channel. Authorized activities also include removal of sediment from appurtenant drainage ditches, access roads, pipes and drop inlets.
- 2. Repairs: Conduct the following repairs as needed to restore the channel to the authorized maintenance baseline corresponding to Corps-approved, as-built drawings:
 - Erosion: Conduct erosion repairs by regrading and/or backfilling.
 - Animal Burrows: Fill animal burrows.

- Rock Slope Protection (RSP): Regrade and/or restore displaced RSP to design grade.
- Functionality of Drop Inlets, Pipes, and Flap Gate: Repair or replace drop inlets, pipes, and flap gates that have deteriorated.
- Access Roads and Ramps: Repair and fill any rutting, depressions, cracks. Fill any areas where the native underlying soils are exposed with aggregate base.
- Concrete Surfaces: Repair surface deterioration cracks and exposed rebar.
- Ponding: Drain and grade large areas of ponding/standing water.

<u>Proposed Mitigation</u>- The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: Due to the site-specific nature of the proposed project, it was not possible to site the project such that the on-site drainages could be fully avoided. Of the existing 4.87 acres of waters of the U.S., 2.56 acres would not be impacted.

Minimization: Specific best management practices (BMPs) to avoid and minimize impacts to waters of the U.S. include establishment of sediment basins and erosion-control perimeters around active construction and contractor layout areas, silt fencing, jute netting, fiber rolls, or other appropriate measures to control sediment from leaving the construction area. BMPs such as installing containment measures at fuel storage sites and avoiding overfilling of tanks would prevent chemicals from being transported off-site. In addition, the applicant would prepare a Stormwater Pollution Prevention Plan (SWPPP) in order to comply with the statewide stormwater discharge NPDES permit.

Compensation: The existing on-site waters of the U.S. consist of ephemeral drainages with no associated riparian vegetation, other than a small patch of willow riparian in the eastern portion of drainage 4 within the study area. No wetlands are located within the project site. On-site hydrology has been impacted and degraded since at least the early 20th century when the project area was subject to intensive agriculture (1938 or earlier based on aerial photography) followed by development including road construction (e.g., construction of Ramona Expressway between 1930 and 1967) and construction of Perris Dam and Lake Perris from 1970 to 1974 by the DWR. These historic impacts have channelized the original drainages and impounded upstream sources of water. Consequently, the on-site drainages exhibit low ecological functions.

A total of 17.27 acres (4,995 linear feet) of waters of the U.S. (newly created streambed) would be established through construction of the proposed conveyance channel. Construction of the conveyance channel would thereby offset the 2.07 acres (6,428 linear feet) of permanent impacts to waters of the U.S. and result in a net increase of 15.20 acres of waters of the U.S. Because of this net increase, the applicant has proposed the project would be self-mitigating and preliminarily, no compensatory mitigation has been proposed.

Proposed Special Conditions

Special conditions would be added based on public notice comments and environmental considerations.

For additional information please call Antonia Nino of my staff at (213) 458-2426 or via e-mail at Antonia.R.Nino@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY



SOURCE: ESRI

Perris Dam Emergency Release Facility, Addendum No. 2

Figure 1 Regional Location



SOURCE: Nearmap Imagery 5/7/2020; DWR, ESA.

ESA

Perris Dam Emergency Release Facility, Addendum No. 2

Figure 2 Proposed Project Overview



SOURCE: Mapbox Satellite Streets, 2017.

Perris Dam Emergency Release Facility Project

Figure 3a Impacts to Potential Waters of the U.S.



SOURCE: Mapbox Satellite Streets, 2017.

Perris Dam Emergency Release Facility Project

Figure 3b Impacts to Potential Waters of the U.S.



SOURCE: Mapbox Satellite Streets, 2017.

Perris Dam Emergency Release Facility Project

Figure 3c Impacts to Potential Waters of the U.S.