Robles Diversion and Fish Passage Facility Annual Maintenance and Repair Program

Initial Study – Mitigated Negative Declaration

prepared by

Casitas Municipal Water District
1055 North Ventura Avenue
Oak View, California 93022
Contact: Kelley A. Dyer, P.E.
Assistant General Manager

prepared with the assistance of

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

October 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Robles Diversion and Fish Passage Facility Annual Maintenance and Repair Program

Initial Study – Mitigated Negative Declaration

prepared by

Casitas Municipal Water District
1055 North Ventura Avenue
Oak View, California 93022
Contact: Kelly A. Dyer, P.E.
Assistant General Manager

prepared with the assistance of

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

October 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

This report prepared on 50% recycled paper with 50% post-consumer content

Table of Contents

Tables

Figures

Appendices

This page intentionally left blank.

Acronyms and Abbreviations

AB	Assembly Bill
AE	Agriculture Exclusive zone
Basin	South Central Coast Air Basin
Basin Plan	Central Coastal Basin Water Quality Control Plan
BMP	Best Management Practice
BPS	Booster Pump Station
BSA	Biological Study Area
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CA	Coastal Agriculture zone
CALFIRE	California Department of Forestry and Fire Protection
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
Casitas	Casitas Municipal Water District
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CMA	Congestion Management Agency
CMP	Congestion Management Plan
CRHR	California Register of Historical Resources
CH_4	methane
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CVWD	Carpinteria Valley Water District
CWA	Clean Water Act
dB	decibel

dB(A)	A-weighted decibel
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
ECAP	County of Santa Barbara's Energy and Climate Action Plan
EIA	United States Energy Information Administration
EO	Executive Order
ESHA	environmentally sensitive habitat area
ERMs	emission reduction measures
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	greenhouse gas
HDD	horizontal directional drilling
HMMP	Habitat Mitigation and Monitoring Plan
HMMSCP	Hazardous Materials Management and Spill Control Plan
HP	horsepower
IS-MND	Initial Study-Mitigated Negative Declaration
kWh	kilowatt-hours
lbs/day	pounds per day
L_{eq}	one-hour equivalent noise level
LF	linear feet
MLD	most likely descendant
MS4	Municipal Separate Storm Sewer Systems
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NHPA	National Historic Preservation Act
N_2O	nitrous oxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Properties
OS	Open Space zone
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PM_{10}	particulate matter 10 microns or less in diameter
ppv	peak particle velocity

PRC	Public Resources Code
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
ROC	reactive organic compound
Rms	root mean square
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBCAPCD	Santa Barbara County Air Pollution Control District
SCADA	supervisory control and data acquisition
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SO_X	sulfur oxides
SR	State Route
SRA	State Responsibility Area
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMP	Traffic Management Plan
tpy	tons per year
USACE	U.S. Army Corps of Engineers
VCAPCD	Ventura County Air Pollution Control District
VCTC	Ventura County Transportation Commission
VMT	vehicle miles traveled
VOC	volatile organic compound
WEAP	Worker Environmental Awareness Program

This page intentionally left blank.

Initial Study

1. Project Title

Robles Diversion and Fish Passage Facility Annual Maintenance and Repair Program (R&M Program)

2. Lead Agency Name and Address

Casitas Municipal Water District
1055 North Ventura Avenue
Oak View, California 93022

3. Contact Person and Phone Number

Kelley A. Dyer, PE
Assistant General Manager
Casitas Municipal Water District
Phone: 805-649-2251 ext. 150
email: kdyer@casitaswater.com

4. Project Location

Casitas operates the Facility as part of the U.S. Department of the Interior, Bureau of Reclamation's (Reclamation) Ventura River Project. The Robles Diversion Facility was designed in 1957 by Reclamation (United States Department of Interior, Bureau of Reclamation, Robles Diversion Dam General Plan, February 8, 1957) and constructed in 1958. The forebay footprint in 1957 (Appendix D) was larger than it is now. Following severe storms in 1978, the forebay was inundated with sediment, substantially decreasing the area and depth of the earthen basin. Presently, the forebay includes approximately 5.70 acres of the Ventura River. The Facility comprises approximately 10 acres of the Ventura River. Fish passage facilities were constructed in 2004 to provide for passage of endangered SC steelhead around the diversion dam, while avoiding entrainment in the Robles Diversion Canal.

The Facility is located on the Ventura River, 2 miles downstream of Matilija Dam and 14.5 miles upstream of the Pacific Ocean, in unincorporated Ventura County, California (34.464820°N, -119.291107°W) within the Matilija USGS 7.5-minute topographic quadrangle (Figure 1). The project area (Figure 2) encompasses all of Casitas' facilities associated with the Robles Diversion, including the forebay; radial gates and instrumentation and measuring devices, proposed sediment placement area downstream of the timber cut-off wall; fish passage facility (high-flow fish bypass, timber debris fence, screenbay, screens, brush arms, fish ladder, "entrance box," and all appurtenances) ; rock weirs, measurement weir, and entrance pool downstream of the spillway gates; stockpile and staging areas; and access roads (hereafter referred to as Project Area) (Figure 2). The Robles Diversion allows a portion of Ventura River flows to be diverted into the Robles Diversion Canal, which transports the water to Lake Casitas for storage and subsequent

Figure 1 Regional Project Location

Imagery provided by Esri and its licensors © 2018.

Project Location

N

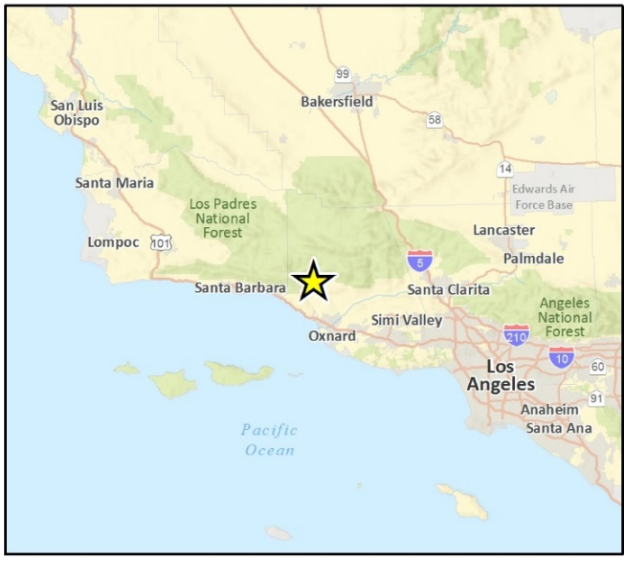
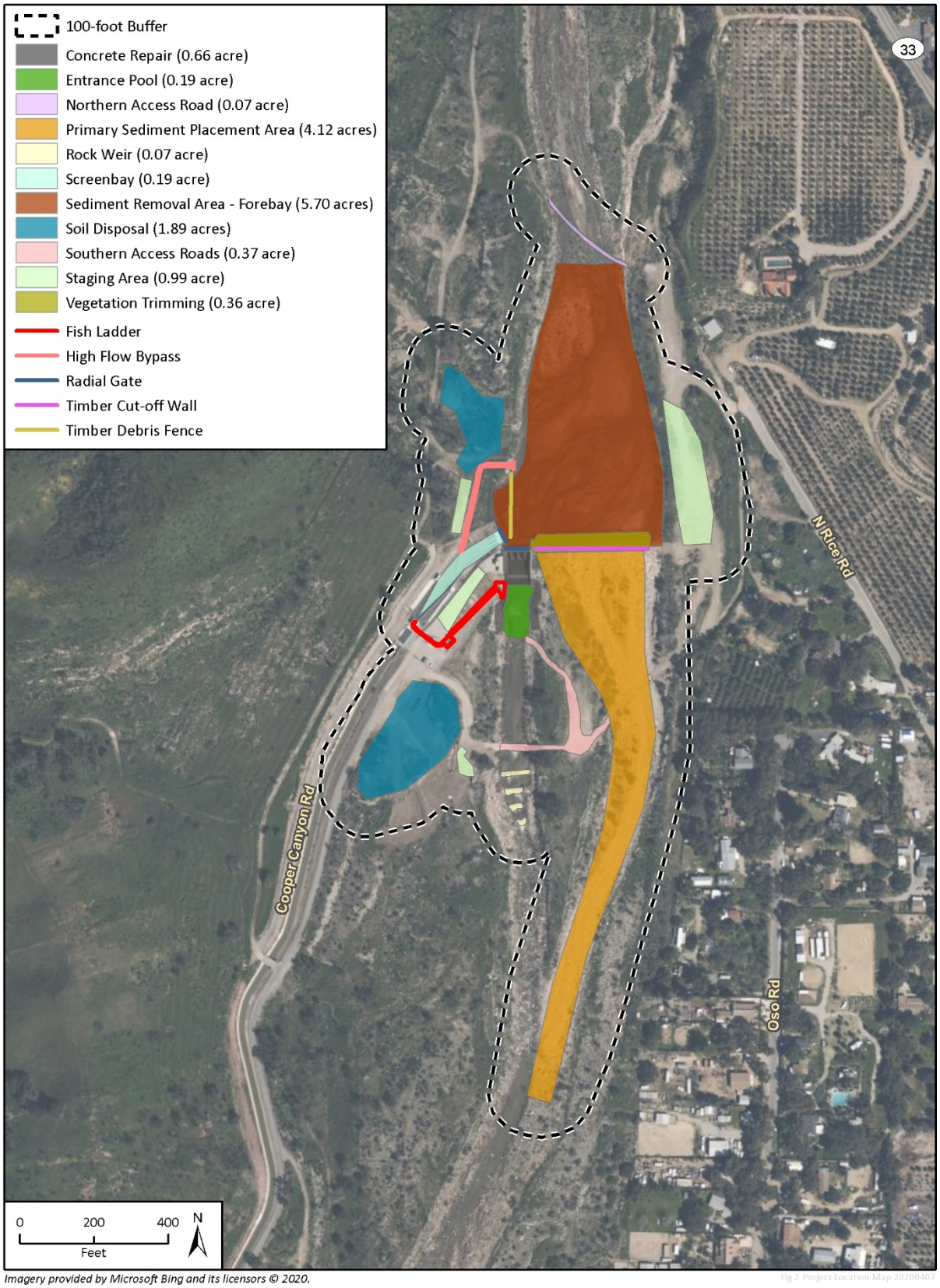


Figure 2 Project Area



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 2 Project Location Map 20200407

delivery for municipal and agricultural use. No repair and maintenance activities are proposed within the Robles Diversion Canal as part of this program. Instrumentation within the canal downstream of the diversion, such as the staff gauge on the bridge near Cooper Canyon Road, do not typically require repairs that would affect the Ventura River or related biological resources.

5. Project Sponsor's Names and Addresses

Casitas Municipal Water District
1055 North Ventura Avenue
Oak View, California 93022

6. General Plan Designation

Open Space (OS)

7. Zoning

Open Space (OS-80 ac/TRU/DKS/HCWC and OS-80 ac/TRU/DKS)

8. Program Background

Casitas Municipal Water District (Casitas) is a special district formed in 1952 to develop water supply for agricultural, municipal, industrial, and residential use in western Ventura County. Casitas entered into an agreement with the U.S. Department of Interior, Bureau of Reclamation (Reclamation) that led to the construction of the Casitas Dam and associated facilities (the Ventura River Project) which were completed in 1958. The facilities were built by Reclamation under a repayment contract with Casitas. The Robles Diversion facility, on the Ventura River, allows Casitas to divert a portion of river flows into the concrete-lined Robles Diversion Canal, which flows approximately 5.5 miles to Lake Casitas.

In August 1997, Southern California (SC) Distinct Population Segment of steelhead (*Oncorhynchus mykiss*; SC steelhead) were listed as an endangered species under the federal Endangered Species Act (ESA; 16 U.S.C. § 1531 et seq.). SC steelhead are the listed species in the Ventura River. In 2004, Casitas constructed a fish ladder (fishway), fish screen, high- and low-flow fish exit channels, a spillway energy dissipater, and a series of low-head rock weirs at the Robles Diversion Facility. The project modified the existing Robles Diversion Facility to provide for the safe upstream and downstream passage of adult steelhead and the safe downstream passage of juveniles. Reclamation owns the Robles Diversion and Fish Passage Facility (Facility), and Casitas operates and maintains this Facility.

Typical maintenance activities at the Facility include sediment/debris removal; vegetation control; repair and maintenance of the radial gates (at the entrance to the headworks and spillway) and other facility control gates; instrumentation; and road maintenance. Repair activities also include concrete work within the existing footprint of the Facility and replacement of wood timbers (timber cut-off wall and debris fence).

The Facility maintenance and repairs occur in and around the Ventura River where such activities are regulated by several state and federal agencies. Modifications to the bed, bank, and/or

vegetation in a natural drainage are regulated by the California Department of Fish and Wildlife (CDFW) under Section 1600 *et seq.* of the state Fish and Game Code. Such modifications require a Streambed Alteration Agreement. Activities that result in discharge of dredged or fill material into watercourses (such as bank stabilization and excavation) are also regulated by the United Stated Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. Issuance of a Section 404 permit authorizing discharge also requires a Section 401 Water Quality Certification by the Los Angeles Regional Water Quality Control Board (RWQCB). Maintenance and repair activities conform to those described in the existing Biological Opinion issued to Reclamation by the National Marine Fisheries Service (NMFS) in 2003 for effects to SC steelhead from the construction and operation of the Facility. In addition, the United States Fish and Wildlife Service (USFWS) issued a Biological Opinion (BiOp) to Casitas in October 2019 for the Robles Diversion Forebay Restoration Project and its effects on California red-legged frog (*Rana draytonii*). Maintenance and repair activities conform to those described in the USFWS issued BiOp.

In 2003, Casitas acquired agreements and permits from CDFW, USACE, LARWQCB, and USFWS for construction of the Robles Diversion Fish Passage Facility (Appendix B). Additionally, a Mitigated Negative Declaration (MND) was prepared for the fish passage improvements at the Robles Diversion Facility (Appendix C). However, the construction permits and BiOp issued in 2003 did not address the comprehensive maintenance activities required for the Facility, and therefore Casitas acquired the above agreements and permits on an as-needed basis for individual maintenance activities at the Facility. This approach is time-consuming, inefficient, and often results in delays, which has prompted Casitas to seek consolidated coverage for the ongoing maintenance and repair program. Casitas is seeking regulatory permits and coverage under the ESA for effects to ESA listed species and critical habitat from a comprehensive program of maintenance activities. The period for the program would be 10 years or more, to include all regulated activities, include a streamlined administrative approval process, and to provide predictability and certainty on environmental protection measures. Long-term permits, as compared to case-by-case permitting, reduces the administrative efforts by Casitas and the permitting agencies, and provide a more comprehensive and effective basis for protecting environmental resources.

Casitas has implemented environmental protection measures as requested by the state and federal resource agencies pursuant to past permits and authorizations issued for as-needed maintenance and repair projects. Casitas proposes continuing to implement environmental protection measures into its ongoing annual maintenance and repair program, which have reduced effects of the past projects on the environment. The environment protection measures, called environmental Best Management Practices (BMPs), are described in Section 10.

BMPs are included in the proposed action and their effects are analyzed for the ESA section 7 consultation. Their effects also must be evaluated in the environmental review requirements of the California Environmental Quality Act (CEQA). The proposed action, including the BMPs to avoid or minimize effects of the activities on the environment, are described herein.

Casitas held preliminary meetings with the state (RWQCB and CDFW) and federal (NMFS, Reclamation, USACE and USFWS) agency representatives to discuss the proposed maintenance and repair activities to be included in the programmatic permits. Meetings took place on January 15, 2020 and February 11, 2020 with CDFW; January 21, 2020 with Los Angeles RWQCB; and February 5, 2020 with the USACE, USFWS, and NMFSs. All agency representatives provided feedback on the proposed activity descriptions, which Casitas has incorporated into the Final Project Description.

9. Description of Maintenance and Repair Program

This section describes Casitas' Maintenance and Repair Program, referred to hereinafter as the proposed project. The primary objective of the Casitas' routine maintenance and repair program is to ensure the continued and proper operation of the Robles Diversion and Fish Passage Facility. By maintaining this Facility consistent with its original design, Casitas reduces or prevents ineffective operation of the water diversion and fish ladder. The Robles Diversion allows a portion of Ventura River flows to be diverted into the Robles Diversion Canal, which transports the water to Lake Casitas for storage and delivery for municipal and agricultural use. Casitas provides drinking water for approximately 70,000 western Ventura County residents (City of Ventura, City of Ojai and unincorporated Ventura County areas). Additionally, Casitas provides irrigation water for roughly 5,000 acres of mostly permanent agricultural crops. Lake Casitas is the only reservoir from which Casitas supplies its customers, and adequate lake levels are dependent on receiving sufficient inflows from the Robles Diversion Canal. The proposed maintenance and repair activities preserve the conveyance capacity of the Facility by preventing the accumulation of obstructing vegetation and sediments that could impede Facility fish passage and water diversion operations.

9.1 Routine Versus Emergency Maintenance

Most of the maintenance and repair activities are routine. Maintenance work is scheduled in advance based upon the results of regular inspections and consists of activities to keep the Facility operating in accordance with its design specifications. Work is scheduled taking into account time of year, hydrologic and environmental conditions, staff and equipment resources, and budget. The extent and frequency of maintenance varies greatly from year to year, depending upon the frequency and intensity of storm events, conditions of Facility, and environmental constraints.

Emergency actions which require immediate repair to protect life and property are addressed separately on a case-by-case basis with state and federal regulatory agencies, and are not part of the proposed action.

9.2 Activities Descriptions

For the purposes of Casitas' Annual Maintenance and Repair Program, the proposed Maintenance and Repair Activities are grouped as follows:

- No. 1 (Forebay Sediment)
    a. Forebay Sediment Removal
    b. Forebay Sediment Placement
        i. Stockpile area
- No. 2 (Fish Ladder, Screenbay, High-flow Bypass)
- No. 3 (Rock Weir and Measurement Weir)
- No. 4 (Entrance Pool and entrance box)
- No. 5 (Concrete Repair)

- No. 6 (Routine Repair and Maintenance)
  a. Timber Cut-off Wall
  b. Debris Fence
  c. Radial Gates
  d. Instrumentation and measuring devices
  e. Roads and access surfaces

Detailed Project Descriptions for each activity are provided in the following subsections.

Activity No. 1 Forebay Sediment

Permit History

Maintaining the depth and volume of the forebay is critical to operation of the Robles Diversion Facility and to fish passage. When the forebay was designed in 1957, the footprint of the earthen basin was larger than it is now (Appendix D). Following the severe storms in 1978, the forebay decreased in size to 5.70 acres, and Casitas has continued to maintain this footprint (Appendix E). The forebay requires regular maintenance, especially after heavy rainfall years, or during post-fire watershed recovery periods. Casitas currently acquires several state and federal agency agreements and/or permits on an as-needed basis for restoration of the forebay.

In accordance with the NMFS BiOp issued to Reclamation for operation of the Facility (NMFS 2003), Casitas must maintain the storage capacity of the forebay for effective diversion and fish ladder operations. As described in the BiOp, sediment and debris accumulate in the forebay and requires periodic removal, and large storm events can create the need to shore up the earthen dam (timber cutoff wall) and forebay banks. The 2003 NMFS BiOp allows Casitas to create a shallow channel within the forebay to direct low-flows to the diversion structure. This shallow channel is re-constructed after high runoff events and may not be required every year. The creation of the shallow channel and removal of excess sediment is accomplished by heavy equipment when the channel is dry.

In 2019, Casitas completed permitting and consultations through the resource agencies for the action to remove and relocate 100,000 cubic yards of sediment downstream over a three-year period. NMFS issued a letter of concurrence (LOC) to remove up to 50,000 cubic yards in 2019, as proposed. Approximately 32,600 cubic yards of sediment trapped in the forebay was relocated by Casitas to the designated placement area downstream of the cut-off wall, in November 2019. Provisions for removing additional sediment have been arranged through 2021.

Sediment Removal (1A)

The annual maintenance and repair program (proposed action) sediment removal would occur during the dry season, when surface water is absent in the forebay. It is anticipated the project would require up to 60 working days to complete. Access to the forebay and downstream sediment placement area would be from the north end of Rice Road located east of the forebay. The northern and southern access roads would be utilized.

The heavy equipment needed for this activity would be staged in disturbed areas created previously during Facility construction. This includes amenable areas located immediately west of the forebay adjacent to the high-flow bypass and also due east of the forebay, with each having a supportive gravel base and providing ready access, requiring minimal travel (Figure 2).

Maintenance of the forebay requires moving sediment, rock, and emergent vegetation within the channel using heavy equipment. The solids would be removed from the forebay with equipment that could include for example, a backhoe, Caterpillar 950 loader, Caterpillar dozer (D8 & D6), Caterpillar excavator 320, Caterpillar 120 grader, Caterpillar excavator 350, Caterpillar articulated dump truck 725, work trucks (Ford F350 type), and a water truck or similar types of equipment (e.g., generically – excavators, graders, bulldozers, dump truck, etc.) or other similar equipment suitable to the purpose. This equipment is used to transport and spread the sediment and shore up the channel banks of the timber cut-off wall eroded by heavy storms (1A; Figure 3).

This maintenance and repair activity may occur annually to return the forebay closer to its historic operational grade (Appendix E) by removing accumulated sediment, and relocating it downstream (1B; Figure 3), or to a stockpile area above the mean high-water mark. Remaining sediment excavated may be exported offsite. The quantity of sediment/debris to be removed depends greatly on storm load deposition, which is highly dynamic. In some years no removal would be needed, in other years moderate amounts would be required to be removed, and at such times it is generally anticipated that it will not exceed approximately 56,500 cubic yards per year. When annual accumulation is unusually great, as has occasionally occurred in the past, there may be a need to remove additional sediment. This would extend the work duration by approximately one week for every 10,000 cubic yards of additional sediment to be removed. All work would be conducted within permitted work windows and under dry conditions.

Sediment Placement (1B)

When flows are sufficiently high to overtop the cut-off wall, erosion of the streambed and banks of the overflow channel downstream occurs. Sediment removed during forebay maintenance activities is first used to restore these storm-eroded areas. For the purpose of routine maintenance, Casitas proposes to restore the forebay area by removing the accumulated sediment annually, typically when 10 percent of basin capacity is occupied by sediment and debris, subject to flow and sediment conditions. The sediment removed would be used to restore storm-eroded areas within 1,100 linear feet downstream of the timber cut-off wall, in the designated primary placement area. The sediment would be deposited downstream of the timber cut-off wall over approximately 4.12 acres, where forebay sediment has been placed in the past, and where active flow within the channel would not be impeded (Figure 1B; Figure 3).

Prior to placing sediments during the November 2019 maintenance cycle, Casitas developed a fill design for the downstream placement area. This design was based upon the anticipated contours and elevation of the streambed associated with the placement of 50,000 cubic yards of sediment in the area. In December 2019, following the placement of approximately 32,600 cubic yards[1] of sediment downstream of the timber cut-off wall, a photogrammetric aerial survey was conducted of the placement area. The aerial survey from December will be compared to the fill design plan from November to determine how much sediment can be placed downstream in subsequent actions. Because overtopping of the cut-off wall does not occur unless flow in the Ventura River generally exceeds 7,000 to 8,000 cubic feet per second (cfs), it may not be possible to relocate sediment from

[1] Preliminary calculations revealed the volume of sediment to be removed from the forebay in 2019, 2020, 2021 totaled 100,000 cubic yards. Based on more extensive post-placement surveys and review of Casitas' historic sediment removal practices, Casitas determined the forebay can hold up to approximately 56,500 cubic yards of sediment (maximum volume of water to a flat surface at the top of the timber cut-off wall). Post-placement comparison of the LiDAR data revealed that approximately 32,600 cubic yards of sediment was removed from the forebay in November 2019 and deposited in the primary placement area and approximately 15,500 cubic yards of sediment remains in the forebay. Going forward, Casitas will maintain the forebay footprint (5.70 acres) by typically removing up to approximately 56,500 cubic yards of sediment each year. Typically, the sediment removal project will occur when 10-20% percent of basin capacity is occupied by sediment and debris.

the forebay to the placement area every year. Therefore, before initiating sediment removal actions, Casitas would evaluate conditions of the sediment placement area at the end of the storm season (April/May) to determine how much sediment can be placed there. If the amount of sediment to be excavated exceeds the capacity of the placement area, the excess sediment that cannot be placed downstream would be stockpiled above the ordinary high-water mark of the Ventura River in designated soil disposal areas (Figure 2), or exported offsite. If sediment is stockpiled in designated disposal areas onsite, Casitas would evaluate whether stockpiled sediment can be placed back into the river each year, pending capacity established in the survey of the deposition area.

Prior to placement of sediment, any noxious vegetation identified by a qualified biological monitor within pre-selected soil disposal areas shall be removed (Figure 3). Noxious vegetation shall be disposed of in a manner and at a location to prevent its re-establishment. Casitas staff or contractors would perform chipping of giant reed (*Arundo donax*) and disperse chipped material in designated locations where materials would not wash downstream or propagate. All cut/removed noxious vegetation would be taken to a dump as a destruction load. Noxious species would be removed by hand or by hand-operated power tools, rather than by chemical means. Casitas would monitor the soil disposal areas following sediment placement in these areas, and remove noxious species by hand, if necessary, before seeds ripen.

Table 1 shows the extent of temporary impacts to potentially jurisdictional areas resulting from this activity.

Table 1 Anticipated Temporary Impacts to Ventura River from Activity 1A/B

Feature	Waters of the U.S.[1]		Waters of the State[2] (acres/linear feet)	CDFW Jurisdictional Area[2] (acres/linear feet)
	Non-wetland Waters of the U.S. (acres/linear feet)	Wetland Waters of the U.S. (acres/linear feet)		
Forebay	5.34[3] /800	–/–	5.34[3] /800	5.34[3] /800
Primary Placement Area	4.12/1,100	–/–	4.12/1,100	4.12/1,100

CDFW = California Department of Fish and Wildlife

[1] Calculated to Ordinary High-Water Mark or edge of wetland

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

[3] Calculation excludes the portion of the forebay which overlaps with the vegetation trimming area along the cut-off wall (Activity 6A; 0.36 acre).

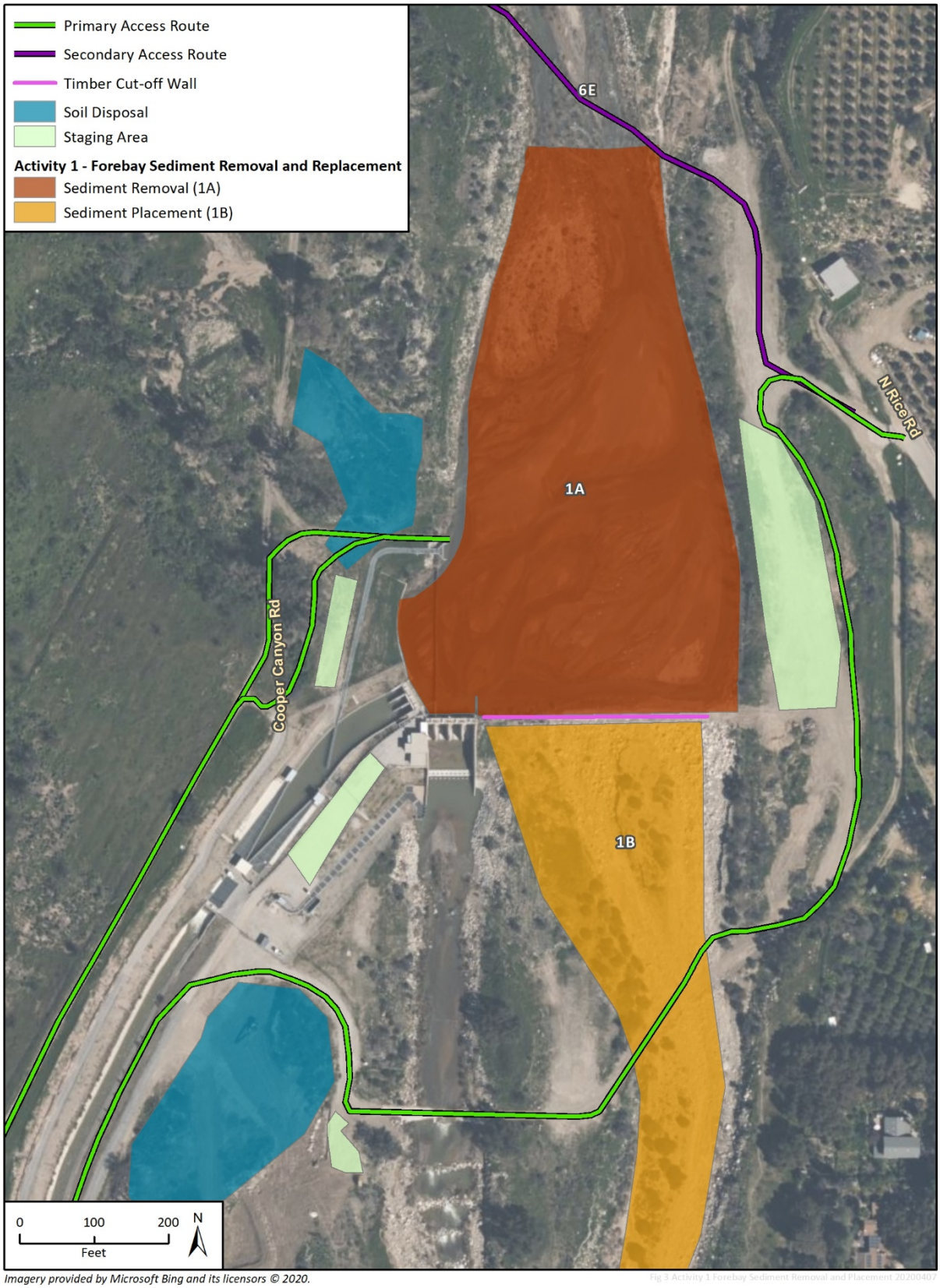
Activity No. 2 Fish Ladder, Screenbay, High-flow Bypass

Permit History

The construction of the fish ladder (2A), screenbay (2B), and high-flow bypass (2C) occurred as part of the permitted Robles Diversion and Fish Passage Project in 2003/2004 providing for fish passage through the Facility (Figure 4). Casitas provided compensatory mitigation in the form of onsite restoration to compensate for permanent impacts to jurisdictional areas (Appendix B). No additional temporary or permanent impacts to jurisdictional areas requiring compensatory mitigation for USACE, RWQCB, or CDFW requirements would result from maintenance of the fish ladder, screenbay, and high-flow bypass structures.

In accordance with the NMFS BiOp, during the fish flow operations season, January through June, the Robles Diversion Facility is monitored for large debris by on-site staff. During operation,

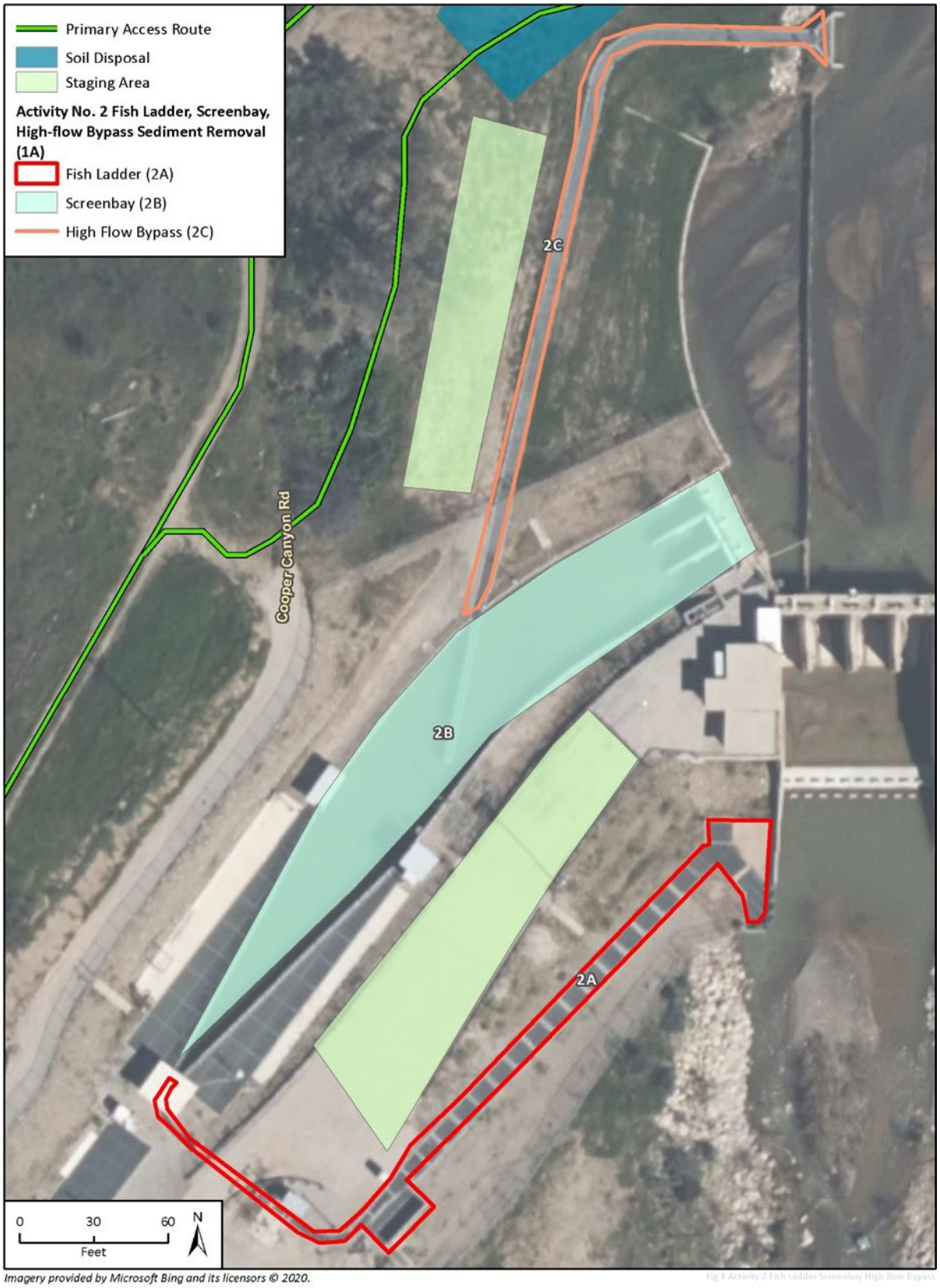
Figure 3 Activity 1 Forebay Sediment



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 3 Activity 1 Forebay Sediment Removal and Placement 20200407

Figure 4 Activity 2 Fish Ladder, Screenbay, High-flow Bypass



sediment and debris can accumulate in the fish ladder, screenbay, and high-flow bypass and impede fish passage and proper operation of the fish screens. When this occurs, small debris is removed by hand, including hand tools, via the access grating above the fish ladder, screenbay, and high-flow bypass. Depending on flow conditions, sediment may be removed mechanically from the fish ladder, screenbay, and high-flow bypass. If Casitas must use mechanical equipment to remove sediment/debris or make repairs in these areas, the Facility is shut down temporarily and water diversions cease until sediment/debris is removed and/or repairs are made.

Facility Maintenance

It is anticipated the Facility can operate throughout a single fish passage season without the need for any extensive repairs or maintenance. Whenever possible, extensive maintenance or repairs are performed during dry periods or when the fishway is not in operation. The potential exists, however, for substantial damage to result from debris accumulation during the fish passage season. For example, debris or sediment accumulation in the fish ladder, screenbay, and high-flow bypass could impede the function of the baffles, flow meter, entrance gates, and sill blocks. Should this happen during the fish flow operations season (January 1 through June 30), Casitas would evaluate whether maintenance and repair activities are critical to maintain diversion and fish passage operations.

If Casitas determines maintenance and repair of Facility components (e.g., removal of accumulated debris in the fishway) is critical during the fish passage season, the portion of the facilities requiring repair or maintenance would be temporarily shut down. The necessary repairs or maintenance on the facility would be conducted as soon as possible and the structure(s) would be put back in service once repairs are made. Maintenance of the fish ladder, screenbay, and high-flow bypass would not result in permanent impacts or alterations to the design of these facilities.

Maintenance and repair which is determined non-critical to address during the fish passage season would be addressed during the dry season prior to the next passage season. In some years between June and October (typical dry period), limited baseflow in the Ventura River may persist, and no dry period will materialize. If this condition occurs, maintenance and repair activities will be addressed outside of fish passage season when there is little or no flow. It is essential to address maintenance and repair issues outside of the fish passage season (e.g., debris and sediment accumulation) because they have potential to compound into larger issues during the subsequent passage season, if not addressed.

Access to the fish ladder, screenbay, and high-flow bypass occurs via: the north end of Rice Road east of the forebay; the northern access road at the upper limit of the forebay; and the canal road to the south. Staging of heavy equipment occurs west of the forebay adjacent to the high-flow bypass, which is unpaved (Figure 2). It is anticipated the maintenance and repair activities would require 1 to 2 weeks to complete annually, including heavy equipment use for up to 1 week.

REMOVAL OF SMALL DEBRIS

Small debris would be removed by hand via the access grate above the fish ladder, screenbay, and high-flow bypass. Small debris removal would occur throughout the year provided that it can be safely accomplished without shutting down the facilities. It is possible that removal of small debris may require a partial shutdown of facilities during wet conditions; in this case, the work would only be conducted if necessary to maintain operations of the diversion and fish passage.

REMOVAL OF LARGE DEBRIS AND SEDIMENT

Removal of large debris (logs, large branches) and sediment would occur during dry periods when the fishway is not in operation, unless the work is necessary to maintain operations of the diversion and fish passage. Prior to removal of large debris and sediment, the Facility (canal or headworks) gates are closed to initiate a full shut down of the Facility, and to allow flows to recede such that maintenance equipment is not operated in flowing water. After the gates are closed, flow is redirected through the spillway, and the remaining water within the fish ladder, screenbay, and high-flow bypass is allowed to gravity-flow out of the Facility via the canal or fish ladder. A bank survey for federal listed species (e.g., SC steelhead and California red-legged frog) would be conducted as the water recedes. If no listed species are observed in the Facility work would proceed.

An excavator would be staged adjacent to the access grates above the fish ladder, screenbay, and high-flow bypass, and would remove debris as needed by reaching the bucket into the Facility. Once flowing water has been re-directed through the spillway and no water is present in the fishway, it may be necessary to lower a small loader into the screenbay to remove, push, pile, or load debris. The excavated material would be loaded into dump trucks and removed to a disposal/storage site on Casitas property outside the river channel.

It is possible for water to pool within the lower portion of the fish ladder (i.e., entrance box and bottom five to seven steps of the ladder). If this portion of the fishway needs critical repair, block nets would be used to encourage fish and frogs to leave the Facility via the fish ladder, and prevent individuals from re-entering the Facility while the fish ladder entrance gates are closed. Any remaining water would be lowered only enough to conduct repairs by pumping water out of the fish ladder via two doubly screened pumps (5-10 horsepower) with 3-millimeter (mm) mesh to prevent impingement. This “residual water” pump system would be operational for up to two days depending on extent of repairs. The water would be directed to the canal which flows to Lake Casitas. Visual monitoring for listed species would be performed periodically while repair and maintenance activities are performed.

Activity No. 3 Rock Weir and Measurement Weir

Permit History

The construction of the rock weirs and measurement weir modification occurred as part of the permitted Robles Diversion Fish Passage Project in 2003-2004 (Figure 5). Due to the lack of funding, four rock weirs were installed as an interim project in consultation with CDFW and NMFS. Ongoing fish passage monitoring conducted by Casitas at the diversion has detected 11 SC steelhead sized adults, with the last detection occurring in 2011, prior to the recent drought. Casitas has also documented approximately 1,300 juvenile and resident-sized *O. mykiss* moving upstream and downstream through Robles from 2006-2018, one putative kelt was observed below the radial gates in 2019 and one resident-sized O. mykiss was detected moving downstream in 2021. Given the interim project (as defined in the 2003 BiOp) has demonstrated passage, Casitas has postponed installing additional rock weirs due to the uncertain but long impending Matilija Dam Removal Project upstream of the Robles Facility. Removal of Matilija Dam will greatly affect the area of the rock weirs, necessitating a high flow sediment bypass and other structural changes. Casitas provided compensatory mitigation in the form of onsite restoration to compensate for permanent impacts to jurisdictional areas (Appendix B). Therefore, no additional temporary or permanent impacts to

jurisdictional areas requiring compensatory mitigation would result from maintenance of the maintenance of the rock weirs.

Facility Maintenance

The proposed maintenance activity would occur during the dry season when surface water is absent. It is anticipated maintenance and repair activities associated with the weirs would require 1 to 2 weeks to complete, depending on level of activities. Staging of heavy equipment would occur in upland areas on bare ground above the ordinary high-water mark and west of the channel where the weirs are located. Access to the weirs would be from Rice Road located east of the forebay across the Ventura River via the southern access road.

The existing concrete measurement weir may need repair if damaged to accurately measure flow from the Robles diversion, which is critical to operation of the water diversion and downstream BiOp-required releases (NMFS 2003). Repair of the bubbler line which runs down the upstream face of the weir may be necessary. Maintenance associated with the measurement weir should be minimal and limited to removal of debris by hand, and would occur only during dry conditions.

Since the weirs were modified in 2006 to include larger rock and more cabling, a total of five storms have occurred generating flows in the river of 8,000 cfs or more:

- 10,000 cfs, 2/17/17;
- 8,485 cfs, 1/9/18;
- 9,100 cfs, 1/17/19;
- 12,000 cfs, 2/2/19; and
- 8,000 cfs, 2/14/19.

Additionally, 19 storms after the 2006 weir modification generated flows greater than 1,000 cfs in the Ventura River. Following the larger storm events, only minor modifications to the weir passage slots and placement of gravel on the upstream face of the weirs to fill the interstitial spaces and enhance flow through the passage slots was needed. Typically, overtopping of the cut-off wall occurs when flows exceed 7,000 to 8,000 cfs. Therefore, the maximum flow in the spillway channel (low flow channel) where the weirs are located is 7,000 to 8,000 cfs. When flows exceed this amount, overtopping of the timber cut-off wall occurs and flow is directed to the high-flow channel to the east. Given that large storm events have occurred in the Ventura River channel since weir modification were made in 2006, and weirs have not incurred significant damage, it is not likely Casitas would need to make substantial repairs to the existing rock weirs.

The four rock weirs downstream of the measurement weir may need occasional realignment of boulders and re-cabling following large storm events to maintain fish passage slots and water elevation control. Every effort would be made to realign boulders by hand, but mechanical equipment may be required to adjust larger boulders, as necessary. Large- and medium-sized woody debris would be removed and placed downstream of the weirs with heavy equipment (e.g., excavator or backhoe). It is anticipated heavy equipment would be used for up to 4 days to make necessary adjustments to boulders and relocate large woody material.

Figure 5 Activity 3 Rock Weir and Measurement Weir

Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 5 Activity 3 Rock and Measurement Weir

Activity No. 4 Entrance Pool

Permit History

The construction of the entrance pool (Figure 6) occurred as part of the permitted Robles Diversion Fish Passage Project in 2003-2004. Water flows through the entrance box to the entrance pool, providing attraction flows to the fish ladder. The entrance pool extends approximately 130 feet below the spillway and baffled apron structure and encompasses approximately 0.19 acres (8,238 square feet) of the Ventura River low-flow channel. Casitas provided compensatory mitigation in the form of onsite restoration to compensate for permanent impacts to jurisdictional areas resulting from the construction of the entrance pool as part of the Robles Diversion Fish Passage Facility Project (Appendix B). Therefore, no additional temporary or permanent impacts to jurisdictional areas requiring compensatory mitigation would result from maintenance of the entrance pool. The entrance pool would be maintained to original design contours as shown on Figure 2 in the Mitigated Negative Declaration for the Robles Diversion Dam Fish Screen and Fishway Project (Appendix C).

Facility Maintenance

The entrance pool is designed to enable fish to make the transition from the natural river channel into the fish ladder structure. Cleaning sediment/debris and emergent vegetation out of the entrance pool is necessary to maintain the energy-dissipating hydraulic jump, allow proper fish entrance gate operation, and ensure overall uniform hydraulic flow patterns throughout the entrance pool. This maintenance activity would include the excavation of the entrance pool to an 8- to 10-foot depth, and removal of a cluster of willow (*Salix lasiolepis*) in the downstream portion of the entrance pool. The sediment/debris became trapped in the entrance pool during intense storm events.

Sediment and vegetation removed would be stockpiled outside of jurisdictional areas in designated soil disposal sites. Re-contouring with boulder/cobbles/sediment would occur in the bottom of the entrance pool and adjacent areas to repair erosion along existing concrete abutments and riprap. The proposed maintenance activity would occur during times when surface water is absent.

The sediment/debris and vegetation would be removed from the entrance pool with equipment including a bulldozer, excavator or other loader and supporting vehicles (e.g., one dump truck, etc.) to transport and spread the sediment/debris in designated soil disposal areas. It is anticipated maintenance of the pool would require up to 3 to 4 weeks to complete. Staging of heavy equipment would occur in upland areas on bare ground west and east of the channel adjacent to the entrance pool. Access to the entrance pool would be from Rice Road located east of the forebay across the Ventura River via the southern access road.

Activity No. 5 Concrete Structures

The Robles Diversion and Fish Passage Facility includes many concrete structures. Concrete repair may be necessary, on an as-needed basis, to preserve the structural integrity of the Facility. No changes to the existing footprint of the facility would occur.

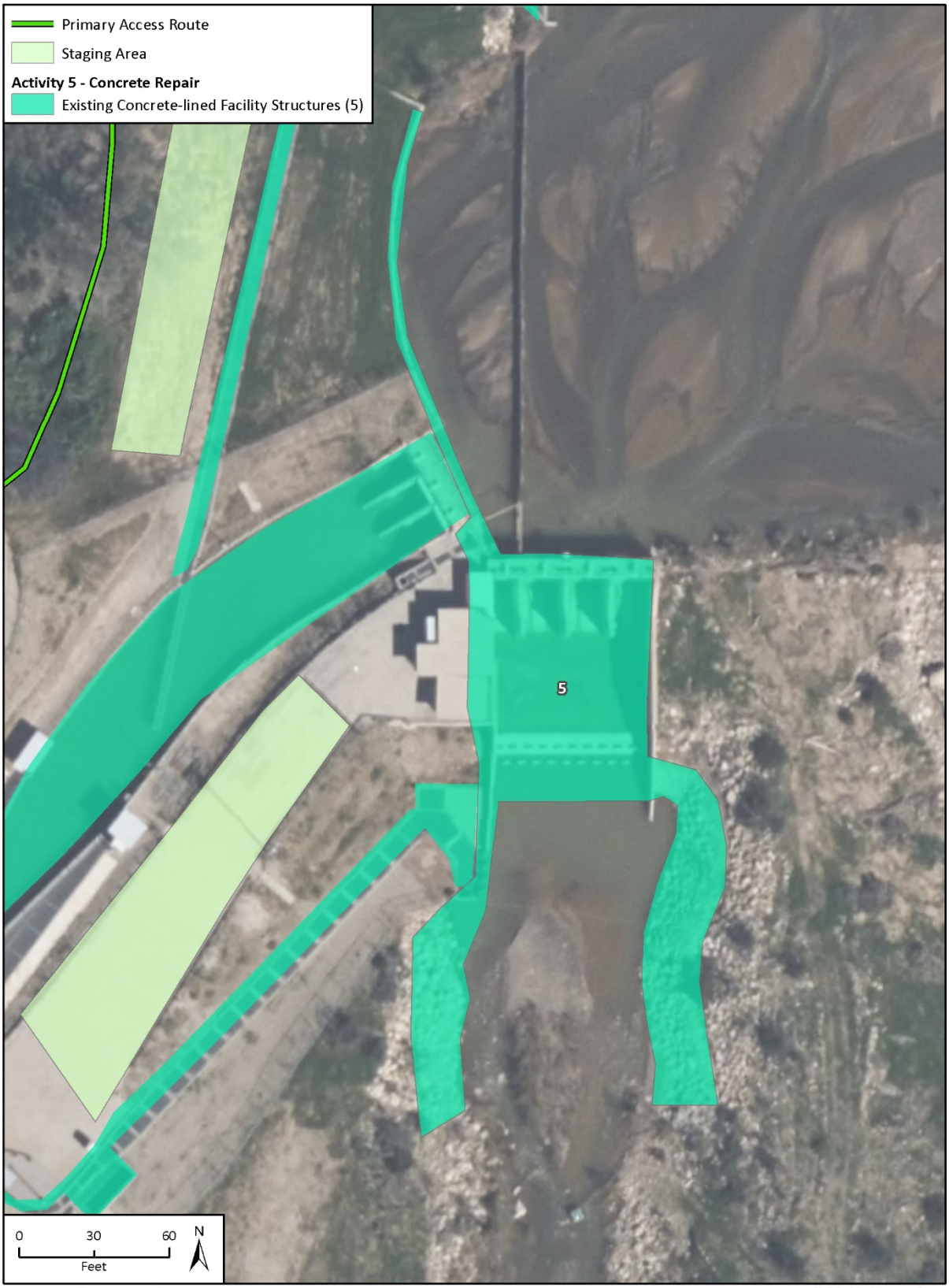
Concrete repairs may be made to the spillway, concrete protective rip-rap, measurement weir, and baffled apron, as needed (Figure 7) during dry conditions. In addition, concrete repairs may be made to the existing concrete-lined screenbay and extended upstream across the canal gates, and include the high-flow fish exit. Casitas staff or a contractor would clean and prepare the damaged area;

Figure 6 Activity 4 Entrance Pool

Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 6 Activity 4 Entrance Pool Maintenance

Figure 7 Activity 5 Concrete Structures



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 7 Activity 5 Concrete Repair

build and place forms as necessary; place and finish concrete; remove forms and backfill area, as needed. All work would implement Best Management Practices for concrete repair (Section 3).

Heavy equipment would be used to remove damaged concrete and perform concrete repairs. Equipment may include a pick-up truck, flat-bed, dump truck, concrete mixer, excavator, or other similar equipment and concrete pump (if needed). It is anticipated concrete repairs would require 1 to 2 weeks to complete. Heavy equipment would be staged in upland areas on bare ground west or east of the channel adjacent to the entrance pool. Access to the spillway would be either from Rice Road located east of the forebay across the Ventura River via the southern access road; or from Cooper Canyon Road headed north toward the Facility.

Work on the concrete structures would not alter the existing footprint of the facility. No permanent or temporary impacts to jurisdictional areas requiring compensatory mitigation are anticipated.

Activity No. 6 Routine Maintenance

Timber Cut-off Wall Repair and Maintenance (6A)

The timber cut-off wall is 325 feet long and approximately 30 feet deep; rocks and boulders are placed at depth on the upstream and downstream sides and native material is placed to fill the voids. In the past, the timber wall has been damaged by extremely high river flows and fire, and it would occasionally need maintenance and repair. The maintenance/repair would include replacement of the timbers and rocks/backfill and compacting and recontouring the approach and downstream slopes. Repair of the timber cut-off wall also may require excavation to the foundation elevation, timbers in damaged section replaced, the wall straightened, and placement and re-compaction of the boulders/rocks and replacement of the native backfill within a 15,757 square foot area (0.36 acre) surrounding the base of the wall. Emergent and woody vegetation along the wall within this area would be removed during excavation to assess the extent of the damage and access the timber cut-off wall. Repair and maintenance would not be performed under the routine maintenance programmatic agreements if surface water is present.

Equipment that may be used includes an excavator, bobcat, dump trucks, front-end loader, backhoe, light-duty pickup trucks, hand operated power tools, and vibratory compactor.

The duration for the work would depend on the extent of damage and the required remedy. Casitas made significant repairs to the timber cut-off wall in November 2019 to repair damaged portions of the wall, which were burned in the Thomas Fire. It is anticipated that future repairs made to the wall would require up to 30 working days to complete. It is anticipated that repairs could be needed once every five years, although the frequency would depend on the degree of damage to the structure.

Vegetation that develops near the top of the timber cut-off wall prevents uniform overtopping of flows. In the years when repairs to the timber wall are not made, woody vegetation with a diameter of three inches or less would be cut to ground level with hand operated power tools. Maintaining low or no vegetation along the wall would help to ensure that overtopping flows are dissipated over a larger area, minimizing erosion at constricted sections within the Ventura River and reducing water elevations in forebay as designed. Cut vegetation would be disposed of outside of jurisdictional areas, offsite. Vegetation trimming would occur outside the bird nesting season, and would usually require two to five days to complete.

Access to the timber cut-off wall would be from Rice Road to through the staging area located east of the forebay (Figure 8).

Figure 8 Activity 6 Routine Maintenance

Imagery provided by Microsoft Bing and its licensors © 2020.

Table 2 shows the extent of temporary impacts to potentially jurisdictional areas resulting from timber cut-off wall repair and vegetation maintenance activities. Vegetation removal would not involve excavation or backfill.

Table 2 Anticipated Temporary Impacts to Ventura River from Activity 6A

Feature	Waters of the U.S.[1]		Waters of the State[2] (acres/linear feet)	CDFW Jurisdictional Area[2] (acres/linear feet)
	Non-wetland Waters of the U.S. (acres/linear feet)	Wetland Waters of the U.S. (acres/linear feet)		
Vegetation trimming/removal	0.36/325	–/–	0.36/325	0.36/325

CDFW = California Department of Fish and Wildlife

[1] Calculated to Ordinary High-Water Mark or edge of wetland

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

Debris Fence (6B)

The timber debris fence lies upstream of the diversion headworks in the forebay (Figure 8). The racks of the fence deflect debris away from the headwork gates and toward the spillway gates. Over time the fence collects woody debris, which can require removal. This maintenance activity would involve the removal of debris from the fence, and the repair or replacement of damaged wood timbers as needed to preserve the structural integrity and functionality of the fence.

A backhoe and light trucks are usually needed to remove larger debris and support repairs to the timber debris fence. As possible, debris would be removed by hand. Removed debris would be disposed of outside of jurisdictional areas. Repair of the timbers would be completed in dry conditions. It is anticipated that most debris removal and repairs would require up to 1 to 2 weeks to complete. Repairs made to the fence would coincide with Activity 1's schedule. Therefore, access to the debris fence would be through the forebay from the entrance to the Facility off Rice Road, located east of the forebay. Removing material from the debris fence would not result in permanent or temporary impacts to the river channel, and no compensatory mitigation would be required for these activities.

Radial Gates (6C)

The radial gates are painted periodically to prevent deterioration (rusting). Painting is anticipated to occur approximately once every two to five years, and work would be completed within 1 to 2 weeks. Access to the radial gates is along the timber cut-off wall (Figure 8). This effort would occur when the spillway area is dry. Small equipment and hand tools are used to sandblast and prime the gates before they are painted. Best Management Practices would be implemented during this maintenance work to minimize deposition of debris (i.e., paint chips) and other materials into the Ventura River. A lift, light trucks, and scaffolding are utilized to complete the painting project. Replacement of seals may also be necessary, as they wear or become damaged. Seals are replaced by hand using a ladder and hand tools. Additional unplanned maintenance on the radial gates may be periodically required in order to maintain proper functionality of the gates. Painting the radial gates would not result in permanent or temporary impacts to the river channel, and no compensatory mitigation would be required for this activity.

Instrumentation (6D)

Data is collected to document that the Robles Diversion Dam and Fish Passage Facility is operated in compliance with the operations approved by NMFS (NMFS 2003). Sensors installed at the Facility allow for calculating the amount of inflow into the Robles forebay, diversion, and the flow routed through the fishway, auxiliary water supply pipeline, and the spillway (Figure 8). Information collected is provided to NMFS and CDFW on an annual basis. Levelers, bubblers, transducers, etc. would require replacement when they malfunction or become damaged.

A flow measurement structure equipped with multi-path, ultrasonic velocity and water level measurement transducers is located in the fishway, downstream of the screenbay and upstream of the fish counter. A second flow measurement structure is located in the high-flow fish bypass behind the debris fence. The Auxiliary flow pipe is also equipped with a flow measurement transducer.

Level sensors are located in the forebay between the spillway and canal gates; in the high-flow fish bypass; screenbay; fishway (upstream and downstream of the Vaki Riverwatcher fish counter); and within the fish ladder (inside the fish ladder and outside the entrance to the fish ladder at the entrance pool). Two level sensors would be installed behind the fish screens to provide additional input to support screen testing that is underway and for operational and monitoring improvements. Additionally, there is one sensor located in the canal, outside of the Ventura River.

A bubbler is located at the measurement weir, upstream of the four rock weirs. The bubbler has a conduit mounted to the upstream face of the measurement weir. The conduit is occasionally damaged during heavy storms and the hose inside the conduit may need to be replaced. The conduit can also become buried with sediment, preventing its operation. The sediment would be removed to restore operation.

During the course of operations, instruments on the measurement weir may become damaged by flows or have operation interrupted due to accumulation of sediment or debris. In most cases instrumentation can be accessed allowing for its removal, repair, and subsequent reinstallation. Due to the shape of the weir, the amount of sediment that accumulates is expected to be minor and removal would be accomplished by hand or with hand tools. If the removal cannot be accomplished using hand tools, maintenance would be deferred to a period of dry conditions. Similarly, any major repairs to the measurement weir itself, which would require heavy equipment, would be conducted under dry conditions. Repair and maintenance of instruments would typically be completed within 1 to 2 weeks, and would not expand the footprint of the measurement weir or result in alterations to the river channel. These repairs would not expand the existing footprint of the weir, and no permanent or temporary impacts to jurisdictional areas requiring compensatory mitigation are anticipated.

If maintenance requires heavy equipment, there may be a delay before the onset of dry conditions when the maintenance can be performed. During this time, some or all of the instruments may be out of service and unable to make measurements. Casitas would use other methods, such as calculations based on other measuring instruments within the facility, to estimate river flows. In addition, a staff gauge would be painted onto the measurement weir in summer 2021 and would be resistant to damage. Using these methods would ensure that river flows can continue to be estimated while the primary instruments are pending repairs.

Road Maintenance (6E)

Road maintenance and repair would occur as needed (estimated annually) on Reclamation property during dry river conditions (Figure 8). It is anticipated road maintenance would require 2 to 3 weeks to complete, annually. The southern access road begins at the entrance gate to the Facility at the terminus of North Rice Road and continues southwest across the Ventura River. This road is typically used by light trucks and passenger vehicles at flows under 15 cfs. The northern access road transverses the Ventura River upstream of the forebay. This road is generally used by contractors to complete the forebay restoration project (Activity 1), annually. The roads would be graded and shaped each year, if needed, during dry conditions. Road maintenance may involve use of heavy equipment to re-contour and re-compact access roads including an excavator, grader, bulldozer or backhoe.

Table 3 shows the extent of temporary impacts to potentially jurisdictional areas resulting from road maintenance activities.

Table 3 Anticipated Temporary Impacts to Ventura River from Activity 6E

Feature	Waters of the U.S.[1]		Waters of the State[2] (acres/linear feet)	CDFW Jurisdictional Area[2] (acres/linear feet)
	Non-wetland Waters of the U.S. (acres/linear feet)	Wetland Waters of the U.S. (acres/linear feet)		
Southern and Northern Access Roads	0.37[3]/1,000	–/–	0.37[3]/1,000	0.37[3]/1,000

CDFW = California Department of Fish and Wildlife

[1] Calculated to Ordinary High-Water Mark or edge of wetland

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

[3] Calculation excludes the portion of the access road which traverses the primary placement area (previously calculated in Activity 1B impacts) and the portion of the access road which crosses over the previously permitted concrete measurement weir.

10. Best Management Practices

The environmental Best Management Practices (BMP) presented in this section have been required pursuant to previously issued permits, authorizations and consultations with state and federal resource agencies, including under section 7 of the ESA. Casitas has implemented these BMPs during past maintenance and repair projects. The BMPs may be revised or augmented pursuant to the documents issued by NMFS and USFWS for the annual maintenance and repair program. Casitas would implement BMPs as they apply to each activity. Each spring, Casitas would prepare a maintenance and repair plan for the next fiscal year (July 1 – June 30), which will include a list of repair and maintenance activities planned, schedule and timing, and associated BMPs to be implemented for each activity.

A table of BMPs to be implemented for each activity is provided in Appendix F.

BMP-1 Work Period (Activities 1-6)

Maintenance and repair activities within the Ventura River shall occur only when the river is dry, with one exception. If water is present, the Activity 2 work area would be isolated from the Ventura River channel by shutting down the Facility, and allowing water to recede only enough to conduct the repair. If needed to access a specific work area, two double-screened pumps (5-10 horsepower) with 3 millimeter (mm) mesh may be used to route the remaining pooled water from the lower

portion of the fish ladder into the canal before work is initiated. No earthwork shall be conducted during rain events, or if 0.25 inches or more of rain is forecast within 12 hours of scheduled work.

BMP-2 Environmental Training (Activities 1-6)

Prior to initiation of all maintenance activities (including staging and mobilization), all workers associated with project activities shall attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special status biological resources that may occur in the project area. Casitas staff will attend a WEAP training annually. This training will include information on the biology and ecology of protected species, and the measures being incorporated to avoid take (e.g., for California red-legged frog (CRLF), least Bell's vireo (LBVI), SC steelhead, southwestern willow flycatcher (SWFL), critical habitat for SWFL and SC steelhead, and other species and critical habitat protected under the ESA.

The program shall include identification of sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and measures required to avoid and minimize impacts to biological resources within the work area. A poster and a fact sheet conveying this information shall also be prepared for distribution to all contractors, their employees, and other personnel involved with performing the maintenance or repair project. All employees shall sign a form provided by the trainer documenting they have attended the WEAP and understand the information presented to them. The project supervisor shall be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to sensitive species and their habitat.

BMP-3 Pre-construction Wildlife Surveys (Activities 1-6)

Within one week prior to the commencement of project activities, a qualified wildlife biologist shall conduct pre-construction surveys in all areas associated with project activities (work area, staging area, and access route) with focus on special status species including San Bernardino ringneck snake, coast patch-nosed snake, coast horned lizard, two-striped garter snake, western pond turtle and arroyo chub.

A qualified biologist will conduct a survey within the project area locations and document existing conditions and search for special status species. If San Bernardino ringneck snake, coast patch-nosed snake, coast horned lizard two-striped garter snake, western pond turtle, or arroyo chub are found in harm's way, individual animals shall be relocated to similar habitat away from construction activities, at least 200 feet from restoration areas in suitable habitat for the species.

BMP-4 Steelhead Pre-construction Survey (Activity 2)

For avoidance of effects to SC steelhead, as deemed appropriate by the Casitas Fisheries Program Manager, and in accordance with the existing BiOps or other regulating documents, Casitas staff will conduct a bank survey at the Facility for SC steelhead prior to commencing repair and maintenance activities within the fish ladder, screenbay, and high-flow fish bypass (Activity 2), if flowing water is present, a full shut down is required, and it is safe to do so. The critical maintenance and/or repair will be performed to maintain diversion and fish passage operations. If SC steelhead are observed during the survey, further coordination with Reclamation, NMFS, and CDFW biological staff will be conducted to determine the appropriate course of action before proceeding with work.

BMP-5 CRLF Pre-construction Surveys (Activities 1, 3, 4, 6A and 6E)

Prior to ground disturbing activities within Ventura River, Casitas staff or their contractor(s) or representative(s) will conduct surveys to confirm there are no CRLF in the Facility. Per USFWS guidance (USFWS 2005), and unless otherwise provided for by USFWS, because site specific conditions may warrant modifications to the timing of survey periods for CRLF, modified survey protocols shall be implemented as follows, prior to the start of maintenance or repair projects in suitable habitat for CRLF:

- One nighttime presence/absence surveys prior to the start Activities 1, 3, 4 and 6A.
- Once clearance survey immediately prior to the start of Activities 1, 3, 4 and 6A.

If CRLF is detected during the project, the observer shall notify the USFWS, CDFW and Reclamation biological staff within one workday of the detection and further coordination with the agencies will be conducted to determine the appropriate course of action before proceeding with work.

BMP-6 LBVI and SWFL Pre-Construction Survey (Activities 1, 3, 4, 6A, 6E)

If project activities must begin during the breeding season (February 1 – August 31), then a pre-construction nesting bird survey for LBVI and SWFL will be conducted immediately prior to project activities within suitable habitat for the species. The survey will be conducted by a qualified biologist who possesses a valid 10(a)(1)(A) Recovery Permit, State Memorandums of Understanding (MOUs), and experience with the target species. If LBVI or SWFL nests are found, project activities would be set back a minimum of 500 feet from nest sites or avoided until the young have fledged.

BMP-7 Cover Excavations (Activity 6A)

Any steep-walled excavations that may trap California red-legged frog which will be left open overnight in areas within or adjacent to the Ventura River shall be covered and checked for California red-legged frog before resuming activities in the excavation.

BMP-8 Nesting Birds (Activities 1-6)

If maintenance or repair activities must begin during the breeding season (February 1 – August 31), a pre-construction nesting bird survey shall be conducted no more than seven days prior to initiation of ground disturbance and vegetation removal activities. Although presence of nesting migratory birds is unlikely, special emphasis shall be placed on potential occurrences of nests of SWFL and LBVI. The nesting bird pre-construction survey shall be conducted on foot and will include the entire area of disturbance, plus a 500-foot buffer around the work area. Inaccessible areas (e.g., private lands) will be surveyed from afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California coastal communities. If nests are found, an avoidance buffer (dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined so that take is avoided, and the area demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur inside this buffer until the avian biologist has confirmed breeding/ nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

BMP-9 On-site Biological Monitoring (Activities 1, 2, 3, 4, 5, 6A and 6E)

A qualified biological monitor (with all of the required collection permits) will be onsite during all project operations that involve removal of the first 12 inches of soil/substrate, water diversions, de-watering, exposed (excavated) work areas, and work within sensitive habitat areas where sensitive species may be present. After the previously specified work activities are completed that require a monitor to be onsite, the monitor will then remain onsite for the remainder of the project (as work occurs in the Ventura River) for no less than two days per week, for a minimum two-hour period per day. Dependent upon work conditions and/or prolonged project activities, Casitas may potentially arrange for a decrease in biological monitoring with Reclamation, USFWS, NMFS, and CDFW.

BMP-10 Staging Equipment (Activities 1-6)

Staging and laydown areas shall be unvegetated areas and previously disturbed sites, outside of jurisdictional areas.

BMP-11 Pollutant Management (Activities 1-6)

All vehicles and equipment shall be in good working condition and free of leaks. Stationary equipment such as motors, submersible sump pumps, generators, and welders, located within or adjacent to the river shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, construction waste, cement or concrete or washings thereof, asphalt, paint, oil or other petroleum products or any other substances which could be hazardous to aquatic life, or other organic or earthen material from any logging, construction, or other associated project-related activity shall be allowed to contaminate the soil and/or enter into or placed where it may be washed by rainfall or runoff into the Ventura River. Any of these materials, placed within or where they may enter a stream, shall be removed immediately and disposed of properly. When project-related activities are completed, any excess materials or debris shall be removed from the work area.

BMP-12 Pollution Prevention (Activities 1-6)

Prevent the discharge of silt or pollutants off of the site when working adjacent to potentially jurisdictional waters. Install BMPs (e.g., silt barriers, sand bags, straw bales) as appropriate.

BMP-13 Material Storage (Activities 1-6)

Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage. Material storage shall be at least 100 feet from flowing water that could come in contact with Ventura River. Any material/spoils from activities shall be located and stored 100 feet from potential jurisdictional areas as practicable. Construction materials and spoils shall be protected from stormwater run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate.

BMP-14 Tracking Loose Material (Activities 1-6)

BMPs such as street sweeping, vacuuming, and rumble plates will be implemented to prevent the off-site tracking of loose construction and landscape materials, as appropriate.

BMP-15 Stabilize Exposed Soil (Activities 1, 4, 6A and 6E)

To limit erosion, minimize soil disturbance work in channels and basins to that which can be stabilized prior to rain events.

BMP-16 Avoid Road Base Discharge (Activities 1 and 6E)

Do not place or spill road base, fill, or sediments beyond the previously established roadbed when working adjacent to channel bottom.

BMP-17 Concrete Washout Protocol (Activity 5)

Plastic-lined sandbag concrete wash out pits stationed in uplands are required where concrete placement occurs. A vacuum system may be utilized when sandblasting or jackhammering of concrete occurs to avoid release of materials into channels or surface waters. If a vacuum system is not utilized, appropriate BMPs (i.e., visqueen plastic sheeting) to contain the work area, collect/contain concrete debris, and prevent such materials from entering the Ventura River (even in dry conditions) shall be implemented. Fluids associated with the curing, finishing, and wash-out of concrete shall not be discharged to the channel or basin. Concrete wastes (liquid, dust, solids) shall be stockpiled separately from sediment and protected by erosion control measures to prevent discharge to the Ventura River. Conduct appropriate waste management practices based on considerations of flow velocities, site conditions, suitability of erosion control materials, and construction costs.

BMP-18 Site Materials and Refuse Management (Activities 1-6)

All food-related trash shall be disposed in closed containers and removed from the project area each day during the construction period. Construction personnel shall not feed or otherwise attract wildlife to the construction area. At project completion, all project-generated debris, vehicles, building materials, and rubbish shall be removed from the impact area.

BMP-19 Re-fueling and Maintenance (Activities 1-6)

All re-fueling, cleaning, or maintenance of equipment will occur at least 100-feet from the Ventura River.

BMP-20 Responding to Spilled Materials (Activities 1-6)

A Spill Prevention Plan will be prepared and implemented throughout the project. Any spillage of material will be stopped if it can be done safely. The contaminated area will be cleaned immediately, and any contaminated materials properly disposed. For all spills, the project foreman or other designated liaison will notify Casitas immediately.

BMP-21 Best Management Practice to Prevent Erosion (Activities 1-6)

Spoil shall be spread in the designated disturbed area outside of jurisdictional areas (with the exception of sediment to be placed in the primary placement area, as discussed for Activity 1B). Spoil shall be spread to avoid or minimize risk of erosion.

BMP-22 Speed Limits (Activities 1-6)

Project-related vehicles will observe a daytime speed limit of 15 miles per hour throughout the impact areas. Night work will be avoided to the maximum extent possible; however, if night work must occur (e.g., Activity 2), the speed limit for transport and spreading material shall be reduced to 10 miles per hour. Off-road traffic outside of designated impact areas is prohibited.

BMP-23 Noxious Weeds and Invasive Species (Activities 1-6)

To avoid the introduction or spread of noxious weeds and invasive biota into areas not infested, Casitas staff or its contractors, with the assistance of the biological monitor, will implement the following measures:

a. Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of noxious weed infestations;
b. Conduct a follow-up inventory of the construction area to verify construction activities have not resulted in the introduction of new noxious weed infestations; and
c. If new noxious weed infestations are located during the follow-up inventory, the appropriate resource agency shall be contacted to determine the appropriate species-specific treatment methods for removal and the noxious vegetation shall be removed.
d. Implement measures as appropriate from Reclamation Technical Memorandum No. 86-68220-07-05. Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species. 2012 Edition.

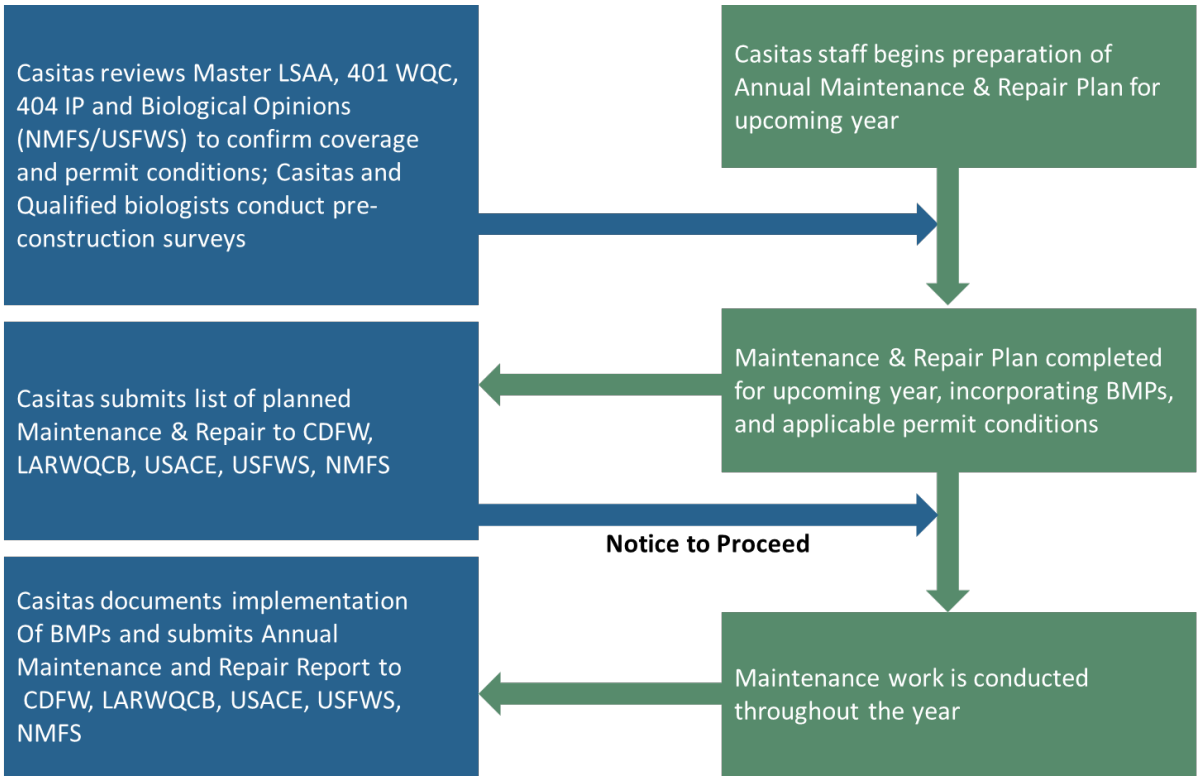
BMP-24 Noxious Vegetation Removal (Activities 1-6)

Any noxious vegetation identified by Casitas staff or biological monitor shall be removed from the work area, soil disposal areas, upland areas, and around the perimeter of the concrete-lined portions of the Facility. Noxious vegetation shall be disposed of in a manner and at a location to prevent its re-establishment. Noxious species will be removed by hand or by hand-operated power tools, rather than by chemical means. Casitas staff or contractors will perform chipping of giant reed (*Arundo donax*) and disperse chipped material in designated locations where materials would not wash downstream or be allowed to propagate. All cut/removed noxious vegetation will be taken to a dump as a destruction load.

11. Annual Monitoring and Reporting Program

The annual implementation of the Annual Maintenance and Repair program with the adopted environmental BMPs and long-term permits is shown on Figure 9. Each spring, Casitas will prepare a maintenance and repair plan for the next fiscal year (July 1 – June 30). The plan may be updated during the year as field conditions change. Under the proposed action, Casitas will identify the proposed maintenance and repair work for the year, BMPs to implement with the planned maintenance work, including any seasonal or geographic restrictions affecting the timing, methods, and limits of the planned work. It will be necessary for Casitas biologists to conduct site visits to certain locations, and to utilize a qualified specialized biologist in some instances. Using the information from Casitas staff (and a qualified biologist, if necessary), the annual maintenance and repair plan will be completed. A list of work planned for the Robles Diversion and Fish Passage Facility will be submitted to the USACE, CDFW, LARWQCB, USFWS, NMFS, and Reclamation.

Figure 9 Annual Monitoring and Reporting Flow Diagram



With regard to excavation of sediment from the forebay, Casitas will conduct a photogrammetric aerial survey in April/May each year, following the rain season and prior to annual excavation of the forebay. This post-rain season survey will be used in conjunction with the annual fill design plan to determine how much sediment can be placed downstream each year. The quantities of sediment to be placed downstream of the timber cut-off wall each year, and results of the photometric aerial survey, will be presented in the annual maintenance and repair plan.

Casitas expects all regulatory agencies to issue a Notice to Proceed (NTP) for permitted activities within 30 days of receiving the list of planned maintenance and repair activities. If Casitas does not receive a response within 30 days, it shall be assumed the NTP is issued and work can begin.

Casitas will coordinate the implementation of the environmental BMPs (Section 3) and permit conditions during the course of the year, as described above. At the end of the year, an annual report documenting all work performed and the successful use of the BMPs will be submitted to USACE, CDFW, LARWQCB, USFWS, NMFS, and Reclamation for their records. Table 4 provides critical milestones for the proposed program. Section 5 includes a template for year-end reporting to the agencies.

Table 4 Annual Repair and Maintenance Program Milestones

Annual R&M Program Milestones	Timeframe
Pre-Restoration/Post-Winter Survey (Forebay)	April/May
Annual Maintenance and Repair Plan submitted to the resource agencies	May 30
Meeting to discuss Plan with Agencies/NTP	June
Perform Maintenance and Repair Work	July through November (dry conditions)
Post-Restoration Survey (Forebay)	October
Annual Monitoring Report submitted to resource agencies	May 30

12. Annual Reporting

On an annual basis, Casitas will provide the regulatory agencies with information regarding Casitas' routine maintenance and repair activities for the previous and current year. The information will be submitted in spreadsheet format under a cover letter signed and dated by the General Manager by May 30, and will include the following:

12.1 Maintenance Activity

- Activity number
- Description of activity
- BMPs implemented
- Start and end dates of the maintenance activity
- If the activity requires the removal of sediment, the starting and ending elevations and the cubic yards of sediment removed will be provided.
- If vegetation is removed, Casitas will describe the type of vegetation (i.e., native or invasive) and the method of removal and site of disposal.
- For vegetation removal in Ventura River, the linear feet of removal will be provided.
- Comments regarding condition of Facility will be noted as needed.

12.2 Forebay Sediment Removal and Relocation

The Annual Report will also include the results of the photometric aerial survey to be conducted in April/May each year, and a discussion including the following components:

- Proposed Sediment Removal and Relocation Activity (to occur in August/September each year)
- Discussion of Previous Rain Events
  - Specify if over-topping of timber cut-off wall occurred (i.e., when, and the duration of over-topping)
  - Magnitude and duration of storm events post-placement of sediment through April 30.
- Adaptive Management Strategy
  - A summary of the proposed approach for sediment removal in August/September (including quantities of sediment to be removed and relocated based on approved 2019 fill design.

13. Surrounding Land Uses and Setting

Land uses around the project site are predominantly agricultural and residential.

14. Other Public Agencies Whose Approval is Required

Casitas is the Lead Agency under CEQA with responsibility for approving the project. There are two CEQA Responsible Agencies for the project, where "responsible agency" is defined in CEQA as any public agency other than the CEQA Lead Agency which has discretionary approval authority over the project. For the proposed R&M Program, the two CEQA Responsible Agencies are the CDFW and the Los Angeles RWQCB. Contact information is provided below.

California Department of Fish and Wildlife, South Coast Region
3883 Ruffin Road
San Diego, California 92123

Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

15. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

On behalf of Casitas, Rincon Consultants, Inc. contacted the Native American Heritage Commission (NAHC) on March 24, 2020 to request a Sacred Lands File (SLF) search of the project site. The NAHC replied on April 2, 2020 with positive results and listed six contacts who may have local knowledge of the area. As the CEQA lead agency for the project, Casitas then conducted "government to government" consultation with the identified Native American tribes for project compliance with Assembly Bill 52 (AB 52). As of the time of preparation of this IS-MND, one Native American tribe traditionally and culturally affiliated with the project area has requested consultation pursuant to PRC Section 21080.3.1. Julie Tumamait-Stenslie, Chairperson of the Barbareño/Ventureño Band of Mission Indians, has requested Native American monitoring during project-related ground disturbance associated with Activities 1A and 1B.

This page intentionally left blank.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact which is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

Based on this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "less than significant with mitigation incorporated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in

an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Printed Name	Title

Environmental Checklist

1 Aesthetics

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

a. Would the project have a substantial adverse effect on a scenic vista?

The project site is located along the Ventura River near the city of Ojai in the Ojai Valley portion of Ventura County; due to its location along the river, the project is intrinsically within a visually scenic area but does not have the elevation to affect the qualities of scenic vistas.

The County of Ventura General Plan Resources Element identifies the viewsheds of lakes (excluding land designated Existing Community) and State- or County-designated scenic highways as being worthy of special protection, including Lake Casitas and Matilija Reservoir near Ojai (County of Ventura 2019). Conservation of scenic resources is most critical where the resources will be frequently and readily viewed, such as from a highway, or where the resource is particularly unique (County of Ventura 2019). The project site is located within the boundaries of the Ojai Valley Area Plan but is not located in a designated Scenic Resource Protection Overlay Zone for lakes or ridgelines.

The City of Ojai General Plan does not specifically designate scenic vistas, but the City's General Plan Open Space Element does state scenic open space includes those areas with views of the city and

featuring the aesthetic quality of the Ojai Valley's ridgelines (City of Ojai 1987). Although surrounded by mountainous areas, the relatively flat nature of the Ojai Valley floor means scenic vistas of mountains and ridgelines are commonly obscured by intervening structures and vegetation in the project area. Continued implementation of the R&M Program would involve the presence and use of equipment and machinery within and around the project site. These activities may temporarily obstruct or degrade scenic views for residents and motorists in the immediate vicinity of the Facility; however, such effects would be temporary, restricted to active construction activities, and would be consistent with ongoing repair and maintenance activities at the Facility. Following construction, visual characteristics of the area would be the same as present conditions. There would be no permanent changes affecting scenic vistas. Potential impacts to scenic vistas from construction and operation of the proposed R&M Program would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

According to the California Department of Transportation, the nearest eligible State Scenic Highway to the project site is State Route 33 (SR 33), located approximately 0.3 mile east of the Facility. The proposed R&M Program would not result in damage to trees, historic buildings, rock outcroppings, or similar scenic resources within the SR 33 viewshed. Therefore, the project would not result in a substantial adverse effect on scenic resources visible from a state scenic highway and no impact would occur.

NO IMPACT

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

As stated in the Project Description Section 13, *Surrounding Land Uses and Setting,* land uses around the project site are predominantly agricultural and rural residential. Figure 2, *Project Area*, shows the Facility's location within the Ventura River, and shows agricultural and rural residential uses to the east, on either side of Rice Road, and open space to the west, beyond Cooper Canyon Road. The Ventura River continues to the north and south of the Facility. In general, the area surrounding the Facility has a "small town" visual character including residential uses, as well as recreational open space, agricultural uses, and undeveloped mountain ridges.

The project area spans the city of Ojai and small portions of unincorporated Ventura County. Title 10, Chapter 2, Article 20 of the Ojai Municipal Code contains the City's design review policies. Pursuant to California Government Code 53091, the project is not subject to the design review policies contained in the City's zoning regulations, because local zoning ordinances do not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water. The project would not conflict with regulations governing scenic quality in the project area as no regulations related to scenic quality apply to the proposed R&M Program.

Project activities would be visible from surrounding land uses and would temporarily alter the existing visual character and quality of the project area and vicinity, due to the presence of equipment and material, stockpiles of soil, and construction vehicles during R&M Program activities. Construction equipment and materials would be removed from all sites upon completion of R&M

Program activities. Due to the temporary nature of R&M Program activities and the removal of visible project components following completion of construction, construction and operation of the proposed R&M Program would not substantially degrade the existing visual character or quality of the project site and its surroundings. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?

Implementation of the R&M Program would involve the continuation of routine operation and maintenance of the Facility, as described in detail in the Project Description. Some of these activities may involve upgrading lighting fixtures; however, such improvements would be similar to existing infrastructure during operation, and additional lighting beyond what is currently provided for existing facilities is not proposed.

Proposed project components may create light and glare during construction due to the presence of construction vehicles and equipment. Construction would occur primarily during the daytime hours, though late afternoon activities during the winter could require the use of temporary lighting. If temporary lighting is required, depending upon the activity, light may be visible from surrounding roadways and residential and other land uses; however, the lighting would not face toward adjacent uses and would be directed towards the applicable maintenance and repair activities. Any construction lighting used would be shielded to minimize impacts to nearby receptors, including residents to the east. As such, light and glare from occasional nighttime construction activities would not substantially disturb sensitive receptors, and potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

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

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The project site is zoned OS, "Open Space." As shown on the California Department of Conservation (DOC) Ventura County Important Farmland 2016 map, the project site is not located in an area designated as Prime Farmland, Farmland of Statewide or Local Importance, or Unique Farmland (DOC 2017). The project site is not currently in agricultural production and is not located on land covered by a Williamson Act contract. The proposed R&M Program also would not cause the loss of forest land or conversion of forest land to non-forest use.

The project would not convert farmland to non-agricultural use, conflict with agricultural zoning or a Williamson Act contract, conflict with forest land or timberland zoning, or result in the loss of forest land. As such, no impact to agriculture or forestry resources would occur.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	■
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	■	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

The project area is in the South Central Coast Air Basin (Basin) which covers San Luis Obispo, Santa Barbara, and Ventura Counties. The Ventura County Air Pollution Control District (VCAPCD) monitors and regulates the local air quality in Ventura County and administers the Air Quality Management Plan (AQMP). The analysis presented in this section is based on information found in the Ventura County Air Quality Assessment Guidelines (Guidelines), adopted by the VCAPCD in 2003.

Air quality is affected by stationary sources (e.g., industrial uses and oil and gas operations) and mobile sources (e.g., motor vehicles). Air quality at a given location is a function of several factors, including the quantity and type of pollutants emitted locally and regionally, and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography. The project site is in the southeastern portion of the Basin, which has moderate variability in temperatures, tempered by coastal processes. The air quality within the Basin is influenced by a wide range of emission sources, such as dense population centers, heavy vehicular traffic, industry, and weather.

Air Quality Standards and Attainment

The VCAPCD is required to monitor air pollutant levels to ensure National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met. If the standards are met, the Basin is classified as being in "attainment." If the standards are not met, the Basin is classified as being in "non-attainment" and the VCAPCD is required to develop strategies to meet the standards. According to the California Air Resources Board (CARB) Area Designation Maps, the project site is located in a region identified as being in non-attainment for the ozone NAAQS and CAAQS and non-attainment for the particulate matter less than 10 microns in diameter (PM_{10})

CAAQS (CARB 2015). In February 2017, the VCAPCD adopted the 2016 Ventura County AQMP, which provides a strategy for the attainment of federal ozone standards (VCAPCD 2017).

San Joaquin Valley Fever (formally known as Coccidioidomycosis, hereafter referred to as Valley Fever) is an infectious disease caused by the fungus Coccidioides immitis. Valley Fever is a disease of concern in the Basin. Infection is caused by inhalation of Coccidioides immitis airborne spores, formed when dry, dusty soil or dirt is disturbed by natural processes, such as wind or earthquakes, or by human-induced ground-disturbing activities, such as construction, farming, or other activities (VCAPCD 2003). From 2011 to 2015, the number of cases of Valley Fever reported in California averaged 3,611 per year, with an average of 50 cases per year reported in Ventura County (California Department of Public Health 2016).

Air Emission Thresholds

The VCAPCD Guidelines recommend specific air emission thresholds for determining whether a project may have a significant adverse impact on air quality within the Basin. These air emission thresholds differ between the Ojai Planning Area, which is defined as the Ojai Valley and includes the project area, and the remainder of Ventura County. Because the proposed R&M Program is in the Ojai Planning Area, it would have a significant impact if its mobile source emissions exceed five pounds per day of Reactive Organic Compounds (ROC; also referred to as Reactive Organic Gases) or five pounds per day of Nitrogen Oxides (NO_X). The five pounds per day threshold for ROC and NO_X is not intended to be applied to construction emissions since such emissions are temporary. Nevertheless, VCAPCD Guidelines state construction-related emissions should be mitigated if estimates of ROC or NOx emissions from heavy-duty construction equipment exceed this threshold.

The VCAPCD has not established quantitative thresholds for particulate matter for either operation or construction. The VCAPCD indicates a project generating fugitive dust emissions in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or which may endanger the comfort, repose, health, or safety of any such person, or which may cause or have a natural tendency to cause injury or damage to business or property, would have a significant air quality impact. This threshold is applicable to the generation of fugitive dust during grading and excavation activities. The VCAPCD Guidelines recommend fugitive dust mitigation measures be applied to all dust-generating activities. Such measures include minimizing the project disturbance area, watering the site prior to commencement of ground-disturbing activities, covering all truck loads, and limiting on-site vehicle speeds to 15 miles per hour or less.

Applicable VCAPCD Rules and Regulations

The VCAPCD implements rules and regulations for emissions generated by various uses and activities. The rules and regulations detail pollution-reduction measures to be implemented during construction and operation of projects. Relevant rules and regulations to the project include those listed below.

Rule 50 (Opacity)

This rule sets opacity standards on the discharge from sources of air contaminants. This rule would apply during construction of the proposed R&M Program.

Rule 51 (Nuisance)

This rule prohibits any person from discharging air contaminants or any other material from a source which would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public or which endangers the comfort, health, safety, or repose to any considerable number of persons or the public. The rule would apply during construction and operational activities.

Rule 55 (Fugitive Dust)

This rule requires fugitive dust generators, including construction and demolition projects, to implement control measures limiting the amount of dust from vehicle track-out, earth moving, bulk material handling, and truck hauling activities. The rule would apply during construction and operational activities.

Rule 55.1 (Paved Roads and Public Unpaved Roads)

This rule requires fugitive dust generators to begin the removal of visible roadway accumulation within 72 hours of any written notification from the VCAPCD. The use of blowers is expressly prohibited under any circumstances. This rule also requires controls to limit the amount of dust from any construction activity or any earthmoving activity on a public unpaved road. This rule would apply throughout all construction activities.

Rule 55.2 (Street Sweeping Equipment)

This rule requires the use of PM_{10} efficient street sweepers for routine street sweeping and for removing vehicle track-out pursuant to Rule 55. This rule would apply during all construction activities.

Rule 74.4 (Cutback Asphalt)

This rule sets limits on the type of application and volatile organic compound (VOC) content of cutback and emulsified asphalt. The proposed R&M Program is required to comply with the type of application and VOC content standards set forth in this rule.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

According to the VCAPCD Guidelines, a project may be inconsistent with the applicable air quality plan if it would cause the existing population to exceed forecasts contained in the most recently adopted AQMP. The VCAPCD adopted the 2016 Ventura County AQMP to demonstrate a strategy for and reasonable progress toward attainment of the federal 8-hour ozone standard. The 2016 Ventura County AQMP relies on the Southern California Association of Governments' 2016 Regional Transportation Plan/Sustainable Communities Strategy forecasts of regional population growth in its projections for managing Ventura County's air quality.

The primary objective of the R&M Program is to maintain the proper operation of the Facility and to protect life and property. The proposed maintenance and repair activities would preserve the conveyance capacity of the Facility by preventing the accumulation of obstructing vegetation and sediments that could impede fish passage and water diversion operations. The program would not expand the conveyance capacity beyond the original design. Consequently, it would not contribute

directly or indirectly to population growth and would not cause exceedances of the growth forecasts employed in the 2016 Ventura County AQMP. No impact would occur.

NO IMPACT

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?

The proposed R&M Program would generate long-term emissions associated with R&M activities. Emissions for each activity were modeled as individual, consecutive, non-overlapping phases using the California Emissions Estimator Model (CalEEMod) version 2016.3.2.[2] Emissions were then added together for activities that may occur simultaneously to estimate a "reasonable worst-case-scenario" because VCACPD thresholds are based on maximum daily emissions. Although the R&M activities would occur regularly throughout the operation of the Facility, emissions were modeled as "construction" emissions in CalEEMod to account for the use of heavy-duty equipment.

For the purposes of modeling, the analysis relied upon the following assumptions:

- Crews would work five days per week.
- Up to ten workers would travel individually to the site each day throughout the duration of the activities.
- Fugitive dust control measures are required by VCAPCD Rule 55. Such measures include securing tarps over truck loads, removing vehicle track-out using PM_{10}-efficient sweepers, and watering bulk material to minimize fugitive dust. These measures were added as "mitigation" in CalEEMod but are included in the unmitigated outputs in this analysis. It was assumed the sweeping of paved roads would achieve a PM_{10} reduction of 25 percent (South Coast Air Quality Management District [SCAQMD] 1993).
- The "reasonable worst-case-scenario" assumes simultaneous implementation of Activity No. 1 and Activity No. 6E (Road Maintenance). Several other activities are expected to overlap; however, simultaneous occurrence of these two reasonably overlapping activities yields the most conservative (highest) emissions of all combinations of activities expected to overlap. Emissions from implementation of individual program activities and other combinations of program activities would be lower than emissions under this scenario. Emissions modeling for all individual scenarios is provided in Appendix G.
- **Activity No. 1 Forebay Sediment**. Under normal conditions, Casitas would place or stockpile 100 percent of the removed forebay sediment on site. However, under certain high-sediment conditions (e.g., post-fire), Casitas may need to export excess sediment off site. Preliminary air emissions modeling indicated this export scenario would yield higher air criteria pollutant emissions than the on-site placement scenario due to the haul trips. Therefore, this air quality analysis conservatively analyzes emissions under the export scenario. Casitas is attempting to identify a receiver in the county to beneficially use sediment removed during Activity 1. However, this analysis conservatively assumes Casitas would dispose of the sediment at the Simi Valley Landfill and Recycling Center, located in the city of Simi Valley approximately 50 miles (driving distance) from the project site.
    - **Haul trips.** It was assumed up to 5,000 cubic yards of soil would be disposed of at the Simi Valley Landfill and Recycling Center. Assuming haul trucks have a capacity of 16 cubic yards,

[2] CalEEMod was developed by the SCAQMD and is used by jurisdictions throughout the State to quantify criteria pollutant emissions.

approximately 626 round-trip truck trips would be required throughout the 60-day duration of Activity No. 1. For the purposes of modeling, these haul trips were split into two phases. One phase accounts for the geographic portion of the haul trips occurring within the boundaries of the Ojai Valley Planning Area, totaling approximately ten miles. The second phase accounts for the geographic portion of the haul trips occurring outside the Ojai Valley Planning Area, totaling 40 miles.

- **Equipment.** Modeled off-road equipment for Activity No. 1 includes a backhoe, a Caterpillar 950 loader, two Caterpillar dozers (D8 and D6), a Caterpillar excavator 320, a Caterpillar 120 grader, a Caterpillar excavator 350, and a Caterpillar articulated dump truck 725. Two work trucks (Ford F350 type) and a water truck were modeled as on-road equipment in vendor trips to the site.

- **Activity No. 2 Fish Ladder, Screenbay, High-flow Bypass**. Assumed an excavator, a loader, and two water pumps would be used up to six days.
- **Activity No. 3 Rock Weir and Measurement Weir**. Assumed an excavator would be used up to four days.
- **Activity No. 4 Entrance Pool**. Assumed a bulldozer, an excavator, and an off-highway truck would be used for up to five days.
- **Activity No. 5 Concrete Structures**. Assumed two off-highway trucks, a concrete mixer, an excavator, and a pump.
- **Activity No**. **6 Routine Maintenance**.
  - For Timber Cut-Off Wall, assumed an excavator, a skid steer loader, an off-highway truck, a front-end loader, a backhoe, and a compactor.
  - For Debris Fence, assumed a backhoe.
  - For Radial Gates, assumed an aerial lift.
  - For Instrumentation, assumed no heavy equipment.
  - For Road Maintenance, assumed one dozer.

Criteria Air Pollutant Emissions

Program implementation would generate recurring criteria air pollutant emissions associated with fugitive dust and exhaust emissions from heavy-duty equipment and vehicles. Not all activities would occur simultaneously; therefore, this analysis uses the “reasonable worst-case-scenario” of simultaneous implementation of Activity No. 1 and Activity No. 6E (Road Maintenance) to calculate maximum daily emissions.

Table 5 summarizes maximum daily pollutant emissions during simultaneous implementation of Activity No. 1 and Activity No. 6E.

Table 5 Reasonable Worst-Case Emissions – Unmitigated

	Estimated Maximum Daily Emissions (pounds/day)					
	ROC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Ojai Valley Plan Area						
Activity No. 1 - Forebay Sediment	3.05	31.51	21.34	0.06	2.95	1.97
Activity No. 6E - Road Maintenance	1.12	11.01	4.51	0.01	3.36	2.01
"Worst-Case-Scenario" Maximum Daily Emissions	**4.16**	**42.52**	**25.85**	**0.07**	**6.31**	**3.98**
Ojai Valley Area Plan Significance Thresholds	5	5	N/A	N/A	N/A	N/A
Threshold Exceeded?	**No**	**Yes**	**N/A**	**N/A**	**N/A**	**N/A**
Ventura County						
"Worst-Case-Scenario" Maximum Daily Emissions	4.16	42.52	25.85	0.07	6.31	3.98
Haul Truck Emissions Outside Ojai Valley Plan Area	0.15	4.29	1.23	0.01	0.31	0.10
Total Ventura County Emissions	**4.31**	**46.81**	**27.08**	**0.08**	**6.62**	**4.08**
VCAPCD Significance Thresholds	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	**No**	**Yes**	**N/A**	**N/A**	**N/A**	**N/A**

ROC: reactive organic compounds; NO_X: nitrogen oxides; CO: carbon monoxide; SO_X: sulfur oxides; PM_{10}: particulate matter 10 microns or less in diameter; $PM_{2.5}$: particulate matter 2.5 microns or less in diameter; N/A = not applicable (the VCAPCD has not adopted quantitative thresholds for these pollutants)

See Appendix F for modeling details and CalEEMod results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Emissions data is sourced from "mitigated" results, which incorporate emissions reductions from regulatory compliance measures and best management practices to be implemented during project implementation, such as watering of soils during construction required under VCAPCD Rule 55 and limiting vehicle speeds to 15 miles per hour (BMP-21). Emissions by activity include both on-site and off-site emissions.

As shown in Table 5, maximum daily emissions generated during the "reasonable worst-case-scenario" would exceed the NO_X emissions thresholds for both the Ojai Valley Planning Area and the overall VCAPCD jurisdictional area. Implementation of Mitigation Measures AQ-1, AQ-2, and AQ-3 would reduce potential impacts related to NO_X emissions to less-than-significant levels.

Fugitive Dust Emissions

The VCAPCD states significant air quality impacts would result if fugitive dust emissions are generated in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public. For construction impacts, the VCAPCD recommends minimizing fugitive dust through dust control measures.

Implementation of fugitive dust control measures are required by VCAPCD Rule 55. Such measures include securing tarps over truck loads, removing vehicle track-out using PM_{10} efficient sweepers, and watering bulk material to minimize fugitive dust. As a result, compliance with Rule 55 would ensure construction emissions would not be generated in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or endanger the comfort, repose, health, or safety of any such person or the public.

Valley Fever

The population of Ventura County has been and will continue to be exposed to Valley Fever from agricultural and construction activities occurring throughout the region. The fungal spores responsible for Valley Fever generally grow in virgin, undisturbed soil. Soils at the project site are already disturbed from Facility operations. Due to previous disturbance at the Facility, disturbance of soils during program activities is unlikely to pose a substantial risk of infection. Substantial increases in the number of reported cases of Valley Fever tend to occur only after major ground-disturbing events such as the 1994 Northridge earthquake (VPAPCD 2003). Implementation of the proposed program would not result in a comparable amount of ground disturbance. Furthermore, the standard control measures required by VCAPCD Rule 55 would reduce fugitive dust generation, which would further minimize the risk of spore mobilization and associated infection. Therefore, implementation of the program would not significantly increase the risk to public health above existing background levels. Because the project area does not pose a substantial risk for Valley Fever, impacts would be less than significant.

Mitigation Measures

The following mitigation measures would reduce impacts related to NO_X emissions to a less-than-significant level.

AQ-1 Tier 4 Equipment

All off-road equipment greater than 50 horsepower shall meet U.S. EPA Tier 4 emission standards.

AQ-2 Increased Dump Truck Capacity

On-road dump trucks used to export sediment during Activity No. 1 shall be double-bottom or tandem dump trucks, with a minimum capacity of 21 cubic yards of soil.

AQ-3 Haul Trip Timing

During years in which sediment removal under Activity No. 1 requires off-site export of excess sediment, Activity No. 1 shall not occur simultaneously with any other program activity.

Significance After Mitigation

Incorporation of Mitigation Measure AQ-1 would reduce the emissions associated with operation of off-road equipment. Mitigation Measure AQ-2 would reduce the emissions associated with off-site haul truck trips in Activity No. 1 by decreasing the total number of trips needed to haul the potential sediment exports (up to 5,000 cubic yards) from the project site. Assuming each double-bottom or tandem dump truck would have a capacity of 21 cubic yards of sediment, only 478 total one-way trips would be required. Mitigation Measure AQ-3 would reduce daily emissions during years in

which Activity No. 1 requires off-site export by prohibiting Activity No. 1 from overlapping with other program activities.

Table 6 summarizes maximum daily pollutant emissions in the reasonable worst-case emissions scenario, which would occur during years in which sediment removal under Activity No. 1 would require off-site export of excess sediment. Under this scenario, Mitigation Measures AQ-1 through AQ-3 would be implemented.

Table 6 Reasonable Worst-Case Scenario Emissions During Haul Years – Mitigated

	Estimated Maximum Daily Emissions (pounds/day)					
	ROC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Ojai Valley Plan Area						
Activity No. 1 - Forebay Sediment	0.75	4.66	26.32	0.06	1.77	0.90
Ojai Valley Area Plan Significance Thresholds	5	5	N/A	N/A	N/A	N/A
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**N/A**	**N/A**
Ventura County						
Activity No. 1 Maximum Daily Emissions Inside Ojai Valley Plan Area	0.75	4.66	26.32	0.06	1.77	0.90
Haul Truck Emissions Outside Ojai Valley Plan Area	0.12	3.28	0.96	0.01	0.24	0.08
Total Ventura County Emissions	**0.87**	**7.94**	**27.28**	**0.07**	**2.01**	**0.98**
VCAPCD Significance Thresholds	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**N/A**	**N/A**

ROC: reactive organic compounds; NO_X: nitrogen oxides; CO: carbon monoxide; SO_X: sulfur oxides; PM_{10}: particulate matter less than 10 microns in diameter; $PM_{2.5}$: particulate matter less than 2.5 microns in diameter; N/A = not applicable (the VCAPCD has not adopted quantitative thresholds for these pollutants)

See Appendix G for modeling details and CalEEMod results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Emissions data is sourced from "mitigated" results, which incorporate emissions reductions from implementation of Mitigation Measures AQ-1 through AQ-3 in addition to County-required measures under VCAPCD Rule 55.

As shown in Table 6, with implementation of Mitigation Measures AQ-1 through AQ-3, the program would not generate emissions in excess of the VCAPCD significance thresholds established for the Ojai Valley Planning Area or the overall VCAPCD jurisdictional area in off-site haul years. This impact would be less than significant with mitigation incorporated.

Table 7 summarizes maximum daily pollutant emissions during years in which sediment removal under Activity No. 1 would not require off-site export of excess sediment. In these years, Mitigation Measure AQ-1 would apply, to require compliance with U.S. EPA Tier 4 emission standards, and Mitigation Measure AQ-2 would apply, to increase dump truck capacity to reduce the number of trips required, but Mitigation Measure AQ-3 would not apply, because no off-site sediment export would be required. Without Mitigation Measure AQ-3, which prevents Activity No. 1 from occurring

simultaneously with any other program activity, it is possible that simultaneous implementation of Activity Nos. 1 and 6E could occur.

Table 7 Reasonable Worst-Case Emissions During Non-Haul Years – Mitigated

	Estimated Maximum Daily Emissions (pounds/day)					
	ROC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Ojai Valley Plan Area						
Activity No. 1 - Forebay Sediment	0.71	3.32	26.01	0.05	1.71	0.89
Activity No. 6E - Road Maintenance	0.18	0.50	4.30	0.01	2.84	1.54
"Worst-Case-Scenario" Maximum Daily Emissions Inside Ojai Valley Plan Area	**0.89**	**3.82**	**30.31**	**0.06**	**4.56**	**2.42**
Ojai Valley Area Plan Significance Thresholds	5	5	N/A	N/A	N/A	N/A
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

ROC: reactive organic compounds; NO_X: nitrogen oxides; CO: carbon monoxide; SO_X: sulfur oxides; PM_{10}: particulate matter less than 10 microns in diameter; $PM_{2.5}$: particulate matter less than 2.5 microns in diameter; N/A = not applicable (The VCAPCD has not adopted quantitative thresholds for these pollutants.)

See Appendix F for modeling details and CalEEMod results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Emissions data is sourced from "mitigated" results, which incorporate emissions reductions from implementation of Mitigation Measures AQ-1 through AQ-3 in addition to County-required measures under VCAPCD Rule 55.

As shown in Table 7, with implementation of Mitigation Measure AQ-1, the program would not generate emissions in excess of the VCAPCD significance thresholds established for the Ojai Valley Planning Area in non-haul years. This impact would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

The VCAPCD defines sensitive receptors as facilities or land uses that include members of the population particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of sensitive receptors listed in the VCAPCD (2003) Guidelines include schools, hospitals, and daycare centers; sensitive receptors also typically include residences. The nearest sensitive receptors are residences located approximately 100 feet from the sediment placement area.

Traffic-congested roadways and intersections have the potential to generate elevated localized carbon monoxide (CO) levels (i.e., CO hotspots). In general, CO hotspots occur in areas with poor circulation or areas with heavy traffic. Existing CO levels in Ventura County have been historically low enough that VCAPCD monitoring stations throughout the county ceased monitoring ambient CO concentrations in March and July 2004 (VCAPCD 2010). R&M Program activities would cause a minor increase in vehicle traffic to the Facility as a result of worker vehicle trips, delivery of heavy-duty equipment and materials, water truck trips, and haul trips. Because the Facility is not located in an area with poor circulation or heavy traffic, project-related traffic would not cause or contribute

to potential temporary CO hotspots. Therefore, the program would not expose sensitive receptors to substantial concentrations of CO, and impacts would be less than significant.

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs generally consist of four types: organic chemicals, such as benzene, dioxins, toluene, and percholorethylene; inorganic chemicals such as chlorine and arsenic; fibers such as asbestos; and metals such as mercury, cadmium, chromium, and nickel. The primary TAC emitted by program implementation would be diesel particulate matter generated by heavy-duty equipment and diesel-fueled delivery and haul trucks. There would be a limited number of equipment in operation at any given time across the year, as not all activities would occur at the same time or in the same years. In addition, emissions associated with diesel-fueled delivery and haul trucks would be dispersed across truck trip routes and across different portions of the project site. As a result, the project would not generate substantial TAC emissions at sensitive receptors, and potential impacts from exposure of sensitive receptors to substantial TAC concentrations would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The program involves R&M activities at an existing water diversion and fish passage facility. Program activities could generate temporary odors associated with diesel exhaust generated by heavy-duty equipment operation. However, these odors would be localized to the area immediately surrounding the on-site activity and restricted to the duration of equipment use. The program does not involve any land uses listed by VCAPCD as facilities and operations that may generate significant odors, such as sanitary landfills, asphalt batch plants, food processing facilities, and feed lots (VCAPCD 2003). Consequently, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

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

In January 2021, Rincon Consultants, Inc. conducted a Biological Resources Assessment (BRA), including a literature review and the results of a field reconnaissance survey to document existing site conditions and the potential presence of special-status biological resources, including plant and wildlife species, plant communities, jurisdictional waters and wetlands, and habitat for nesting birds. The following summarizes the findings of the BRA. The complete BRA including appendices is provided as Appendix A to this IS-MND.

The Biological Study Area (BSA) includes the Facility, upland staging sites and access roads adjacent to the Facility, approximately 1,100 feet of downstream river channel where excavated sediment from the forebay would be placed within the Ventura River, and a 100-foot buffer surrounding the area where routine maintenance and repair activities are proposed. Presently, land uses in and around the BSA are predominantly open space and residential zoning. The project footprint occurs within the Robles Diversion and Fish Passage Facility within the Ventura River.

The BSA occurs between 724 to 790 feet above mean sea level. The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey delineates four soil map units within the BSA including Riverwash (Rw), Orthents-Fluvents complex (38), dry, zero to 15 percent slopes, Cortina stony sandy loam (CrC), two to nine percent slopes, and Ojai stony fine sandy loam (OsD2), two to 15 percent slopes, eroded. Of these, Riverwash is designated as a hydric soil in the Ventura Area (USDA 2020).

Several plant communities and land cover types occur within the BSA. Portions of the Facility are hardscaped with concrete and metal (e.g., radial gates) and surrounded with a chain-link fence. The Facility is surrounded by gravel base and disturbed bare ground. The forebay is predominately unvegetated riverbed, however a narrow strip of riparian vegetation occurs on the eastern bank of the forebay and is comprised of mulefat (*Baccharis salicifolia*) and sandbar willow (*Salix exigua*). East of the forebay is a disturbed area created during Facility construction (it includes the proposed staging site) and containing a gravel base and scattered non-native species including Russian thistle (*Salsola* sp.) and tocalote (*Centaurea melitensis*). The habitat in uplands west of the forebay and on the eastern bank of the river downstream of the timber cut-off wall, is predominantly laurel sumac (*Malosma laurina*) scrub, a native California vegetation community. Red brome grassland is co-dominant in disturbed upland portions of the BSA immediately downstream of the timber cut-off wall. Downstream of the spillway, a riparian strip comprised of mulefat scrub, individual coast live oak trees and sycamore trees occurs along both sides of the spillway channel (low flow channel). Farther downstream, approximately 300 feet below the confluence of the low flow channel with the mainstem of the Ventura River, a narrow strip of mulefat scrub is present on both sides of the channel. Residential properties and agricultural lands extend eastward from the east bank of the Ventura River floodplain. The Ventura River floodplain broadens downstream of Facility, to the west.

The BSA provides suitable habitat for wildlife species that commonly occur in semi-rural, residential areas. The proposed project site is surrounded by a chain-link fence, and suitable habitat for wildlife does not occur within the concrete-lined portions of the Facility or within the immediate surrounding area. Suitable habitat for wildlife does occur within the Ventura River above and below the Facility. The wildlife species detected on site during field surveys are common, widely distributed, and adapted to living in proximity to human development. Common avian species detected on or adjacent to the site include great egret (*Ardea alba*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), California scrub-jay (*Aphelocoma californica*), American coot (*Fulica americana*), great blue heron (*Ardea herodias*), killdeer (*Charadrius vociferus*), Anna's hummingbird (*Calypte anna*), acorn woodpecker (*Melanerpes formicivorus*), California towhee

(*Melozone crissalis*), great-horned owl (*Bubo virginianus*), and barn owl (*Tyto alba*). Inactive mud nests, likely from a species of swallow, were observed on the underside of the Robles Diversion Dam structure during the pre-construction Forebay Restoration Project survey conducted on November 1, 2019.

Other wildlife species observed include Baja California chorus frogs (*Pseudacris hypochondriaca hypochondriaca*), California chorus frogs (*Pseudacris cadaverina*), arroyo chub (*Gila orcutti*), green sunfish (*Lepomis cyanellus*), American bullfrogs (*Lithobates catesbeianus*), western toads (*Anaxyrus boreas*), red-swamp crayfish (*Procambarus clarkii*), western fence lizard (*Sceloporus occidentalis*), western brush rabbit (*Sylvilagus bachmani*), California ground squirrel (*Otospermophius beecheyi*), deer mouse (*Peromyscus maniculatus*), California pocket mouse (*Chaetodipus californicus*), and mule deer (*Odocoileus hemionus*). Five western pond turtles (*Actinemys marmorata*) were also observed approximately 500 feet upstream of the forebay during pre-construction surveys conducted in November 2019.

The California Native Diversity Database (CNDDB) lists a total of thirteen special status plant species within five miles of the BSA. Special status plant species have specialized habitat requirements, including plant community types, soils, and other components. The natural disturbance to the project site caused by continuous scouring during high flow rain events, coupled with the inundation of the forebay with sediment, generally result in low potential for special status species to occur within the project site. Although elements of suitable habitat occur in the riparian habitat surrounding the forebay and the spillway channel for several special status species, no special status plants are expected to occur within the proposed R&M Program site given the current site conditions and level of disturbance. During the field surveys, no special status, federal or state listed species were observed or otherwise detected within the BSA.

Fourteen special status wildlife species are listed in the CNDDB and tracked within the project region. Two special status species are known to occur within the BSA: Western pond turtle (*Emys marmorata*; [WPT]); and Arroyo chub (*Gila orcutti*). Seven special status wildlife species have a moderate potential to occur in the BSA. Of these, three are federal and/or state listed species (California red-legged frog [*Rana draytonii]*: Federally threatened, State Species of Special Concern; Least Bell's vireo [*Vireo bellii pusillus]*: Federally Endangered, State Endangered; and Steelhead – Southern California DPS [*Oncorhynchus mykiss irideus]*: Federally Endangered, State Species of Special Concern). Two special status wildlife species have a low potential to occur in the BSA; one of which is a federal and state endangered species: Southwestern willow flycatcher (*Empidonax trailii extimus*).

The CNDDB lists one sensitive natural community in the nine quadrangles that surround the BSA. This community, Southern California Steelhead Stream, is present in the BSA. Portions of Ventura River flows are routed through the concrete-lined screenbay and fish ladder within the Facility. The fish ladder does not function for steelhead passage until about 5-10 cfs flow occurs and it was designed only to operate at above 10 cfs. Therefore, during the project, no functional change in fish passage conditions are anticipated to occur, since the maintenance and repair activities will typically occur when conditions would not be suitable for steelhead passage through the Facility.

Portions of BSA are located on the Ventura River. The Ventura River is a relatively permanent water (RPW) because it contains flows for at least three months out of most years and connects to the Pacific Ocean, a traditional navigable water (TNW). Therefore, the Ventura River is subject to the jurisdiction of the USACE and the Los Angeles RWQCB. The Ventura River is also subject to CDFW jurisdiction pursuant to Section 1600 *et seq.* of the Fish and Game Code. The Ventura River also functions as habitat corridor facilitating wildlife movement. Regionally, the northern portion of the

BSA occurs within an Essential Connectivity Area (ECA) as mapped in the report, *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (CDFW 2010). The ECA lies north of the city of Ojai. The ECA surrounds the entire northern section of the city of Ojai and is approximately ten miles across to the north of the city. Hardscaped portions of the Facility, outside of the river channel are surrounded by a chain-link fence, which does not currently limit wildlife movement between wildlife habitat within the Ventura River. The portion of the Ventura River which traverses the BSA is compatible with wildlife movement up and down the river. In addition, the Facility includes a fish ladder to allow movement of aquatic species. There is approximately 10 miles of ECA around the Facility for wildlife movement. The proposed Annual Repair and Maintenance Program would result in a temporary limitation on wildlife movement within the Ventura River immediately upstream and downstream of the Facility as a result of human presence. However, wildlife could still move through the area when activities aren't occurring, such as outside of work hours or on non-workdays (e.g., weekends).

Tree Protection Ordinances

The Ventura County Tree Protection Ordinance (Ventura County Code Section 8107-25) requires a permit be obtained for the removal, alteration, or encroachment into the tree protection zone (TPZ) of a protected tree. Protected trees are defined as oaks (*Quercus*) and sycamores (*Platanus*) over 9.5 inches in circumference (3-inch diameter at breast height [dbh]) (or 6.25 inches circumference [2-inch dbh] for multi-stemmed oaks). In the unincorporated non-coastal zone, this ordinance protects most native tree species over 9.5 inches in circumference (3-inch dbh). Heritage Trees (any species of tree with a single trunk of 90 or more inches in girth [28.6-inch dbh] or with multiple trunks, two of which collectively measure 72 inches in girth [23-inch dbh] or more) and Historical Trees (any tree or group of trees identified by the county or a city as a landmark, or identified on the federal or California Historic Resources Inventory to be of historical or cultural significance, or identified as contributing to a site or structure of historical or cultural significance) are also protected.

Ministerial tree permits are generally allowed if the tree interferes with public utility facilities, as certified by a qualified tree consultant. However, a discretionary permit is required for impacts to heritage or historical trees, impacts to more than six protected trees or more than four protected oaks or sycamores, and must include an arborist report by an International Society of Arboriculture (ISA) certified arborist. Mitigation is also generally required for impacts to protected trees. Mitigation can involve a range of options, including on-site or off-site tree replacement, off-site land acquisition for the purpose of tree protection, or in-lieu fee paid directly to the County. The cost of mitigation can vary, depending on the degree of tree impacts required mitigation. The eastern edge of the disturbed area proposed to be used as a staging area borders a stand of coast live oak trees along the west bank of the Ventura River. In addition, oak trees are scattered throughout the Ventura River downstream of the timber cut-off wall adjacent to the primary placement area. The oak trees are likely protected under the County Municipal Code. It is not anticipated that oak trees would be removed, pruned or encroached upon.

Ventura County General Plan

The Ventura County General Plan (VCGP) is the primary planning document for the County. It represents the community's collective vision for preserving and improving the quality of life in Ventura County. The following provides applicable policies for the protection of biological resources.

- **Locally Important Species.** The VCGP identifies locally important species as significant biological resources to be protected from incompatible land uses and development. The VCGP defines a Locally Important Species as a plant or animal species that is not an endangered, threatened, or rare species, but is considered by qualified biologists to be a quality example or unique species within the County and region. Locally important species are not expected to be present in the project areas.
- **Wildlife Migration.** The VCGP specifically includes wildlife migration corridors as an element of the region's significant biological resources. In addition, protecting habitat connectivity is critical to the success of special status species and other biological resource protections. Potential project impacts to wildlife migration are analyzed by biologists on a case-by-case basis. The issue involves both a macro-scale analysis—where routes used by large carnivores connecting very large core habitat areas may be impacted—as well as a micro-scale analysis—where a road or stream crossing may impact localized movement by many different animals. The project located within the Sierra Madre – Castaic ECA boundary. The Ventura River provides a means to facilitate regional connectivity for several species including, but not limited to the steelhead – Southern California DPS, California red-legged frogs and western pond turtle.
- **Wetland Habitats.** The VCGP contains policies which strongly conditions discretionary development to protect wetland habitats. The Ventura River is located within the BSA; however, the project involves maintenance of an existing Facility; therefore, the policies for discretionary development would not apply.

The project parcel does not occur within any Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan areas. The proposed R&M Program would not conflict with the provisions of any such plans.

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

Special-status species are those plants and animals 1) listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS and NMFS under the federal Endangered Species Act; 2) listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the California Endangered Species Act or Native Plant Protection Act; 3) recognized as Fully Protected species or Species of Special Concern by the CFGC or CDFW; and 5) occurring on Lists 1 and 2 of the CDFW California Rare Plant Rank system per the following definitions:

- List 1A = Plants presumed extinct in California
- List 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- List 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20 to 80 percent occurrences threatened)
- List 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20 percent of occurrences threatened, or no current threats known)
- List 2 = Rare, threatened or endangered in California, but more common elsewhere

In addition, special-status species are ranked globally (G) and subnationally (S) 1 through 5 based on NatureServe's (2010) methodologies:

- G1 or S1 – Critically Imperiled Globally or Subnationally (state)
- G2 or S2 – Imperiled Globally or Subnationally (state)
- G3 or S3 – Vulnerable to extirpation or extinction Globally or Subnationally (state)
- G4 or S4 – Apparently secure Globally or Subnationally (state)
- G5 or S5 – Secure Globally or Subnationally (state)
- ? – Inexact Numeric Rank
- T – Infraspecific Taxon (subspecies, varieties, and other designations below the level of species)
- Q – Questionable taxonomy that may reduce conservation priority

Common bird species that receive protection under the Migratory Bird Treaty Act and/or California Fish and Game Code but otherwise maintain no sensitivity designation are not treated as special-status species for purposes of this analysis.

Rincon biologists determined the majority of the BSA does contain suitable habitat for several special-status plant species based on a pedestrian survey of the alignment and various records searches (refer to Appendix A). However, no special status plant species have potential to occur within the project site. Special status plant species have specialized habitat requirements, including plant community types, soils, and other components. The project site generally lacks these elements. In addition, none of the species analyzed were documented in the BSA during previous surveys conducted by Rincon Consultants, Inc. Based on the lack of suitable habitat and results of botanical surveys, no special status plants are expected to occur within the project site.

Two special status wildlife species (arroyo chub and western pond turtle) were observed within the BSA in November 2019 during field surveys and biological monitoring performed to support the Forebay Restoration Project. Six special status wildlife species were determined to have a moderate potential, and two special status wildlife species were determined to have a low potential to occur in the project site based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, and existing conditions.

Steelhead – Southern California Distinct Population Segment (DPS)

Flowing water is not anticipated to be present within the Facility when Casitas initiates maintenance and repair activities annually, given that the activities will occur during the dry season of a historically intermittent or ephemeral reach of the Ventura River (Walter 2015). If flowing water is present (i.e., Activity 2), and Casitas determines maintenance and repair is critical, the portion of the facilities requiring repair or maintenance will be temporarily shut down. The necessary repairs or maintenance on the facility will be conducted as soon as possible and the structure(s) will be put back in service once it is fixed. After the gates are closed, flow is redirected through the spillway and the remaining water within the fish ladder, screenbay, and high-flow bypass is allowed to gravity flow out of the Facility via the canal or fish ladder. A bank survey for federal listed species (e.g., southern California steelhead and California red-legged frog) is conducted as the water recedes. If no listed species are observed in the Facility work will proceed. It is possible for water to pool within the lower portion of the fish ladder (i.e., entrance box). If this portion of the fishway needed critical repair, block nets will be used to encourage fish and frogs to leave the Facility via the fish ladder, and prevent individuals from re-entering the Facility during repairs. Any remaining water would be lowered only enough to conduct repairs by pumping water out of the fish ladder via two doubly

screened pumps (5-10 horsepower) with 3 millimeter (mm) mesh to prevent impingement. This 'residual water' pump system would be operational for up to 2 days depending on extent of repairs. The water would be directed to the canal which flows to Lake Casitas. The necessary repairs or maintenance on the Facility will be conducted as soon as possible and the structure(s) will be put back in service once it is fixed. Visual monitoring for listed species would be performed periodically while repair and maintenance activities are performed.

If no flowing water is present, maintenance and repair activities would not affect southern California steelhead. The effects from spreading the spoil over the previously disturbed areas where spoil has been spread in the past (Activity 1), and along the channel banks downstream of the timber wall cut-off, would also have a negligible effect on steelhead given the current post-Thomas Fire site conditions in the watershed and the amount of sediment moving through the system naturally during storm events. Given the proposed timing of activities outlined in the Annual Maintenance and Repair Program, existing river conditions, and with the implementation of BMP-1, BMP-2, BMP-4, and BMP-9, the effects from the project would be is discountable and less than significant to southern California steelhead (please see the BRA Report in Appendix A for further discussion).

California Red-legged Frog (Rana draytonii)

Potential adverse effects to CRLF during project activities include direct mortality or injury as a result of vehicle traffic and equipment operation on access roads, at access points along the banks of the Ventura River, and in the river channel. In addition, CRLF may be injured or killed as a result of being trampled by workers, and from activities such as excavation of sediment and debris, placement of sediment and debris, material stockpiling, and vegetation removal. Vehicle and equipment operation, worker foot traffic, material stockpiling and vegetation removal in the BSA could result in directly crushing adults, larvae, or eggs if present while activities are conducted. Adult CRLF shelter in slow moving and ponded water but will leave the water and disperse or forage across upland area generally between May 1 and July 1. During these dispersal and foraging events adults may be subject to direct mortality or injury. Adults and juveniles could become trapped and die in upland sheltering habitat or be exposed to predators if burrows or other refugia are crushed or covered. The potential for adverse effects to individuals is low because project activities are expected to occur during the dry season, and when flowing or ponded water is not present at the Facility (BMP-1). Further, maintenance and repair activities will occur outside the period of dispersal (May through July) and breeding season (late November through April) for CRLF, as feasible. If project activities must occur during the dispersal period or breeding season, modified protocol surveys will be conducted prior to the initiation of work (BMP-5). If CRLF individuals are not identified in the project work areas, a biological monitor will be present during initial ground disturbing and or vegetation removal activities, and during pre- and post-rain events (BMP-9). The biological monitor will have the authority to halt any actions with the potential to result in impacts to the species.

Project activities may result in mortality, injury, or harm from changes in behavior and physiological stress to CRLF. Direct mortality, injury, or harm may occur if they become entangled or trapped in project-related materials (e.g., fencing, netting, wires, buckets, pallets) or open excavations in the BSA. The project includes implementation of multiple BMPs that would limit these potential impacts, including through conducting pre-construction surveys (BMP-5), conducting activities in the dry season (BMP-1), covering steep-walled excavations at night (BMP-7), and relocating individuals prior to construction (BMP-3).

Project activities that generate noise and vibrations, such as the use of heavy equipment during sediment excavation, could lead to behavioral changes such as flushing from shelter, decreased foraging, decreased dispersal, and hypervigilance. Encroachment by personnel into areas occupied by CRLF during project activities could result in disruption to behavior and cause physiological stress from similar effects. Pre-construction surveys (BMP-5), conducting activities in the dry season (BMP-1), and relocation of individuals prior to construction (BMP-3) would limit these impacts.

The introduction of trash and chemical contaminants during project activities could result in mortality or harm from behavior changes and physiological stress if items are ingested during foraging or if toxins are absorbed through the skin. Trash littered around a project site may attract predators, such as cats, raccoons, ravens, and gulls, to the project site and may expose CRLF to increased predation pressure. All trash and chemical contaminants would be controlled during project activities (BMP-18), therefore adverse effects to CRLF would be unlikely.

Uninformed workers could disturb, injure, or kill California red-legged frogs. The potential for this to occur would be reduced by educating workers on the presence and protected status of these species and the measures that are being implemented to protect them during project Activities (BMP-2). The use of flagging to demarcate work areas would further reduce these potential impacts by preventing workers from encroaching into environmentally sensitive habitat.

Contaminants, such as herbicides, pesticides, soil binders, and fertilizers may kill individuals, affect development of larvae, or affect their food supplies or habitat. Siltation in breeding pools could asphyxiate eggs and newly hatched larvae. Decreased water quality could result in mortality or decreases in reproduction success for this species. Trimming vegetation by hand along the timber cut-off wall would help to minimize these effects (BMP-24).

Stockpiles of removed sediment stored on site can attract CRLF seeking upland refugia, and lead to injury or death if individuals become entrapped or are present when these materials are moved. Inspecting stockpiled materials by a qualified biologist for CRLF prior to disturbance would reduce these effects (BMP-9).

The CRLF could be subject to mortality or harm from the introduction of invasive species or pathogens inadvertently transferred to the BSA by personnel, vehicles, and equipment. Project activities could result in the introduction or spread of non-native invasive plant species, such as arundo (*Arundo donax*) and tamarisk (*Tamarix* sp.), into potentially suitable CRLF habitat on vehicles, equipment, or the clothing and boots of personnel. Non-native invasive plant species often out-compete and exclude native species, potentially altering the structure of the vegetation community and degrading or eliminating habitat utilized by CRLF. To reduce this effect, any noxious vegetation identified by the biological monitor shall be removed from the work area and soil disposal areas. Noxious vegetation shall be disposed of in a manner and at a location that will prevent its re-establishment. Whenever possible, noxious species will be removed by hand or by hand-operated power tools, rather than by chemical means (BMP-24).

Personnel, vehicles, and equipment may also inadvertently be the mechanism by which pathogens, such as chytrid fungus (*Batrachochytrium dendrobatidis*), are transferred from off site to the BSA resulting in a novel introduction of the disease (Bossard et al. 2000). To avoid transferring disease or pathogens between aquatic habitats during California red-legged frog surveys, capture, and relocation efforts, approved biologist(s) must follow the Declining Amphibian Population Task Force's Code of Practice, in accordance with the USFWS BO (2019).

Project activities could alter water quality (chemistry) through accidental spills of pollutants like petro-chemical fluids from vehicles and equipment or chemical-laden runoff (e.g., herbicides,

pesticides), resulting in mortality or injury to CRLF and the introduction of contaminants into the Ventura River. Such impacts may cause increased nitrogen levels leading to mortality and developmental abnormalities in CRLF and impact prey populations (Rouse et al. 1999). Sedimentation can lead to smothering of eggs and tadpoles (Rabeni and Smale 1995), filling of habitat, restriction of water flow, and the reduction of oxygen levels. These effects vary depending on the amount of sediment introduced into the stream, the amount of stream flow, gradient, and other instream factors. The potential for this effect to occur would be reduced by informing workers of the importance of preventing hazardous materials from entering the environment, locating staging and fueling areas away from aquatic habitat, and by having an effective spill response plan and materials in place on the work site.

Pursuant to the USFWS BO (2019), capture and relocation of CRLF could result in injury or death as a result of improper handling, containment, transport, or release into unsuitable habitat. Although survivorship for translocated CRLF has not been estimated, survivorship of translocated wildlife in general is reduced due to intraspecific competition, lack of familiarity with the location of potential breeding, feeding, and sheltering habitats, and increased risk of predation. Using qualified biologists, limiting the duration of handling, requiring proper transport of individuals, and identification of suitable relocation sites close to the area of capture should reduce these impacts. The relocation of individuals from the project site is expected to greatly reduce the overall level of injury and mortality, if any, which would otherwise occur if individuals were not removed (USFWS 2019).

No long-term effects to the overall population, reproductive capacity, or recovery of CRLF are anticipated from the proposed R&M Program. Activities under the proposed R&M Program could adversely affect CRLF of any life stage given the known occurrence of the species, marginally suitable habitat within the project site, and potential overlap of proposed R&M Program activities with the species' dispersal period (May 1 and July 1). The proposed R&M Program would cause temporary disturbance and/or loss of aquatic, upland, and dispersal habitat, and could result in mortality of some CRLF larvae, juveniles or adults, with a lower probability of effects to egg masses. However, based on the limited spatial and temporal extent of proposed R&M Program impacts, proposed work window (dry season), and the fact that CRLF were never observed at the Facility, few, if any, CRLF are likely to be killed or injured. With the implementation of BMPs identified in the Project Description, including BMP-1, BMP-2, BMP-5, BMP-7, BMP-9, BMP-23, and BMP-24, the adverse effects from the proposal Annual Repair and Maintenance Program to CRLF would less than significant.

Least Bell's Vireo (Vireo bellii pusillus) and Southwestern Willow Flycatcher (Empidonax traillii extimus)

Project activities are not expected to result in direct mortality or injury to adult Least Bell's vireo and southwestern willow flycatcher given the limited foraging opportunities and lack of nesting opportunities within the Action Area. If Least Bell's vireo and/or southwestern willow flycatcher do occur in the Action Area while project activities are occurring, both species would be expected to be present in such low abundance that any chance encounter with adult individuals resulting in mortality or injury is unlikely.

Least Bell's vireo and southwestern willow flycatcher have not been documented within the BSA. Casitas will conduct protocol surveys within the BSA for Least Bell's vireo and southwestern willow flycatcher in the 2020 nesting season.

Least Bell's vireo is known to occur in similar habitats downstream of the BSA, based on a query of the CNDDB (CDFW 2020). The vegetation community in the BSA may not provide adequate dense, stratified canopy and cover least Bell's vireo prefer as nest sites due to the sparse distribution of mulefat plants between boulders in the Ventura River bottom. The BSA provides moderately suitable habitat for least Bell's vireo due to the presence of early successional mulefat scrub. Harm may occur if least Bell's vireo is present during removal of emergent vegetation where individuals might be sheltering. In addition, removal of a relatively young stand of willows located within the lower limit of the entrance pool amounts to a loss of 1,500 square feet of low suitable habitat for the species. Vegetation at the entrance pool wanes during extended drought, and during high flows, it is scoured away. At present the entrance pool is filled with sediment. Typically, sediment does not accumulate in the entrance pool to the extent that it has. The sediment in the pool became trapped during intense storm events following the 2017 Thomas Fire. Under normal conditions, the pool was designed to be 8 to 10 feet deep without vegetation. The Ventura River is a dynamic system subject to a regular disturbance regime. Instream habitat features are significantly altered by winter flows, which are flashy in nature. Overall, adverse effects to in-channel habitat complexity from the program activities would be temporary and remain negligible or insignificant, especially considering the dynamic nature of the Ventura River channel. Given that the species has not been known to nest at the Facility, the removal of the early successional habitat within the entrance pool would not adversely affect least Bell's vireo. Conducting activities outside of the breeding season (February 1 – August 31); or conducting pre-activity surveys (BMP-6) if work occurs within the breeding season would reduce these impacts to less than significant.

Southwestern willow flycatcher nesting has not been documented in the Ventura River below Matilija Dam, and suitable nesting habitat is absent from the BSA due to the lack of structural diversity and vertical complexity preferred by the species. Although the habitat within the BSA may not provide suitable breeding habitat for southwestern willow flycatcher, the mulefat scrub and California sycamore woodland habitats may support southwestern willow flycatcher during brief periods during migration, although the potential is low. With the implementation of BMP-1, BMP-2, BMP-6, BMP-9, BMP-23, and BMP-24, which are identified in the Project Description and would be implemented as part of the project, the effects from the proposed Annual Repair and Maintenance Program would be discountable and less than significant on least Bell's vireo and southwestern willow flycatcher.

Special Status Terrestrial Species

San Bernardino ringneck snake, coast patch-nosed snake, and coast horned lizard, have a moderate potential to occur within the project areas (e.g., forebay, downstream sediment placement area, and low-flow channel) given the presence of suitable habitat within the BSA. San Bernardino ringneck snake has potential to be present in open, relatively rocky areas in intermittent streams. Coast horned lizard is most common in lowlands along sandy washes with scattered low bushes and pen areas for sunning. Coast patched-nosed snake prefers brushy or shrubby vegetation with small mammal burrows nearby for refuge. Two-striped garter snake, western pond turtle, and arroyo chub have low to moderate potential to occur within the project areas (e.g., forebay, downstream sediment placement area, and low-flow channel) given their highly aquatic nature and habitat requirements. The proposed R&M Program would commence during the dry season when flowing water is not anticipated within the project site. Since these species are highly aquatic, they would not be expected to be present in the project site unless there was adequate water flow. However, if maintenance and repair activities are initiated following an above average rainfall season, ponded water could be present in backwatered areas of the Ventura River upstream of the forebay, which

could potentially support two-striped garter snake and western pond turtle. If these special status species are present in the project site, they could be affected by activities. Best management practices (BMP-1, BMP-2, BMP-3, BMP-9, BMP-22, BMP-23, and BMP-24) require environmental education to aid workers in recognizing special status biological resources that may occur in the project site, work in dry conditions, on-site biological monitoring, noxious weed control, pre-construction surveys, and adherence to speed limits. The effects to these special status species would be less than significant with incorporated measures.

The proposed R&M Program does not include removal or trimming of trees; therefore, the project has been designed to avoid impacts to hoary bat roosting habitat. In addition, the hoary bat requires a permanent water source. Flowing water is not anticipated to be present within the project site upon project initiation. Foraging bats would be expected to evade areas where repair and maintenance activities will occur with the onset of disturbance. Therefore, project activities are not expected to impact foraging bats.

Protected Nesting Birds

The BSA contains habitat that can support nesting birds, including raptors protected under the CFGC and the MBTA. The stand of coast live oak trees that occurs along the west bank of the Ventura River, and downstream near the sediment placement area provide suitable nesting habitat for avian species. The project could adversely affect raptors and other nesting birds if construction occurs while they are present within or adjacent to the restoration area, through direct mortality or abandonment of nests. Impacts to common bird species would not rise to the level of significance under CEQA; however, the loss of birds, eggs, nests, or nestlings due to construction activities would be a violation of the MBTA and CFGC Section 3503 and must therefore be avoided. BMP-8, identified in the Project Description, is recommended for compliance with the MBTA and CFGC Section 3503.

LESS THAN SIGNIFICANT IMPACT

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

A southern California Steelhead Stream, Ventura River, is present within the BSA. As stated above, the proposed R&M Program would typically occur within the Facility when conditions for steelhead migration would not be suitable. Therefore, potential impacts to the species are not anticipated. However, the implementation of BMPs identified in the Project Description will ensure construction materials do not indirectly impact the sensitive community, including BMP-10, BMP-11, BMP-13 through BMP-21, BMP-23, and BMP-24. Accordingly, potential impacts to the southern California steelhead stream would be less than significant.

The proposed R&M Program activities would result in impacts to aquatic habitat in the forebay (5.70 acres), when the area is dry. During Activity No. 1, removal of sediment and emergent vegetation from the Facility (i.e., forebay) and placement of sediment downstream over 4.61 acres of aquatic habitat (during dry river conditions) may have indirect effects on water quality downstream due to increased turbidity, which would have an adverse effect on aquatic wildlife and their aquatic and riparian habitats in the Ventura River. Alternatively, the placement of sediment downstream would move the active channel towards the center of the river channel and assist in clearing the center channel of vegetation. That will, in turn, establish a more stable channel through this reach of the river, a beneficial effect to migration/dispersal habitat for aquatic species. Implementation of BMPs

to control erosion and sedimentation (BMP-21) and locate equipment and materials outside of wetted areas (BMP-10) would reduce effects to less than significant.

Activity No. 4, described in detail in the Project Description, Section 9.2, *Activities Descriptions,* involves the removal of the young stand of willows, and the excavation of the entrance pool to a depth of 8 to 10 feet. The construction of the entrance pool occurred as part of the permitted Robles Diversion Fish Passage Project in 2003. The entrance pool extends approximately 130 feet below the spillway and baffled apron structure and encompasses approximately 0.19 acre (8,238 square feet) of the Ventura River low flow channel. Cleaning sediment and emergent vegetation out of the entrance pool is necessary to maintain the energy-dissipating hydraulic jump, allow proper fish entrance gate operation, and ensure overall uniform hydraulic flow patterns throughout the entrance pool. Vegetation in the entrance pool wanes during extended drought, and during high flows, it is scoured away. Typically, sediment does not accumulate in the entrance pool to the extent that it has in recent years. The sediment in the pool became trapped during intense storm events following the Thomas Fire.

The removal of the immature, small stand of willows in the entrance pool would not have a substantial adverse effect on riparian habitat of sensitive natural communities. The entrance pool is located in a fluvial area, within the Ventura River where no vegetation is considered to be permanent given the natural hydrologic regime. Sediment is routinely scoured and redeposited in the entrance pool depending on storm events. The extent of vegetation in the entrance pool changes from year to year, under natural conditions. The proposed maintenance activity would occur during the dry season when surface water is absent, therefore effects to aquatic species would be less than significant. Conducting the vegetation removal outside of the breeding season (February 1 – August 31) and conducting pre-activity surveys (BMP-6) if work occurs within the breeding season would reduce impacts to avian species to less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Ventura River is subject to the jurisdiction of the USACE, and RWQCB, and CDFW within the BSA. Activity 1A and 1B includes the removal of sediment from the forebay and the relocation of sediment downstream of the timber cut-off wall in the Ventura River, annually. The area within the forebay where sediment removal will occur is devoid of hydrophytic vegetation. Relocation of sediment from the forebay to a portion of the river below the timber cut-off wall would restore the normal function of the forebay and eroded banks downstream and thus the project is not expected to have a substantial adverse impact on state or federally protected wetlands. In addition, no permanent impacts would occur as a result of the project. The sediment removal and relocation activity would occur during the dry season when no flowing water is present in the Ventura River.

Activity 4 involves the removal of trapped sediment from the entrance pool, which is located downstream of the spillway within the Ventura River low-flow channel. Occasionally, sediment becomes deposited in the entrance pool following intense storm events. Sediment and immature vegetation will be removed annually and stockpiled outside of jurisdictional areas in designated soil disposal sites. The project will occur during the dry season and no permanent impacts to the low-flow channel will occur. All other proposed project activities will occur within the Ventura River, typically in dry conditions, and no permanent impacts to jurisdictional waters or wetlands will occur.

Indirect impacts from construction materials (e.g., stockpiled materials, construction equipment, and trash) stored on site could adversely affect water quality (e.g., increased turbidity, altered pH, decreased dissolved oxygen levels, etc.) within the water features if runoff were to occur during storm events. Therefore, BMP-10, BMP-11, and BMP-13 through BMP-21 outlined in the Project Description (Section 10) are recommended to avoid potential indirect impacts to water quality within the potentially jurisdictional waters. The implementation of these BMPs, which are identified in the Project Description and would be implemented as part of the project, would reduce potential impacts to jurisdictional waters to a less-than-significant level.

LESS THAN SIGNIFICANT IMPACT

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Facility is located within a known wildlife corridor which provides connectivity for wildlife north of the City of Ojai, and the Ventura River facilitates regional wildlife movement through the BSA. Fully developed properties are present adjacent to the BSA and common wildlife adapted to urban and suburban areas (e.g., raccoon and striped skunk) likely use the Ventura River for local movement. However, the proposed R&M Program would not permanently modify the Ventura River. Maintenance and repair activities may result in a temporary limitation on wildlife movement within the Ventura River immediately upstream and downstream of the forebay.

Overall, the proposed R&M Program is not expected to hinder wildlife movement in the region, considering maintenance and repair activities would not create new barriers to wildlife movement. Maintenance and repair activities would be located within previously developed infrastructure and no new infrastructure is proposed. Therefore, the project would have a less than significant impact to wildlife movement.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No removal or trimming of protected trees is proposed, therefore tree protection policies would not apply. The Ventura County General Plan (Biological Resources Policy 1.5.2-3 and 1.5.2-4) contains policies to protect potentially jurisdictional waters from development. No new development is proposed.

Within the County jurisdiction, the Ventura County Watershed Protection District (VCWPD) holds authority over its jurisdictional channels. The primary ordinance establishing VCWPD authority and the requirements to obtain permits for any encroachment into VCWPD jurisdictional channels, including right of way, is Ventura County Watershed Protection Ordinance WP-2. The Robles Diversion and Fish Passage Facility is owned by Reclamation and is exempt from Ordinance WP-2. The removal of sediment would occur within the forebay and entrance pool. Implementation of BIO-13 through BIO-23 would avoid and minimize potential indirect impacts to the Ventura River. Therefore, the proposed R&M Program would not conflict with local policies or ordinances protecting potentially jurisdictional waters and impacts would be less than significant.

The Ventura County General Plan contains a policy to protect habitat connectivity and wildlife migration corridors. The Facility is located within the Sierra Madre – Castaic ECA boundary. The ECA surrounds most of the infrastructure within Ojai to the north of the City. Maintenance and repair

activities would not result in new permanent structures that would impede wildlife movement. Although temporary impacts to movement may occur, implementation of BIO-20 would minimize the attraction of wildlife to the project site. Therefore, the proposed R&M Program would not conflict with local policies or ordinances protecting habitat connectivity and impacts would be less than significant.

County policy regulates locally important species as significant biological resources to be protected from incompatible land uses and development. The list of locally important species was reviewed, and no species were observed within the BSA. Therefore, the proposed R&M Program would not conflict with local policies or ordinances protecting locally important species and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project parcel does not occur within any Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan areas. The proposed R&M Program would not conflict with the provisions of any such plans. Therefore, the proposed R&M Program would have no impact to HCP, NCCP, or other approved local, regional, or state habitat conservation plans.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	■
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

A cultural resources assessment and technical report has been prepared for the R&M Program and is included as Appendix H to this IS-MND. This assessment consists of the following: cultural resources records search at the South Central Coastal Information Center (SCCIC), SLF search with the NAHC, pedestrian survey, and evaluation of an historic-period built-environment resource.

Rincon contacted the NAHC on March 24, 2020 to request a SLF search of the project site. The NAHC replied on April 2, 2020 with positive results for the project vicinity. The cultural resources records search identified five previously recorded archaeological resources within a 1.0-mile radius of the project site, all of which are prehistoric. Of those five resources, one consists of a village site which is likely what caused the positive SLF result. None of the recorded resources were located within or immediately adjacent to the project site. Two isolated lithic flakes were identified in imported fill-soil during the pedestrian survey. Steve Sharp with the Casitas Engineering Department confirmed the provenience of the soil where the artifacts were identified as imported fill during the survey (further discussion provided in Appendix H to this IS-MND). The isolated flakes were removed from their original context and stripped of any associations and/or data potential; thus, they were not formally recorded during the survey. No other archaeological resources were identified during the survey.

One historic era-built environment resource, the Robles Diversion Dam, is located within the project site. The Facility was previously evaluated and determined ineligible for listing in the National Register of Historic Places (NRHP) by Reclamation, a finding that received concurrence from the California State Historic Preservation Officer in September 2010 (Lopez 2019). The Facility was recorded as part of the current study and is recommended ineligible for listing in the NRHP and the California Register of Historical Resources (CRHR).

The ineligibility of the Facility for listing in the NRHP is based upon review of four criteria, summarized herein. Research did not suggest the Facility is associated with an event or series of events that made a significant contribution to the broad patterns of history in the city, region, state, or nation (Criterion 1). Research did not indicate that any persons associated with the Facility can be considered significant to local, state, or national history (Criterion 2). The Facility is utilitarian in

design and materials and is a common example of a dam complex. It does not embody distinctive characteristics of a type, period, or method of construction (Criterion 3). A review of available evidence and records search results did not indicate the Facility might yield information important to history or prehistory (Criterion 4). Therefore, the Facility does not qualify as a historical resource under CEQA.

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

The results of the cultural resources records search identified one previously recorded historic era-built environment resource, the Robles Diversion Dam, within the project site. The Robles Division Dam Complex was previously determined ineligible for listing in the NRHP. As described above, the Facility has also been determined to be ineligible for the CRHR. No other historic period built-environment resources were identified on the project site. Therefore, the project would have no impact to historical resources.

NO IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The cultural resources records search did not identify any archaeological resources in project site. Two isolated lithic flakes were identified in imported fill-soil during the pedestrian survey. Because they were identified in fill soils, they lack a discernable context and were not formally recorded. No other archaeological resources were identified during the survey. However, the SLF results were positive and the records search identified five prehistoric archaeological sites within a one-mile radius of the project site. Although none of these sites extend into the project site, two are large habitation sites (P-56-000139 and P-56-000194) and two are confirmed to contain human remains (P-56-000139 and P-56-000306). These resources are located upstream from the Diversion Dam and it is possible that artifacts or remains associated with the sites could have washed downstream over time from erosion. These factors increase the likelihood of encountering buried archaeological deposits during project-related ground disturbance. However, these deposits would have been the result of recent erosion and not the result of prehistoric human activity.

Project-related ground disturbance is limited to Activities 1A and 1B, which include periodic removal and downstream redeposition of accumulated sediments, and Activity 6E, which includes road grading and excavation. Construction activities may result in the destruction, damage, or loss of culturally and scientifically important archaeological resources. Therefore, impacts to archaeological resources would be potentially significant. Implementation of Mitigation Measure CR-1 and CR-2 during project-related ground disturbance project implementation would reduce potential impacts to a less-than-significant level by providing archaeological monitoring and direction on how to properly address an unanticipated discovery of archaeological. Although any encountered resources in these areas are likely to be within a secondary context, the heritage value of such resources to local tribal groups remains. Monitoring is consistent with tribal concerns and precedent existing for the general area.

Mitigation Measures

CR-1 Archaeological Monitoring

Archaeological monitoring of all project-related ground disturbance during Activities 1A and 1B and of grading and excavation during Activity 6E shall be performed by a qualified archaeologist. Archaeological monitoring shall be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983). Monitors will have the authority to halt and redirect work should any archaeological resources be identified during monitoring. If archaeological resources are encountered during ground-disturbing activities, work in the immediate area must halt and the find evaluated for listing in the CRHR and NRHP. Archaeological monitoring may be reduced to spot-checking or eliminated at the discretion of the monitors, in consultation with the lead agency, as warranted by conditions such as encountering bedrock, sediments being excavated are fill, or negative findings during the first 60 percent of rough grading. If monitoring is reduced to spot-checking, spot-checking shall occur when ground-disturbance moves to a new location within the APE and when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock).

CR-2 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If the discovery proves to be eligible for the NRHP and/or CRHR, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any significant impacts/adverse effects.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

The village site adjacent to the northeast corner of the project footprint has no documented human remains. Two other sites within one mile of the project have documented burials; however, no known human remains have been documented within the project site. Therefore, the project site is considered unlikely to contain human remains; nonetheless, the potential for the recovery of human remains during ground-disturbing activities is always a possibility. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. The State of California Health and Safety Code Section 7050.5 requires no further site disturbance until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. If the human remains are determined to be prehistoric, the coroner would notify the Native American Heritage Commission, which would determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. These procedural requirements, codified under PRC Section 5097.98, do not represent mitigation measures. With compliance with existing laws and regulations for the unanticipated discovery of human remains, potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

6 Energy

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

As a state, California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (EIA 2020). Most of California's electricity is generated in-state with approximately 30 percent imported from the Northwest and Southwest in 2018 (CEC 2020a). In addition, approximately 30 percent of California's electricity supply comes from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2020a). Adopted on September 10, 2018, Senate Bill (SB) 100 accelerates the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

California also requires all motorists use California Reformulated Gasoline, which is sourced almost exclusively from in-state refineries. Gasoline is the most used transportation fuel in California with 15.1 billion gallons sold in 2015 and is used by light-duty cars, pickup trucks, and sport utility vehicles (CEC 2020b). Diesel is the second most used fuel in California with 4.2 billion gallons sold in 2015 and is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles (CEC 2020b). Both gasoline and diesel are primarily petroleum-based, and their consumption releases greenhouse gas (GHG) emissions, including carbon dioxide and nitrogen oxides.

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Energy use during construction activities would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. Energy use during construction would be temporary in nature, and construction equipment used would be typical of construction projects in the region. Operation of the proposed R&M Program would provide for the continued operation and maintenance of the Facility, which is an essential component of the water systems in the region, and would not result in new energy uses or expand or otherwise affect

energy uses in the project area. As such, the R&M Program would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. No impact would occur.

NO IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As mentioned above, SB 100 mandates 100 percent clean electricity for California by 2045. Because the proposed R&M Program would be powered by the existing electricity grid, the project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. Casitas, the City of Ojai, and the County of Ventura do not have any specific renewable energy or energy efficiency plans with which the project could comply. Nonetheless, the project would not conflict with or obstruct the state plan for renewable energy, and no impact would occur.

NO IMPACT

7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	■
2. Strong seismic ground shaking?	☐	☐	☐	■
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	■
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

Geologic Setting

The proposed program is located along the Ventura River within the Ojai Valley, flanked by the Santa Ynez Mountains and Topa Mountains to the north and Sulphur Mountain to the south. The project site is in the Transverse Ranges Geomorphic Province, characterized by anomalous east-west trending mountain ranges (California Geological Survey [CGS] 2002).

The Transverse Ranges province is seismically active, bounded by three major fault zones, including the San Andreas Fault and Big Pine Fault to the north and the Malibu Coast Fault to the south. Seismic events can result in groundshaking, liquefaction, landslides, subsidence, tsunami and seiche. In addition to the three major faults described above, numerous smaller faults are in and around the Ojai Valley, including the Santa Ana Fault/Mission Ridge Fault Zone and the San Cayetano Fault. The Santa Ana Fault Zone is closest to the project site, located several miles downstream of the Facility.

The Facility site and surrounding area has two geologic units mapped at the surface (Dibblee and Ehrenspeck 1987): Quaternary young (middle to late Holocene) stream channel deposits (Qg) and Quaternary young (middle to late Holocene) alluvial fan deposits (Qa). Pleistocene to early Holocene alluvial deposits (Qoa), Oligocene Sespe Formation (Tsp), and Eocene Coldwater Sandstone (Tcw) are mapped extensively near the foothills and within the Santa Ynez Mountains and Topa Mountains. Exposures of these formations near the project area, and the stratigraphic setting in the vicinity are indicative that these units underly the Holocene units mapped at the surface, at unknown depths.

Paleontological Resources Setting

The paleontological sensitivities of the geologic units underlying the project site were evaluated based on the results of an online paleontological locality search and review of existing information in the scientific literature concerning known fossils within geologic units mapped within the project area. Fossil collections records from the Paleobiology Database and University of California Museum of Paleontology (UCMP) online database were reviewed, which contain known fossil localities in Ventura County (Paleobiology Database 2020; UCMP 2020). Based on the available information contained within existing scientific literature and the UCMP database, a paleontological sensitivity was assigned to each of the geologic units within the project site. The potential for impacts to scientifically important paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. The Society of Vertebrate Paleontology (SVP) has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources (SVP 2010). This system is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

Older alluvial sediments of late Pleistocene to early Holocene age, Oligocene Sespe Formation, or Eocene Coldwater Sandstone could preserve fossils at shallow depths. Accurately assessing the boundaries between younger and older units is generally not possible without site-specific stratigraphic data, radiometric dating or fossil analysis; however, in a fluvial system where erosion and deposition are actively occurring, underlying geologic units can occur near the surface, especially in areas near basin margins. A conservative estimate of the depth at which paleontologically sensitive units may occur ensures impact avoidance. Given the proximity of the proposed R&M Program to the surrounding mountains (i.e., Santa Ynez Mountains and Topa Mountains) and the prevalence of older deposits (e.g., Qoa) mapped at the surface throughout the

region, it is estimated the transition between younger alluvial sediments (i.e., Qa) and older units could occur at depths as shallow as three feet below ground surface.

Stream Channel Deposits: Middle to late Holocene stream channel (fluvial) deposits consist of loose, moderately well-drained, moderately sorted sand, silty sand, and occasional cobbles and boulders forming natural levees along streams (Dibblee and Ehrenspeck 1987; United States Geological Survey 1985). Intact middle to late Holocene fluvial deposits at the Facility are relatively young and have been subject to various flooding events from the hydrologically active Ventura River, resulting in an environment which is not conducive for the preservation of paleontological resources. Therefore, these sediments are assigned a **low paleontological sensitivity** (SVP 2010).

Alluvial Fan Deposits

Middle to late Holocene alluvial fan deposits are composed of unconsolidated to moderately consolidated, silt, sand, and gravel. Middle to late Holocene alluvial fan deposits are typically too young (i.e., less than 5,000 years old) to preserve paleontological resources and are also determined to have a **low paleontological sensitivity** according to SVP (2010) standards. Figure 10 depicts the surficial geologic units within the Facility and its immediate vicinity, as well as the paleontological sensitivity within the bounds of the Facility.

Pleistocene Alluvium

Pleistocene alluvial deposits, consisting of weakly-consolidated sediments of gravel, sand, and silt, have yielded significant vertebrate fossil localities throughout southern California from the coastal areas to the inland valleys. These localities have produced fossil specimens of terrestrial mammals such as mammoth, horse, camel, bison, rodent, bird, and reptile (Jefferson 2010; UCMP 2020). Pleistocene to early Holocene alluvial deposits (Qoa) is assigned a **high paleontological sensitivity**.

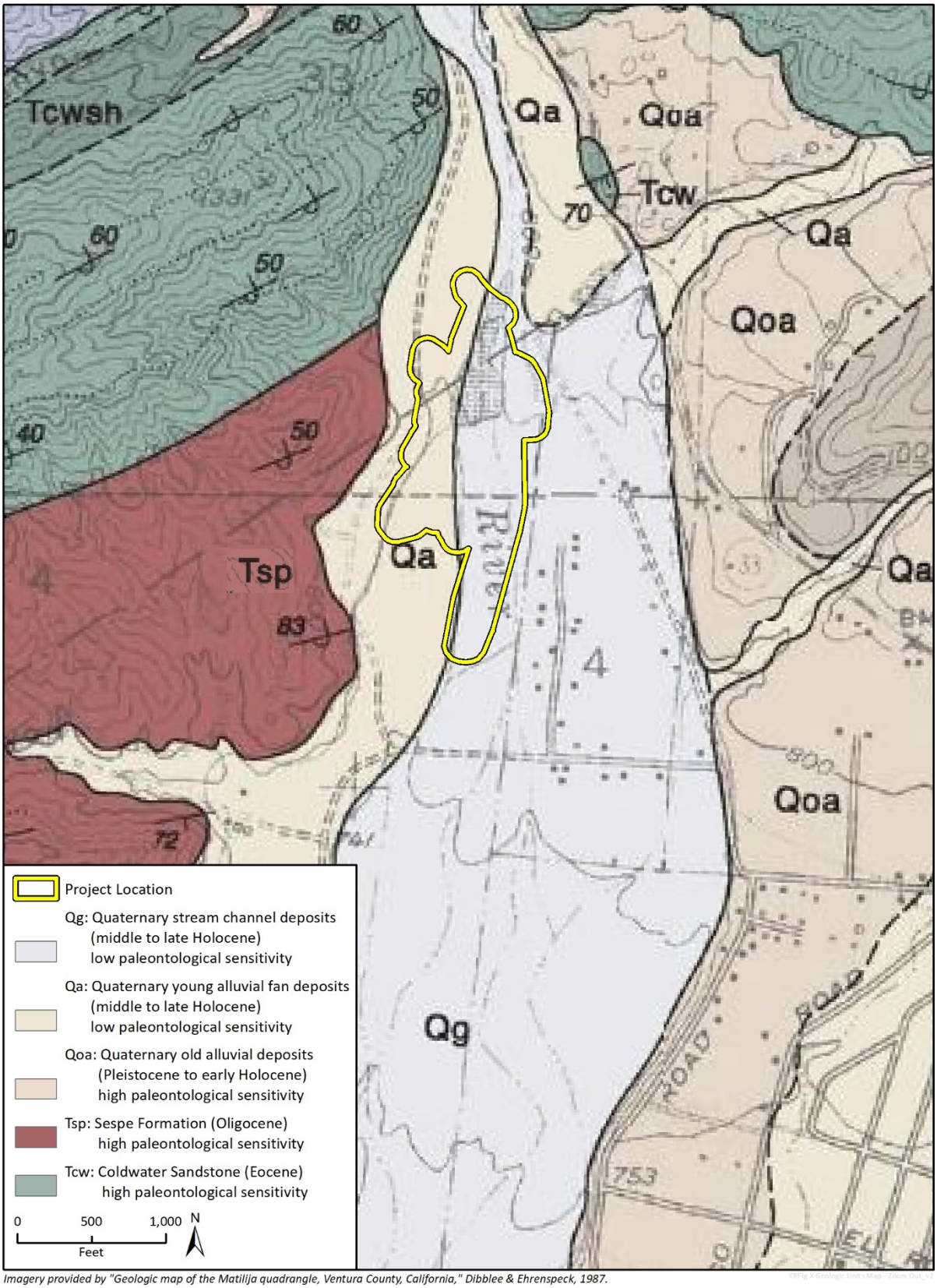
Sespe Formation

The non-marine Sespe Formation is composed of red-brown to yellow-brown, well-indurated, commonly crossbedded sandstone with imbricated pebble conglomerate and dark brown claystone. The Sespe Formation has yielded numerous fossil specimens of at least 35 mammalian, rodent, reptile, and bird species (Paleobiology Database 2020; UCMP 2020). The Oligocene Sespe Formation (Tsp) is assigned a **high paleontological sensitivity**.

Coldwater Sandstone

The marine Coldwater Sandstone is composed of sandstone, greenish-gray shale and siltstone, pebble conglomerate, and oyster reef debris (Dibblee and Ehrenspeck 1987). The Coldwater Formation has produced various invertebrate and microfossil localities and at least two vertebrate localities yielding unidentified mammalian specimens (Paleobiology Database 2020; UCMP 2020). The Eocene Coldwater Sandstone (Tcw) is assigned a **high paleontological sensitivity**.

Figure 10 Geologic Units and Paleontological Sensitivity of the Proposed Project



Imagery provided by "Geologic map of the Matilija quadrangle, Ventura County, California," Dibblee & Ehrenspeck, 1987.

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The CGS has mapped "Earthquake-Induced Landslide Zones" for the Matilija Quadrangle, which includes areas where previous landslide movement has occurred, or where local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements (CGS 2003). The Facility is not identified as being within an Earthquake-Induced Landslide Zone, and implementation of the program would not introduce or otherwise exacerbate existing potential for seismic-related landslides to occur.

Many of the hillsides surrounding the Facility site are identified as "Earthquake-Induced Landslide Zones" and may experience seismic-related landslides during implementation of the program. If the Facility site is affected by landslides on nearby hillsides, such as by receiving sediment flow from upstream landslide areas, the landslide-related sediment and debris would be removed from the Facility as part of regular operation and maintenance of the R&M Program. As described in the Project Description, Section 9.2, *Activities Descriptions*, maintaining the depth and volume of the forebay is critical to the operation of the Facility. Casitas has maintained the forebay footprint of 5.70 acres since the severe storms in 1978, and sediment and vegetation is removed from the forebay on average every four years. As described, the forebay requires annual maintenance, especially after heavy rainfall years, or during post-fire watershed recovery periods; this would include clearing out the Facility if inundated by earthquake-induced landslides from the surrounding hillsides. Therefore, potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related liquefaction?

The Facility is located along the Ventura River, within the channel, and this area has been identified by the CGS as being a "Liquefaction Zone," or an area where liquefaction has historically occurred, or where the local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements such that measures defined in PRC Section 2693(c) would be required (CGS 2003). The proposed program would not construct a new structure such that mitigation under PRC Section 2693(c) would be required. The program would not introduce or exacerbate existing liquefaction potential and would not directly or indirectly cause adverse effects associated with liquefaction. However, due to being located within a Liquefaction Zone, it is possible that the site may be subject to liquefaction during implementation of the program. The program would not introduce structures or residents to the area, and would not increase the risk of loss, injury, or death involving seismic-related liquefaction. Therefore, potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related landslides?

The CGS has mapped "Earthquake-Induced Landslide Zones" for the Matilija Quadrangle, which includes areas where previous landslide movement has occurred, or where local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements (CGS 2003). The Facility is not identified as being within an Earthquake-Induced Landslide Zone, and implementation of the program would not introduce or otherwise exacerbate existing potential for seismic-related landslides to occur.

Many of the hillsides surrounding the Facility site are identified as "Earthquake-Induced Landslide Zones" and may experience seismic-related landslides during implementation of the program. If the Facility site is affected by landslides on nearby hillsides, such as by receiving sediment flow from upstream landslide areas, the Facility would be maintained as proposed under the R&M Program. Potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

Soils at the Facility are comprised of the bed of the Ventura River, which consists primarily of riverwash and Cortina stony sandy loam (USDA 2020). Cortina stony sandy loam is in Hydrologic Soil Group A, which typically consist of less than 10 percent clay and more than 90 percent sand or gravel. The program would not involve ground disturbance of soils in their native context such that substantial loss of topsoil would occur; areas disturbed by project implementation have generally been previously disturbed through implementation of the Reclamation's Ventura River Project. Ground-disturbing activities including grading would not occur when there is flowing water present, and a suite of BMPs for erosion and sediment control would be implemented during all applicable program activities.

Erosion within the Ventura River channel is a natural process that the R&M Program has been designed specifically to account for. For instance, Activity 1A would restore the forebay's operational volume each year by removing accumulated sediment and debris, returning the forebay closer to its historical operational grade; in turn, Activity 1B would also restore intended channel conditions downstream by relocating sediment from the forebay in storm-eroded areas within 1,100 linear feet of downstream channel. This topic is additionally addressed under Section (10), *Hydrology and Water Quality,* item (c)(i). BMPs included in the Project Description (see Project Description Section 10) would also minimize or avoid soil erosion associated with program activities as discussed below.

- BMP-14, *Tracking Loose Material*, requires site cleaning activities such as street sweeping, vacuuming, and rumble plates for active construction areas, to avoid tracking loose construction material and disturbed soils off site.
- BMP-15, *Stabilize Exposed Soil*, applies to Activities 1, 4, 6A, and 6E to minimize ground-disturbing activities in channels and basins by limiting such activities to areas that can be stabilized prior to rain events. Activity 1 involves sediment removal and relocation; Activity 4 also involves sediment removal from the entrance pool to maintain the energy-dissipating hydraulic jump, allow proper fish entrance gate operation, and ensure overall uniform hydraulic flow patterns. Activity 6A, *Timber Cut-off Wall Repair and Maintenance,* would also involve sediment movement, consisting of the replacement of timbers and rock riprap where washed out by large storms, and restoration of the downstream channel to the desired slope. Finally,

Activity 6E would provide road maintenance on an as-needed basis. BMP-15 would be implemented for all these activities to minimize or avoid potential adverse effects associated with erosion and sedimentation.

- BMP-16, *Avoid Road Base Discharge*, applies to Activities 1 and 6E, and prohibits the placement of road base, fill, or sediments beyond the previously established roadbed when working adjacent to the river channel, thereby minimizing or avoiding potential for disturbed sediments to discharge into surface waters.
- BMP-21, *Best Management Practice to Prevent Erosion,* applies to all program activities except Activity 1B which will place excavated sediments in the primary placement area, and requires spoils are spread in a manner to avoid or minimize erosion risk.

As discussed in the Project Description, Section 11, *Annual Monitoring and Reporting Program*, Casitas will prepare a maintenance and repair plan each Spring for the next fiscal year (July 1 – June 30). The plan may be updated during the year as field conditions change. Under the proposed R&M Program, Casitas will identify the proposed maintenance and repair work for the year, including BMPs to implement with the planned maintenance work, such as any seasonal or geographic restrictions affecting the timing, methods, and limits of the planned work. With the implementation of applicable BMPs for erosion control, implementation of the R&M Program would not result in substantial soil erosion or the loss of topsoil, and potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

As discussed above for criterion (a), the Facility is located within a Liquefaction Zone, and hillsides surrounding the site are located within Earthquake-Induced Landslide Zones. Implementation of the R&M Program would not introduce or exacerbate existing seismic-related hazards in the area, including as related to landslide, lateral spreading, subsidence, liquefaction, and collapse. The Facility's location within the Ventura River bed is characterized by more than 90 percent sand and gravel, as described above for criterion (b); this soil type is not susceptible to lateral spreading, subsidence, or collapse. If the Facility is affected by sediment and debris flows associated with a geologic event such as liquefaction or landslide, regular operation and maintenance of the Facility would clear accumulated materials to avoid adverse impact. Potential impacts associated with the stability of geologic units or soils would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

As described above for criterion (b), soils at the Facility are primarily characterized as stony sandy loam; this soil type is not subject to expansive characteristics, as it is generally less than 10 percent clay. No impact associated with expansive soil would occur.

Implementation of the R&M Program would not include a new septic tank or alternative wastewater disposal system. The program would not introduce a new wastewater stream. No impact associated with wastewater disposal would occur.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Proposed maintenance activities associated with the Facility include: sediment removal; vegetation control; repair and maintenance of the radial gates (at the entrance to the headworks and spillway); instrumentation; and road maintenance. Repair activities would also include concrete work within the existing footprint of the Facility and replacement of wood timbers (timber cut-off wall and debris fence). Given the nature of the proposed improvements, project-related ground disturbance (i.e., excavations) is not anticipated to include ground disturbance of greater than three feet in previously undisturbed areas and is thus unlikely to impact fossiliferous deposits or result in significant impacts to paleontological resources. Impacts to paleontological resources would only occur in the unlikely situation of sensitive geologic units occurring at depths of less than three feet.

Mitigation Measures GEO-1 and GEO-2 are required in the case of unanticipated fossil discoveries if high sensitivity units occur at depths of less than three feet, and to provide training to maintenance crews to identify fossils if they are encountered. Mitigation Measures GEO-1 and GEO-2 would apply to all phases of project construction and would ensure that potential impacts to paleontological resources would be less than significant by providing for the recovery, identification and curation of previously unrecovered fossils.

Mitigation Measures

GEO-1 Worker's Environmental Awareness Program

Prior to any project ground disturbance, a WEAP will be prepared and used to train all site personnel prior to the start of work. The WEAP training will include at a minimum the following information:

- Review of local and state laws and regulations pertaining to paleontological resources
- Types of fossils that could be encountered during ground disturbing activity
- Photos of example fossils that could occur on site for reference
- Instructions on the procedures to be implemented should unanticipated fossils be encountered during construction, including stopping work in the vicinity of the find and contacting a qualified professional paleontologist

GEO-2 Unanticipated Discovery of Paleontological Resources

In the event an unanticipated fossil discovery is made during the course of project development, construction activity should be halted in the immediate vicinity of the fossil, and a qualified professional paleontologist shall be notified and retained to evaluate the discovery, determine its significance, and determine if additional mitigation or treatment is warranted. Work in the area of the discovery will resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction monitoring shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of the qualified paleontologist.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

8 Greenhouse Gas Emissions

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

Background

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. Climate change is the result of numerous, cumulative sources of GHGs contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere to help regulate the temperature of the planet. Most of the radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions, but anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere which trap heat. Emissions resulting from human activities thereby contribute to an average increase in Earth's temperature.

GHGs occur both naturally and as a result of human activities, such as fossil fuel burning, methane generated by landfill wastes and raising livestock, deforestation activities, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased over by 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity. Potential climate change impacts in California may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

In response to climate change, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 requires the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the governor signed SB 32 into law, extending AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping

Plan, which provides a framework for achieving the 2030 target. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017).

Significance Thresholds

Most individual projects do not generate sufficient GHG emissions to influence climate change directly. Physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

According to CEQA Guidelines Section 15183.5(b), projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions. Casitas does not currently have a formal CAP or GHG reduction plan. Thus, this approach is not currently feasible for this analysis.

To evaluate whether a project may generate a quantity of GHG emissions with the potential to have a significant impact on the environment, local air districts developed a number of bright-line significance thresholds. Significance thresholds are numeric mass emissions thresholds that identify the level at which additional analysis of project GHG emissions is necessary. If project emissions are equal to or below the significance threshold, with or without mitigation, the project's GHG emissions would be less than significant.

VCAPCD has not established quantitative significance thresholds for evaluating GHG emissions in CEQA analyses, but it recommends using the California Air Pollution Control Officers Association (2008) *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act* white paper and other resources when developing GHG evaluations (VCAPCD 2006). The *CEQA and Climate Change* paper provides a common platform of information and tools to support local governments and was prepared as a resource, not as a guidance document. CEQA Guidelines Section 15064.4 expressly provides a "lead agency shall have discretion to determine, in the context of a particular project," whether to "[u]se a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." A lead agency also has discretion under the CEQA Guidelines to "[r]ely on a qualitative analysis or [quantitative] performance-based standards."

Considering the lack of a specific GHG threshold from VCAPCD, it is appropriate to refer to guidance from other agencies when discussing GHG emissions. SCAQMD's thresholds of significance were established based on achieving the 2020 GHG emission reduction targets set forth in the AB 32 Scoping Plan. For developments that would occur beyond 2020, the mass emissions or bright-line threshold of significance (3,000 MT of CO_2e per year) is adjusted to a "substantial progress" threshold calculated based on the SB 32 target of a 40 percent reduction in GHG emissions below 1990 levels (Association of Environmental Professionals 2016). Because the 2020 GHG targets in the AB 32 Scoping Plan are designed to reduce GHG emissions to 1990 levels, it follows that the

threshold of SCAQMD threshold of 3,000 MT of CO_2e per year must decrease by 40 percent by 2030 to meet the statewide 2030 GHG emission reduction targets. Therefore, for the purposes of this analysis, the proposed R&M Program's year 2030 GHG emissions would be significant if they would exceed 1,800 MT of CO_2e per year.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The proposed R&M activities would generate GHG emissions from operation of heavy machinery as well as equipment and materials haul truck trips and worker trips to and from the project site. GHG emissions generated by the proposed program were estimated using CalEEMod version 2016.3.2 and the conservative, "worst-case" scenario assumptions for program activities described in Section 3, *Air Quality*. For the purposes of the GHG analysis, it was conservatively assumed that each program activity would occur annually. In reality, it is unlikely all activities would occur in any given year due to weather, fiscal, and need constraints.

Table 8 shows the breakdown of annual GHG emissions generated by implementation of the proposed program.

Table 8 Estimated Annual GHG Emissions

Activity	Emissions (MT of CO_2e per year)
Activity No. 1 Forebay Sediment	199.1
Activity No. 2 Fish Ladder, Screenbay, High-flow Bypass	2.9
Activity No. 3 Rock Weir and Measurement Weir	1.0
Activity No. 4 Entrance Pool	6.3
Activity No. 5 Concrete Structures	17.7
Activity No. 6 Routine Maintenance	
Timber Cut-Off Wall	37.3
Debris Fence	1.5
Radial Gates	0.8
Instrumentation	0.1
Road Maintenance	5.8
Total Annual Emissions	**272.5**
Significance Threshold	1,800
Threshold Exceeded?	**No**

CO_2e = carbon dioxide equivalent; MT = metric tons; SCAQMD = South Coast Air Quality Management District
See Appendix G for CalEEMod results. Values are approximations and have been rounded to nearest tenth. This table shows "mitigated" results from the unmitigated CalEEMod model, which does not incorporate Mitigation Measures AQ-1 through -3.

As shown in Table 8, the proposed R&M Program's total annual emissions of 272.5 MT of CO_2e fall below the bright-line significance threshold of 1,800 MT of CO_2e per year. Therefore, impacts related to GHG emissions would be less than significant. In addition, this emissions estimate does not account for Mitigation Measure AQ-2, which would further reduce GHG emissions by reducing the number of haul truck trips.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The VCAPCD and Casitas have not adopted any plans, policies, or regulations for the purpose of reducing GHG emissions. However, because the proposed R&M Program would not result in a significant increase in GHG emissions, it would not conflict with any applicable plans, policies, or regulations for the purpose of reducing GHG emissions. Therefore, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	■	☐

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

R&M Program activities would temporarily increase the transport, use, and storage of hazardous materials in the project area using heavy-duty vehicles and equipment. Such hazardous materials include diesel fuel, oil, solvents, and other similar materials. Such materials would be properly handled and disposed of in accordance with applicable laws and regulations. In addition, the Project Description, Section 10 identifies multiple BMPs to address the handling, use, and disposal of hazardous materials, as discussed below.

- BMP-11, *Pollutant Management*, requires that all vehicles and equipment are in good working condition and free of leaks. Stationary equipment located within or adjacent to the river will be positioned over drip pans to avoid the discharge of accidentally leaked fluids onto the riverbed.
- BMP-12, *Pollution Prevention,* requires the placement of sediment control features such as silt barriers, sandbags, and straw wattles or bales as appropriate to prevent the discharge of silt or pollutants off the project site.
- BMP-13, *Material Storage,* requires that materials are stored on impervious surfaces or plastic ground covers to prevent accidental spill or discharge of potentially hazardous materials into the Ventura River. In addition, perimeter barriers including but not limited to berms, silt fences, fiber rolls, sand/gravel bags, and straw bale barriers, will be applied to active construction sites to prevent the discharge of construction materials and spoils.
- BMP-18, *Site Materials and Refuse Management,* requires that at project completion, all debris, vehicles, building materials, and rubbish be removed from the area.
- BMP-19, *Re-fueling and Maintenance*, requires that all re-fueling, cleaning, or maintenance of equipment will occur at least 100 feet from the Ventura River. BMP-11, *Pollutant Management*, implemented concurrently with BMP-19, would also employ the use of plastic sheeting or impervious surfaces and perimeter runoff control during re-fueling activities, thereby minimizing potential for fuels to spill and discharge from the site.
- BMP-20, *Responding to Spilled Materials*, requires the development and implementation of a Spill Prevention Plan during all program activities.

The BMPs provided above are applicable to all R&M Program activities, but would be most prevalent during Activities 1A and 1B, due to the use of heavy equipment and machinery to remove accumulated sediment from the forebay and relocate it within the downstream placement area in the Ventura River channel downstream of the timber wall, as shown on Figure 3.

In addition, during Activity 5, which would implement concrete repairs at the spillway, the concrete protective rip-rap, the measurement weir, and the baffled apron as needed, BMP-17, *Concrete Washout Protocol*, would require the use of a vacuum system when sandblasting or jackhammering concrete occurs, to avoid release of materials to surface waters. Figure 7 shows where concrete work within the Facility would occur under Activity 5; all concrete work would be limited to the existing disturbance area. BMP-17 would also implement other measures as applicable to contain concrete work areas and safely stockpile concrete wastes separately from sediment and with erosion control measures to prevent discharge to the Ventura River.

With the implementation of BMPs included in all R&M Program activities, the program would not create a significant hazard to the public or the environmental due to the transport, use, disposal, or accidental release of hazardous materials. Potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The closest school to the Facility is Meiners Oaks Elementary School, located more than several miles away, in the community of Meiners Oaks. Implementation of the R&M Program would not emit hazardous emissions or handle acutely hazardous materials, substance, or waste within 0.25 mile of an existing or proposed school. Sediment removal activities would temporarily increase the transport, use, and storage of hazardous materials in the project area using heavy-duty vehicles and equipment. Such hazardous materials include diesel fuel, oil, solvents, and other similar materials that are typical of the operation and maintenance activities presently occurring at the Facility.

During Activity No. 1B, sediment removed from the forebay would be relocated to the downstream placement area until the planned channel contours and elevation is accomplished. Excess sediment would be stored in on-site stockpile areas or transported to an approved off-site disposal location if needed. Off-site sediment disposal would involve the use of heavy trucks transporting excavated sediment from the Facility site to a nearby approved waste disposal site. These trucks would likely travel within 0.25 of an existing or proposed school; however, such presence would be transitory and limited to the execution of Activity 1B, when needed. Furthermore, the presence of heavy trucks on local roadways is consistent with existing conditions for Facility operation and maintenance. Potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

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

Neither the Facility nor the surrounding area has been identified on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5, and implementation of the program would not result in a significant hazard to the public or the environment due to a hazardous material site. In addition, the Facility is not within an airport land use plan area or within two miles of a public airport. No impact associated with a public airport or public use airport would occur.

NO IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Continued implementation of the R&M Program would not require roadway/lane closures or detours on roadways used for an adopted emergency response plan or emergency evacuation plan. Access roads to the Facility are shown on Figure 8, and include a southern access road that begins at the entrance gate to the Facility at the terminus of North Rice Road and continues southwest across

the Ventura River, as well as a northern access road which traverses the Ventura River upstream of the forebay. These roads are located on Reclamation lands and are generally used by contractors to complete the forebay restoration project (Activity 1) annually under existing conditions, which would persist under the R&M Program. Activity 6E, *Road Maintenance,* would include the annual grading and shaping of Facility access roads on an as-needed basis. This activity would occur over approximately two to three weeks and may include temporary access restrictions; however, such restrictions would be temporary, planned, and of short duration, and would not impair the implementation of an adopted emergency response plan or emergency evacuation plan. Potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Please see Section 20, *Wildfire*. The Facility is located along the Ventura River, in a High Fire Hazard Severity Zone. However, the R&M Program would not introduce or alter any structures, and would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Accordingly, potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

10 Hydrology and Water Quality

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

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The Project Description identifies that multiple regulatory approvals are required for operation and maintenance of the Facility; Figure 9 (Annual Monitoring and Reporting Flow Diagram) identifies how the R&M Program regulatory approvals will be addressed on an annual basis.

R&M Program activities would comply with the requirements of the NPDES Construction General Permit and the applicable General NPDES Permits for Discharges of Groundwater from Construction. The NPDES Construction General Permit requires preparation and implementation of a project specific SWPPP, which requires operators to implement pollution prevention controls to minimize the discharge of pollutants from stormwater and spilled or leaked materials. Such controls include installation of silt fencing and sandbag barriers, covering of stockpiles, use of desilting basins, and post-construction revegetation and drainage requirements. In addition, compliance with the County of Ventura's MS4 Permit would require the implementation of an effective combination of erosion and sediment control BMPs, such as hydraulic mulch and hydroseeding, spill prevention and control, soil binders, and street sweeping, as needed. In addition, the General NPDES Permit for Discharges of Groundwater from Construction in coastal watersheds of Ventura County requires compliance with effluent limitations for reportable pollutants, discharge prohibitions, and a project-specific Monitoring and Reporting Program.

As described in the Project Description, *Introduction*, maintenance and repair activities for the Facility would be planned on an annual basis, and a list of planned work would be submitted to regulatory agencies with permitting authority over the program, including the Los Angeles RWQCB, which is responsible for implementing the NPDES Construction General Permit. Casitas expects all regulatory agencies to issue an NTP for program activities within 30 days of receiving the list of planned maintenance and repair activities. Casitas will coordinate the implementation of the environmental BMPs identified in the Project Description, Section 10 and permit conditions during the year. At the end of the year, an annual report documenting all work performed and the successful use of the BMPs will be submitted to the regulatory agencies including the RWQCB for their records. The R&M Program's annual monitoring and reporting program is discussed in the Project Description, Section 11, *Annual Monitoring and Reporting Program.*

As previously discussed in Section (4), *Biological Resources*, construction-related materials (e.g., stockpiled materials, construction equipment, and trash) stored on the project site during construction could adversely affect water quality (e.g., increased turbidity, altered pH, decreased dissolved oxygen levels, etc.) within the Ventura River if runoff were to occur during storm events; however, ground-disturbing activities would occur during dry conditions, and multiple BMPs would be implemented to avoid or minimize the potential for water quality degradation to occur. In addition, as discussed for Section (9), *Hazards and Hazardous Materials,* the R&M Program also includes implementation of multiple BMPs to minimize the potential for accidental upset or release of potentially hazardous materials, such as vehicle fuels and fluids, to occur during program activities.

Compliance with applicable erosion and sediment control permitting and regulatory requirements would minimize potential surface water quality impacts associated with project construction and compliance with applicable effluent limitations for reportable pollutants, discharge prohibitions, and a project-specific Monitoring and Reporting Program for groundwater discharge would minimize potential construction groundwater quality impacts. As such, the program is designed to provide compliance with water quality standards and waste discharge requirements. With the implementation of project-specific BMPs to minimize or avoid potential impacts associated with

accident or upset conditions as described in Section (4), *Biological Resources*, and Section (9), *Hazards and Hazardous Materials*, potential impacts associated with water quality standards, waste discharge requirements, and water quality degradation would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Groundwater supplies could be affected through directly pumping groundwater, or indirectly through interfering with groundwater recharge. Groundwater may be used as a water supply during program implementation because Casitas' water supply is provided as local surface water in Lake Casitas, and local groundwater obtained from Casitas' Mira Monte Well. Program activities that would require a water supply include dust suppression during ground disturbance and sediment removal and disposal activities. The program would also require an occasional water source for the manufacture of concrete, when needed for instance during Activity 5, for maintenance of the concrete structures. Casitas' water supplies are managed per the direction of an Urban Water Management Plan (UWMP) that is updated every five years in accordance with the law (Casitas 2016). In addition, water uses associated with implementation of the R&M Program would be consistent with existing water uses to operate and maintain the Facility, and the program would not introduce a new water demand.

Interference with groundwater recharge rates or patterns can occur if substantial new areas of impermeable surfaces are introduced and redirect surface runoff or inhibit infiltration to the subsurface. Implementation of the R&M Program would not introduce substantial new areas of impermeable surfaces, which most commonly occur as concrete, asphalt, or a comparable material. Program activities (Activity 1B) would include the placement of removed sediment at downstream locations within the existing channel; such sediment placement activities are authorized via existing regulatory permits issued by the RWQCB, the CDFW, and the USACE. The sediment placement activities would restore intended channel conditions downstream by relocating sediment from storm-eroded areas of the forebay to downstream channel areas where active flow would not be impeded. In addition, the placed sediment would shore up the channel banks downstream of the timber cut-off wall, where the channel banks have been eroded by heavy storms. These areas naturally experience erosion in response to storm events, which would continue to occur with implementation of the R&M Program. The in-channel placement of removed sediment under Activity 1B would not result in indirect adverse impacts to groundwater resources, including but not limited to the rate or pattern of groundwater infiltration and replenishment.

Potential impacts to groundwater supply would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

The Ventura River was altered as a result of the Ventura River Project, of which the Facility is a primary component; please see the Project Description, *Introduction* for a background discussion of previous development of the Ventura River Project. The R&M Program would not alter the course of

the Ventura River or any other stream or river and would not introduce new impervious surfaces. Implementation of the R&M Program would restore and maintain the planned capacity of the Facility, restoring site-specific drainage patterns both upstream and downstream of the Facility. Activity 1A would restore the forebay's operational volume each year by removing accumulated sediment and debris, returning the forebay closer to its historical operational grade. In turn, Activity 1B would also restore intended channel conditions downstream by relocating sediment from the forebay in storm-eroded areas within 1,100 linear feet of downstream channel. The sediment would be placed where active flow within the channel would not be impeded; additionally, the downstream placement of removed sediment would shore up the channel banks downstream of the timber cut-off wall, where the channel banks have been eroded by heavy storms. These areas naturally experience erosion in response to storm events, which would continue to occur with implementation of the R&M Program.

As described in the Project Description, Section 2.3.1, *Activity No. 1 Forebay Sediment*, Casitas has conducted extensive study of the sediment placement area downstream of the timber cut-off wall, including the completion of a photometric aerial survey of the area. Casitas has also developed a fill design for the downstream placement area, which defines the desired contours and elevation of the streambed. Ongoing operation and maintenance of the Facility requires that Casitas will evaluate the sediment placement area on a continual basis, using both the photogrammetric aerial survey and the fill design plans in conjunction with one another, to customize fill placement plans on an annual basis. As described in the Project Description, the placement of fill under Activity 1B will be consistent with Casitas' annual fill design plans. Depending on annual storm conditions, during any given year the amount of sediment relocated to the placement area will vary. If there is sediment leftover after the desired contours and elevation of the streambed in the placement area is achieved, it will be stockpiled outside of the Ventura River in designated soil disposal areas or exported off site. Stockpiled sediment will be evaluated on an annual basis to determine whether it can be placed back into the river each year. In summary, Activity 1B would only place relocated sediment within the Ventura River channel to the extent that the planned channel contours and elevations are achieved.

The sediment removal and placement components of the R&M Program have been designed to have a beneficial effect on localized drainage patterns within the Ventura River, both upstream and downstream of the Facility, by restoring the intended capacity of the forebay through sediment removal, as well as by providing the planned contours and elevation of the downstream channel through sediment placement, consistent with extensive and ongoing study of in-channel drainage patterns associated with the Facility. Other components of the R&M Program would have no effect on drainage pattern alterations, as work would be conducted during dry periods and when there is no flow present, and all work would be conducted with the implementation of applicable BMPs for erosion and sediment control, as discussed in Section (8), *Geology and Soils,* under criterion (b).

Implementation of the R&M Program would ultimately have positive effects on localized drainage patterns within the Ventura River, by restoring and/or providing the intended and planned channel conditions. With implementation of the BMPs identified in the Project Description, Section 10 and discussed above, potential impacts associated with drainage pattern alterations during R&M Program activities, including the potential for erosion or siltation on or off site would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

As discussed above, implementation of the R&M Program would not alter the course of a stream or river and would not adversely affect the existing drainage pattern within the Ventura River or the surrounding area. Drainage pattern alterations within the Ventura River would occur in accordance with planned contours and elevation for the channel, which account for flood events, and would not cause flooding on or off the site. Implementation of the R&M Program does not include discharges to an existing or planned stormwater drainage system. In addition, as described above for criterion (a) regarding water quality, the proposed program would not introduce substantial polluted runoff. Potential impacts associated with on- or off-site flooding, runoff water, polluted runoff, and impeding or redirecting flood flows would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The Facility is in a Special Flood Hazard Area (FEMA 2010) and would be inundated during a flood event. The Facility is also subject to inundation by tsunami or seiche. All the coastal and near coastal river areas in Ventura County are susceptible to tsunamis, which are series of waves caused by an undersea disturbance such as an earthquake. Although tsunamis initiate off the coast, they can proceed up rivers for many miles if the gradient of the river is shallow (County of Ventura 2013). The effects of tsunami waves on a river system such as the Ventura River could alter the river channel and modify coastal landforms (County of Ventura 2013). Most deaths during a tsunami are a result of drowning; associated risks include flooding, polluted water supplies, and damaged gas lines (County of Ventura 2013). A seiche has similar wave-generating effects as a tsunami, except that seiches affect enclosed bodies of water such as lakes and reservoirs. There is presently no record of a major seiche event occurring in Ventura County (County of Ventura 2013). The Facility is located approximately two miles downstream of the Matilija Dam; however, the reservoir entrained by Matilija Dam is highly sedimented, and there is minimal water present such that a seiche is considered unlikely. In addition, the dam is planned for removal by the USACE, which would remove the potential for seiche to occur at this location in future.

The likelihood of either a tsunami or seiche resulting in inundation at the Facility is considered low. With respect to flood hazards associated with being located within a Special Flood Hazard Area, the R&M Program would not exacerbate existing flood hazards at the Facility, and in fact would continue operation and maintenance of the Facility such that flood conveyance capacity of the existing facility is maintained to appropriately convey flows within the Ventura River. Program

activities would be completed during dry conditions, and implementation of the R&M Program would enable the Facility to operate as designed. In addition, implementation of the R&M Program would not introduce new hazards or hazardous conditions to the area and would not alter the existing potential for release of pollutants to occur as a result of inundation from a flood, tsunami, or seiche. Potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As described above, Casitas manages its water supply in accordance with an UWMP that is updated every five years (Casitas 2016). Surface water and groundwater resources are addressed in the UWMP. The R&M Program would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

NO IMPACT

11 Land Use and Planning

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

a. Would the project physically divide an established community?

The project involves work within the existing Facility. The project would not include construction of new structures and would not physically divide an established community. No impact would occur.

NO IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project site is in unincorporated Ventura County. The Ventura County General Plan designates the land use on the project site as Open Space (County of Ventura 2016). The project site is also zoned as Open Space (OS-80 ac) and is in the Dark Sky (DKS) Overlay Zone area and Temporary Rental Unit Regulation (TRU) Overlay Zone area. The project is generally consistent with the Ventura County General Plan, the Ojai Valley Area Plan, and the Ventura County Non-Coastal Zoning Ordinance. The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Accordingly, no impact would occur.

NO IMPACT

This page intentionally left blank.

12 Mineral Resources

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

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The project site is in Mineral Resource Zone 3 (MRZ-3), which indicates an area containing mineral deposits, the significance of which cannot be evaluated from available data (County of Ventura 2019). No mineral resource extraction is currently occurring on site. The project site is previously developed and is not zoned for mineral extraction. In addition, the project site is not located in a Mineral Resources Protection overlay zone as designated by the County of Ventura. Therefore, no impact to mineral resources would occur.

NO IMPACT

This page intentionally left blank.

13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	■	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

Noise Overview

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs (e.g., the human ear). Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (Crocker 2007).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (Hz) and less sensitive to frequencies around and below 100 Hz (Kinsler et al. 1999). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as a doubling of traffic volume, would increase the noise level by 3 dB; similarly, dividing the energy in half would result in a decrease of 3 dB (Crocker 2007).

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dBA or in terms of acoustical energy. Two equivalent noise sources combined do not sound twice as loud as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease; that a change of 5 dBA is readily

perceptible; and that an increase (decrease) of 10 dBA sounds twice (half) as loud (California Department of Transportation [Caltrans] 2013).

The impact of noise is not a function of loudness alone. The time of day when noise occurs, and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this analysis are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

- The L_{eq} is the level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound. For example, $L_{eq(1h)}$ is the equivalent noise level over a 1-hour period, and $L_{eq(8h)}$ is the equivalent noise level over an 8-hour period. $L_{eq(1h)}$ is a common metric for limiting nuisance noise whereas $L_{eq(8h)}$ is a common metric for evaluating construction noise.
- The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5-dBA penalty to noise occurring during evening hours (i.e., 7:00 p.m. to 10:00 p.m.) and an additional 10-dBA penalty is added to noise occurring during nighttime hours (i.e., 10:00 p.m. to 7:00 a.m.). These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Sound from a small, localized source (approximating a “point” source) decreases or drops off at a rate of 6 dBA for each doubling of the distance. However, traffic is not a single, stationary point source of sound. Over some time interval, the movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point. The drop-off rate for a line source is 3 dBA for each doubling of distance.

Vibration Overview

While people have varying sensitivities to vibrations at different frequencies, they are generally most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses (Federal Transit Administration [FTA] 2018).

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or RMS vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (Caltrans 2020).

Vibration significance ranges from approximately 50 vibration decibels (VdB), which is the typical background vibration-velocity level, to 100 VdB, the general threshold where minor damage can occur in fragile buildings (FTA 2018). The general human response to different levels of groundborne vibration velocity levels is described in Table 9.

Table 9 Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible (many people find that transportation-related vibration at this level is unacceptable)
85 VdB	Vibration acceptable only if there are an infrequent number of events per day

Source: FTA. 2018.

Project Site Setting

The primary sources of noise in the project site vicinity are vehicular traffic on local roadways and agricultural operations. Rural and suburban residential areas generally experience lower ambient noise levels while areas in highly urbanized regions, along high-volume roadways, and near industrial development generally experience higher ambient noise levels. Quiet rural and suburban areas, like those adjacent to the project site, typically have noise levels in the range of 25 to 50 dBA (Caltrans 2013). Rice Road runs northwest-southeast near the project site and is adjacent to the project site at its northwestern terminus and approximately 1,500 feet east of the southernmost portion of the project site. As discussed in Section 17, *Transportation*, traffic volumes on Rice Road in 2018 were approximately 2,000 vehicles per day (County of Ventura 2018); therefore, noise levels within 80 feet of Rice Road are approximately 50 CNEL (Appendix H). Typical agricultural operations on Ventura County farms that use tractors and similar mechanized equipment for cultivation and harvesting produce noise levels of approximately 75 to 85 dBA at 50 feet. In addition, water pumps produce noise levels of 50 to 65 dBA at 50 feet (County of Ventura 2013). Agricultural operations in the project site vicinity generate similar noise levels when these types of equipment are in use.

Noise exposure goals for different types of land uses reflect the varying noise sensitivities associated with those uses. The County of Ventura General Plan Noise Element defines noise-sensitive receivers as residences, schools, hospitals, nursing homes, churches, and libraries (County of Ventura 2019). Noise-sensitive receivers in the project site vicinity include residences along Oso Road approximately 100 feet east of the project site and a residence off SR 33 approximately 370 feet west of the project site.

Regulatory Setting

Ventura County General Plan

Section 2.16 of the County of Ventura General Plan (2019) contains the County's Noise Element. The Noise Element identifies primary noise sources in the county, develops noise contours for existing transportation, industrial, and miscellaneous sources, and provides mitigation strategies to reduce noise impacts in the county through 2020. The Noise Element also contains policies related to noise exposure and emission. However, none of the policies are applicable to the proposed R&M Program because the policies are focused on ensuring noise/land use compatibility of new noise-sensitive land uses and restricting noise levels from continuous stationary noise sources such as heating, ventilation and air conditioning equipment and industrial processes.

Ventura County Code of Ordinances

Section 6299-1 of the Ventura County Code of Ordinances prohibits loud or raucous noise within any residential zone which is audible to the human ear during the hours of 9:00 p.m. to 7:00 a.m. at

a distance of 50 feet from the property line of the noise source or 50 feet from any such noise source if the source is in a public right-of-way. Although the ordinance indicates "loud or raucous noise" can include operation of riding tractors or other mechanical or electrical devices or hand tools, which could be used during construction activities, Section 6299-2(a) exempts any government entity or public utility, such as Casitas, from complying with the provisions of the ordinance.

Ventura County Construction Noise Threshold Criteria and Control Plan

The County of Ventura Construction Noise Threshold Criteria and Control Plan establishes thresholds for temporary construction-generated noise at sensitive receptors. Construction noise thresholds are divided into daytime hours (7:00 a.m. to 7:00 p.m.), evening hours (7:00 p.m. to 10:00 p.m.), and nighttime hours (10:00 p.m. to 7:00 a.m.). Per the Construction Noise Threshold Criteria and Control Plan, hospitals and nursing homes are sensitive receptors at all hours, single- and multi-family residences as well as hotels/motels are sensitive receptors during evening and nighttime hours, and schools, churches and libraries are sensitive receptors during daytime and evening hours when in use. Noise threshold criteria for daytime construction apply only to receptors that are sensitive to noise impacts during the daytime (i.e., hospitals, nursing homes, schools, churches, and libraries). No daytime noise-sensitive receptors are in the vicinity of the project site.

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Noise generated by activities under the R&M Program was estimated using the Federal Highway Administration Roadway Construction Noise Model version 1.1 (RCNM 2006). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, noise levels produced by R&M activities were estimated at noise-sensitive receivers near the project site. RCNM provides reference noise levels for standard heavy-duty equipment, with an attenuation of 6 dBA per doubling of distance for stationary equipment.

For noise assessment, heavy-duty equipment can be considered to operate in two modes: stationary and mobile. As a rule, stationary equipment operates in a single location for one or more days at a time, with either fixed-power operation (e.g., pumps, generators, and compressors) or variable-power operation (e.g., pile drivers, rock drills, and pavement breakers). Mobile equipment moves around the site with power applied in cyclic fashion, such as bulldozers, graders, and loaders (FTA 2018). Noise impacts from stationary equipment are assessed from the center of the equipment, while noise impacts from mobile equipment are assessed from the center of the equipment activity area (i.e., R&M Program activity site).

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle, or percent of operational time, of the activity to determine the L_{eq} of the operation (FTA 2018).

Each R&M Program activity has a specific equipment mix, depending on the work to be accomplished during that activity. Each R&M Program activity also has its own noise characteristics; some will have higher continuous noise levels than others, and some may have high instantaneous noise levels. The maximum hourly L_{eq} of each activity is determined by combining the L_{eq} contributions from each piece of equipment used in that phase (FTA 2018).

Given the nature of R&M Program activities and site constraints, it was assumed that only three pieces of mobile heavy-duty equipment and all pieces of stationary equipment would be operating simultaneously at any given time. To provide a conservative assessment, it was assumed that the three loudest pieces of mobile equipment would be operating simultaneously for those activities that would require more than three pieces of mobile equipment. Table 10 lists the anticipated heavy-duty equipment mix for each R&M Program activity and the estimated noise level at 50 feet. For activities in which there are several options for equipment, the loudest equipment was modeled to provide a conservative estimate of noise impacts.

Table 10 Noise Levels by R&M Program Activity at 50 Feet

R&M Program Activity		Equipment	Noise Level at 50 Feet (dBA L_{eq})
1	Forebay Sediment	Grader, bulldozer, and dump truck	83
2	Fish Ladder, Screenbay, High-flow Bypass	Excavator, loader, and water pumps (2)	83
3	Rock Weir and Measurement Weir	Excavator	77
4	Entrance Pool	Bulldozer, excavator, and one dump truck	81
5	Concrete Structures	Dump truck, excavator, concrete mixer, and concrete pump	82
6A	Timber Cut-off Wall Repair and Maintenance	Excavator, dump truck, and vibratory compactor	80
6B	Debris Fence	Backhoe, light trucks (2)	77
6C	Radial Gates	Aerial lift, light trucks (2)	75
6D	Instrumentation	No heavy-duty equipment	n/a
6E	Road Maintenance	Grader	81

dBA = A-weighted decibel; L_{eq} = average equivalent noise level; n/a = not applicable

On-site Noise

Noise generated by R&M Program activities on site would be primarily associated with the use of heavy-duty off-road equipment. Casitas has not adopted thresholds for evaluating the significance of noise impacts, and none of the County of Ventura's General Plan Noise Element policies, County Code requirements, or construction noise threshold criteria are applicable to the proposed R&M Program, because the project activities would only occur during daytime hours near receivers that are not considered to be sensitive to daytime construction noise by the County of Ventura's Construction Noise Threshold Criteria and Control Plan (County of Ventura 2010). Casitas has therefore used the FTA (2018) *Transit Noise and Vibration Impact Assessment* criteria for the purposes of this analysis. The FTA provides criteria for assessing construction noise impacts based on the potential for adverse community reaction. The project's R&M activities would use heavy-duty equipment and activities (e.g., grading, concrete pouring, material movement) similar in nature to those of FTA construction activities. Therefore, the FTA threshold is appropriate to use in evaluating the project's on-site noise impacts.

For residential uses, the daytime noise threshold is 80 dBA L_{eq} for an 8-hour period (FTA 2018).

Table 11 summarizes noise levels generated by each individual R&M Program activity at the sensitive receiver nearest to the associated activity area. As shown therein, noise levels produced by individual R&M Program activities would not exceed the threshold of 80 dBA L_{eq} at the nearest sensitive receivers.

Table 11 R&M Noise Levels by Activity at Nearest Sensitive Receivers

Activity		Distance to Nearest Sensitive Receiver (feet)[1]	Noise Level at Nearest Sensitive Receiver (dBA L_{eq})	Threshold (dBA L_{eq})	Threshold Exceeded?
1	Forebay Sediment	525	63	80	No
2	Fish Ladder, Screenbay, High-flow Bypass	725	60	80	No
3	Rock Weir and Measurement Weir	450	58	80	No
4	Entrance Pool	550	60	80	No
5	Concrete Structures	675	59	80	No
6A	Timber Cut-off Wall Repair and Maintenance	525	60	80	No
6B	Debris Fence	725	54	80	No
6C	Radial Gates	670	53	80	No
6E	Road Maintenance	300	65	80	No

dBA = A-weighted decibel; L_{eq} = average hourly equivalent noise level

[1] Distance measured from the property boundary of the nearest sensitive receiver to the center of the program activity area.

Notes: Assumes a standard distance attenuation rate for point sources of 6 dBA per doubling of distance. See Appendix H for RCNM outputs.

Some activities may occur simultaneously, which would result in higher combined noise levels than for each individual activity. The "reasonable worst-case scenario" of overlapping activities would be simultaneous implementation of Activity Nos. 1 and 6E because Activity No. 1 requires use of certain heavy equipment that generates relatively high noise levels (i.e., dump truck, grader, bulldozer) and because these activities would impact the same noise-sensitive receiver (i.e., residences along Oso Road). Table 12 shows combined noise levels during simultaneous occurrence of Activity Nos. 1 and 6E, the "reasonable worst-case scenario."

Table 12 Combined R&M Noise Levels during Simultaneous Activities at Nearest Sensitive Receivers

Activity		Distance to Nearest Sensitive Receiver (feet)	Noise Level at Nearest Sensitive Receiver (dBA L_{eq})[2]	Threshold (dBA L_{eq})	Threshold Exceeded?
1	Forebay Sediment	525	63	80	No
6E	Road Maintenance	300	65	80	No
Combined Noise Level			67	80	No

[1] Distance measured from the property boundary of the nearest sensitive receiver to the center of the program activity area.

[2] See Table 11.

dBA = A-weighted decibel; L_{eq} = average hourly equivalent noise level

Note: Assumes a standard distance attenuation rate for point sources of 6 dBA per doubling of distance. See Appendix H for summed noise calculations.

Table 12 shows that the "reasonable worst-case scenario" would not exceed the threshold of 80 dBA L_{eq} at the nearest sensitive receivers. Noise generated by simultaneous occurrence of other overlapping activities would be less than that generated by Activity Nos. 1 and 6E and would also not exceed the threshold of 80 dBA L_{eq}. Therefore, on-site noise impacts would be less than significant.

Off-Site Traffic Noise

The R&M Program would add vehicle trips from worker commutes, water trucks, material deliveries, and haul trucks to local and regional roadways, which would generate increased traffic noise. The greatest volume of project-related trips would occur during Activity No. 1, which would require approximately 20 daily one-way worker trips, six daily one-way material delivery and water truck trips, and 10 to 12 daily one-way haul truck trips.[3] In total, Activity No. 1 would require approximately 36 to 38 daily one-way trips. Haul trucks would utilize North Rice Road and Fairview Road to access the project site from SR 33 and would therefore travel past several residences, which are noise-sensitive receivers. Off-site traffic noise impacts would be significant if traffic would result in a 3-dBA increase in traffic noise, which would be a barely perceptible increase for the average healthy ear (Caltrans 2013). A doubling of traffic volumes would be necessary to cause a 3-dBA increase (Crocker 2007).

Rice Road experiences daily traffic volumes of approximately 2,000 vehicles, and Fairview Road experiences daily traffic volumes of approximately 900 vehicles (County of Ventura 2018). Therefore, the increase in daily traffic volumes of approximately 36 to 38 trips as a result of the proposed R&M Program would not double existing traffic volumes and therefore would not result in a 3-dBA increase in traffic noise levels. Therefore, off-site traffic noise impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

A quantitative assessment of potential vibration impacts from the R&M Program, such as vibratory compaction and grading, was conducted using the estimates and equations developed by Caltrans and the FTA (Caltrans 2020; FTA 2018). Table 13 shows typical vibration levels for various pieces of heavy-duty equipment used in the assessment of construction vibration (FTA 2018). These pieces of heavy-duty equipment are anticipated to be used during R&M Program activities and would generate the highest levels of vibration as compared to heavy-duty equipment not included in this analysis.

[3] Approximately 626 one-way haul trips would occur over the course of 60 working days, which would equate to approximately 10 to 12 one-way haul trips per day

Table 13 Vibration Levels for Heavy-Duty Equipment

Equipment	PPV at 25 feet (in/sec)	Approximate L_v VdB at 25 feet
Vibratory Roller	0.210	94
Large Bulldozer	0.089	87
Small bulldozer	0.003	58
Loaded trucks	0.076	83

PPV = peak particle velocity; in/sec = inches per second; L_v = vibration velocity level; VdB = vibration decibel

Source: FTA 2018

In particular, Activity Nos. 1, 4, 5, and 6A would utilize vibration-generating equipment such as bulldozers, loaded trucks, and vibratory compactors. Neither Casitas nor the County of Ventura has adopted a significance threshold to assess vibration impacts during construction and operation. Therefore, for this analysis Casitas has determined that used the FTA guidelines set forth in the FTA *Transit Noise and Vibration Impact Assessment Manual* (2018) to evaluate potential vibration impacts related to both potential building damage and human annoyance. Based on the FTA criteria, vibration impacts would be significant if vibration levels exceed 100 VdB, which is the general threshold where damage can occur to fragile buildings, or 78 VdB at residences during daytime hours, which is the general threshold for human annoyance at this land use (FTA 2018). Table 14 summarizes estimated vibration levels at the nearest sensitive receivers.

Table 14 Vibration Levels by R&M Program Activity at Nearest Sensitive Receivers

Equipment	Activity	Distance to Nearest Sensitive Receiver (feet)[1]	Vibration Level at Nearest Sensitive Receiver (VdB)	Daytime Residential Human Annoyance Threshold (VdB)	Structural Damage Threshold (VdB)	Thresholds Exceeded?
Large bulldozer	1. Forebay Sediment	200	67	78	100	No
Small bulldozer	1. Forebay Sediment 4. Entrance Pool	200	38	78	100	No
Vibratory compactor	6A. Timber Cut-off Wall	600	64	78	100	No
Loaded trucks	1. Forebay Sediment 4. Entrance Pool 5. Concrete Structures 6A. Timber Cut-off Wall	200	63	78	100	No

VdB = vibration decibel

[1] Distance measured from the structure of the nearest sensitive receiver to the edge of the R&M Program activity area.

Note: See Appendix H for vibration calculations.

As shown above, vibration levels generated by the R&M Program would not exceed the thresholds for daytime residential human annoyance or structural damage at the nearest sensitive receivers. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

As discussed in Section 9, *Hazards and Hazardous Materials*, the closest public airport to the project site is the Santa Paula Airport, located approximately 15 miles southeast of the project site. The project site is not located within an airport land use plan or within two miles of a public airport or private airstrip (Ventura County Airport Land Use Commission 2000). Therefore, the project would not expose people working in the project area to excessive noise levels due to proximity to an airport. No impact would occur.

NO IMPACT

This page intentionally left blank.

14 Population and Housing

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

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

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The R&M Program would not involve construction of new housing, would not require additional Casitas staff for operation, and would not increase available water supplies. Therefore, the project would not induce population growth directly or indirectly, nor conflict with growth projections in the area. The project would not displace any people or existing housing and would not necessitate construction of housing elsewhere. No impact to population and housing would occur.

NO IMPACT

This page intentionally left blank.

15 Public Services

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

Public services include fire protection, police protection, schools, parks, and other public facilities and resources. The proposed program activities would occur at the existing Facility along the Ventura River.

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Fire protection services to the Facility site and surrounding area are provided by Ventura County Fire Department Station 22, located at 466 South La Luna Avenue in Ojai. Implementation of the proposed program would comply with Fire Code standards, including provision of adequate emergency access to the site. As discussed in Section 20, *Wildfire*, the program would not introduce or exacerbate existing wildfire risk. In addition, as discussed in Section 14, *Population and Housing*, the proposed program would not directly or indirectly induce population growth; therefore, the program would not increase the Ventura County Fire Department Station service populations.

Operation of the project would constitute a continuation of existing conditions, in that the R&M Program would continue to operate and maintain the Facility. Potential impacts associated with fire protection services would be less than significant, with no mitigation required.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Police protection services to the Facility and surrounding area are provided by the Ojai Station of the Ventura County Police Department, located at 402 South Ventura Street in Ojai. As noted above, the proposed program would neither directly nor indirectly induce population change or growth in the area. Therefore, the project would not increase the service population for the Ojai Police Station, or the Ventura County Police Department overall. Potential impacts associated with police protection services would be less than significant, with no mitigation required.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The proposed R&M Program would not directly or indirectly affect population in the area, and therefore would not affect service ratios for public services such as schools, parks, or libraries. The project also would not directly affect such public services, as all project-related activities would occur at the existing Facility. No impact would occur.

NO IMPACT

16 Recreation

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

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

As discussed in Section 14, *Population and Housing*, the proposed R&M Program would not directly or indirectly support population growth. Therefore, it would not increase the use of existing neighborhood and regional parks or other recreational facilities so as to cause or accelerate a substantial physical deterioration of the facility. No impact would occur.

NO IMPACT

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

The proposed R&M Program does not propose recreational facilities and would not require the construction or expansion of any recreational facilities. As such, no impact would occur.

NO IMPACT

This page intentionally left blank.

17 Transportation

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

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Access to the Facility would be from the north end of Rice Road located east of the forebay, from the northern access road at the upper limit of the forebay, and from the south from Cooper Canyon Road. Transportation impacts during R&M activities would be associated primarily with worker vehicles and haul trucks. No lane closures would be required for the proposed program. The proposed program would not generate bus, pedestrian, or bicycle traffic.

The County of Ventura's Initial Study Assessment Guidelines document bases the determination of the significance of traffic impacts to a road segment or intersection "Levels of Service" (LOS) on policies 4.2.2-4 and 4.2.2-5 of the Ventura County General Plan. A potentially significant adverse project-specific traffic impact is assumed to occur on any road segment: 1) if the project would cause the existing LOS on a roadway segment to fall to an unacceptable level, or 2) if the project will add one or more Peak-Hour Trip to a roadway segment that is currently operating at an unacceptable LOS (County of Ventura 2010).

Rice Road, located directly east of the Facility, is a County-maintained local road. As such, the minimum acceptable LOS is C, which is defined as: "Stable flow but with speed and maneuverability restricted by higher traffic volumes. Satisfactory operating speed for urban locations with some delays at signals." Rice Road is a Class I roadway, defined as a rural two-lane or multi-lane roads of essentially level terrain, where the road section has been improved to meet current road standard criteria (County of Ventura 2005). This means the road segment has an average daily traffic LOS threshold of 10,000 vehicles (County of Ventura 2010). In 2018, traffic volumes on Rice Road were 2,000 vehicles per day, with an AM peak of 180 and a PM peak of 190 (County of Ventura 2017).

Anticipated vehicle trips include construction workers traveling to and from the project work areas, haul trucks (including for export of sediment, as needed), and other trucks associated with equipment and material deliveries. The traffic generated by workers would vary depending on which activity is being implemented. Any program-related traffic occurring between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow. Travel during these timeframes would primarily consist of workers traveling to and from the project area, because deliveries and haul trips would likely occur throughout the day. The increased traffic could result in a reduction of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles. Conservatively assuming all program-related traffic accesses the project site on Rice Road, worker and haul trips associated with project construction would temporarily increase daily traffic along this roadway by a maximum of approximately 50 vehicle trips per day. In addition, realistically, these trips would be spread across the three access routes to the project site. The County's LOS threshold would not be exceeded.

Traffic impacts would only occur during active R&M activities. The proposed program would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Specifically, the guidelines state vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact. According to CEQA Guidelines Section 15064.3(b)(3), a lead agency may include a qualitative analysis of operational and construction traffic. Pursuant to CEQA Guidelines Section 15064.3(c), the provisions of this section do not apply statewide until July 1, 2020, although a lead agency may elect to immediately apply the provisions of the updated guidelines. Currently, official measures and significance thresholds related to VMT have not been adopted by Casitas or the County of Ventura. However, as discussed below, the project is not expected to permanently affect VMT in the study area.

The Governor's Office of Planning and Research *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) states, "Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant VMT impact." As discussed under item (a), the project would generate up to a maximum of approximately 50 vehicle trips per day, which falls below the recommended screening threshold of 110 trips per day. As such the impact associated with VMT would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

R&M Program activities would take place at the existing Facility and would not increase hazards on adjacent roadways due to a geometric design feature or incompatible use. The proposed program would not include alterations to existing public roadway alignments or intersections and therefore would not include sharp curves or unsafe designs that would increase traffic hazards.

On-site road maintenance and repair would occur as needed (estimated annually) on Reclamation property during dry conditions. The purpose of the road maintenance activities would be to improve the safety of the roads, which are primarily used by contractors to complete the forebay restoration project. The program would therefore have a beneficial impact related to road hazards on the project site. No adverse impact related to traffic hazards would occur.

NO IMPACT

d. Would the project result in inadequate emergency access?

Program implementation would not block public roadways or driveways. Emergency access to the Facility and surrounding land uses would not be impeded. As discussed in Section 9, *Hazards and Hazardous Materials*, and in Section 20, *Wildfire,* road maintenance that would occur under Activity 6E would be planned and of short duration, and limited to Reclamation roadways providing access to the Facility within the Ventura River; this activity would not substantially impede the implementation of emergency response or evacuation plans. Therefore, the program would not result in inadequate emergency access.

NO IMPACT

This page intentionally left blank.

18 Tribal Cultural Resources

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

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Casitas Municipal Water District (Casitas) is the lead agency for this project and is therefore responsible for AB 52 notification. Casitas sent AB 52 consultation letters on July 2, 2020, to the following tribes: Barbareño/Ventureño Band of Mission Indians, Chumash Council of Bakersfield, Coastal Band of the Chumash Nation, Northern Chumash Tribal Council, San Luis Obispo County Chumash Council, and Santa Ynez Band of Chumash Indians. Follow-up consultation undertaken on August 19, 2020 resulted in Julie Tumamait-Stenslie, Chairperson of the Barbareño/Ventureño Band of Mission Indians, requesting Native American monitoring during project-related ground disturbance associated with Activities 1A and 1B. Mitigation Measures TCR-1, *Avoidance of Tribal Cultural Resources,* TCR-2, *Tribal Cultural Resources Treatment Plan,* and TCR-3, *Native American Monitoring,* as presented below, would be implemented for the proposed project, and would include Native American monitoring during project-related ground disturbing activities.

Mitigation Measures

TCR-1 Avoidance of Tribal Cultural Resources

When feasible, project construction shall avoid tribal cultural resources.

TCR-2 Tribal Cultural Resources Treatment Plan

Prior to construction of the project, the Casitas shall prepare a tribal cultural resources treatment plan to be implemented in the event an unanticipated archaeological resource that may be considered a tribal cultural resource is identified during construction, subject to review and acceptance by Casitas. The plan would include suspension of all earth-disturbing work in the vicinity of the find, avoidance of the resource or, if avoidance of the resource is infeasible, the plan would outline the appropriate treatment of the resource in coordination with the affiliated tribe and, if applicable, a qualified archaeologist. Examples of appropriate treatment for tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.

TCR-3 Native American Monitoring

All earth-disturbing work during Activities 1A, 1B, and 6E associated with the project shall be observed by a local Native American monitor. In the event of a discovery of tribal cultural resources, the steps identified in the tribal cultural resources plan prepared under measure TCR-2 shall be implemented.

Significance After Mitigation

Implementation of Mitigation Measure TCR-1 would provide that project activities would avoid tribal cultural resources to the extent feasible. Mitigation Measure TCR-2 would provide for the implementation of a project-specific tribal cultural resources treatment plan, which will designate procedures for response to an unanticipated discovery of tribal cultural resources. Mitigation Measure TCR-3 would provide for a Native American monitor during earth-disturbing work

associated with proposed project Activities 1A, 1B, and 6E. With implementation of these mitigation measures, potential impacts of the project to tribal cultural resources would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

There are no known tribal cultural resources at the project site. However, as described under impact threshold (a) above, the potential for previously undiscovered tribal cultural resources to be uncovered during ground-disturbing activities, while unlikely, cannot be completely ruled out. If such resources are found and are determined to be significant under PRC Section 5024.1, the project could result in significant impacts to such resources if they are disturbed, destroyed, or otherwise improperly treated. Therefore, previously identified mitigation measures would be implemented as directed below.

Mitigation Measures

CR-1 Archaeological Monitoring

Please see Section 5, *Cultural Resources*, impact threshold (b) for the full text of this mitigation measure.

TCR-1 Avoidance of Tribal Cultural Resources

Please see impact threshold (a) above for the full text of this mitigation measure.

Significance After Mitigation

Implementation of Mitigation Measure CR-1 would provide for archaeological monitoring during all project-related ground disturbance under Activities 1A, 1B, and 6E, with monitors having the authority to stop work in the vicinity of a find of archaeological resources, should one occur. Mitigation Measure CR-1 also allows for monitoring reduction to spot-checking, or monitoring cessation, if it is determined to be unnecessary based on site-specific work conditions. In addition, Mitigation Measure TCR-1 would provide for the avoidance of tribal cultural resources to the extent feasible. With the implementation of these measures, potential impacts associated with causing a change in the significance of a tribal cultural resource would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

This page intentionally left blank.

19 Utilities and Service Systems

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

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

The project consists of R&M activities at the Facility in order to maintain its intended design capacity. The project would not expand the capacity of the Facility beyond its intended design. As discussed in Section 14, *Population and Housing*, the project would not directly or indirectly increase population. As such, the project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. No impact would occur.

NO IMPACT

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The project would not introduce a new demand for water supplies. Occasional water use would be required for dust suppression purposes (all program activities) and for concrete manufacturing (Activity No. 5, *Concrete Structures*); this water use would be consistent with ongoing operation and maintenance of the Facility. As such, required water supply would be provided by Casitas from existing sources, which include surface water from Lake Casitas and groundwater from Casitas' existing Mira Monte Well. Because the R&M Program would not introduce a new water demand, and water use would only be conducted on an as-needed basis depending upon the activities identified for any given year, potential impacts associated with sufficient water supplies would be less than significant. This topic is further discussed under Section 10, *Hydrology and Water Quality.*

LESS THAN SIGNIFICANT IMPACT

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

The project would not generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment requirements. As such, no impact would occur.

NO IMPACT

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

R&M activities would generate minimal solid waste. Removed sediment from the forebay would be used to shore up the channel banks downstream of the timber cut-off wall which have been eroded by heavy storms. It is anticipated that this sediment would be placed or stockpiled on site. However, it is possible that in some years, there may not be on-site capacity to store the removed sediment. Under this scenario, up to 25,000 cubic yards of sediment could be exported from the project site. Casitas would try to identify a receiver agency to beneficially use the excess sediment in the watershed. However, if no receiver agency is willing to take the excess sediment, it is possible the sediment could be disposed of as solid waste.

E.J. Harrison and Sons provides waste and recycling services in the city of Ojai and the surrounding unincorporated areas of Ventura County. Solid waste is directed by E.J. Harrison and Sons to the Gold Coast Recycling and Transfer Station, a privately-operated diversion and recycling station. The remaining waste is then transferred to the Toland Road Landfill, a Class III landfill operated by the Ventura Regional Sanitation District. The Toland Road Landfill is in Santa Paula, a 30-mile drive from the project site. According to the California Department of Resources Recycling and Recovery, the Toland Road Landfill has a permitted capacity of 30 million cubic yards and a maximum disposal capacity of 1,500 tons per day. As of January 2016, the remaining capacity at the landfill was approximately 10.5 million cubic yards. The landfill solid waste permit lists an estimated closure date of 2027. Toland Road Landfill accepts a variety of materials, including construction and demolition materials, agricultural waste, industrial waste, sludge (biosolids), and mixed municipal waste (CalRecycle 2020a).

Waste Management, Inc. operates the Simi Valley Landfill and Recycling Center, located in the city of Simi Valley, a 50-mile drive from the project site. The Simi Valley Landfill and Recycling Center has a permitted capacity of 119,600,000 cubic yards and a maximum disposal capacity of 9,250 tons per day. As of February 2017, the remaining capacity was approximately 88.3 million cubic yards. The landfill solid waste permit lists an estimated closure date of 2052. The landfill accepts a variety of materials including construction and demolition materials, industrial waste, sludge (biosolids), and mixed municipal waste (CalRecycle 2020b).

Construction activities may temporarily generate solid waste, which would be disposed of in accordance with all applicable federal, State, and local statutes and regulations. As described above, local solid waste infrastructure has the capacity to accept solid waste generated by project construction activities. Once constructed, project operation would not generate solid waste. The project would not impair the attainment of solid waste reduction goals. Potential impacts would therefore be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

20 Wildfire

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

The project site is in unincorporated Ventura County, on the Ventura River approximately two miles downstream of Matilija Dam, near the community of Ojai. This area is a designated Very High Fire Hazard Severity Zone in the State Responsibility Area (SRA) and Local Responsibility Area (LRA) (CAL FIRE 2007, 2010), particularly for open space surrounding this portion of the Ventura River. The project area has been subject to recent fires, including the 282-acre Chorro Fire in August 2015, the 2,304-acre Pine Fire, and the 281,893-acre Thomas Fire in 2017.

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

As discussed in Section 9, *Hazards and Hazardous Materials*, construction activities associated with the proposed R&M Program may require temporary access restrictions during implementation of Activity 6E, Road Maintenance. However, such restrictions would be limited to the Facility access roads on Reclamation land and would be planned and of short duration; program activities would not impede the implementation of an adopted emergency response plan or emergency evacuation

plan, including as related to wildfire. Traffic-related impacts of the R&M Program would primarily be associated with individual worker trips to and from the Facility; this also would not impede the implementation of an adopted emergency response plan or emergency evacuation plan. Therefore, potential impacts associated with emergency access and evacuation relative to the area's Very High Fire Hazard Severity Zone would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

California PRC Section 4442 mandates the use of spark arrestors, which prevent the emission of flammable debris from exhaust, on earth-moving and portable construction equipment with internal combustion engines operating on any forest-covered, brush-covered, or grass-covered land. In addition, PRC Sections 4427 and 4431 specify standards for conducting construction activities on days when a burning permit is required, and PRC Section 4428 requires construction contractors to maintain fire suppression equipment during the highest fire danger period (April 1 to December 1) when operating on or near any forest-covered, brush-covered, or grass-covered land. All R&M Program activities would occur in compliance with fire safety requirements, and program activities would therefore not introduce or exacerbate existing wildfire risk. The project would continue existing operation and maintenance activities of the Facility and not include the installation or maintenance of facilities or infrastructure that could exacerbate fire risk. No impact would occur.

NO IMPACT

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

As stated above, the Facility area is classified as a Very High Fire Hazard Severity Zone. The Facility is located along the Ventura River, and the proposed program would provide ongoing operation and maintenance of the Facility, which would enable restoration of the Ventura River channel to its planned contours and elevation. Implementation of the R&M Program would not alter or disturb slopes or hillsides in the area and would not expose people or structures to risks as a result of runoff, post-fire slope instability, or drainage changes.

As discussed in the Project Description, Sections 11 and 12, annual monitoring and reporting would be conducted for the R&M Program to address constantly fluctuating conditions in the river and implement the most appropriate R&M activities and BMPs during any given year. Also as described in the Project Description, Section 9.1, *Routine versus Emergency Maintenance,* emergency actions which require immediate repair to protect life and property are covered under emergency state and federal authorizations on a case-by-case basis and are not part of the project assessed herein. If the Facility receives a heavy deposit of sediment and debris resulting from post-fire slope instability that

was not anticipated as part of a given year's R&M Program activities, and that requires immediate attention to protect life and property, such response may be covered under an emergency authorization rather than as part of regular R&M Program activities. This is consistent with ongoing operation and maintenance of the Facility. No impact would occur.

NO IMPACT

This page intentionally left blank.

21 Mandatory Findings of Significance

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

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

Potential impacts to biological resources are addressed in Section 4, *Biological Resources*. As described therein, implementation of the R&M Program would include the use of multiple project specific BMPs that are identified in the Project Description, Section 10 and discussed throughout the impact analysis as applicable. The specific R&M Program activities and associated BMPs that would occur during any given year would be identified by Casitas and submitted to regulatory agencies for review and approval prior to activity implementation. Although potential temporary impacts may occur as a result of site disturbance during R&M Program activities, such impacts would be less than

significant with the implementation of the BMPs discussed in Section 4, *Biological Resources*. In addition, continued implementation of the R&M Program would ultimately benefit fish habitat by providing the planned operational capacity of the Facility. Accordingly, the project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce or restrict the range of a rare or endangered plant or animal.

As further discussed in Section 5, *Cultural Resources*, no archaeological resources have been identified in the project area and the R&M Program would result in a less than significant impact to nearby built-environment resources. As such, the program would not eliminate important examples of the major periods of California history or prehistory. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Cumulative impacts are defined as two or more individual project effects which, when considered together or in concert with other projects, combine to result in a significant impact within an identified geographic area. In order for a project to contribute to cumulative impacts, it must result in some level of impact on a project-specific level. As described in the impact analyses provided in Sections 1 through 20 of this IS-MND, a number of the environmental topic areas would experience "No Impact" as a result of the R&M Program; in other words, none of the significance criteria identified for these environmental topic areas would result in impacts. These environmental topics include the following: Agricultura and Forestry Resources; Energy; Land Use and Planning; Mineral Resources; Population and Housing; Recreation; and Tribal Cultural Resources. These topic areas are not addressed further for cumulative impacts, because they would have no impact and therefore would not contribute to the cumulative scenario for cumulative impacts.

The following analysis of cumulative impacts addresses those effects for which some level of potential impact was identified, which includes topics for which a "Less than Significant Impact" was identified, as well as those for which the threshold question assumed some level of impact (i.e., those for which consideration of a potential "significant" effect was considered, per *CEQA Guidelines* Section 15382; in this case, threshold questions which assumed impacts would be "Less than Significant with Mitigation Incorporated"). Potential regional cumulative effects were considered for the environmental topics which would result in less than significant impacts from implementation of the R&M Program (without or with project mitigation).

- **Aesthetics:** Temporary aesthetic impacts associated with the presence and use of equipment and machinery at and around the Facility would occur during implementation of the R&M Program, particularly the sediment placement included under Activity No. 1B, which would include hauling sediment from the forebay to the downstream placement area, which may be visible to land uses immediately east of the Ventura River. These effects would be temporary in duration, and specific to the project site. Therefore, no contribution to a cumulative impact would occur.
- **Air Quality:** Air pollutant and GHG emissions disperse from their original source and can affect the entire air basin (or, with global warming, potentially the entire Earth). For air quality, the baseline analysis addresses the cumulative condition, or the project's contribution to the larger

picture which is assessed in analyses of consistency with regional air quality strategies and pollutant dispersal. Air pollutant emissions associated with the R&M Program correlate with the equipment and machinery used during implementation of Activity Nos. 1 through 6, as well as the traffic generated by these activities. Based on the air quality and GHG emissions modeling completed for analysis of the R&M Program, mitigation measures were developed to reduce R&M Program emissions to levels below applicable emissions thresholds. In this scenario, the region is in non-attainment for criteria pollutant standards for ozone and PM_{10}, which means that cumulative air quality impacts are inherently significant. However, VCAPCD's significance thresholds are intended to determine whether a project would individually or cumulatively jeopardize attainment of the federal standards. Mitigation measures for the R&M Program reduce emissions to below the VCAPCD thresholds. Therefore, air quality impacts of the R&M Program would not individually jeopardize attainment of the federal standards. Therefore, the project's contribution to cumulative impacts would not be considerable.

- **Biological Resources**: As described in Section 4, *Biological Resources*, the R&M Program could result in temporary impacts to biological resources associated with disturbance to habitat on and around the Facility. Implementation of BMPs that are included in the R&M Program, as listed in the Project Description, Section 10 and discussed throughout the analysis of biological resources provided in Section 4, would reduce biological resources impacts to less-than-significant levels. Other projects in the region would also be required to comply with federal, State, regional, and local regulations and laws put in place to minimize impacts to biological resources. Therefore, cumulative impacts would be less than significant.
- **Cultural Resources:** Ground-disturbing activities during project construction could potentially result in the accidental discovery on unknown archaeological resources. However, due to the disturbed nature of the Ventura River where the Facility is located and the R&M Program would occur, the project, in combination with other projects in the area, would not result in significant cumulative impacts to archaeological resources. In addition, the project would not result in a substantial adverse change to a built environment resource listed or eligible for listing in the NRHP or the CRHR. Therefore, no contribution to cumulative impacts, significant or otherwise, would occur.
- **Geology and Soils:** Impacts associated with geology and soils, including paleontological resources, are inherently restricted to the location of the project activities. Mitigation measures are identified in Section 7, *Geology and Soils*, and include the implementation of a worker awareness program for paleontological resources, as well as specified procedures for handling the unanticipated discovery of paleontological resources, as applicable. Due to the site-specific nature of impacts and the implementation of appropriate mitigation, the R&M Program would not contribute to cumulative impacts associated with other future developments.
- **GHG Emissions:** Refer to the discussion within the *Air Quality* bullet above.
- **Hazards and Hazardous Materials:** Regarding hazards and hazardous materials, no regional concern is identified (i.e., no significant cumulative impact). In the event the project would result in accidental discharge associated with transport, use, storage, and/or disposal of hazardous materials during construction or operation of the project, prescribed activities to be conducted in accordance with the NPDES Construction General Permit and BMPs provided in the Project Description, Section 10 would reduce potential impacts associated with the discharge of contaminants to a less-than-significant level. The project would also comply with applicable federal, State, and local laws and regulations regarding hazardous materials. Therefore, no contribution to cumulative impacts, significant or otherwise, would occur.

- **Hydrology and Water Quality:** Potential water quality impacts associated with the R&M Program would generally be limited to short-term construction-related erosion/sedimentation, as the program would not result in an appreciable increase in impervious surface area or substantial alteration of drainage patterns. Implementation of BMPs, as part of project conformance with NPDES permit conditions, would effectively eliminate the potential for drainage- and water quality-related impacts. Therefore, no contribution to cumulative impacts would occur.
- **Noise:** The Facility site is within a rural residential area. Noise impacts are inherently restricted to the project area and would not contribute to cumulative impacts associated with other future developments. Furthermore, given the rural residential environment of the Facility site and attenuation of noise, future development would not be anticipated to occur close enough to the immediate vicinity of the Facility to result in cumulative noise impacts. No contribution to a cumulative impact would occur.
- **Public Services:** Any potential impacts to public services would be associated with temporary demand for police or fire protection services during project construction. As concluded in Section 15, *Public Services*, such impacts would be less than significant. The project would not induce population growth and thereby would not, directly or indirectly, contribute to cumulative impacts to public services.
- **Transportation:** The project would result in a temporary increase in traffic associated with the implementation of R&M Program activities, which are comparable to existing conditions. No substantial long-term transportation impacts would occur as a result of the R&M Program. Given the temporary nature of construction-related traffic impacts and the fact the R&M Program would not generate a substantial amount of operational traffic, the contribution to cumulative transportation impact would not be cumulatively considerable.
- **Utilities and Service Systems:** The project would not induce population growth and therefore would not, directly or indirectly, contribute to cumulative impacts to utilities and service systems.
- **Wildfire:** As described in Section 20, *Wildfire*, potential wildfire impacts associated with the project would be limited to short-term construction-related impacts to emergency response, which would be less than significant. The R&M Program would not result in long-term wildfire impacts. Given there would be no long-term operational wildfire impacts and the short-term nature of any construction-related wildfire impacts, the program's contribution to any cumulative impact would not be considerable.

For these reasons, the project would not result in a considerable contribution to any cumulative effects significant or otherwise.

LESS THAN SIGNIFICANT IMPACT

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

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed under Section 3, *Air Quality*, three mitigation measures have been developed for implementation with the R&M Program, to minimize emissions associated with the use of vehicles and equipment during the identified activities. These mitigation measures include AQ-1, *Tier 4 Equipment,* AQ-2, *Increased Dump Truck Capacity,* and AQ-3, *Haul Trip Timing*.

With the implementation of these mitigation measures, as needed, the R&M Program would not result in significant impacts from air quality or greenhouse gas emissions. In addition, as detailed under Section 13, *Noise,* and Section 9, *Hazards and Hazardous Materials,* potential impacts of the R&M Program to these environmental topic areas would be less than significant with the implementation of BMPs included as part of the R&M Program, as listed in the Project Description, Section 10 and discussed throughout the impact analyses as applicable.

As summarized above, the R&M Program would not result in significant impacts associated with air quality, hazards and hazardous materials, and noise; therefore, impacts to human beings would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

References

Bibliography

Project Description

NMFS (National Marine Fisheries Service). 2003. Biological Opinion for the Robles Fish Passage Facility Project. Dated March 31, 2003.

USFWS (U.S. Fish and Wildlife Service). 2005. Revised guidance on site assessments and field surveys for the California red-legged frog. August 2005 report.

Aesthetics

City of Ojai. 1987. City of Ojai General Plan – Open Space Element. https://drive.google.com/file/d/0B7pIZT7oVSp7UmlYWWstOGJrTjQ/view. Accessed May 5, 2020.

Agriculture and Forestry Resources

California Department of Conservation. 2017. Ventura County Important Farmland 2016. July 2017. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/ven16.pdf

Air Quality and Greenhouse Gases

VCAPCD (Ventura County Air Pollution Control District). 2003. Ventura County Air Quality Assessment Guidelines. http://www.vcapcd.org/pubs/Planning/VCAQGuidelines.pdf

_____. 2006. *Air Quality Assessment for CEQA*. http://www.vcapcd.org/environmental-review.htm#What_about_greenhouse_gases_and_CEQA_

_____. 2010. *Ventura County 2010 Air Quality Management Plan*. July 2010. https://www3.epa.gov/ttnamti1/files/networkplans/CAVCAPCDPlan2010.pdf

_____. 2017. 2016 Ventura County Air Quality Management Plan. http://www.vcapcd.org/pubs/Planning/AQMP/2016/Final/Final-2016-Ventura-County-AQMP.pdf

Agriculture and Forestry Resources

DOC (California Department of Conservation). 2017. Ventura County Important Farmland 2016. July 2017. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/ven16.pdf

Biological Resources

Bossard, C., J. Randall, and M. Hoshovsky (eds). 2000. Invasive plants of California's wildlands. University of California Press. Berkeley, California.

CDFW (California Department of Fish and Wildlife). 2020. CDFW California Natural Diversity Data Base (CNDDB), Rarefind V. 5.

_____. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. https://wildlife.ca.gov/Conservation/Planning/Connectivity/CEHC. Accessed May 5, 2020.

NMFS (National Marine Fisheries Service). 2003. Biological Opinion for the Robles Fish Passage Facility Project. Dated March 31, 2003.

Rabeni, C.F. & M.A. Smale. 1995. Effects of siltation on stream fishes and the potential mitigating role of the buffering riparian zone. Hydrobiologia 303:211-219.

Rouse J. D., Bishop C. A., Struger J. 1999. Nitrogen pollution: an assessment of its threat to amphibian survival. Environ. Health Perspect. 107, 799–80310.1289/ehp.99107799

USDA (United States Department of Agriculture), Natural Resources Conservation Service (NRCS), Official Soil Series Descriptions. Available online at http://websoilsurvey.nrcs.usda.gov/app/ Accessed March 24, 2020.

USFWS (United States Fish and Wildlife Service). 2019. Biological Opinion for the Robles Diversion Forebay Restoration Project (SCC-423, 2.2.1.06). Dated October 23, 2019.

Walter, L. 2015. Ventura River Watershed Management Plan, Prepared for the Ventura River Watershed Council. March 2015.

Cultural Resources

Lopez, Brian. 2019. Finding of No Significant Impact: Robles Forebay Restoration Project (FONSI-19-023). U.S. Department of the Interior, Bureau of Reclamation.

Energy

CEC (California Energy Commission). 2020a. Total System Electric Generation. https://ww2.energy.ca.gov/almanac/electricity_data/total_system_power.html. Accessed May 6, 2020.

_____. 2020b. California Gasoline Data, Facts, and Statistics. http://www.energy.ca.gov/almanac/transportation_data/gasoline/. Accessed May 6, 2020

EIA (U.S. Energy Information Administration). 2020. California: State Profile and Energy Estimates. Updated January 16. https://www.eia.gov/state/?sid=CA. Accessed April 29, 2020.

Geology and Soils

CGS (California Geological Survey). 2003. Earthquake Zones of Required Investigation – Matilija Quadrangle. April 17. https://gmw.conservation.ca.gov/shp/ezrim/maps/MATILIJA_EZRIM.pdf. Accessed May 10, 2020.

USDA (U.S. Department of Agriculture). 2020. Natural Resources Conservation Service. Web Soil Survey [interactive map]. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed May 5, 2020.

Ventura, County of. 2013. Ventura County General Plan Hazards Appendix. https://docs.vcrma.org/images/pdf/planning/plans/General_Plan_Hazards_Appendix.pdf. Accessed May 5, 2020.

Hazards and Hazardous Materials

County of Ventura. 2013. Ventura County General Plan Hazards Appendix. https://docs.vcrma.org/images/pdf/planning/plans/General_Plan_Hazards_Appendix.pdf. Accessed May 5, 2020.

Hydrology and Water Quality

Casitas (Casitas Municipal Water District). 2016. Final Urban Water Management Plan and Agricultural Water Management Plan 2016 Update. June. https://www.casitaswater.org/Home/ShowDocument?id=163. Accessed May 5, 2020.

FEMA (Federal Emergency Management Agency (FEMA). 2010. Flood Insurance Rate Map 06111C0560E, effective January 20, 2010. https://msc.fema.gov/portal/. Accessed May 5, 2020.

Ventura, County of. 2013. Ventura County General Plan Hazards Appendix. https://docs.vcrma.org/images/pdf/planning/plans/General_Plan_Hazards_Appendix.pdf. Accessed May 5, 2020.

Noise

Caltrans (California Department of Transportation). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. (CT-HWANP-RT-13-069.25.2) September. http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf (accessed April 2020).

_____. 2020. Transportation and Construction Vibration Guidance Manual. April 2020. Available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed April 2020).

Crocker, Malcolm J. Crocker (Editor). 2007. Handbook of Noise and Vibration Control Book, ISBN: 978-0-471-39599-7, Wiley-VCH, October.

Federal Highway Administration. 2006. Roadway Construction Noise model – RCNM. Available at: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/

FTA (Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment Manual. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed April 2020).

Kinsler, Lawrence E. and R. Frey, Austin and B. Coppens, Alan and V. Sanders, James. 1999. Fundamentals of Acoustics, 4th Edition. ISBN 0-471-84789-5. Wiley-VCH, December 1999.

Ventura, County of. 2010. Construction Noise Threshold Criteria and Control Plan. Adopted November 2005. Last amended July 2010. https://docs.vcrma.org/images/pdf/planning/ceqa/Construction_Noise_Thresholds.pdf (accessed May 2020).

_____. 2013. Ventura County General Plan Hazards Appendix. October 22, 2013. https://docs.vcrma.org/images/pdf/planning/plans/General_Plan_Hazards_Appendix.pdf (accessed May 2020).

_____. 2019. Ventura County General Plan Goals, Policies, and Programs. Last amended March 19, 2019. https://docs.vcrma.org/images/pdf/planning/plans/Goals-Policies-and-Programs.pdf (accessed April 2020).

Ventura County Airport Land Use Commission. 2000. Airport Comprehensive Land Use Plan for Ventura County. Adopted July 7, 2000. https://www.goventura.org/wp-content/uploads/2018/03/2000-airport-land-use-for-ventura-county.pdf (accessed April 2020).

Paleontological Resources

CGS (California Geological Survey). 2002. California Geomorphic Provinces, Note 36.

Dibblee, T.W., and Ehrenspeck, H.E., ed., 1987, Geologic map of the Matilija quadrangle, Ventura County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-12, scale 1:24,000.

Jefferson, G.T. 2010. A catalogue of late Quaternary vertebrates from California. Natural History Museum of Los Angeles County Technical Report 7, p. 5-172.

Paleobiology Database. 2020. Online fossil locality database. Available online: https://www.paleobiodb.org/#/.

Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee.

United States Geological Survey. 1985. Evaluating Earthquake Hazards in the Los Angeles Region—An Earth Science Perspective. https://pubs.usgs.gov/pp/1360/report.pdf.

UCMP (University of California Museum of Paleontology) Online Database. 2020. UCMP specimen search portal, http://ucmpdb.berkeley.edu/.

Wildfire

CAL FIRE (Department of Forestry and Fire Protection). 2007. Fire Hazard Severity Zones in SRA. Adopted by CAL FIRE on November 7. https://osfm.fire.ca.gov/media/6562/fhszs_map56.jpg. Accessed May 6, 2020.

_____. 2010. Very High Fire Hazard Severity Zones in LRA. Adopted by CAL FIRE on October 10. https://osfm.fire.ca.gov/media/6846/fhszl_map56.pdf. Accessed May 6, 2020.

List of Preparers

RINCON CONSULTANTS, INC.

Jennifer Haddow, PhD, Principal-in-Charge
Lindsay Griffin, CISEC, QSP, Senior Biologist/Project Manager
Aubrey Mescher, MESM, Senior Environmental Planner
Amanda Antonelli, MESM, Associate Environmental Planner
Annaliese Miller, Associate Environmental Planner