FINDINGS OF FACT FOR THE
UPPER SANTA ANA RIVER TRIBUTARIES RESTORATION PROJECT AND MITIGATION RESERVE PROGRAM ENVIRONMENTAL IMPACT REPORT (SCH # 2018071024)

November 19, 2019

I. FINDINGS OF FACT PURSUANT TO CEQA

A. Introduction

1. Project Overview and Background

The San Bernardino Valley Municipal Water District (Valley District) proposed to approve the Upper Santa Ana River Tributaries Restoration Project and Mitigation Reserve Program (proposed project), which involves the construction, restoration, and maintenance of four Santa Ana River tributaries sites (Tributaries Restoration Project) and a Mitigation Reserve Program in the cities of Riverside and Jurupa Valley and in Riverside County. The restoration sites included in the Tributaries Restoration Project, from east to west, are Anza Creek, Old Ranch Creek, Lower Hole Creek, and Hidden Valley Creek. Valley District also proposed to approve a fifth restoration site, Evans Creek, also known as Alternative B: Proposed Project Plus Evans Creek Site Alternative. With the adoption of these CEQA findings and the accompanying project approval resolution, the Valley District Board of Directors (Board) is approving Alternative B, which includes the proposed project.

Valley District has identified conservation measures to improve existing conditions for endangered and threatened species along the Santa Ana River and offset future potential impacts. To initiate implementation of these conservation measures, Valley District proposes the development of four restoration sites and a Mitigation Reserve Program along the Santa Ana River in Riverside County. Initial funding for construction of these four restoration sites is available from five local water agencies: Eastern Municipal Water District, Inland Empire Utilities Agency, Orange County Water District, Western Municipal Water District, and Valley District, with additional funding contributed through a regional Proposition 84 grant awarded to the five agencies. The grant award is administered by the Santa Ana Watershed Project Authority and has a project deadline of September 2023.

The proposed Tributaries Restoration Project, Mitigation Reserve Program Phase I, and Evans Creek restoration site would improve the ecological condition of habitat for Santa Ana sucker and jurisdictional aquatic resources by restoring existing channels, creating new channels, restoring the associated floodplain, enhancing the existing riparian and floodplain habitats, and controlling nonnative invasive species. The proposed Tributaries Restoration Project, Mitigation Reserve Program Phase I, and Evans Creek restoration site would also provide support for the existing local community environmental education and recreational opportunities.

The proposed project would also include implementation of a Mitigation Reserve Program, which would account for and track the development of conservation/mitigation values created by the restoration project (i.e., credits) and application of those values to future project permit requirements. The purpose of the Mitigation Reserve Program is to develop a common understanding and legal framework for the conservation/mitigation values created by Valley District through the restoration activities. Phase I of the Mitigation Reserve Program would create conservation and mitigation credits based on the ecological values established within the four tributaries footprints and the native riparian buffer zone, which currently have funding and would be constructed by 2023 at each of the project sites. Development of the

Mitigation Reserve Program Phase I is primarily an accounting exercise and development of legal agreements that will formalize the conservation/mitigation values created by the proposed project as recognized by the environmental regulatory agencies (U.S. Army Corps of Engineers [USACE], California Department of Fish and Wildlife [CDFW], Regional Water Quality Control Board [RWQCB], and U.S. Fish and Wildlife Service [USFWS]).

There is an opportunity to expand the Mitigation Reserve Program, referred to as "Expanded Mitigation Reserve Program Phase II," by implementing additional restoration activities beyond the footprint of this proposed project (tributaries and 100-foot native riparian buffer) to implement additional restoration opportunities and develop more mitigation credit reserves. However, no construction funding is currently secured for the expanded restoration opportunities, and no timeline has been set at this time for implementing additional restoration associated with the Expanded Mitigation Reserve Program Phase II. The Expanded Mitigation Reserve Program Phase II is still in the conceptual stage of development for individual expanded restoration opportunities at each of the sites, and is being considered for implementation following completion of the Tributaries Restoration Project and Mitigation Reserve Program Phase I.

2. Project Purpose and Objectives

The fundamental purpose of the proposed project is to re-establish, enhance, and rehabilitate jurisdictional aquatic resource habitat and/or improve conditions for Santa Ana sucker species. This would be accomplished by improving conditions in existing channels, excavating new channels, restoring associated floodplain surfaces and habitats, controlling nonnative invasive species, and supporting the existing local community environmental education and recreational opportunities at each of the sites.

The primary objectives of the proposed project are to:

- Create new or improved aquatic habitat for native aquatic species—the federally listed as threatened Santa Ana sucker (*Catostomus santaanae*) and the state species of special concern Arroyo chub (*Gila orcutti*)—in order to improve current status and security of the populations.
- Improve long-term hydrologic function to create and enhance sustaining native fish habitat through activities such as:
  - (1) creating functional spawning and refugia habitat within tributaries hydrologically connected to the mainstem Santa Ana River,
  - (2) preventing backwater habitat from developing within or at the mouth of the tributaries in order to reduce the habitat suitability for nonnative predator fishes,
  - (3) creating hydrologic conditions that promote the availability of appropriate substrate for successful spawning and feeding,
  - (4) creating tributaries with a reliable source of clean water, and
  - (5) restoring the hydrologic connection with historic floodplains to provide additional areas to where overbank flows can spread into riparian zones, such that the project will enhance and/or create new habitat that results in resource conservation and benefits for other threatened and/or endangered species.
- Promote responsible access and use of public recreation in designated locations along the Upper Santa Ana River.

- Educate the public on responsible use and value of the natural resources on site.
- Maintain ecological value of restored sites for long-term vitality of the sites and secure funding for long-term maintenance.
- Create a Mitigation Reserve Program to create an ecologically functional, self-sustaining mosaic of aquatic and riparian habitats that are resilient to a range of natural disturbances (drought, flood, fire, etc.).
- Provide compensatory mitigation in the form of a Mitigation Reserve Program for future unavoidable adverse impacts on wetlands, waters of the United States and state, riparian habitat, and special-status species that result from activities authorized under Sections 401 and 404 of the Clean Water Act [CWA], California's Porter-Cologne Act, Section 1602 of the California Fish and Game Code [CFGC], the California Endangered Species Act [CESA], and the federal Endangered Species Act [ESA].

3. Requirements for CEQA Findings

The California Environmental Quality Act, Public Resources Code (PRC) §§21000 et seq. and the regulations implementing that statute, California Code of Regulations Title 14, §§15000 et seq. (the State CEQA Guidelines) (collectively, the act and the State CEQA Guidelines are referred to as CEQA) require public agencies to consider the potential effects of their discretionary activities on the environment and, when feasible, to adopt and implement mitigation measures that avoid or substantially lessen the effects of those activities on the environment. Specifically, PRC §21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." Section 21002 goes on to state that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

The mandate and principles announced in PRC §21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which environmental impact reports (EIRs) are required (see PRC §21081, subd. (a); State CEQA Guidelines §15091, subd. (a)). For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The three possible findings are:

Changes or alterations have been required in, or incorporated into, the project, which mitigate or avoid the significant effects on the environment.

Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by the other agency.

Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

(PRC §21081, subd (a); see also State CEQA Guidelines §15091, subd. (a).)

PRC §21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." State CEQA Guidelines §15364 adds another factor: "legal" considerations. (See also *Citizens of Golden Valley v. Board of Supervisors* (Goleta JI) (1990) 52 Cal.3d 553, 565.)

The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (City of Del Mar).) "'[F]easibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." (Ibid.; see also *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715 (Sequoyah Hills); see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001 [after weighing "'economic, environmental, social, and technological factors' ... 'an agency may conclude that a mitigation measure or alternative is impracticable or undesirable from a policy standpoint and reject it as infeasible on that ground'"].)

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (State CEQA Guidelines, Sections 15093, 15043, subd. (b); see also PRC §21081, subd. (b).) The California Supreme Court has stated, "[t]he wisdom of approving ... any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (Goleta II, 52 Cal.3d at p. 576)

Because the proposed project EIR identified significant effects that may occur as a result of the project, and in accordance with the provisions of the State CEQA Guidelines presented above, the Valley District Board hereby adopts these Findings as part of the approval of the proposed project. These Findings constitute Valley District's best efforts to set forth the evidentiary and policy bases for its decision to approve the project in a manner consistent with the requirements of CEQA. These Findings, in other words, are not merely informational, but rather constitute a binding set of obligations that come into effect with Valley District's approval of the proposed project.

4. Organization of Findings

The Statement of Findings, Sections B through I of this document, is organized as follows:

- Section B provides the background and context of the project.
- Section C includes a brief description of the project.
- Section D describes the CEQA environmental review process for the project and describes the need for these Findings as to the proposed project.
- Section E describes the record of documents for the project.
- Section F summarizes the significant environmental impacts of the proposed project and contains Valley District's Findings of Fact regarding the project's impacts.

- Section G contains Valley District's Findings regarding alternatives to the project, including the proposed adoption of Alternative B, which includes the proposed project plus restoration at the Evans Creek site.
- Section H contains Valley District's general Findings regarding the project and EIR.
- Section I describes and adopts the Mitigation Monitoring and Reporting Program (MMRP) for the project, specifically for the approved proposed project site.

B. Background of the Project

The Tributaries Restoration Project and Mitigation Reserve Program Phase I component of the proposed project is a primary component of the Santa Ana River Conservation & Conjunctive Use Program (SARCCUP) Phase 1, funded by a Proposition 84 Grant. SARCCUP is a multi-agency, watershed-wide collaborative program designed to improve the Santa Ana River watershed's water supply resiliency and reliability by implementing various watershed-wide projects for development of additional dry-year yield, reduction of water use, and habitat improvement for sustainable native species population. As a watershed-wide cooperative venture, SARCCUP will allow the regional water managers to combine groundwater resources and water conveyance infrastructure for the benefit of the watershed as a whole. SARCCUP consists of the following main program elements:

(1) Conjunctive Use Program for the Santa Ana Watershed;

Invasive weed removal and habitat creation/restoration for the Santa Ana sucker (*Catostomus santaanae*), a native fish species listed as threatened under the ESA; and

Water use efficiency and water conservation measures.

SARCCUP would initiate additional water conservation measures throughout the Santa Ana River watershed such as conservation-based rate structures and Smartscape, an educational, outreach, training, and communication service that provides support in the design, installation, and maintenance of drought tolerant landscapes.

Regional water managers would utilize existing and new facilities to convey additional surface water supplies to groundwater banking facilities, recharging the underlying groundwater basins throughout the watershed. Conjunctive use of the banked groundwater would occur collaboratively between SARCCUP members. Partnering agencies include Eastern Municipal Water District, Inland Empire Utilities Agency, Orange County Water District, Valley District, and Western Municipal Water District and the Santa Ana Watershed Project Authority, a joint powers agency comprising the water agencies listed above. Additionally, SARCCUP partners with Orange County Coastkeeper, a 501(c)(3) nonprofit organization.

For a resilient water supply and use in the watershed, a balance is also needed to improve native species' population and habitat in the Santa Ana River. Invasive plants such as giant cane (*Arundo donax*) use significantly more water than native plant species and have aggressively altered the habitat for endemic fish species, such as the Santa Ana sucker, by choking out conditions for spawning, foraging, and refugia. Through SARCCUP's habitat improvements element, the Santa Ana sucker's habitat will more than double and the remaining giant cane in the Santa Ana River will be removed.

The proposed project would implement the habitat creation/restoration (including for Santa Ana sucker) component of the SARCCUP. Although it is funded through the same grant program, the proposed project has utility and value independent of the conjunctive use components of the SARCCUP in that it

would implement conservation measures to improve conditions for endangered and threatened species along the Santa Ana River. The water bank portion of the SARCCUP deals only in imported State Water Project water delivered to various locations throughout the watershed and does not require mitigation activities. The tributaries restoration, giant cane removal efforts, and water conservation activities would all occur independently of the water bank but were combined into one large watershed-based Proposition 84 funding package to be administered by the Santa Ana Watershed Project Authority. The conjunctive use activities are not a reasonably foreseeable consequence of the proposed project activities and would not likely change the scope or nature of the proposed project or its environmental effects. The environmental effects of the conjunctive use activities are considered in a separate environmental document prepared pursuant to CEQA.

C. Description of the Project

The EIR provides a detailed description of the components of the proposed project, which are summarized below (refer to Chapter 2, *Project Description*, and Chapter 7, *Alternatives Analysis*, of the Draft EIR for additional project details):

1. Tributaries Restoration Project and Mitigation Reserve Program Phase I

The proposed project restoration sites would be designed to increase the amount and quality of habitat for the Santa Ana sucker and other native species and enhance jurisdictional aquatic resources. The common design features for all of the restoration sites include enhancement/recreation of the existing channel, floodplain creation areas, wood and rock habitat structure design, nonnative vegetation removal, public education, and limiting human disturbance of restored habitat.

Enhancement/Recreation of the Existing Channel. Portions of the Old Ranch Creek and Hidden Valley Creek restoration sites do not currently have an existing channel, or have a poorly defined channel, and thus would require new channel construction. Each new channel would have a morphology that is sustainable with the controlling physical processes and that meets Santa Ana sucker habitat requirements. In general, the enhanced or newly constructed channels would create conditions necessary for Santa Ana sucker sustainability, such as diversity in flow depths and velocities, diversity in substrate size without excessive fine sediment accumulation, intermittent areas of shading and cover provided by vegetation on overhanging banks, and open canopy with appropriate substrate to promote algal growth and sucker feeding. A coarse channel liner composed of a sorted mixture of cobble, gravel, and fine sediment would be constructed under the bed of the new channel in specified reaches to limit water infiltration into the sandy and silty soils at the site, thereby limiting channel flow loss and maintaining flow depths and velocities in the new channel. The new channels would include sections constructed with pool and riffle morphology to create the topographic and hydraulic diversity necessary to sustain different habitats. Gravel would be added to new riffle sections and other areas that would have sufficient flow velocities to maintain suitable coarse substrate for Santa Ana sucker habitat. Many habitat features included in the stream design have been developed based on reference reaches currently occupied by Santa Ana sucker with similar influencing variables such as channel morphology, gradient, water supply, and riparian cover.

Floodplain Creation Areas. The proposed project would include floodplain construction in channel reaches where the channel is incised and the banks are tall, oversteepened, and unstable. Construction of new floodplains would allow flood water that is currently confined to spill out of the channel, thereby reducing the flow's energy and reducing the potential for future channel incision and bank erosion. Floodplain construction would also create the hydrologic conditions necessary to support certain native

riparian species that cannot exist in upland environments. The new floodplain would be constructed by excavating the ground adjacent to the channel to lower the elevation of the top of the channel's bank and increase the frequency with which flood water would be able to spill out of the channel and overbank onto the new floodplain.

Wood and Rock Habitat Structure Design. All of the restoration site designs include construction of wood and rock structures to add immediate habitat to the enhancement sites. Several structures have been designed specifically for the restoration project, and would be appropriately sized for the small channels in which they would be constructed. The objective of the wood and rock structures is to create a flow obstruction that would alter hydraulics in a manner necessary to keep sand from accumulating on the gravel substrate in the vicinity of the structure. The structures would also provide deeper pools and overhang for cover for Santa Ana suckers. One instream woody material structure would be constructed for approximately every 200 feet of channel to aid in diversifying hydraulic conditions that would create and sustain habitat complexity at each of the restoration sites.

Nonnative Vegetation Removal. A goal of the proposed project is to create new riparian areas composed of native vegetation, as identified previously. However, currently some of the nonnative vegetation provides beneficial shade to aquatic life in the creeks and to terrestrial species, and it may be important to preserve some nonnative plants that are identified as important sources of existing shade or roosting habitat, or that are providing bank stability until newly planted vegetation becomes established. Future design work will include a detailed tree survey of native and nonnative trees. The results of the survey will be discussed with CDFW and USFWS to develop a plan and schedule for nonnative tree removal. Some of the tall nonnative trees that may provide roosting habitat, such as the nonnative palms, may be treated with herbicide to kill the tree but leave the roosting habitat intact.

Public Education. The proposed project would include improvements for public education and outreach that would either enhance, or be developed in partnership with, the existing educational programs such as the City of Riverside Parks and Recreation Department and the Riverside County Parks staff at the Hidden Valley Nature Center. Community education opportunities proposed at all project sites include interpretive trails and signage promoting natural resource protection and native species conservation.

The Lower Hole Creek site currently supports a short trail along the eastern side that offers an opportunity to create a short trail with educational signage along the path and perhaps a picnic area near an existing grove of mature trees. However, the site is not currently used by the general public, and safety issues associated with homeless encampments are a high concern. If safety can be improved, Lower Hole Creek could be used for community outreach, with outdoor activities and seating, due to its easy accessibility to both the stream channel and adjacent floodplain native communities.

Martha McLean-Anza Narrows Park is directly adjacent to the Anza Creek site. Restoration of the Anza Creek site presents an opportunity to improve public access to the site from the adjacent park to reduce damage to vegetation and the channel integrity. Implementation of improvements at Martha McLean-Anza Narrows Park would occur in cooperation with the City of Riverside Parks and Recreation Department to facilitate safer public access while educating the public about responsible recreational use of the river. The goal of the improvements would be to enhance safe site access for recreational purposes and promote the protection of ecological resources.

Limiting Human Disturbance of Restored Habitat. The tributary restoration sites are highly disturbed, with trash dumping, frequent unauthorized human trails, and semi-permanent transient encampments. Measures would be implemented for successful management of the restored habitat to prevent or

minimize habitat degradation by controlling human visitation and disturbance in appropriate ways, including eliminating intensive riparian corridor usage by permanent encampments, trash dumping, and off-road vehicle use and unintended social trails that degrade vegetation and disturb wildlife, including Santa Ana sucker. Managing human access to maintain appropriate levels and areas of visitation would require public education and collaboration with partner agencies and local stakeholders. City of Riverside Public Works staff currently patrol areas along the Santa Ana River approximately twice per week; however, additional patrols would be required to keep the transient populations from rebuilding structures and creating new encampment sites that could impair restored habitats and water quality for fish species. Part of the proposed approach for long-term maintenance for restoration success is deterrence and prevention rather than continued cleanup and removal of items caused by human disturbance. Valley District proposes to fund two full-time County of Riverside Parks and Open Space District ranger positions to patrol the project sites along the tributaries and Santa Ana River plus part-time maintenance staff. The cost of patrol and maintenance of these sites would be included in the long-term endowment set up for management of the restoration sites, in perpetuity. Regular monitoring and onsite patrol presence of uniformed County Parks officers would deter homeless individuals from building or rebuilding semi-permanent structures in the project areas once they have been removed as part of the restoration activities.

Construction Activities. As part of the project, construction would primarily involve removing vegetation and altering existing ground elevations within the restoration sites to establish the proposed habitat distribution. Construction equipment would be brought to the restoration sites via existing access roads. Large equipment would be transported during off-peak traffic to minimize traffic congestion. Construction of the restoration sites would involve the use of a variety of heavy construction equipment on site. The majority of the equipment and vehicles would be associated with the intensive earthwork. Large construction equipment—including backhoes, compactors, excavators, haul trucks, and rollers—would be used during the construction phase of the proposed project. Following completion of construction activities, equipment would be demobilized and removed from the sites via the same route. To the extent practicable, temporary impact areas would be situated within disturbed areas such as access/maintenance roads and nearby trails. Temporary construction areas would also have controlled access to maintain public safety during construction. Staging areas, access routes, and other temporarily disturbed areas located within sensitive vegetation areas would be decompacted, revegetated, and restored to preconstruction conditions or as specified in the approved site plans and related construction documents.

Long-Term Maintenance. Disturbed areas would be planted as appropriate to facilitate habitat establishment and recovery, and monitoring would occur to ensure success and inform adaptive management actions. The restoration sites would be monitored for physical characteristics, plant establishment, and sensitive species use after completion of construction. Short-term restoration monitoring (post-construction) would occur immediately following construction for a period of 5 to 10 years, to ensure that the habitat meets defined success criteria consistent with regulatory agency permitting requirements. A detailed monitoring program would be developed during the final design and permitting phase of the project and would identify the specific performance criteria that include adaptive management and that would be implemented for several years post-project to determine the level of success of the project. Post-construction monitoring of the restoration sites would be designed to document achievement of project goals and objectives, including success of revegetation efforts and functional stream hydrology, and use of the site by sensitive species. Post-construction monitoring would also be conducted through park ranger patrol of the project sites and other areas along the Santa Ana River to deter unauthorized human disturbances, including garbage disposal and homeless encampments,

from disturbing and destroying restoration sites and to promote responsible public access. Furthermore, these restoration projects are meant to complement and provide benefit to a larger regional strategy to improve the long-term quality and function of riparian and riverine areas along the Santa Ana River. Therefore, in order to ensure the permanent benefits to the river and its native species are maintained, a non-wasting endowment would be established to ensure adequate funds for continued monitoring and maintenance of the sites in perpetuity.

2. Mitigation Reserve Program Phases I and II

The Mitigation Reserve Program Phases I and II would result in the development of a combined mitigation/ conservation bank and an advance Permittee-responsible mitigation credit program. Anza Creek and Old Ranch Creek would be entitled as two separate sites under a single mitigation/conservation bank, while Lower Hole Creek and Hidden Valley Creek would be a stand-alone advance Permittee-responsible mitigation credit program overseen by CDFW. The latter two project sites would not be part of the formal mitigation/conservation bank because they are primarily located on land owned by CDFW, which does not allow for a mitigation/conservation bank on its lands. Valley District, or its designated representative, would be the mitigation/conservation bank sponsor and would be responsible for installing, maintaining, and monitoring the mitigation/conservation bank sites at Anza Creek and Old Ranch Creek. Valley District or its designee would be the mitigation/conservation bank owners. In addition to the mitigation/conservation bank sponsor, a long-term habitat manager would be responsible for managing the sites in perpetuity, and an endowment holder would be responsible for distributing funds associated with long-term management. Upon mitigation/conservation bank closure, the mitigation/conservation bank is proposed to be managed in perpetuity by Valley District or its designated representative. Valley District would be the advance Permittee-responsible mitigation credit program sponsor and would be responsible for installing, maintaining, and monitoring the advance mitigation credit program projects at Lower Hole Creek and Hidden Valley Creek. USACE, CDFW, USFWS, RWQCB, and possibly the U.S. Environmental Protection Agency would be signatories to the mitigation/conservation bank, while CDFW would be the signatory for the advance Permittee-responsible mitigation credit program, with the potential involvement of the other resource agencies.

An advance Permittee-responsible mitigation credit project would be a form of Permittee-responsible compensatory mitigation constructed in advance of a permitted impact on waters of the state and possibly the United States. Even if compensatory mitigation activities are themselves authorized by a permit, establishing compensatory mitigation in advance of the impacts does not create any presumption or guarantee that a proposed future impact will be authorized, or that the advance compensatory mitigation will be considered adequate and/or suitable mitigation for any specific future project. Mitigation values may be generated on an "advance mitigation" basis by establishing an advance mitigation site designed to compensate for future expected impacts. Alternatively, advance mitigation can also be combined with concurrent mitigation required by a federal, state, or local permit, where the concurrent mitigation site provides additional area beyond the immediate mitigation requirements, and/or the site provides additional functions in excess of what is required for the permitted impact.

3. Additional Recreation Opportunities at the Evans Creek Site

In addition to the four restoration sites described in the EIR, an additional site, Evans Creek, was considered as an alternative (Alternative B: Proposed Project Plus Evans Creek Site Alternative) for implementation of greater restoration activities. The Proposition 84 grant program provides funding to construct the four sites (Old Ranch Creek, Anza Creek, Hole Creek, and Hidden Valley Creek) identified by the proposed project. The restoration work proposed at Evans Creek was not included in the

Proposition 84 grant application, as there was not sufficient funding for this additional site, and this and other sites were not included in the evaluation of the proposed project.
Improvements at Evans Creek would include a new groundwater well and pump, new riparian corridor, new bank, channel bed complexity and rock and woody structures, fish passage, new channel, and recreational and educational amenities for Fairmount Park.

(1) The existing channel at Evans Creek does not have a reliable source of water from Evans Lake. If the lake elevation drops below the elevation of the sluice box at Dexter Drive, or the sluice box is not functioning correctly, little to no water spills from the lake to Evans Creek. A new groundwater well and pump would be constructed at the upstream extent of the channel near Dexter Drive to provide water. The exact capacity of the new pump has not yet been determined but the plan is for a minimum flow of 200 gallons per minute, which is 0.45 cubic foot per second. Minimum flows of 2 cubic feet per second may be required for limited durations to provide the flow depths necessary for sucker passage based on the preliminary fish passage designs. Future studies would need to be conducted to determine the achievable flow rate from the new pump. Ideally, the new pump would have the ability to vary flow rates so that pulses of higher flows can be periodically routed down the channel to flush fine sediment accumulations on gravel substrate.

A new native riparian corridor would be created in which nonnative plants would be removed and replaced with native vegetation planting. The riparian corridor would be approximately 100 feet wide (50 feet on either side of the channel), for a total of 8.5 acres. The actual width of the corridor could be changed in future designs as additional details are provided on actual mitigation needs.

Over 1,000 feet of new bank would be constructed on the channel's left bank to confine water to the enhanced channel and increase flow depths and velocities rather than allowing it to spread out into relatively flat, depressional areas to the south.

Channel bed complexity would be created by adding pools and riffles in channel reaches that would have sufficient flow velocities to maintain suitable coarse substrate for sucker habitat. Gravel would be added to new riffle sections that would have sufficient flow velocities to maintain suitable coarse substrate for Santa Ana sucker habitat.

Rock and woody material structures would be added that would create and sustain habitat complexity.

A fish passage would be added at the barrier created by the culvert under the Santa Ana River levee to allow Santa Ana sucker to migrate from the Santa Ana River into the enhanced Evans Creek channel to access additional habitat and find refugia from changing hydrologic conditions in the mainstem.

The existing channel in the mainstem Santa Ana River that heads south along the levee and under the Mission Boulevard bridge would be plugged with rock and wood and a new 280-foot-long channel would be excavated through a sediment berm in order to make a continuous channel connection between Evans Creek and the Santa Ana River.

In coordination with the City of Riverside Parks and Recreation Department, recreational and educational amenities would be created at the site to enhance public use of Fairmount Park. Refer to Figure 7-1 in the Draft EIR for proposed conceptual improvements that would be considered at the site and adjacent park.

Restoration and native vegetation enhancement would occur where vegetation burned in the 2017 fire through similar construction and operational activities as those of the proposed Tributaries Restoration Project and Mitigation Reserve Program Phase I.

Creation of fish passage at the barrier created by the culvert under the Santa Ana River levee would allow Santa Ana sucker to migrate from the Santa Ana River into the enhanced Evans Creek to access additional habitat and find refugia from changing hydrologic conditions in the mainstem. Two concept designs were developed to provide upstream passage for adults (and potentially juvenile Santa Ana sucker).

In addition, the City of Riverside Parks, Recreation & Community Services Department proposes to add community facilities within the project site (e.g., educational nature trails and bike paths, amphitheater, archery range, interpretive garden, educational signage, challenge course or other educational amenity, community demonstration garden or incubation farm, group camping and day use area, parking, picnic benches, restrooms). Final design for the Evans Creek site has not been developed and the analysis takes into account options for the site's buildout, which may involve a combination of restoration and recreational opportunities.

In summary, this alternative would involve all elements of the proposed project as discussed previously, both the Tributaries Restoration Project and Mitigation Reserve Program Phase I and Expanded Mitigation Reserve Program Phase II, and the addition of the Evans Creek site as a fifth tributaries restoration site, utilizing similar construction and operational elements as the proposed project. This alternative was considered to evaluate the environmental effects of the additional restoration opportunities on an existing disturbed site along the Santa Ana River. With the adoption of these CEQA findings and the accompanying project approval resolution, the Valley District Board is approving Alternative B, which includes the proposed project.

D. Environmental Review Process

1. Notice of Preparation and Public Scoping

Pursuant to §15082 of the State CEQA Guidelines, the lead agency is required to send a Notice of Preparation (NOP) stating that an EIR will be prepared to the State Office of Planning and Research (OPR), responsible and trustee agencies, and federal agencies involved in funding or approving the project. The NOP must provide sufficient information in order for responsible agencies to make a meaningful response. At a minimum, the NOP must include a description of the project, location of the project, and probable environmental effects of the project (State CEQA Guidelines §15082(a)(1)). Within 30 days after receiving the NOP, responsible and trustee agencies and OPR shall provide the lead agency with specific detail about the scope and content of the environmental information related to that agency's area of statutory responsibility that must be included in the Draft EIR (State CEQA Guidelines §15082(b)).

On July 11, 2018, an NOP along with the Initial Study for the proposed project was submitted to the California OPR, and distributed to responsible and trustee agencies and other interested parties for a 30-day review period that ended August 9, 2018. The NOP was mailed to local, state, and federal agencies and groups or individuals who had expressed interest in the project and was also made available on the Upper Santa Ana River website and Valley District website, and published in the *San Bernardino Sun* and *The Press-Enterprise*. One public scoping meeting was held on July 18, 2018, at the Valley District office. The NOP provided the public and interested public agencies with the opportunity to review the proposed project and to provide comments or concerns on the scope and content of the environmental review document including: the range of actions, alternatives, mitigation measures, and significant effects

to be analyzed in depth in the EIR. A summary report of the scoping process is included in the record of proceedings.

2. Notice of Availability of the Draft EIR and Invitation to Provide Comments

The Notice of Availability of the Draft EIR was posted on April 22, 2019, with the County Clerk in Riverside and San Bernardino Counties. The Draft EIR was circulated to federal, state, and local agencies and interested parties requesting a copy of the Draft EIR. The Draft EIR was circulated for public review from April 22, 2019, through June 14, 2019, for a total comment period of 54 days. During the public review period, Valley District held two public meetings to provide interested persons with an opportunity to comment orally or in writing on the Draft EIR and the project. The initial 45-day review and comment period ended on June 6, 2019, but was extended per a request by a commenter during the first public review meeting to provide additional opportunity for the public to submit oral or written comments on the Draft EIR. The first public meeting was held at Valley District Headquarters on May 15, 2019. A second public meeting was also scheduled, at the request of the same commenter, and held at the Hidden Valley Nature Center on June 10, 2019, to allow nearby residents of the proposed project an opportunity to comment on the proposed project. Comments on the environmental document were accepted through June 14, 2019, for a total comment period of 54 days. Notifications of the availability of the Draft EIR and the extended public review period were sent by email utilizing a project-specific email list; provided at each location where hard copies of the Draft EIR were available for review, including at Valley District offices and public libraries, on the Upper Santa Ana River website, and Valley District's website; and posted on Facebook.

The public meetings followed the public meetings followed the format described below:

- Registration, where attendees were given the option to provide contact information in a sign-in sheet and receive copies of the Notice of Availability and a comment form. The comment form had space for individuals to write comments and/or questions for submittal to Valley District.
- Presentation of meeting purpose and format, overview of the proposed project, presentation of the EIR process, issues analyzed in the Draft EIR and potential impacts, a review of alternatives, project schedule, and request for public comment.

Members of the audiences of the public meetings offered comments. During the May 15, 2019, meeting, comments included homeless encampments, the Upper Santa Ana River Habitat Conservation Plan (HCP) projects and mitigation, public meeting time and location, hazardous waste issues at Lower Hole Creek, outreach by the City of Riverside, involvement by other organizations in the project area, hazardous materials concerns from recycled water treatment plant water, tribal contacts, and recreational improvements. The June 10, 2019, meeting provided additional comments, including questions about parking at the project sites, construction impacts involving the nearby Southern California Edison project, and whether USACE was assisting with the homeless issues on the site; and documenting existing conditions and perform seasonal surveys for sensitive plant species, vegetative communities, and animal species in close coordination with resource agencies.

3. Circulation and Posting of the Final EIR

As required by §15088(b) of the State CEQA Guidelines, Valley District provided the Final EIR, which includes written responses to all comments, to commenters on November 6, 2019, more than 10 days in advance of the meeting at which the Board will consider certification of the EIR and approval of the project. In addition, Valley District made the Final EIR available to the public at the following locations:

- Upper Santa Ana River Website (http://www.uppersarhcp.com/documents)
- Valley District's project Website (http://www.sbvmwd.com/Upper-SAR-Restoration)
- Valley District Headquarters, 380 E. Vanderbilt Way, San Bernardino, CA 92408
- Arlanza Public Library, 267 Philbin Ave, Riverside, CA 92503
- Louis Robidoux Library, 5840 Mission Boulevard, Jurupa Valley, CA 92509

Valley District concludes it has met the requirements of CEQA relating to public noticing and outreach during the public review period for the Draft EIR. Valley District further concludes that it has provided ample time for agencies, organizations, and interested members of the public to participate in the CEQA process by providing opportunities for review and comment on the Draft EIR.

E. The Record of Proceedings

Valley District is the custodian of the documents and other materials that constitute the record of proceedings upon which the Board's decision is based, and such documents and other materials are located at Valley District's offices, 380 East Vanderbilt Way, San Bernardino, CA 92408. Copies of the Draft EIR and Final EIR are also available at the Upper Santa Ana River website, http://www.sbvmwd.com/Upper-SAR-Restoration.

For the purposes of CEQA and these Findings, the record of proceedings is composed of all nonprivileged documents relating to the project in Valley District's files on this matter, including, without limitation:

- The NOP prepared for the project;
- The Draft EIR for the Upper Santa Ana River Tributaries Restoration Project and Mitigation Reserve Program, with all appendices to the Draft EIR;
- All comments or documents submitted by public agencies or by members of the public during or after the comment period on the Draft EIR and up to the Board's approval of the project;
- The Final EIR for the Upper Santa Ana River Tributaries Restoration Project and Mitigation Reserve Program, with all appendices to the Final EIR;
- The MMRP;
- All Findings and Resolutions adopted by the Board in connection with the project and all documents cited or referred to therein;
- All staff reports and presentation materials related to the project, including internal reports and analyses prepared by consultants to Valley District;
- All studies conducted for the project and contained in, or referenced by, staff reports, the Draft EIR, the Final EIR, or the MMRP;
- All public reports and documents related to the project prepared for or by Valley District, including, without limitation, all planning documents;
- All Draft EIR and Final EIR references, whether or not the referenced documents are included in the appendices;
- All documentary and oral evidence received and reviewed at public hearings, meetings and workshops related to the project, the Draft EIR, the Final EIR, or the MMRP;

- All other public reports and documents relating to the project that were used by Valley District staff or consultants in the preparation of the Draft EIR, the Final EIR, or the MMRP; and
- All other documents, not otherwise included above, required by PRC §21167.6.

Valley District has determined that the EIR for the proposed project was prepared and circulated pursuant to the requirements of CEQA, that the Final EIR was submitted to the Board for review prior to approving the project, and that the Final EIR reflects the independent judgment of Valley District. These CEQA findings, Draft and Final EIRs, and the MMRP and all approval documents related to EIR State Clearinghouse (SCH) #2018071024 are incorporated by reference into each and every resolution approving the proposed project.

F. Findings of Fact Regarding Project Impacts

1. Findings Regarding Less-than-Significant Impacts

The EIR concludes that that the project will result in no impacts or less-than-significant impacts for the following resource areas:

- Aesthetics
- Energy
- Greenhouse Gas Emissions
- Land Use and Planning
- Mineral Resources
- Public Services
- Transportation
- Utilities and Service Systems
- Wildfire

The Board finds, based on the EIR and the entire record, that the EIR's conclusions regarding the project's impacts on these resource areas are accurate.

The EIR also concludes that the following specific potential impacts will not result from the project or will be less than significant, without the need for mitigation:

- Agriculture and Forestry Resources Impact AG-1
- Air Quality Impacts AG-1, AQ-2, AQ-3, AQ-4, and AQ-5
- Greenhouse Gas Emissions Impacts GHG-1 and GHG-2
- Hazards and Hazardous Materials Impact HAZ-1
- Hydrology and Water Quality Impacts HYD-1, HYD-2, HYD-3, HYD-4, HYD-5, and HYD-6
- Population and Housing Impacts POP-1 and POP-2
- Recreation Impacts REC-1 and REC-2
- Utilities and Service Systems Impacts UT-1 and UT-2

The Board finds, based on the EIR and the entire record, that the EIR's conclusions regarding these specific potential impacts are accurate.

2. Findings Regarding Potentially Significant Impacts That Will Be Mitigated or Avoided

The EIR concludes that the following specific potential impacts may result in potentially significant impacts from the project, and mitigation will be required to mitigate or avoid impacts:

- Biological Resources Impacts BIO-1 (BIO-1.1, BIO-1.2, and BIO-1.3), BIO-2, BIO-3, BIO-4, and BIO-5
- Cultural Resources Impacts CUL-1, CUL-2, and CUL-3
- Geology, Soils, and Paleontological Resources Impact GEO-1
- Noise Impacts NOI-1, NOI-2, NOI-3, and NOI-4
- Tribal Cultural Resources Impacts TCR-1 and TCR-2
- Alternative B: Proposed Project Plus Evans Creek Site Alternative Impacts a) (Cultural Resources) and f) (Paleontological Resources)

The following project impacts will require mitigation as noted below.

Biological Resources

Potentially Significant Impact BIO-1: Potential to have an 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 CDFW or USFWS; Impact BIO-1.1: Construction- and Operation and Maintenance-related Direct Impacts on Special-status Species.

Finding. As noted in the EIR, the project could potentially affect numerous candidate, sensitive, or special-status species. Temporary construction and operation effects could potentially affect special-status species and/or their associated habitat, including sensitive wetland and riparian habitat. During construction, these impacts would include temporary habitat loss and degradation, fragmentation, interference with foraging/feeding behavior, interference with migration and reproduction, and direct injury or mortality. Long-term impacts are anticipated to be largely beneficial due to creation, re-establishment, and enhancement of aquatic, wetland, riparian, and upland habitats, although some habitats currently suitable for specific special-status species may be converted to other high-quality native habitat types as the habitat restoration progresses in time. Nonetheless, the species that are expected to benefit from the project are generally present and/or are expected to be present in greater density and distribution following project restoration. Direct impacts including physical injury, physiological impairment, or mortality of special-status plant or wildlife species as a result of construction and operational activities would be potentially significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse effects on plant and wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact BIO-1.1 to a less-than-significant level for

special-status aquatic, semi-aquatic, terrestrial, avian, mammal, and plant species including the Santa Ana sucker:

Tributaries Restoration Project and Mitigation Reserve Program Phase I

Mitigation Measure BIO-1: Consult with Agencies Regarding ESA and CESA Permitting

The ESA provides regulatory protection for species listed as "threatened" or "endangered." The Tributaries Restoration Project and Mitigation Reserve Program Phase I shall obtain federal and state incidental take authorization as necessary for all federally listed species identified as potentially being adversely affected from the construction, operations, and/or maintenance of the Tributaries Restoration Project and Mitigation Reserve Program Phase I. The project shall require a permit from USACE in order to construct within waters of the United States. As required by Section 7 of the ESA, USACE analyzes the potential direct, indirect, and cumulative effects associated with the proposed project and makes determinations on each federally protected species that may be affected. We anticipate that USACE will likely initiate consultation with USFWS in order to receive a Biological Opinion and incidental take coverage for least Bell's vireo, Santa Ana sucker, and potentially Santa Ana River woolly-star, as adverse impacts on these species may be unavoidable. Therefore, formal consultation shall occur between the federal action agency, USACE, and USFWS in order to ensure the Tributaries Restoration Project and Mitigation Reserve Program Phase I is not likely to jeopardize the continued existence of any threatened or endangered species or result in the adverse modification of critical habitat. USFWS will issue a Biological Opinion, including terms and conditions, which shall then be included as terms and conditions of the USACE permit issued to the Applicant, Valley District. These terms and conditions may include, for example, ensuring that an authorized and approved biological monitor is in place during construction and that any incidental take in excess of the authorized amount stated in the Biological Opinion is reported immediately to USFWS. The mitigation measures included in this EIR are intended to avoid and minimize harm to the species and will be included in the application to USACE and in the Biological Assessment submitted to USFWS for consultation.

In order to receive incidental take coverage for the state-listed species for least Bell's vireo and potentially Santa Ana River woolly-star, it is anticipated that the Biological Opinion will provide the description and mitigation measures required for CDFW to issue a consistency determination, which states that the federal incidental take authorization is "consistent" with CESA under CFGC Section 2080.1. Alternatively, CDFW may wish to issue a CESA Incidental Take Permit to the project. Expected terms and conditions may address take avoidance, habitat restoration and conservation, construction monitoring, and project operations for federally listed species identified or expected to occur within the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits.

Mitigation Measure BIO-2: Conduct Pre-Construction Biological Clearance Surveys to Avoid and Minimize Direct Impacts on Special-status Terrestrial Species From Construction Activities

To avoid or minimize direct impacts on special-status species from construction activities, a qualified biologist approved by USFWS and/or CDFW shall conduct preconstruction clearance surveys at all Tributaries Restoration Project and Mitigation Reserve Program Phase I sites for special-status species prior to any ground-disturbing and/or dewatering activities. During these surveys, the biologist shall inspect the Tributaries Restoration Project and Mitigation Reserve Program Phase I

sites prior to earthwork or other disturbance for any special-status wildlife species listed in Table 3.3-3 and prepare a list of species observed and record their activity before and during construction. Prior to construction each day, biological construction monitors will sweep survey at a reconnaissance level all areas scheduled for construction to confirm that special-status species are not present. Any species found shall be captured and relocated to an approved location in consultation with USFWS and/or CDFW by a biologist having appropriate permits, if required, and in compliance with regulatory permits and authorizations issued.

Mitigation Measure BIO-3: Conduct Preconstruction Nesting Bird Surveys Within 300 Feet of the Limits of Disturbance

Vegetation clearing within the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance shall be completed prior to bird nesting season to the maximum extent possible. Impacts on nesting birds will be avoided through the implementation of preconstruction surveys, ongoing monitoring, and, if necessary, establishment of minimization measures. Specific avoidance and minimization measures for nesting birds methods may include specific procedures as recommended by the CDFW and detailed below.

BIO-3.1: Designated Biologist and Survey Protocols – Valley District shall designate a biologist experienced in: identifying local and migratory bird species; conducting bird surveys using appropriate survey methodology (e.g., Ralph et al. 1993 and USFWS and/or CDFW-accepted species-specific survey protocols, available here: https://www.wildlife.ca.gov/conservation/survey-protocols); nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success (e.g., Martin and Geupel 1993); determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.

BIO-3.2: Pre-construction Surveys – Surveys shall be conducted by the designated biologist at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the property, density and complexity of the habitat, number of survey participants, and survey techniques employed; and shall be sufficient to ensure the data collected are complete and accurate. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior (e.g., copulation, carrying of food or nest materials, nest building, removal of fecal sacks, flushing suddenly from atypically close range, agitation, aggressive interactions, feigning injury or distraction displays, or other behaviors).

If a nest is suspected, but not confirmed, the designated biologist shall establish a disturbance-free buffer until additional surveys can be completed, or until the location can be inferred based on observations. Surveyors shall not risk failure of the nest to determine the exact location or status and will make every effort to limit the nest to potential predation as a result of the survey/monitoring efforts (e.g., limit number of surveyors, limit time spent at/near the nest, scan the site for potential nest predators before approaching, immediately depart nest area if indicators of stress or agitation are displayed).

If a nest is observed, but thought to be inactive, the designated biologist shall monitor the nest for 1 hour (4 hours for raptors during the non-breeding season) prior to approaching the nest to determine

status. The designated biologist shall use their best professional judgment regarding the monitoring period and whether approaching the nest is appropriate. Results of pre-construction surveys shall be provided to CDFW.

BIO-3.3: Establishment of Buffers – When an active nest is confirmed, the designated biologist shall immediately establish a conservative buffer surrounding the nest based on their best professional judgment and experience. The buffer shall be delineated to ensure that its location is known by all persons working within the vicinity, but shall not be marked in such a manner that it attracts predators. Once the buffer is established, the designated biologist shall document baseline behavior, stage of reproduction, and existing site conditions, including vertical and horizontal distances from proposed work areas, visual or acoustic barriers, and existing level of disturbance. Following documentation of baseline conditions, the designated biologist may choose to make adjustments to the buffer based on site characteristics, stage of reproduction, and types of project activities proposed at/near that location. The designated biologist shall monitor the nest at the onset of project activities and at the onset of any changes in project activities (e.g., increase in number or type of equipment, change in equipment usage) to determine the efficacy of the buffer. If the designated biologist determines that project activities may be causing an adverse reaction, the designated biologist shall adjust the buffer accordingly.

BIO-3.4: Deterrents – Valley District, under the direction of the designated biologist, may also take steps to discourage nesting on the project site, including moving equipment and materials daily, covering material with tarps or fabric, and securing all open pipes and construction materials. The designated biologist shall ensure that none of the materials used pose an entanglement risk to birds or other species.

BIO 3.5: Reporting – The designated biologist shall be responsible for providing summary reports, where relevant, to CDFW no less than once weekly regarding the nesting species identified on site, discovery of any of new nests, the status/outcome of any previously identified nest, buffer distances established for each nest, and any adjustments made to established buffers. If the project results in the abandonment of, or damage to, a nest, CDFW shall be notified within 24 hours.

Mitigation Measure BIO-4: Conduct Pre-construction Surveys for Coastal California Gnatcatcher within 500 Feet of the Limits of Disturbance

A qualified biologist shall conduct preconstruction surveys for coastal California gnatcatcher no more than 7 days prior to the start of ground-disturbing activities if work would occur between February 15 and August 31. Surveys for coastal California gnatcatcher shall be conducted in suitable habitat within 500 feet of the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance. If a breeding territory or nest is confirmed, USFWS shall be notified and, in coordination with USFWS, an exclusionary buffer shall be established around the nest. Construction activities in occupied coastal California gnatcatcher habitat shall be monitored by a USFWS-approved qualified biologist at a frequency specified by USFWS. Unless otherwise authorized by USFWS, no proposed activities shall occur within the Tributaries Restoration Project and Mitigation Reserve Program Phase I established buffer until it is determined by the qualified biologist that the young have left the nest.

Mitigation Measure BIO-5: Conduct Pre-construction Surveys for Least Bell's Vireo Within 500 Feet of the Limits of Disturbance

A qualified biologist shall conduct preconstruction surveys for least Bell's vireo no more than 7 days prior to the start of ground-disturbing activities if work is to occur between March 15 and August 31. Surveys for least Bell's vireo shall be conducted in suitable habitat within 500 feet of the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance. If a breeding territory or nest is confirmed, USFWS and CDFW shall be notified and, in coordination with USFWS and CDFW, an exclusionary buffer shall be established around the nest. Construction activities in occupied least Bell's vireo habitat shall be monitored by an approved qualified biologist at a frequency specified by USFWS and CDFW. Unless otherwise authorized by USFWS and CDFW, no proposed activities shall occur within the Tributaries Restoration Project and Mitigation Reserve Program Phase I established buffer until it is determined by the qualified biologist that the young have left the nest.

Mitigation Measure BIO-6: Conduct Protocol Preconstruction Western Burrowing Owl Surveys Within 500 Feet of the Limits of Disturbance

Vegetation clearing within the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance shall be completed during the non-nesting season to the extent feasible. If ground-disturbing activities or removal of any trees, shrubs, or any other suitable nesting or foraging habitat are scheduled within the western burrowing owl nesting season (February 1 to August 31), a protocol preconstruction clearance survey for western burrowing owl shall be conducted in accordance with CDFW guidelines. If potential western burrowing owl burrows are found during non-nesting season, the occupiable areas of those burrows will be examined, with a burrow scope if needed, and collapsed if not occupied. If active burrows are found during nesting season, an avoidance buffer shall be established through consultation with CDFW and in accordance with CDFW guidelines and remain around the occupied nest(s) until all young have fledged and the nest is confirmed by the qualified biologist to be no longer active. If active burrows are found outside of the nesting season, then CDFW will be consulted for avoidance and minimization methods. Specific avoidance and minimization measures for burrowing owl may include the following procedures as recommended by CDFW and detailed below.

BIO 6.1: Habitat Assessments – Burrowing owl habitat assessments, surveys, impact assessments, and associated reports shall be completed. Methodology shall follow the recommendations and guidelines provided within the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012).

Prior to the initiation of project activities, a burrowing owl habitat assessment shall be conducted by a biologist knowledgeable of burrowing owl habitat, ecology, and field identification of the species and burrowing owl sign and in accordance with the *Staff Report on Burrowing Owl Mitigation*. The assessment shall consist of walking all areas subject to project activities and adjoining areas within 150 meters (approximately 500 feet). If no suitable habitat is found on site (i.e., if the site is completely covered in chaparral habitat, cement, or asphalt), no additional surveys are necessary. A report summarizing the results of the habitat assessment shall be submitted to CDFW.

BIO 6.2: Surveys – If suitable habitat is found on site within areas subject to project activities, burrowing owl surveys shall be conducted by a qualified biologist in accordance with the *Staff Report on Burrowing Owl Mitigation*. As such, the Designated Biologist(s) shall conduct four survey visits:

(1) at least one site visit between February 15 and April 15, and (2) a minimum of three survey visits, at least 3 weeks apart between April 15 and July 15, with at least one visit after June 15.

BIO 6.3: CDFW Coordination – If breeding season surveys confirm occupied burrowing owl habitat in or adjoining areas subject to project activities, Valley District shall contact CDFW and conduct an impact assessment, in accordance with the *Staff Report on Burrowing Owl Mitigation*, prior to commencing project activities, to assist in the development of avoidance, minimization, and mitigation measures.

Mitigation Measure BIO-7A: Conduct Preconstruction Surveys and Minimization Measures Within the Limits of Disturbance for Sensitive Mammal Species

No greater than 48 hours prior to initiation of ground disturbance, including vegetation-clearing activities, within suitable habitat, the limits of disturbance shall be surveyed for sensitive mammal species, including northwestern San Diego pocket mouse, Stephens' kangaroo rat, San Diego black-tailed jackrabbit, San Diego desert woodrat, and Los Angeles pocket mouse.

If sensitive mammal species are observed within the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance and do not self-relocate out of the area by the start of scheduled construction, a qualified biologist may opt to relocate the species to a suitable area out of the construction impact zone. Any capture and relocation shall occur in coordination with USFWS and/or CDFW and be implemented by a by a biologist having appropriate permits, if required, and in compliance with regulatory permits and authorizations issued.

Mitigation Measure BIO-7B: Conduct Preconstruction Surveys Within the Limits of Disturbance for Sensitive Bat Species

To mitigate for potential construction-related impacts on special-status bats and maternity roosts during construction activities, the following measures shall be implemented prior to the commencement of construction activities at all Tributaries Restoration Project and Mitigation Reserve Program Phase I sites. A combination, as required by specific site conditions, of habitat suitability assessments, acoustic surveys of habitat around construction sites, nighttime surveys, maternity colony assessments, and exit counts shall be used to survey the area that may be directly or indirectly affected by the Tributaries Restoration Project and Mitigation Reserve Program Phase I. Avoidance and minimization measures for bats may include specific procedures as recommended by CDFW and detailed below.

BIO-7B.1: Roosting Habitat Suitability Assessment – Prior to commencement of project activities, a CDFW-approved bat biologist shall conduct a bat roosting habitat suitability assessment of the structures and trees that may be removed, altered, or indirectly affected by the proposed project activities. As bats may utilize dense tree canopies, snags, rock crevices, or built structures over creeks/water, these habitat types shall be surveyed. Foraging areas and specific flight routes to those foraging areas shall be documented, as well.

If bat roosting habitat is detected during the pre-construction surveys, Valley District will implement a Bat Protection Plan. All contractors, subcontractors, and employees shall also comply with these measures and it shall be the responsibility of the Permittee to ensure compliance. Valley District shall submit to CDFW for review and approval a Bat Avoidance, Monitoring, and Protection Plan (BAMPP). The BAMPP shall include project-specific avoidance and minimization measures to

ensure that impacts on bats are avoided or minimized. The BAMPP shall be created and be implemented by the CDFW-approved bat biologist. The BAMPP shall include: monitoring protocols, survey timing and duration, procedures and frequency of direct reporting to CDFW, and project-specific avoidance and minimization measures that consider, but are not necessarily limited to, project phasing and timing; installation and monitoring of exclusionary materials, where and when appropriate; monitoring of project-related noise, vibration, and lighting; and installation of buffers.

BIO-7B.2: Nighttime Surveys – Any locations identified as suitable bat roosting habitat by the CDFW-approved bat biologist shall be subject to additional nighttime surveys during the summer months (i.e., June–August) to determine the numbers and bat species using the roost(s). The information collected during these additional surveys shall be used by the CDFW-approved bat biologist to develop species-specific measures to minimize impacts on roosting bats. The surveys shall be conducted by the CDFW-approved bat biologist using an appropriate combination of structure inspection, sampling, exit counts, and acoustic surveys. If bats are found using any structures or trees within the project area, the biologist shall identify the bats to the species level and evaluate the colony to determine its size and significance.

The bat survey shall include: (1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); (2) the number of bats present at the time of visit (count or estimate); (3) the names of each species of bat present (including how the species was identified); (4) the location, amount, and distribution of all bat guano described and pinpointed on a map; and (5) the type of roost, i.e., a night roost (resting at night while out feeding) versus a day roost (resting during the day), clearly stated. The results of the pre-construction bat surveys shall be submitted to CDFW for review.

BIO-7B.3: Maternity Colonies Avoidance and Minimization – If the presence of a maternity colony is confirmed within a structure (e.g., bridge, culvert) during the maternity season survey and activities involving combustion engines and/or night lighting is deemed necessary during the recognized bat maternity season (April 1 through August 31), avoidance and minimization measures including the designation of buffers shall be developed and submitted to CDFW for review.

BIO-7B.4: Establishment of Buffer – If any previously undiscovered roosting bats are discovered during project activities, all work shall stop on, under, around, or within an appropriate buffer as determined by the CDFW-approved bat biologist.

To avoid disturbance of maternity-roosting bats during project-related activities, work activities within a predetermined buffer distance of the maternity roost sites shall avoid the recognized bat maternity season (April 1 through August 31) unless concurrence otherwise has been received from CDFW. The buffer distance shall be determined by a CDFW-approved bat biologist and shall be based upon which bat species are found to compose the maternity colony, because different bat species are known to have different tolerance levels for certain construction activities. Project activities shall not occur at structures housing a maternity colony of bats during the recognized bat breeding season unless concurrence is received from CDFW.

Mitigation Measure BIO-8: Conduct Preconstruction Surveys Within the Limits of Disturbance for Sensitive Terrestrial Reptile Species

Not greater than 48 hours prior to initiation of ground disturbance, the work area shall be surveyed for sensitive terrestrial reptile species, including southwestern pond turtle, California legless lizard,

California glossy snake, coastal whiptail, red-diamond rattlesnake, coast horned lizard, and coast patch-nosed snake. If a sensitive reptile species is observed within the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance, those reptiles shall be captured and relocated to an approved location in consultation with USFWS and/or CDFW by a biologist having appropriate permits, if required, and in compliance with regulatory permits and authorizations issued.

Mitigation Measure BIO-9: Conduct Preconstruction Surveys Within the Limits of Disturbance for Special-status Plant Species

During the appropriate blooming period up to 1 year prior to initiation of ground disturbance, the work area shall be surveyed to confirm the presence/absence of special-status plant species, including: Santa Ana woolly-star, smooth tarplant, Parry's spineflower, snake cholla, paniculate tarplant, many-stemmed dudleya, Southern California black walnut, Coulter's goldfield, Robinson's pepper-grass, chaparral ragwort, San Bernardino aster, as well as Western Riverside County Multiple Species HCP narrow endemic species Brand's star phacelia. Surveys shall be conducted in accordance with California Native Plant Society and CDFW rare plant survey guidelines and shall be conducted during the flowering period when each species is most readily identifiable, if necessary. A botanist shall determine the blooming period for each species and verify blooming during the growing season by visiting a reference site as necessary to observe if the target species is flowering or otherwise identifiable. A species-specific survey may be required for each special-status plant depending upon the blooming period.

Any special-status plant populations shall be mapped. If the presence of any special-status plant species is confirmed, a copy of the survey results shall be forwarded to USFWS and CDFW. If individuals of a sensitive plant species are observed within the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance, then prior to ground disturbance, the individuals shall be flagged and/or mapped for avoidance. If impacts on non-listed species are unavoidable, minimization measures shall be addressed within a 5-year onsite restoration mitigation and monitoring program developed and implemented for the Tributaries Restoration Project and Mitigation Reserve Program Phase I. If impacts on listed plant species are unavoidable, USFWS and/or CDFW shall be consulted prior to proceeding with the project. The following restoration success criteria shall be required.

1. Establishment of restoration site(s) within the Tributaries Restoration Project and Mitigation Reserve Program Phase I, where plant restoration shall occur. The restoration site shall include a restoration mitigation and monitoring program detailing: (1) a clear description of the restoration activities to be completed, including: (a) any recontouring, (b) methods for de-compacting soils, (c) a planting/seeding plan and plant/seed palette, and (d) an irrigation plan; (2) a comprehensive monitoring and maintenance plan, including: (a) a detailed monitoring and maintenance schedule, (b) a nonnative plant removal plan, including procedures to ensure that nonnative plants are not introduced or allowed to sustain within the restoration areas, (c) success standards (e.g., survival, native plant establishment, diversity, nonnative cover), (d) locations of permanent photo stations, and (e) adaptive management measures; (3) graphics and accompanying geographic information system (GIS) shapefiles of the restoration areas; and (4) a contingency plan (e.g., purchase of additional mitigation credits, mitigation at a different offsite location) in the event that the restoration areas do not meet success criteria.
2. Seed collection/salvage, if feasible.

3. A qualified botanist shall identify and submit for approval an appropriate plant palette and restoration methodology compatible with the specific affected special-status species. Mitigation sites could include existing habitats in the Tributaries Restoration Project and Mitigation Reserve Program Phase I of the same vegetation community type, depending on site conditions and locations of special-status plants found.
4. Topsoil salvage and reapplication.

Mitigation Measure BIO-10: Designate a Qualified Biologist(s) to Ensure Compliance with Avoidance and Minimization Measures

A USFWS-approved qualified biologist(s) with knowledge of least Bell's vireo, coastal California gnatcatcher, Santa Ana sucker, and their habitats shall function as a biological monitor. Prior to initiating Tributaries Restoration Project and Mitigation Reserve Program Phase I activities, the name(s) and resumes of all prospective biological monitors shall be submitted to the appropriate USFWS and CDFW offices. The biological monitor shall ensure compliance with the Tributaries Restoration Project and Mitigation Reserve Program Phase I avoidance and minimization measures. The qualified biologist shall be present on site during construction within and adjacent to occupied least Bell's vireo habitat to ensure that avoidance and minimization measures are in place according to specifications, and shall monitor construction within the vicinity of the least Bell's vireo and coastal California gnatcatcher territories at a frequency necessary to ensure that avoidance and minimization measures are properly followed. The qualified biologist shall report any non-compliance within 24 hours to USFWS.

The qualified biologist shall be familiar with other special-status species known, or having the potential to occur, at the restoration sites and shall be present during construction activities involving initial ground disturbance, dewatering, and vegetation removal. If a special-status species is observed within the limits of disturbance, the biologist shall have authority to stop work in order to prevent harm to the individual. The individual animal shall be allowed to leave the site of its own volition; however, should the biologist determine this is not possible, the individual shall be relocated outside of the Tributaries Restoration Project and Mitigation Reserve Program Phase I by the qualified biologist.

Mitigation Measure BIO-11: Conduct Preconstruction Surveys for Special-Status Semi-Aquatic Species

Prior to construction activity, a qualified biologist familiar with the special-status species, including southwestern pond turtle, two-striped gartersnake, and south coast gartersnake, and approved by USFWS and/or CDFW, shall conduct a preliminary survey of the affected water body and surrounding suitable habitat, noting habitat present and any special-status semi-aquatic species. If special-status species are present, they shall be captured and relocated by a qualified biologist. A Capture and Relocation Plan shall be prepared, which shall include requirements for qualified biologists, methods for special-status semi-aquatic species capture, requirements for any information to be collected for captured special-status semi-aquatic species, procedures for temporary containment and transport of captured special-status semi-aquatic species, details for approved release locations for special-status semi-aquatic species, and periodic and final reporting requirements for all relocated special-status semi-aquatic species.

Mitigation Measure BIO-12: Conduct Preconstruction Surveys Within the Limits of Disturbance for Special-Status Aquatic Species

Prior to construction activity, a USFWS-approved Authorized Biologist (i.e., a biologist approved by USFWS and qualified to survey for and evaluate impacts on specific listed special-status species) familiar with the special-status species, including Santa Ana sucker and arroyo chub, and approved by USFWS and CDFW, shall conduct a preliminary survey of the affected water body and surrounding suitable habitat, noting habitat present and any special-status fishes. If special-status species are present, a capture and relocation plan shall be implemented to safely relocate these species (see mitigation measure BIO-13). This plan shall include requirements for qualified biologists, methods for special-status aquatic species capture, requirements for any information to be collected for captured special-status aquatic species, procedures for temporary containment and transport of captured special-status aquatic species, details for approved release locations for special-status aquatic species, and periodic and final reporting requirements for all relocated special-status aquatic species.

Mitigation Measure BIO-13: Develop a Tributaries Restoration Project and Mitigation Reserve Program Phase I-Specific Dewatering, Diversion, and Aquatic/Semi-aquatic Species Rescue Plan (Dewatering Plan)

Prior to dewatering activities, a dewatering plan including site-specific measures shall be developed and submitted to USFWS and CDFW for approval. Dewatering structures may include the use of sand bag, Port-a-dams, water bladder dams, K-rails, or driven sheet metal coffer dams. USFWS and CDFW shall review the proposed water diversion method, to approve the plan or provide the requirements for that approval. Valley District shall not commence dewatering of a stream/diversion of water without explicit approval from CDFW. A qualified biologist, familiar with the special-status species, and approved by USFWS and CDFW, shall be present during implementation of the dewatering plan. The plan shall include the following standard measures for the avoidance and minimization of impacts on special-status species resulting from dewatering activities.

Dewater aquatic habitat that shall be disturbed or removed 15 days prior to the initiation of construction activities to allow time for construction areas to dry and management of any deficiencies in the dewatering effort. If complete dewatering is not possible, potential snake prey (i.e., fish and tadpoles) shall be removed so that snakes and other wildlife are not attracted to the construction area.

Prior to dewatering, blocking nets or other fish barriers shall be installed at the upstream and downstream extents of the reach to be dewatered to prevent aquatic species from entering.

All aquatic species shall be removed by a team of qualified biologists as the stream is dewatered. Native species shall be relocated to nearby suitable habitat downstream of the project sites. Nonnative species shall be sacrificed.

- Pumps used for flow diversion shall be appropriately screened to prevent entrainment of all life stages of aquatic and semi-aquatic species.
- Diversion outflow structures shall be appropriately placed and silt screens, settling ponds, and other equipment shall be used to minimize erosion, sediment deposition, and increased turbidity at the site of outflow.

- Draw-down rates shall be implemented to maintain water quality, reduce crowding of fish, and prevent stranding.
- Water quality shall be regularly monitored during dewatering to ensure conditions are sufficient for aquatic life.
- Other measures shall be implemented to ensure minimal mortality associated with relocation or holding of captured individuals.

The dewatering plan shall also specify the following:

- The removal methods shall be implemented so as to minimize potential injury or mortality to native fish. All captured native fish shall be placed in ice chests filled with Santa Ana River water. The ice chest shall be kept shaded and aerated at all times. The water temperature in the ice chests and condition of captured native fish shall be closely monitored. Any native fish removed from the site shall be relocated in suitable habitat downstream of the Tributaries Restoration Project and Mitigation Reserve Program Phase I. When handling native fish, the hands of all participants shall be free of sunscreen, lotion, and insect repellent. The qualified biologist shall submit a report to USFWS and CDFW identifying the number of any native fish that were relocated and other measures that were taken to minimize impacts on native fish. The report shall be submitted to USFWS and CDFW no more than 60 days following capture and relocation activities.
- If a southwestern pond turtle nest is found, a 100-foot no-disturbance buffer zone shall be established around the nest using flagging, fencing, and/or signage as appropriate. No construction activities shall occur within the Tributaries Restoration Project and Mitigation Reserve Program Phase I established buffer until a qualified biologist has determined that the nest is not in use. If an active southwestern pond turtle nest is found, the turtle nest shall be relocated by a qualified biologist, in consultation with CDFW, and in accordance with the aquatic species rescue plan for the project. If a southwestern pond turtle is observed at any time before or during construction, it shall be left alone to move out of the area on its own or may be relocated by a qualified biologist to a suitable aquatic habitat outside of the Tributaries Restoration Project and Mitigation Reserve Program Phase I; translocation of turtles can only be performed in consultation with CDFW, and by an individual possessing a valid scientific collecting permit.

Mitigation Measure BIO-14: Develop a Nesting Bird Management Plan

Construction is likely to occur during nesting bird season. Therefore, the Tributaries Restoration Project and Mitigation Reserve Program Phase I shall develop a nesting bird management plan in consultation with USFWS and CDFW. Approval by both USFWS and CDFW are required before the plan can be implemented. The nesting bird management plan shall include measures, some of which may have been detailed above, and an adaptive management program to avoid and minimize impacts on special-status and Migratory Bird Treaty Act– or CFGC-protected bird species during nesting periods. The qualified biologist shall notify USFWS and CDFW of all Tributaries Restoration Project and Mitigation Reserve Program Phase I-related bird injuries or mortalities within 48 hours of discovery and shall follow the agencies' recommended actions, if any. This plan shall include a description of all federal, state, and local nesting bird policies, biologist qualifications, roles and responsibilities, definitions of active and inactive nest, survey requirements, active nest avoidance,

nest buffer reductions, guidelines for working within nest buffers, notification and documentation, inactive nest management, and periodic and final reporting requirements.

Mitigation Measure BIO-15: Delineate Limits or Require Use of GPS-based exclusionary Technology on Construction Equipment to Prevent Encroachment of Construction Activities into Environmentally Sensitive Areas

Before the start of construction activities, including establishment of staging areas, vegetation clearing, and/or grading activities, environmentally sensitive areas shall be mapped and either delineated with flagging or stakes, or the contractor shall be required to use global positioning system (GPS)-based exclusionary technology, along the limits of disturbance at each tributary restoration site to prevent access into non-Tributaries Restoration Project and Mitigation Reserve Program Phase I areas. The limits of work shall be inspected during construction by a qualified biological monitor at a frequency necessary to ensure that protective measures are intact and construction activities are not encroaching into environmentally sensitive areas. Environmentally sensitive area fencing shall be inspected daily by the authorized biologist(s) or project construction personnel working under the direction of the authorized biologist(s). The authorized biologist(s) shall personally inspect the fencing no less than once per week. Environmentally sensitive area fencing shall be maintained in good working order for the duration of project activities.

Mitigation Measure BIO-16: Implement Best Management Practices

The contractor shall implement the following best management practices during construction activities to protect aquatic habitat and other sensitive natural communities that provide habitat for special-status species.

- Reduce the risk of wildfire ignition using spark arresters.
- Limit personnel activities, vehicles, equipment, and construction materials to the designated work area.
- Confine the ingress and egress of construction equipment and personnel to designated access points. Prohibit cross-country travel by vehicles and equipment.
- Leave no open trenches or holes overnight without covering, fencing, or providing escape ramps with a minimum 3:1 slope. If trenches are not covered, they shall be inspected for trapped wildlife by a qualified biologist or biological monitor. Animals found shall be captured and moved to the nearest safe location outside the construction area.
- Develop an integrated weed management plan (IWMP) to minimize the potential introduction of new weeds and to control the spread of weeds resulting from ground disturbance. The IWMP shall be developed within the first year following issuance of the ITP and shall be reviewed and approved by the Wildlife Agencies. The IWMP shall include biologist qualifications, roles, and responsibilities; definitions of noxious weeds and invasive plants; pre-construction, construction, and operations phase weed control methods; and periodic and final reporting requirements.
- Maintain adequate fire suppression capability in active construction areas including having a water tender on site in active construction areas during periods of high fire danger. A water truck or water buffalo with adequate hoses for fire control shall be maintained on the site during all habitat-clearing and construction activities during fire season.

- Implement litter control measures. Trash and food items shall be contained in closed containers and removed daily to reduce the attractiveness of the area to opportunistic predators.
- Limit vehicle speeds to 15 miles per hour except on paved roads with posted speed limits. If work must take place at night, the speed limit shall be 10 miles per hour.
- Conduct new construction during the daylight hours to the extent feasible.
- Confine the construction site disturbances to the smallest practical area, considering topography, placement of facilities, location of Covered Species habitat, public health and safety, and other limiting factors, and use previously disturbed areas to the extent possible.
- Use secondary containment devices such as drip pans under stationary engines, such as compressors, generators, light plants, etc., to prevent any leakage from entering runoff or receiving waters.
- Inspect all construction equipment for leaks and regularly maintain such equipment to avoid soil contamination. Leaks shall be fixed or the equipment shall be taken out of service until the leak is fixed. Smears of petroleum products shall be cleaned prior to use.
- Clean up any hazardous waste or spills immediately and dispose at an offsite location that receives the required grade of hazardous waste.
- Store spill kits capable of containing hazardous spills on site.

Mitigation Measure BIO-17: Implement a Worker Environmental Awareness Training

Prior to construction, a Worker Environmental Awareness Program (WEAP) shall be implemented for work crews by a qualified biologist(s). Training materials and briefings shall include, but not be limited to, discussion of ESA and CESA, the consequences of noncompliance with Tributaries Restoration Project and Mitigation Reserve Program Phase I permitting requirements, identification and values of special-status plant and wildlife species and sensitive natural plant community habitats, fire protection measures, hazardous substance spill prevention, and containment measures.

Expanded Mitigation Reserve Program Phase II

Mitigation Measure BIO-18: Consult with Agencies Regarding ESA and CESA Permitting Needed for Expanded Mitigation Reserve Program Phase II Restoration Activities

The Expanded Mitigation Reserve Program Phase II shall obtain federal and state incidental take authorization as necessary for all federally listed species identified as potentially being adversely affected by construction, operations, and/or maintenance within the Expanded Mitigation Reserve Program Phase II limits of disturbance. Implementation of the Upper Santa Ana HCP is expected to provide coverage for federally listed and/or state-listed species when it is approved. Specific Expanded Mitigation Reserve Program Phase II projects that predate the approval of the Upper Santa Ana HCP shall require Valley District to initiate Section 7 consultation with the appropriate federal agency for the purpose of insuring that the specific Expanded Mitigation Reserve Program Phase II projects are not likely to jeopardize the continued existence of any threatened or endangered species identified within the Expanded Mitigation Reserve Program Phase II project limits of disturbance, or result in the destruction or adverse modification of critical habitat for these species within the limits of disturbance. Expected terms and conditions may address take avoidance, habitat restoration and conservation, construction monitoring, and project operations for federally listed species identified or

expected to occur within the Expanded Mitigation Reserve Program Phase II limits. Furthermore, those specific Expanded Mitigation Reserve Program Phase II projects that predate the approval of the Upper Santa Ana HCP and result in a take of a state-only listed species identified within the project limits shall require Valley District to apply for a take permit under Section 2081(b). Expected terms and conditions may address take avoidance, habitat restoration and conservation, construction monitoring, and project operations for state-listed species identified or expected to occur within the Expanded Mitigation Reserve Program Phase II limits.

Mitigation Measure BIO-19: Conduct Pre-Construction Biological Clearance Surveys to Avoid and Minimize Direct Impacts on Special-Status Wildlife and Plants From Construction Activities

To avoid or minimize direct impacts on special-status species from construction activities, a qualified biologist approved by USFWS and/or CDFW shall conduct appropriate preconstruction clearance surveys of the specific projects of the Expanded Mitigation Reserve Program Phase II for special-status bird species—including nesting bird surveys, coastal California gnatcatcher surveys, least Bell's vireo surveys, western burrowing owl surveys—special-status mammal species, special-status terrestrial reptile species, special-status semi-aquatic species, and special-status native plants and narrow endemic plants prior to any ground disturbing activities.

Mitigation Measure BIO-20: Designate a Qualified Biologist

A USFWS qualified biologist with knowledge of special-status species and their habitats that may be affected by the construction activities shall function as a biological monitor. The qualified biologist shall ensure compliance with the avoidance and minimization measures of the Expanded Mitigation Reserve Program Phase II.

Mitigation Measure BIO-21: Develop a Nesting Bird Management Plan

To address potential conflicts between construction activities and the activities of nesting birds in the specific projects of the Expanded Mitigation Reserve Program Phase II, the project shall develop a nesting bird management plan in consultation with USFWS and CDFW. Approval by both USFWS and CDFW is required before the plan is implemented. This plan shall include a description of all federal, state, and local nesting bird policies, biologist qualifications, roles and responsibilities, definitions of active and inactive nest, survey requirements, active nest avoidance, nest buffer reductions, guidelines for working within nest buffers, notification and documentation, inactive nest management, and periodic and final reporting requirements.

Mitigation Measure BIO-22: Delineate Limits or Require Use of GPS-Based Exclusionary Technology on Construction Equipment to Prevent Encroachment of Construction Activities into Environmentally Sensitive Areas

Before the start of construction activities, including establishment of staging areas, vegetation clearing, and/or grading activities, environmentally sensitive areas shall be mapped and either delineated with flagging or stakes or the contractor shall be required to use GPS-based exclusionary technology along the specific projects of the Expanded Mitigation Reserve Program Phase II limits of disturbance to prevent access into non-project areas. The limits of work shall be inspected during construction by a qualified biological monitor at a frequency necessary to ensure that protective

measures are intact and construction activities are not encroaching into environmentally sensitive areas. Environmentally sensitive area fencing shall be inspected daily by the authorized biologist(s) or project construction personnel working under the direction of the authorized biologist(s). The authorized biologist(s) shall personally inspect the fencing no less than once per week. Environmentally sensitive area fencing shall be maintained in good working order for the duration of project activities.

Mitigation Measure BIO-23: Implement Best Management Practices to Avoid or Minimize Construction-Related Spills or Leaks of Toxic Substances

The contractor shall implement the following best management practices during construction activities to protect aquatic habitat and other sensitive natural communities that provide habitat for special-status species:

- Reduce the risk of wildfire ignition using spark arresters.
- Limit personnel activities, vehicles, equipment, and construction materials to the designated work area.
- Confine the ingress and egress of construction equipment and personnel to designated access points. Prohibit cross-country travel by vehicles and equipment.
- Leave no open trenches or holes overnight without covering, fencing, or providing escape ramps with a minimum 3:1 slope. If trenches are not covered, they shall be inspected for trapped wildlife by a qualified biologist or biological monitor. Animals found shall be captured and moved to the nearest safe location outside the construction area.
- Develop an IWMP to minimize the potential introduction of new weeds and to control the spread of weeds resulting from ground disturbance. The IWMP shall be developed within the first year following issuance of the ITP and shall be reviewed and approved by the Wildlife Agencies. The IWMP shall include biologist qualifications, roles, and responsibilities; definitions of noxious weeds and invasive plants; pre-construction, construction, and operations phase weed control methods; and periodic and final reporting requirements.
- Maintain adequate fire suppression capability in active construction areas, including having a water tender on site in active construction areas during periods of high fire danger. A water truck or water buffalo with adequate hoses for fire control shall be maintained on the site during all habitat-clearing and construction activities during fire season.
- Implement litter control measures. Trash and food items shall be contained in closed containers and removed daily to reduce the attractiveness of the area to opportunistic predators.
- Limit vehicle speeds to 15 miles per hour except on paved roads with posted speed limits. If work must take place at night, the speed limit shall be 10 miles per hour.
- Conduct new construction during the daylight hours to the extent feasible.
- Confine the area of construction site disturbances to the smallest practical area, considering topography, placement of facilities, location of Covered Species habitat, public health and safety, and other limiting factors, and locate sites in previously disturbed areas to the extent possible.

- Use secondary containment devices such as drip pans under stationary engines, such as compressors, generators, light plants, etc. to prevent any leakage from entering runoff or receiving waters.
- Inspect all construction equipment for leaks and maintain equipment regularly to avoid soil contamination. Leaks shall be fixed or the equipment shall be taken out of service until the leak is fixed. Smears of petroleum products shall be cleaned prior to use.
- Clean up any hazardous waste or spills immediately and dispose of at an offsite location that receives the required grade of hazardous waste.
- Store spill kits capable of containing hazardous spills on site.

Mitigation Measure BIO-24: Implement a Worker Environmental Awareness Training

Prior to construction, a WEAP shall be implemented for work crews by a qualified biologist(s). Training materials and briefings shall include but not be limited to discussion of ESA and CESA, the consequences of noncompliance with specific Expanded Mitigation Reserve Program Phase II project permitting requirements, identification and values of special-status plant and wildlife species and sensitive natural plant community habitats, fire protection measures, hazardous substance spill prevention, and containment measures.

Conclusion. Implementation of mitigation measures BIO-1 through BIO-17 (for the Tributaries Restoration Project and Mitigation Reserve Program Phase I) and BIO-18 through BIO-24 (for the Expanded Mitigation Reserve Program Phase II) will reduce the project's impact on plant and wildlife species identified as a candidate, sensitive, or special-status species to a less-than-significant level because they will ensure that impacts on listed plants and wildlife are either avoided, or they will minimize temporary construction impacts on habitat and species. Operations and maintenance of the project would actually increase the amount and ecological function of native riverine habitat and riparian corridor. Mitigation measure BIO-1 includes terms and conditions that offset the impacts on protected species and ensure that the project does not jeopardize a listed species or adversely modify critical habitat.

Potentially Significant Impact BIO-1: Potential to have an 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 CDFW or USFWS; Impact BIO-1.2: Construction-related indirect impacts on special-status species.

Finding. As noted in the EIR, the project could potentially affect numerous candidate, sensitive, or special-status species indirectly during construction. Effects on special-status aquatic species related to increased suspended sediment and turbidity would be short term and minor and are considered to be less than significant. The temporary loss of aquatic habitat due to dewatering during construction would be less than significant. However, indirect impacts on special-status species as a result of construction-related noise, dust, and vibration would be potentially significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse effects on plant and wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measure that will reduce potentially significant Impact BIO-1.2 to a less-than-significant level for construction-related indirect impacts on special-status species:

Mitigation Measure BIO-25: Implement Best Management Practices to Avoid or Minimize Impacts on Special-Status Species From Construction- and Operations-Related Impacts

To avoid noise impacts on special-status species from construction and operations activities, the Tributaries Restoration Project and Mitigation Reserve Program Phase I shall include measures necessary to reduce construction noise levels to comply with local noise ordinances. All heavy equipment shall install and maintain mufflers or other noise-reducing features. A biological monitor shall monitor at the edge of the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance or areas not cleared of vegetation to ensure noise levels do not result in a disruption to nesting birds. If construction noise is negatively affecting nesting birds (e.g., a discernable negative change in behavior is observed, such as nest flushing or adults not returning to the nest with prey) then work shall cease in the immediate area until adequate controls such as noise barriers can be established to reduce noise levels. Noise barriers may include temporary noise blankets or noise shrouds. If construction noise may affect nesting birds, it may be most effective to construct noise barriers well prior to February 15, the start of the nesting season, to ensure construction delays do not occur. All noise barriers shall be constructed within the Tributaries Restoration Project and Mitigation Reserve Program Phase I limits of disturbance.

To control fugitive dust, active construction and operations areas shall be watered regularly to control dust and minimize impacts on adjacent vegetation.

Conclusion. Implementation of mitigation measure BIO-25 for the Tributaries Restoration Project and Mitigation Reserve Program Phase I and Expanded Mitigation Reserve Program Phase II will reduce project construction related indirect impacts on special-status species from noise, dust, and vibration impacts to a less-than-significant level.

Potentially Significant Impact BIO-1: Potential to have an 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 CDFW or USFWS; BIO-1.3: Indirect Impacts on Special-Status Species Resulting from Habitat Modifications.

Finding. As noted in the EIR, the project could potentially affect numerous special-status species indirectly as a result of habitat modification. Habitat improvements at each site would result in temporary impacts on native vegetation communities, nonnative and invasive vegetation communities, and other land cover types, including open water, disturbed habitat, and urban/developed areas. Indirect impacts on special-status species resulting from habitat modifications would be considered potentially significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse indirect effects on special-status species resulting from habitat modification.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact BIO-1.3 to a less-than-significant level for indirect impacts on special-status species resulting from habitat modifications:

Mitigation Measures BIO-1 through BIO-24, described previously

Conclusion. Implementation of mitigation measures BIO-1 through BIO-24 for the Tributaries Restoration Project and Mitigation Reserve Program Phase I and Expanded Mitigation Reserve Program Phase II will be required, and indirect impacts from habitat modifications will be avoided and/or minimized to a less-than-significant level. By design, the project will increase the amount and quality of habitat for the Santa Ana sucker and other sensitive native species and enhance jurisdictional aquatic resources, restore existing channels and existing floodplain tributaries, enhance existing riparian and floodplain habitats, limit human disturbance, and control nonnative invasive species.

Potentially Significant Impact BIO-2: Potential to result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Finding. As noted in the EIR, the project could potentially affect riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS. Although the proposed project would result in a net gain in riparian habitat or other sensitive habitat types over the long term, construction would cause the temporary loss or degradation of habitat potentially used by native species. Approximately 0.55 acre of native vegetation communities and approximately 31.26 acres of native vegetation communities are expected to be temporarily degraded through construction activities for the Tributaries Restoration Project and Mitigation Reserve Program Phase I, and this impact would be significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in any adverse effects on any riparian habitat or other sensitive natural community.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact BIO-2 to a less-than-significant level for temporary loss or degradation of habitat potentially used by native species:

Tributaries Restoration Project and Mitigation Reserve Program Phase I

Mitigation Measure BIO-16, described previously

Mitigation Measure BIO-26: Restore Temporarily Affected Riparian Habitat or Other Sensitive Natural Communities

Prior to any ground disturbances a site-specific revegetation plan shall be prepared by a qualified restoration ecologist that includes a description of existing conditions for each area, disturbances, site preparation, revegetation methods, maintenance and monitoring criteria, performance standards, and adaptive management practices. The plan shall identify cover standards that shall be developed for each plant community target, and cover values established for each layer (shrub, herb, and/or tree layers). The restoration plan shall include a restoration mitigation and monitoring program detailing: (1) a clear description of the restoration activities to be completed, including: (a) any recontouring, (b) methods for de-compacting soils, (c) a planting/seeding plan and plant/seed palette, and (d) an irrigation plan; (2) a comprehensive monitoring and maintenance plan, including: (a) a detailed monitoring and maintenance schedule, (b) a nonnative plant removal plan, including procedures to ensure that nonnative plants are not introduced or allowed to sustain within the restoration areas, (c)

success standards (e.g., survival, native plant establishment, diversity, nonnative cover), (d) locations of permanent photo stations, and (e) adaptive management measures; (3) graphics and accompanying GIS shapefiles of the restoration areas; and (4) a contingency plan (e.g., purchase of additional mitigation credits, mitigation at a different offsite location) in the event that the restoration areas do not meet success criteria. Revegetation shall be implemented immediately following construction activities to ensure no permanent net loss of sensitive habitats would occur. Seeds and container stock shall be from regional stock.

Expanded Mitigation Reserve Program Phase II

Mitigation Measure BIO-27: Restore Temporarily Affected Riparian Habitat or Other Sensitive Natural Communities

Prior to any ground disturbances a site-specific revegetation plan shall be prepared by a qualified restoration ecologist that includes a description of existing conditions for each area, disturbances, compensation mitigation, site preparation, revegetation methods, maintenance and monitoring criteria, performance standards, and adaptive management practices. The plan shall identify cover standards that shall be developed for each plant community target, and cover values established for each layer (shrub, herb, and/or tree layers). The restoration plan shall include a restoration mitigation and monitoring program detailing: (1) a clear description of the restoration activities to be completed, including: (a) any recontouring, (b) methods for de-compacting soils, (c) a planting/seeding plan and plant/seed palette, and (d) an irrigation plan; (2) a comprehensive monitoring and maintenance plan, including: (a) a detailed monitoring and maintenance schedule, (b) a nonnative plant removal plan, including procedures to ensure that nonnative plants are not introduced or allowed to sustain within the restoration areas, (c) success standards (e.g., survival, native plant establishment, diversity, nonnative cover), (d) locations of permanent photo stations, and (e) adaptive management measures; (3) graphics and accompanying GIS shapefiles of the restoration areas; and (4) a contingency plan (e.g., purchase of additional mitigation credits, mitigation at a different offsite location) in the event that the restoration areas do not meet success criteria. Revegetation shall be implemented immediately following construction activities to ensure no permanent net loss of sensitive habitats would occur. Seeds and container stock shall be from regional stock.

Conclusion. Implementation of mitigation measures BIO-16 and BIO-26 for the Tributaries Restoration Project and Mitigation Reserve Program Phase I will reduce the impact on any riparian habitat or other sensitive natural community to less-than-significant levels. Implementation of mitigation measure BIO-27 will reduce the Expanded Mitigation Reserve Program Phase II impacts resulting from any adverse effects on any riparian habitat or other sensitive natural community to less-than-significant levels.

Potentially Significant Impact BIO-3: Potential to result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (e.g., marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means.

Finding. As noted in the EIR, the project could potentially adversely affect wetland and non-wetland waters of the United States and state and CDFW jurisdictional resources by direct modification (i.e., restoration and creation) of these habitats. This includes waters of the United States and state consisting of non-wetland and wetland waters subject to the jurisdiction of USACE and RWQCB under Sections 404 and Section 401 of the CWA, respectively, and streambed and associated riparian (contiguous with the streambed) subject to regulation by CDFW under CFGC Section 1602. This direct impact would be considered potentially significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in adverse effects on federally protected wetlands, non-wetland waters, and state waters.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measure that will reduce potentially significant Impact BIO-3 to a less-than-significant level on federally protected wetlands:

> **Mitigation Measure BIO-28: Obtain Clean Water Act Section 404 and 401 Authorization and California Fish and Game Code Section 1600 et seq. Authorization**
>
> The Tributaries Restoration Project and Mitigation Reserve Program Phase I shall require authorization from USACE pursuant to Section 404 of the CWA, the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and from CDFW pursuant to Section 1602 of the CFGC, as a result of temporary and permanent impacts on jurisdictional aquatic resources. Authorizations from these agencies shall be obtained prior to construction. Terms and conditions may include: compensatory mitigation requirements, aquatic life movement requirements, spawning area requirements, migratory bird breeding area requirements, water flow management requirements, 100-year floodplain requirements, soil erosion and sediment control requirements, water quality requirements, and pre-construction notification and coordination requirements.

Conclusion. With implementation of mitigation measure BIO-28, the project effects on federally protected wetlands, non-wetland waters, and state waters (riparian and streambed) will result in a net increase in area as well as functions and values within state and federal jurisdiction following restoration activities. Therefore, this impact will be reduced to a less-than-significant level with mitigation.

Potentially Significant Impact BIO-4: Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedance of the use of native wildlife nursery sites.

Finding. As noted in the EIR, the project could potentially affect the movement of fish and semi-aquatic species over the course of the construction and maintenance. Impacts from the project on the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, and the impedance of the use of native wildlife nursery sites, would be considered significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in adverse effects on, or the interference for the movement of, any native resident or migratory fish or wildlife species.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact BIO-4 to a less-than-significant level on the movement of any native resident or migratory fish or wildlife species:

Mitigation Measures BIO-2 through BIO-9, BIO-11, BIO-12, BIO-19, BIO-26, and BIO-28, described previously

Conclusion. Implementation of mitigation measures BIO-2 through BIO-9, BIO-11, BIO-12, BIO-19, BIO-26, and BIO-28 will avoid or minimize environmental effects on migratory fish, wildlife species, established wildlife corridors, and native wildlife nursery sites. Overall, the project will increase the quantity and quality of aquatic habitat, native riparian habitat, native scrub habitat, and grassland habitat, thereby increasing the functions and values related to breeding and connectivity for wildlife movement through the sites and within the larger Santa Ana River floodplain. Therefore, this impact will be reduced to a less-than-significant level with mitigation.

Potentially Significant Impact BIO-5: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Finding. As noted in the EIR, the project could potentially conflict with an adopted HCP or natural community conservation plan. The project sites are within the boundaries of the Western Riverside County Multiple Species HCP and portions are within the Stephens' kangaroo rat HCP. The proposed project could conflict with the provision of an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP if the project would result in permanent loss of habitat or decrease the quantity and quality of native vegetation and aquatic resources.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not conflict with an adopted habitat conservation or natural community conservation plan.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact BIO-5 to a less-than-significant level regarding a conflict with an adopted HCP or natural community conservation plan:

Mitigation Measures BIO-2 through BIO-9, BIO-11, BIO-12, BIO-18 through BIO-23, BIO-25, BIO-26, and BIO-28, described previously

Conclusion. Implementation of mitigation measures BIO-2 through BIO-9, BIO-11 and BIO-12, BIO-18 through BIO-23, BIO-25, BIO-26, and BIO-28 and compliance with city/county policies will ensure compliance with the goals of the HCPs for the region and will reduce impacts to a less-than-significant level. The proposed project would not result in permanent loss of habitat and would increase the quantity and quality of native vegetation and aquatic resources that would benefit each of the species covered by these plans. The proposed project is also intended to align with the provisions, goals, and objectives of these HCPs as well as the draft Upper Santa Ana River HCP. The proposed project will be consistent with these adopted plans and is expected to provide a net improvement to stream, wetland, riparian, scrub, and grassland habitat quality.

Cultural Resources

Potentially Significant Impact CUL-1: Substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines

Finding. As noted in the EIR, the project could potentially affect or result in an adverse change to a historic resource. Ground-disturbing activities associated with the Tributaries Restoration Project and Mitigation Reserve Program Phase I may result in the discovery of previously unidentified historical resources. One historical-period built environment resource (P-33-003361) is located within the Expanded Mitigation Reserve Program Phase II study area. Should previously unidentified historical resources be discovered as a result of proposed ground disturbance, a significant impact would result.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse changes in the significance of a historical resource.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact CUL-1 to a less-than-significant level for historical resources:

Tributaries Restoration Project and Mitigation Reserve Program Phase I

Mitigation Measure CUL-1: Retain a Qualified Archaeologist

The applicant shall retain a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology, to carry out all mitigation measures related to archaeological and historical-period resources. The qualified archaeologist shall work under the direction of a qualified archaeological Principal Investigator.

Mitigation Measure CUL-2: Unanticipated Discoveries

If an above-surface artifact, cultural resources of potential significance, or archaeological deposit of potential significance is discovered, the qualified archaeologist shall have the authority to temporarily halt construction activities within 25 feet of the find and shall be given reasonable time to map its location with a global positioning system device and recover the item. If buried cultural resources of potential significance are discovered inadvertently during ground-disturbing activities, work shall be temporarily halted in the area and within 50 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the lead agency. If the find is prehistoric or Native American in origin, consultation with local Native American tribes who have expressed interest regarding the project shall be undertaken.

The Principal Investigator will notify the lead agency to discuss the significance determination and shall also submit a letter to the lead agency indicating whether additional mitigation is required. If the discovery is determined to be not significant in consultation with the lead agency, work will be permitted to continue in the area. If, in consultation with the lead agency, a discovery is determined to be significant, a mitigation plan shall be prepared and carried out in accordance with state and federal guidelines. If the resource cannot be avoided, a data recovery plan shall be developed to ensure collection of sufficient information to address archaeological and historical-period research questions, with results presented in a technical report describing field methods, materials collected, and

conclusions. The qualified archaeologist shall treat recovered items in accordance with current professional standards by properly proveniencing, cleaning, analyzing, researching, reporting, and curating them in a collection facility meeting the Secretary of the Interior's Standards as promulgated in 36 CFR 79.

Expanded Mitigation Reserve Program Phase II

Mitigation Measure CUL-3: Avoidance of Significant Historical Resource through Establishment of Environmentally Sensitive Areas (ESAs)

Impacts on significant historical resources and/or archaeological resources identified in Table 3.4-3 and Table 3.4-4 should be avoided through establishing fencing around the boundaries of these known resources and delineating these locations as ESAs. The placement of protective fencing can include a buffer beyond the known boundaries of archaeological or historical sites to account for potentially unknown buried resources. Buffers of 25 feet have been recommended for sites P-33-000621, P-33-000622, P-33-03361, and P-33-009652. Due to conditions surrounding the sites, a 10-foot buffer is recommended for P-33-000127 and no buffer is recommended for site P-33-000884. Worker training should include language to the effect that ESAs must be avoided and cannot be entered on foot or with heavy equipment. Reasonable signage indicating the fenced area is an ESA should be posted. Should sacred objects or objects of religious importance to Native American groups be identified, consultation with local Native American tribes who have expressed interest regarding the project shall be undertaken and those materials should be preserved in place to the extent feasible to maintain the critical relationship between built environment resources and archaeological artifacts and their archaeological context.

Conclusion. With implementation of mitigation measures CUL-1 and CUL-2 (for the Tributaries Restoration Project and Mitigation Reserve Program Phase I and the Expanded Mitigation Reserve Program Phase II) and CUL-3 (for the Expanded Mitigation Reserve Program Phase II), impacts will be reduced to a less-than-significant level. As part of mitigation measure CUL-3, a 25-foot buffer outside of the known boundaries of the site is recommended for the placement of ESA fencing. However, if avoidance is not possible, then mitigation measure CUL-5, as described below, would also be followed.

Potentially Significant Impact CUL-2: Substantial adverse change in the significance of an archaeological resources as defined in Section 15064.5 of the State CEQA Guidelines

Finding. As noted in the EIR, the project could potentially affect or result in an adverse change to an archaeological resource. Seven previously recorded archaeological sites are located within the Tributaries Restoration Project and Mitigation Reserve Program Phase I study areas and would be affected by ground disturbance associated with this work. Twelve previously recorded archaeological resources and two newly discovered isolated artifacts are located within the Expanded Mitigation Reserve Program Phase II study area. Should previously unidentified archaeological resources be discovered as a result of proposed ground disturbance, a significant impact would result.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse changes in the significance of an archaeological resource.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact CUL-2 to a less-than-significant level for unknown historical or unique archaeological resources:

Mitigation Measures CUL-1, CUL-2, and CUL-3, described previously

Mitigation Measure CUL-4: Provide Archaeological and Native American Monitoring and Prepare Archaeological Monitoring Plan

If avoidance is not feasible, and if project-related ground disturbance is anticipated to occur at archaeological sites identified in Tables 3.4-3 and 3.4-4, a qualified archaeologist shall be present to monitor the ground-disturbing activity. If ground-disturbing activities are to proceed at prehistoric archaeological sites, a Native American monitor shall be retained in addition to an archaeologist. The Native American monitor, if required, should be affiliated with a local Native American tribe. Prior to the commencement of ground-disturbing activity, an Archaeological Monitoring Plan (AMP) shall be developed to guide archaeological monitoring work during ground-disturbing activities. The AMP shall detail and emphasize training for construction workers and qualifications necessary for archaeological monitors. The AMP must also detail the locations where archaeological monitoring will take place and the depths of excavation that will require monitoring. The AMP must include roles and responsibilities for cultural resources staff and contact information for any Archaeological Principal Investigator, archaeological and Native American monitors, and appropriate management staff.

The AMP must detail monitoring procedures, discovery protocols, general procedures for documenting and recovering archaeological materials, artifact identification, repository institution identification, associated repository fees, guidelines for preparing the archaeological monitoring, and mitigation final report. The AMP must also include protocols for communication and response should an unanticipated discovery be made at times that archaeological monitors are not present. The AMP must require attendance by construction personnel at a preconstruction meeting led by either the Principal Investigator or qualified archaeologist in which the Principal Investigator or qualified archaeologist will explain the anticipated likelihood for encountering archaeological resources, what resources may be discovered, and the methods that will be employed if such a resource is discovered. The AMP must include an example proposed letter regarding transfer of salvaged materials to an appropriate museum curation facility, an example daily monitoring report form, and all other pertinent archaeological resources recordation and analysis forms.

(Should unanticipated discoveries be made during archaeological monitoring, then the unanticipated discoveries protocol described in mitigation measure CUL-2 will be enacted. In the event of an unanticipated discovery of human remains, the archaeological monitor will follow the unanticipated discovery protocols [mitigation measure CUL-6] described below.)

Mitigation Measure CUL-5: Development and implementation of an Archaeological Treatment Plan (ATP)

To evaluate archaeological sites for which information regarding the potential for listing in the National Register of Historic Places or California Register of Historical Resources is not available due to a lack of data on the full vertical and horizontal extents and the archaeological integrity of the site, the lead agency shall develop an Archaeological Treatment Plan (ATP) prior to ground-

disturbing activities that describes methods and procedures for conducting subsurface excavations to determine the vertical and horizontal extents of an archaeological site. Development of the ATP should include consultation with local Native American tribes who have expressed interest regarding the project. Implementation of such a plan may include mechanical and/or manual excavations to provide data on the cultural constituents at the site and the depositional context of such materials (if found to exist). These data can be used to determine the integrity of the site and to make a formal evaluation based on the eligibility criteria set forth in CEQA and Section 106 of the National Historic Preservation Act for inclusion in the California Register of Historical Resources and National Register of Historic Places. The ATP should define the parameters of archaeological testing at the site, and the extent of excavation and analysis of any materials recovered. The ATP must also include guidelines for treatment and curation of any materials recovered during the testing process. Following implementation of the ATP, a technical report describing the methods and results of archaeological testing and formal evaluations of the archaeological sites and recommendations for further treatment shall be completed.

Conclusion. Implementation of mitigation measures CUL-1 and CUL-3 will provide further evaluation regarding onsite archaeological resources. If it is determined that avoidance is not possible, then mitigation measures CUL-2, CUL-4, and CUL-5 will be implemented to lessen the significance of impacts. Mitigation measures would be implemented to ensure that the project would result in less-than-significant impacts on unknown historical or unique archaeological resources under CEQA and will ensure that any impacts on those resources are avoided.

Potentially Significant Impact CUL-3: Significant impact if it would disturb any human remains, including those interred outside of formal cemeteries

Finding. As noted in the EIR, the project could potentially unearth, expose, or disturb previously unknown human remains and disturb human remains, including those interred outside of formal cemeteries. No known human remains are located in the vicinity of the proposed project area. Because the proposed project would involve ground-disturbing activities in the vicinity of archaeological sites, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. Should human remains be discovered as a result of proposed ground disturbance, a significant impact would result.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse impacts on any human remains if discovered, including those interred outside of formal cemeteries.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measure that will reduce potentially significant Impact CUL-3 to a less-than-significant level for the disturbance of any human remains:

Mitigation Measure CUL-6: Human Remains and Associated or Unassociated Funerary Objects

The discovery of human remains is always a possibility during ground-disturbing activities; if human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human

remains, all work within 50 feet of the find shall be halted until the remains have been evaluated by the county coroner, and appropriate action taken in coordination with the Native American Heritage Commission, in accordance with Section 7050.5 of the California Health and Safety Code or, if the remains are Native American, Section 5097.98 of the PRC. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant. The most likely descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Conclusion. Implementation of mitigation measure CUL-6 provides a plan if human remains are found, which would reduce impacts to less-than-significant levels. No further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to PRC §5097.98. In the event of an unanticipated discovery of human remains, all work within 50 feet of the find shall be halted until the remains have been evaluated by the county coroner, and appropriate action taken in coordination with the Native American Heritage Commission, in accordance with Section 7050.5 of the California Health and Safety Code or, if the remains are Native American, Section 5097.98 of the PRC.

Geology, Soils, Seismicity, and Paleontological Resources

Potentially Significant Impact GEO-1: Direct or indirect destruction of a unique paleontological resource or site or unique geologic feature

Finding. As noted in the EIR, the project could potentially affect paleontological resources. There is the potential for deeper excavations to affect unique (significant) paleontological resources. Should significant paleontological resources be discovered as a result of proposed ground disturbance, a significant impact would result.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact GEO-1 to a less-than-significant level for the potential destruction of significant paleontological resources:

Mitigation Measure GEO-1: Retain a Qualified Paleontologist and Develop a Paleontological Monitoring Plan (PMP)

The applicant shall retain a qualified paleontologist defined as a paleontologist who meets the requirements as a Principal Investigator/ Project Paleontologist per the guidelines of the Society of Vertebrate Paleontologists. The Principal Investigator/ Project Paleontologist will review any paleontological finds encountered during monitoring and provide input for significance determinations and procedures for recovery (if necessary).

A Paleontological Monitoring Plan (PMP) shall be developed by the qualified paleontologist prior to the start of ground-disturbing activities and paleontological monitoring. The PMP shall detail and emphasize training for construction workers and qualifications necessary for paleontological monitors. The plan will also detail the locations where paleontological monitoring will take place (Lower Hole Creek, southeastern portion of Hidden Valley Creek, and southern Anza Creek/Old

Ranch Creek sites) and the depths of excavation that will require monitoring (deeper than 9 feet). The PMP will include contact information for the Principal Investigator/Project Paleontologist, paleontological monitors, and appropriate management staff.

The PMP will detail procedures for collecting macro to micro fossils; general procedures for recovered specimens and specimen identification, repository institution identification and associated repository fees, and permits for collecting; and guidelines for preparing the paleontological monitoring and mitigation final report. The PMP will also include protocols for communication and response should an unanticipated discovery be made at times that paleontological monitors are not present. The PMP will require attendance at a preconstruction meeting led by a Qualified Principal Investigator/Project Paleontologist. The Project Paleontologist will explain the likelihood for encountering paleontological resources, what resources may be discovered, and the methods that will be employed if anything is discovered (who to call, construction diversion away from the find, etc.). The PMP will include an example letter regarding donating salvaged fossils to an appropriate museum repository, an example of a daily monitoring report form, and an example of a paleontological training acknowledgement form.

Mitigation Measure GEO-2: Provide Paleontological Monitoring

Paleontological monitoring will be conducted by a paleontological monitor that meets the qualifications set forth by the Society of Vertebrate Paleontology (SVP) as a Paleontological Resource Monitor. Oversight of paleontological monitoring and recovery of any fossils will be conducted by a professional paleontologist that meets the requirements as a Principal Investigator, Project Paleontologist per the guidelines of the SVP.

Paleontological monitoring will be conducted under the direction of the Paleontological Principal Investigator/ Project Paleontologist. Paleontological monitors will record observations on a daily monitoring report form and will notify the Principal Investigator/Project Paleontologist immediately upon the identification of a paleontological resource (fossil) during monitoring. The paleontological monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitoring efforts can be reduced or ended based upon field conditions, site assessment, and professional judgment of the Paleontological Principal Investigator/Project Paleontologist.

The monitor shall have authority to temporarily divert grading away from exposed fossils in order to professionally and efficiently recover the fossil specimens and collect associated data. All efforts to avoid delays in project schedules shall be made. To prevent construction delays, paleontological monitors shall be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment shall include handheld global positioning system receivers, digital cameras, and cell phones, as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis.

Fossils collected, if any, shall be transported to a paleontological laboratory for processing where they shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility (such as the Western Science Center).

Following analysis, a Report of Findings with an appended itemized inventory of specimens shall be prepared. The report and inventory, when submitted to the appropriate lead agency along with confirmation of the curation of recovered specimens into an established, accredited museum repository, shall signify completion of the program to mitigate impacts on paleontological resources.

Conclusion. Implementation of mitigation measures GEO-1 and GEO-2 would ensure that the proposed project would result in less-than-significant impacts on unique paleontological resources or sites or unique geologic features.

Noise

Potentially Significant Impact NOI-1: Exposure of persons to or generation of noise levels in excess of applicable standards.

Finding. As noted in the EIR, the project could potentially affect adjacent land uses in the generation of noise levels in excess of applicable noise standards. The primary sources of noise associated with the project are construction, maintenance activities, and operation of onsite groundwater wells. Construction work associated with the proposed project would comply with all requirements under the City of Riverside Municipal Code, City of Jurupa Valley Municipal Code, and Riverside County Code with respect to noise standards. There would be no impacts related to the short-term noise associated with construction of the proposed project. Improvement measure NOI-1 is suggested to further reduce noise emitted by construction and maintenance equipment and to schedule high noise-producing activities appropriately. The only permanent noise sources that would potentially be introduced as a result of the project would be groundwater well pumps at Old Ranch Creek and Hidden Valley Creek (one well at each site). No exemptions for pump noise would apply for receptors located in the city of Riverside, and the City's operational noise limits would apply. Groundwater pump noise levels are anticipated to exceed nighttime noise standards by up to 8 decibels (dB) at the closest homes to the south of the potential groundwater well at Hidden Valley Creek. The noise levels are also anticipated to exceed nighttime noise standards by up to 2 dB at the closest homes to the south of the potential groundwater well at Old Ranch Creek, and the proposed project could result in significant impacts.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in noise levels in excess of applicable noise standards.

Facts in Support of Finding: Valley District has adopted and will implement the following improvement and mitigation measures that will reduce potentially significant Impact NOI-1 to a less-than-significant noise level:

Improvement Measure NOI-1: Construction and Maintenance Noise Minimization and Notification

In order to minimize disruption and potential annoyance during project construction and maintenance, the project sponsor should implement the following construction and maintenance activity noise minimization measures:

(a) Maintain all mechanized equipment to be used at the project site in good working order.

(b) Ensure that all mechanized equipment utilizes noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

(c) Mechanized equipment shall be operated only when necessary, and shall be switched off when not in use.

(d) Schedule high noise-producing activities during times when they would be least likely to interfere with the noise-sensitive activities of the neighboring land uses, when possible.

(e) Provide advance notification to surrounding land uses disclosing the construction schedule, including the various types of activities that would be occurring throughout the duration of the construction period.

(f) The construction contractor shall provide the name and telephone number of an onsite construction liaison. If construction noise is found to be intrusive to the community (complaints are received), the construction liaison shall investigate the source of the noise and require that reasonable measures be implemented to correct the problem.

The lead agency has chosen to impose improvement measure NOI-1 on the proposed project as a condition of project approval.

Mitigation Measure NOI-1: Reduce Groundwater Well Pump Noise to Comply with the City of Riverside Municipal Code

This mitigation measure would only apply if the groundwater wells are utilized by the project. If either the Hidden Valley Creek or Old Ranch Creek groundwater wells are eliminated from the project, then their associated noise impact would also be eliminated and this mitigation measure would no longer be necessary for the eliminated location(s). In the event that the groundwater pumps are included as part of the project, they must be designed and installed to ensure that their operation complies with the City of Riverside's noise limits at the closest residential receptors. This may be achieved using one or more of the following methods:

(a) Specify a well design at Hidden Valley Creek that limits combined pump and motor noise levels to a total sound pressure of 100 A-weighted decibels (dBA) or less at a distance of 1 meter, and a well design at Old Ranch Creek that limits combined pump and motor noise levels to a total sound pressure of 106 dBA or less at a distance of 1 meter. Techniques for achieving these specifications may include, but are not limited to:

- Selecting quieter pumps and motors.
- Shielding pumps and motors with noise barriers or enclosures. The design of such shielding should be based on final location details and pump/motor noise data; or

(b) Provide an acoustical study based on final plans and pump/motor noise data that demonstrates compliance with the City's noise ordinance; or

(c) Restrict pump operation to the daytime hours of 7:00 a.m. to 10:00 p.m. in order to avoid the affected nighttime hours.

Conclusion. Implementation of improvement measure NOI-1 and mitigation measure NOI-1 would reduce groundwater well pump noise impacts during operation to a less-than-significant level.

Potentially Significant Impact NOI-2: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

Finding. As noted in the EIR, the project could potentially expose people to excessive groundborne vibration or noise, especially involving the closest vibration-sensitive structures, which are all homes. Heavy construction equipment would generate groundborne vibration that could affect nearby structures or residents. All of the vibration sources used during project construction would be continuous or frequent intermittent sources. Vibration impacts with respect to human annoyance and potential building damage would be less than significant for the Tributaries Restoration Project and Mitigation Reserve Program Phase I. Maintenance and operational impacts would be less than construction impacts. The impact would be greater for the Expanded Mitigation Reserve Program Phase II because a few buildings are inside the impact distances for human annoyance. As a result, impacts at these locations would be potentially significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in excessive groundborne vibration or noise.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measure that will reduce potentially significant Impact NOI-2 to a less-than-significant level for groundborne vibration or noise:

Mitigation Measure NOI-2: Implement Measures to Avoid Groundborne Vibration

Implement the following measures to avoid groundborne vibration impacts at the nearby residential structures.

(a) During all construction and maintenance activities, avoid the use of full-size earthmoving equipment (e.g., excavators, graders, backhoes) within 9 feet of any building or 52 feet of any habitable structure (auxiliary buildings such as garages, sheds, etc. are not considered to be habitable structures).

(b) During all construction and maintenance activities, avoid the use of loaded trucks on rough terrain within 8 feet of any building or 45 feet of any habitable structure (auxiliary buildings such as garages, sheds, etc. are not considered to be habitable structures). Alternately, loaded trucks shall use paved roads or travel at low speeds (10 miles per hour or less) on properly maintained dirt roads.

(c) During all construction and maintenance activities, avoid the operation of small earthmoving equipment (e.g., skid steers, mini excavators, bobcats) within 1 foot of any building or 3 feet of any habitable structure (auxiliary buildings such as garages, sheds, etc. are not considered to be habitable structures).

(d) If the avoidance distances specified in (a), (b), or (c) above cannot be observed, then additional steps shall be taken on a project-by-project basis to reduce impacts. These steps may include, but are not limited to:

- Notification and coordination with potentially affected residents to provide advance notice of potential groundborne vibration, including the dates and times when it may occur.

- Site-specific analyses that include additional details such as specific soil conditions, specific equipment to be used, and details of the potentially affected structure(s) (e.g., age, conditions).
- Assessment by a qualified structural or geotechnical engineer to determine if there are any risks to buildings from the vibration. If the engineer identifies any potential risks, it may be prudent to survey (including photographing and/or videotaping) the potentially affected buildings in order to provide a record of the existing conditions before construction.
- If considered appropriate by the structural/geotechnical engineer, tests, observations, or monitoring should be performed on site during the construction activities to ensure the structural stability of the buildings. This may include vibration measurements obtained inside or outside of the buildings.

Conclusion. Impacts at specific locations adjacent to residences would be potentially significant, and implementation of the avoidance measures in mitigation measure NOI-2 would reduce the impact to less-than-significant levels.

Potentially Significant Impact NOI-3: Generation of a substantial permanent increase in existing ambient noise levels in the project vicinity

Finding. As noted in the EIR, the project could potentially generate a substantial permanent increase in existing ambient noise levels. Construction and maintenance activities would be temporary or periodic and, as such, would not cause any permanent increase in existing ambient noise levels. The only permanent noise sources that would potentially be introduced as a result of the project would be a groundwater well at Old Ranch Creek and/or Hidden Valley Creek. The analysis indicates that noticeable noise increases with groundwater well noise levels exceeding local ordinance standards would occur during nighttime hours at receivers 2 and 11. A potentially significant impact would occur if the pump and motor noise exceeds the applicable local ordinance standards and the combined noise level (pump and motor noise + ambient noise) exceeds the ambient level by more than 3 dB (a barely noticeable increase to most people). The impact at these locations would be potentially significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in a substantial permanent increase in existing ambient noise levels in the project vicinity.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measure that will reduce potentially significant Impact NOI-3 to a less-than-significant level for a permanent increase in noise levels:

Mitigation Measure NOI-1, described previously

Conclusion. Impacts at specific locations adjacent to residences would be potentially significant and implementation of mitigation measure NOI-1 would reduce the impact to less-than-significant levels. The project would not cause any permanent increase in existing ambient noise levels with the reduction of groundwater well pump noise measures.

Potentially Significant Impact NOI-4: Creation of a substantial temporary or periodic increase in existing ambient noise levels in the project vicinity

Finding. As noted in the EIR, the project could potentially generate a substantial temporary or periodic increase in existing ambient noise levels. Construction work associated with the proposed project would comply with all requirements under the City of Riverside Municipal Code, City of Jurupa Valley Municipal Code, and Riverside County Code with respect to noise standards for any construction work occurring within each respective jurisdiction. Periodic maintenance activities would be carried out using a mix of hand tools and/or construction equipment such as backhoes. Because this activity would be similar to the original construction activity, but on a much-reduced scale, average noise levels and the associated noise increases would be less than construction. Maintenance work would be temporary and would be conducted only within the daytime hours permitted by the applicable local noise ordinances and subject to any permitting requirements therein. The impact at these locations would be potentially significant.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these improvement measures, the proposed project would not result in a substantial temporary or periodic increase in existing ambient noise levels in the project vicinity.

Facts in Support of Finding: Valley District has adopted and will implement the following improvement measure that will reduce potentially significant Impact NOI-4 to a less-than-significant level for a temporary or periodic increase in noise levels:

Improvement Measure NOI-1, described previously

Conclusion. With implementation of improvement measure NOI-1, the impact during project construction and maintenance activities would be less than significant, and the measure would minimize disruption and potential annoyance.

Tribal Cultural Resources

Potentially Significant Impact TCR-1: Potential to cause a substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe and 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)

Finding. As noted in the EIR, the project could potentially cause a substantial adverse change in the significance of a tribal cultural resource. While no tribal cultural resources were identified through Assembly Bill 52 consultation or through a search of the records held by the Native American Heritage Commission, one archaeological site was identified within the project area that has cultural value to a California Native American tribe and is potentially eligible for inclusion in the California Register of Historical Resources.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse changes in the significance of a tribal cultural resource.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact TCR-1 to a less-than-significant level for tribal cultural resources:

Mitigation Measures CUL-1, CUL-2, CUL-3, CUL-4, and CUL-5, described previously

Mitigation Measure TCR-1: Protection of P-33-000884 (CA-RIV-884)

Based on recommendations from consultation with a representative of the Morongo Tribe of Mission Indians, TCR-1 would be implemented prior to project-related ground disturbance to protect archaeological site P-33-000884. Because P-33-000884 has already been damaged by vandalism, additional protective measures are necessary to preserve this site. Protective measures can include, but are not limited to, the placement of protective fencing surrounding the feature and/or the planting of repellent plant species such as poison oak to prevent further vandalism of the site.

Conclusion. With implementation of mitigation measures, the impact during project construction on tribal cultural resources would be less than significant. Mitigation measure TCR-1 is proposed to preserve and protect the site as much as is feasible. Mitigation measures CUL-1 and CUL-2 would be implemented to avoid impacts on resources to the maximum extent feasible. While avoidance of the resources (known and unknown) is the preferred method of treatment, if avoidance of the resource and any unknown tribal cultural resources associated with it is not feasible, then mitigation measures CUL-3, CUL-4, and CUL-5 would be implemented. Therefore, impacts would be reduced to a less-than-significant level with mitigation.

Potentially Significant Impact TCR-2: Potential to cause a substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe and that is a resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1

Finding. As noted in the EIR, the project could potentially cause a substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe. Because the proposed project would involve ground disturbance adjacent to the resource, it is possible that the project could cause a substantial adverse impact on buried archaeological deposits associated with this site (if they exist).

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse changes in the significance of a tribal cultural resource.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce potentially significant Impact TCR-2 to a less-than-significant level for tribal cultural resources:

Mitigation Measures TCR-1, CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, and CUL-6, described previously

Conclusion. With implementation of mitigation measures, the impact during project construction on tribal cultural resources would be less than significant. Mitigation measure TCR-1 is proposed to both preserve

and protect the site as much as is feasible. Implementation of mitigation measure CUL-4 would provide for archaeological and Native American monitoring. Mitigation measure CUL-5 relates to the treatment of unanticipated discoveries during the monitoring process. Mitigation measure CUL-6 involves the treatment of human remains or associated or unassociated funerary objects that may be uncovered during ground-disturbing activities for the proposed project. With implementation of these mitigation measures, impacts would be reduced to a less-than-significant level.

Alternative B: Proposed Project Plus Evans Creek Site Alternative

All previous mitigation measures shall apply to Alternative B: Proposed Project Plus Evans Creek Site Alternative, in addition to the following additional alternatives.

Potentially Significant Impact Cultural Resources a): Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5

Finding. As noted in Appendix H in the Draft EIR, the project could potentially cause a substantial adverse change in the significance of a historical resource. While no historic resources were identified during review of the Evans Lake site, a cultural resources inventory and assessment should be prepared to confirm resources and potential impacts.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse changes in the significance of a cultural resource.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measures that will reduce this potentially significant impact to a less-than-significant level for historic resources:

Mitigation Measure CUL-7: Conduct Cultural Resources Inventory and Assessment

San Bernardino Valley Municipal Water District (Valley District), or other implementing entity for the project, will prepare a cultural resources inventory and assessment for the project site to identify any potential historical resources. The inventory and assessment would ensure that construction would not result in significant impacts on historical resources that would result from construction and operation of the proposed project. This assessment would include the following, at a minimum:

- Project description
- Project location maps, regional vicinity, and location
- Regulatory guidelines for determining significance
- Existing conditions
- Background (pre-contact context and post-contact context, ethnographic affiliation)
- Methodology
- Sacred Lands Records search results
- Cultural resources records search results
- Survey results

- Management recommendations

Conclusion. If Alternative B is selected by the Valley District Board for project approval, with implementation of mitigation measures, the impact on cultural resources would be less than significant. Mitigation measure CUL-7 is proposed to conduct a site-specific cultural resources inventory and assessment which may require implementation of any management recommendations to reduce any significant impacts. With implementation of this mitigation measure and any management recommendations provided in the cultural resources inventory and assessment, impacts would be reduced to a less-than-significant level.

Potentially Significant Impact Geology, Soils, and Paleontological Resources f): Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

Finding. As noted in Appendix H in the Draft EIR, the project could potentially cause a substantial adverse change in the significance of a paleontological resource. While no paleontological resources were identified during review of the Evans Lake site, a paleontological resources inventory and assessment should be prepared to confirm resources and potential impacts.

However, changes or alterations have been required in, or incorporated into, the proposed project by Valley District that mitigate or avoid this potential significant effect on the environment. With these mitigation measures, the proposed project would not result in substantial adverse changes in the significance of a paleontological resource.

Facts in Support of Finding: Valley District has adopted and will implement the following mitigation measure that will reduce this potentially significant impact to a less-than-significant level for paleontological resources:

Mitigation Measure GEO-3: Conduct Paleontological Resources Inventory and Assessment

Valley District, or other implementing entity for the project, will prepare a Paleontological Resources Inventory and assessment for the project to identify any potential paleontological resources. The inventory and assessment would ensure that construction would not result in significant impacts on paleontological resources as a result of construction. This assessment would include the following, at a minimum:

- Project description
- Project location maps, regional vicinity, and location
- Geology of the area
- Paleontology of the area
- Regulatory guidelines
- Paleontological records search
- Survey results
- Paleontological significance and rating
- Management recommendations

Conclusion. If Alternative B is selected by the Valley District Board for project approval, with implementation of mitigation measures, the impact on paleontological resources would be less than significant. Mitigation measure GEO-2 is proposed to conduct a site-specific paleontological resources inventory and assessment, which may require implementation of any management recommendations to reduce any significant impacts. With implementation of this mitigation measure and any management recommendations provided in the paleontological resources inventory and assessment, impacts would be reduced to a less-than-significant level.

3. Findings Regarding Any Significant and Unavoidable Impacts

These CEQA findings are adopted by Valley District as both sponsor and CEQA lead agency for the proposed project. These findings pertain to SCH #2018071024 prepared for the EIR. The findings, determinations, and other actions set forth in this document are based on the substantial evidence contained in the entire record before the Board.

The Final EIR identified potentially significant environmental effects that could result from construction and maintenance of the proposed project. Those effects were related to biological resources, cultural resources, paleontological resources, noise, and tribal cultural resources, which would be reduced to below a level of significance. The proposed project would not result in any significant immitigable or unavoidable impacts, and a statement of overriding considerations is not required.

G. Findings Regarding Alternatives

The range of alternatives evaluated in the EIR included only those alternatives necessary to permit a reasoned choice (State CEQA Guidelines §15126.6(f)). As directed by the State CEQA Guidelines, the alternatives were focused on feasible alternatives that would reduce or avoid significant environmental impacts associated with the proposed project. Alternatives considered in an EIR need to attain most of the project objectives in order to be considered feasible.

Valley District's consideration of a broad range of alternatives to the proposed project is described below. Alternatives that were considered but found to be infeasible prior to the EIR are described first. Second, the alternatives evaluated in the EIR are described and their associated environmental impacts are summarized. The reasoning behind rejection of each of the evaluated alternatives is provided.

1. Alternatives Considered and Dismissed from Further Consideration

State CEQA Guidelines §15126.6(c) provides that an EIR "should also identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination." The following discussion describes alternatives that were considered but not evaluated in detail in the EIR.

Addition of an Expanded Mitigation Reserve Program Phase II (Additional Restoration Opportunities) Alternative

This alternative would involve the addition of other restoration opportunities through a mitigation or conservation bank within the Upper Santa Ana River Tributaries Restoration Project and Mitigation Reserve Program Phase I area, utilizing the same study area of the proposed project. Through evaluation of the project, project objectives, and the project area, the proposed project was modified to include an official Expanded Mitigation Reserve Program Phase II as a component of the project rather than just identifying restoration opportunities within the larger study area of the Tributaries Restoration Project and Mitigation Reserve Program Phase I sites. As such, this alternative was rejected as an alternative and

instead evaluated as a part of the proposed project in the EIR as the Expanded Mitigation Reserve Program Phase II, which is evaluated at a programmatic level.

Alternative Location for the Proposed Project (Tributaries Restoration Project and Mitigation Reserve Program Phase I and Expanded Mitigation Reserve Program) Alternative

This alternative would involve the addition of other restoration opportunities through restoration or a mitigation or conservation bank outside of the Upper Santa Ana River Tributaries Restoration Project and Mitigation Reserve Program Phase I and Expanded Mitigation Reserve Program Phase II project area. Through evaluation of the project, project objectives, and the project area, the proposed project sites were determined to be the appropriate location to increase the amount and quality of habitat for the Santa Ana sucker and other native species and enhance jurisdictional aquatic resources. The proposed project sites were selected through collaboration with the Upper Santa Ana River Habitat Conservation Plan Biological Technical Advisory Committee, Upper Santa Ana River Hydrology Technical Advisory Committee, and other technical experts to determine the appropriate locations for the project that would provide the most benefits. The restoration design team worked closely with these technical specialists to define habitat requirements for the Santa Ana sucker and ensure the restoration design features developed would provide habitat needs for aquatic and terrestrial species in a sustainable manner. Other areas outside the proposed project area, with the exception of Evans Lake under Alternative B, would not likely provide the same habitat requirements or habitat needs as those found in the project area and would not provide the same or similar benefits as those of the proposed project. As such, this alternative was considered and rejected from further evaluation in the EIR.

Reduced Tributaries Restoration Alternative

This alternative would involve implementing a reduced amount of restoration activities, either in the form of fewer sites or in the creation of less impactful restoration, that would minimize impacts on biological species or aquatic resources; as such, this alternative was considered to reduce potential environmental impacts. However, there would be less restoration potential, fewer benefits to the quality of habitat for the Santa Ana sucker and other native species, and fewer enhancements to jurisdictional aquatic resources. As the proposed project was developed to include the right balance of restoration for a much larger area of influence for the Upper Santa Ana River, this alternative would result in fewer improvements to the project site. As such, this alternative was considered and rejected from further evaluation in the EIR.

Enhanced Passage for Santa Ana Sucker Alternative

This alternative involving enhanced passage for Santa Ana sucker at two locations would be in addition to the proposed project, including the implementation of both the Tributaries Restoration Project and Mitigation Reserve Program Phase I and Expanded Mitigation Reserve Program Phase II project components.

Sucker Passage at Levee Culvert/Evans Creek Alternative

When the Evans Lake Drain channel reaches the Santa Ana River levee, it flows through two parallel 48-inch reinforced concrete circular barrels with concrete aprons and wingwalls. The levee has a depressed spillway just north and about 11 feet higher than the culvert inverts to allow conveyance of high flows over the levee. The Santa Ana River's low-flow channel is currently located on the north side of the floodway, and the Evans Lake Drain channel does not connect directly with the mainstem Santa Ana River; rather, it flows down a formerly active channel of the Santa Ana River paralleling the levee. The bed elevation of the earthen channel downstream of the drop structure is 7 feet higher than the concrete

inert apron of the culvert 180 feet upstream. The culvert is not passable by Santa Ana sucker under most flow conditions because of insufficient depths and excessive velocities.

Adding fish passage at the barrier created by the culvert under the Santa Ana River levee would allow Santa Ana sucker fish to migrate from the Santa Ana River into the Evans Creek channel to access additional habitat and adjust to changing hydrologic conditions. Improvements for Santa Ana sucker passage at the Evans Creek outlet are feasible from an engineering standpoint, although several design challenges are present that may limit the duration of the passage window as well as their success rate. Furthermore, the existing channel at Evans Lake does not have a reliable source of water. Due to the uncertainty of using a new passage structure at Evans Creek for fish and the availability, magnitude, and timing of flow in addition to the engineering challenges of building enhanced passage amid the site's challenges in elevation and flow amounts and connections, this alternative was considered and rejected from further evaluation in the EIR.

Jurupa Avenue Sucker Passage Alternative

The Jurupa Avenue crossing forms a complete barrier to Santa Ana sucker passage. It is a complicated structure that includes a rock rip-rap forebay, a concrete inlet apron, three reinforced concrete box culverts, a concrete outlet apron and stilling basin, and a steep (37 percent slope), loose rip-rap drop structure that ties into the earthen channel on the downstream end. Overall the structure creates a 27-foot elevation drop between the upstream and downstream ends. Creation of fish passage at the barrier created by Jurupa Avenue would allow Santa Ana sucker fish to migrate from the Santa Ana River and into upper Hole Creek to access additional habitat and adjust to changing hydrologic conditions. Two concept designs were developed and evaluated for their feasibility to provide upstream passage for adults (and potentially juveniles).

Although potentially feasible from an engineering standpoint, providing passage for Santa Ana suckers at the Jurupa Avenue site would be a challenging project and may not be preferred among other options that could much more easily provide access for the fish to additional habitat in the area without the creation of complicated passage structures that may not be successful. Furthermore, the Santa Ana sucker fish would need to swim in hydraulic conditions that are much different than that of their preferred habitat, which may reduce the success rate of this passage enhancement. Smaller passage projects, from which information on species-specific behavior and swimming ability in similar fish passage structures could be obtained, would be preferable prior to this option. Similar to the Sucker Passage at Levee Culvert/Evans Creek Alternative, this alternative would also be challenging to implement from an engineering and design standpoint, and there would be uncertainty regarding the success of the new passage due to the site's elevation and anticipated cost (potentially up to $1.7 million). As such, this alternative was considered and rejected from further evaluation in the EIR.

2. Alternatives Considered in the EIR

The EIR considered two variations of the proposed project and the No Project Alternative, for a total of three alternatives as described below.

Alternative A: No Project Alternative

An analysis of the No Project Alternative is required under State CEQA Guidelines §15126.6(e). According to §15126.6(e)(2) of the State CEQA Guidelines, the "no project" analysis must discuss "what is reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

The No Project Alternative represents a "no build" scenario in which the proposed project would not be constructed or operated. It assumes that the proposed restoration components of the four project sites would not be implemented and no project components would be constructed. Under the No Project Alternative, the project sites would continue to be degraded and would not support Santa Ana sucker habitat or connect with the Santa Ana River. There would be no creation and enhancement of channels and floodplains, and the project sites would continue to be dominated by nonnative species. Any site cleanup effort would occur sporadically and when funding is available or when disturbance and destruction of the sites along the Santa Ana River cause them to become so degraded as to require emergency cleanup. The No Project Alternative would not improve the condition of the Upper Santa Ana River habitat and water quality, and the challenges noted previously within the Upper Santa Ana River watershed would continue.

Alternative B: Proposed Project Plus Evans Creek Site Alternative

In addition to the four restoration sites described in Chapter 2, *Project Description*, of the Draft EIR, an additional site, Evans Creek, would be considered as an alternative for implementation of greater restoration activities. The Proposition 84 grant provides funding to construct the four sites (Old Ranch Creek, Anza Creek, Hole Creek, and Hidden Valley Creek) identified by the proposed project. The restoration work proposed at Evans Creek was not included in the Proposition 84 grant application, as there was not sufficient funding for this additional site, and this and other sites were not included in the evaluation of the proposed project.

The Evans Creek site covers approximately 65 acres in the city of Riverside's Fairmount Park and is the farthest upstream on the Santa Ana River of the restoration sites proposed as a part of the project. The land at the site is owned by the City of Riverside. The Evans Creek site was burned in a homeless encampment fire in 2017 and provides an opportunity for restoration and enhancement. The Evans Creek site was previously evaluated as part of the *Site Characteristics and Preliminary Design of Santa Ana River Tributary Restoration Projects*. Improvements at Evans Creek would include a new groundwater well and pump, new riparian corridor, new bank, channel bed complexity and rock and woody structures, fish passage, new channel, and recreational and educational amenities for Fairmount Park.

This alternative would involve all elements of the proposed project, both the Tributaries Restoration Project and Mitigation Reserve Program, and the addition of the Evans Creek site as a fifth tributaries restoration site, utilizing similar construction and operational elements as the proposed project. This alternative is being considered to include additional restoration opportunities on an existing disturbed site along the Santa Ana River. This alternative is being considered for project approval, as it meets the project objectives and provides additional restoration benefits.

Alternative C: Reduced Proposed Project Alternative (Removal of the Mitigation Reserve Program)

This alternative would remove other restoration opportunities associated with the mitigation and conservation bank, also known as the Mitigation Reserve Program, from the proposed project. This alternative would involve including only the Upper Santa Ana River Tributaries Restoration Project as a project component, which includes the smaller project area of 67.3 acres in comparison to the Mitigation Reserve Program area, which includes 411.16 acres that would be removed from consideration in this alternative. The Tributaries Restoration Project and Mitigation Reserve Program Phase I component of the proposed project restoration sites would be designed to increase the amount and quality of habitat for the Santa Ana sucker and other native species and enhance jurisdictional aquatic resources, restoration of existing channels and an existing floodplain tributary, enhancements to existing riparian and floodplain

habitats, limiting of human disturbance, and control of nonnative invasive species. The four restoration sites are Anza Creek, Old Ranch Creek, Lower Hole Creek, and Hidden Valley Creek. The Mitigation Reserve Program, which is evaluated at a programmatic level, is considered for removal with this alternative to result in a smaller project area, which could reduce project environmental impacts.

3. The Environmentally Superior Alternative

CEQA requires the identification of an environmentally superior alternative (State CEQA Guidelines §15126.6(a) and (e)(2)). The environmentally superior alternative is the alternative that would result in the least damage to the environment. Based on the analysis presented in Chapter 3, *Impact Analysis*, and Chapter 7, *Alternatives Analysis*, the environmentally superior alternative is Alternative A (No Project/No Build); however, project objectives would not be met with this alternative and this alternative is being rejected.

Pursuant to §15126.6(e)(2) of the State CEQA Guidelines, if the environmentally superior alternative is the "no project" alternative, then the EIR must also identify another environmentally superior alternative among the list of alternatives. Impacts would be greater than those of the No Project Alternative but still less than the proposed project with implementation of Alternative C (Reduced Proposed Project Alternative: Removal of the Mitigation Reserve Program). Alternative C would meet the majority of the project objectives but is being rejected because it does not provide additional restoration benefits. Alternative B (Proposed Project Plus Evans Creek Site Alternative) would provide for a greater level of restoration, but would also have the largest impacts in comparison to the proposed project and its alternatives due to the expanded area that would be included in the Alternative B project footprint and additional construction activity that would be associated with implementation of Alternative B in comparison to the proposed project and its alternatives. However, it would also have the greatest beneficial impacts on the watershed due to the increased restoration. Alternative B would meet all project objectives and would provide additional restoration of areas near the Santa Ana River. With Alternative B, the environmental constraints would be reduced with the additional restoration of the site plus the addition of new recreational activities and opportunities. Without this alternative, any site cleanup effort at the Evans Creek site would occur sporadically and when funding is available or when disturbance and destruction of the sites along the Santa Ana River cause them to become so degraded as to require emergency cleanup. As such, Alternative B is now proposed by the Board for project approval.

In light of the potential impacts of the proposed project plus the Evans Creek site, the value of restoration within the Upper Santa Ana River, and the benefits expected from the mitigation measures that will be implemented if the proposed project is approved, the Board finds that the EIR's conclusion regarding the environmentally superior alternative is correct.

H. Additional Findings

1. Certification of the EIR

In accordance with CEQA, Valley District and its Board have considered the effects of the proposed project on the environment, as shown in the Draft EIR, Final EIR, and the whole of the administrative record, prior to taking any action to approve one or more of the project sites, including the Evans Creek site. The Final EIR was released for public review and presented to the Board on November 19, 2019. The Board has reviewed and considered the Draft EIR and Final EIR and the information relating to the environmental impacts of the proposed project plus the Evans Creek site contained in those documents and certifies that the EIR has been prepared and completed in compliance with the State CEQA

Guidelines. By adopting these Findings, the Board ratifies and adopts the conclusions of the Final EIR as set forth in these Findings, except where such conclusions are specifically modified by these Findings. The Final EIR and these Findings represent the independent judgment and analysis of the Board.

2. Changes to the Draft EIR; No Need to Recirculate

In the course of responding to comments received during the public review and comment period on the Draft EIR, certain portions of the Draft EIR have been modified and new information has been added for further clarification. None of this information has revealed the existence of: (1) a significant new environmental impact that would result from the project or an adopted mitigation measure; (2) a substantial increase in the severity of an environmental impact; (3) a feasible project alternative or mitigation measure not adopted that is considerably different from others analyzed in the Draft EIR that would clearly lessen the significant environmental impacts of the project; or (4) information that indicates that the public was deprived of a meaningful opportunity to review and comment on the Draft EIR.

Consequently, Valley District finds that the modifications and clarifications made to the Draft EIR in the Final EIR do not collectively or individually constitute significant new information within the meaning of PRC §21092.1 and State CEQA Guidelines §15088.5. Recirculation of the Draft EIR, or any portion thereof, is therefore not required.

3. Evidentiary Basis for Findings

These Findings are based upon substantial evidence in the entire record before Valley District. The references to the Draft EIR and Final EIR set forth in these Findings are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these Findings.

I. Adoption of Mitigation Measures and Mitigation Monitoring and Reporting Program

1. Mitigation Measures Adopted

Except as otherwise noted, the mitigation measures herein referenced are those identified in the Final EIR and adopted by Valley District as set forth in the MMRP.

2. Impact After Implementation of Mitigation Measures

Except as otherwise stated in these Findings, in accordance with State CEQA Guidelines §15092, Valley District finds that environmental effects of the project will not be significant or will be mitigated to a less-than-significant level by the adopted mitigation measures. Valley District has substantially lessened or eliminated all significant environmental effects where feasible. Valley District has determined that there are no remaining significant effects on the environment that are found to be unavoidable under State CEQA Guidelines §15091. Except as otherwise stated in these Findings, Valley District finds that the mitigation measures incorporated into and imposed upon the project will not have new significant environmental impacts that were not analyzed in the EIR.

3. Relationship of Findings and MMRP to the Final EIR

These Findings and the MMRP are intended to summarize and describe the contents and conclusions of the Draft EIR and Final EIR for policymakers and the public. For purposes of clarity, these impacts and mitigation measures may be worded differently from the provisions in the Final EIR and/or some provisions may be combined. Nonetheless, Valley District will implement all measures contained in the Final EIR. In the event that there is any inconsistency between the descriptions of mitigation measures in these Findings or the MMRP and the Final EIR, Valley District will implement the measures as they are

described in the Final EIR. In the event a mitigation measure recommended in the Final EIR has inadvertently been omitted from these Findings or from the MMRP, such a mitigation measure is hereby adopted and incorporated in the Findings and/or MMRP as applicable.