Santa Ana Sucker Habitat Restoration Project

Final Initial Study/Mitigated Negative Declaration

Prepared By

Orange County Water District
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Fountain Valley, CA 92708
Contact: Daniel Bott

April 2016

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NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION

This is to inform the general public that the Orange County Water District proposes to adopt a Mitigated Negative Declaration for the following project:

Project Title: Santa Ana Sucker Habitat Restoration Project

Project Description: The construction of 10 below grade and 10 above grade rock gabion structures along the Santa Ana River, upstream of River Road Bridge, on OCWD property.

Public Review Period: 1-29-2016 to 2-19-2016

Hearing Date: Unknown

Hearing Location: Orange County Water District 18700 Ward Street, Fountain Valley California

The Mitigated Negative Declaration and Initial Study as well as all referenced documents will be available for public review at the Orange County Water District located at 18700 Ward Street, Fountain Valley California or on the Orange County Water District website www.ocwd.com/working-with-us/public-notices. Please submit any comments on the Mitigated Negative Declaration to the district on or before February 19, 2016. Please direct your comments to Daniel Bott, Orange County Water District, 18700 Ward Street, Fountain Valley, CA 92708 or dbott@ocwd.com. If you have any questions or would like any additional information, please contact Daniel Bott at (714) 378-3256. Si tiene preguntas en Español puedes contactar Gina Ayala at (714) 378-3323.

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SECTION 1.0 INTRODUCTION

1.1 Purpose of Environmental Review

The California Environmental Quality Act (CEQA) requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This Initial Study has been prepared to disclose and evaluate short-term construction related impacts and long-term operational impacts associated with the implementation of the Santa Ana Sucker Habitat Restoration Project (Project). Pursuant to Section 15367 of the State CEQA guidelines, the Orange County Water District (OCWD) is the Lead Agency and has the principal responsibility of approving and implementing the Project. As the Lead Agency, OCWD is required to ensure that the project complies with CEQA and that the appropriate level of CEQA documentation is prepared. Through preparation of an Initial, OCWD would determine whether to prepare an Environmental Impact Report, Negative Declaration or Mitigated Negative Declaration for the Project. If the Lead Agency finds that there is no evidence that the Project, either has proposed or as modified to include the mitigation measures identified in the Initial Study prior to its public circulation, may cause a significant effect on the environment, the Lead Agency can prepare a Negative Declaration or Mitigated Negative Declaration for the project. Based on the conclusions of the Initial Study, OCWD has determined that the appropriate level of environmental documentation for the Santa Ana Sucker Habitat Restoration Project is a Mitigated Negative Declaration.

1.2 Statutory Authority and Requirements

This Initial Study/Mitigated Negative Declaration has been prepared in accordance with the CEQA, Public Resources Code Section 21000 et seq., State CEQA Guidelines, and the OCWD CEQA Environmental Procedures. The environmental analysis for the Santa Ana Sucker Habitat Restoration Project is based on OCWD Environmental Checklist Form. The Checklist Form is consistent with Initial Study requirements provided in Section 15063 of the State CEQA Guidelines.

SECTION 2.0 PROJECT DESCRIPTION

2.1 Background

The Orange County Water District (OCWD) is the manager of the Orange County Groundwater Basin. The groundwater basin provides underground water supplies to 23 cities and over 2.3 million persons in northern Orange County. OCWD maintains and operates 17 major groundwater recharge facilities that receives flow diverted from the Santa Ana River, including the 350 acre Prado Wetlands in Riverside County. In conjunction with groundwater management activities, OCWD provides stewardship of natural resources within the Santa Ana River Watershed. One of these resources is the Santa Ana Sucker (sucker), a native fish species to the Santa Ana River that has been listed as threatened species under the Federal Endangered Species Act.

As part of OCWD's Water Rights Application, OCWD has been required to study and identify potential opportunities to enhance sucker habitat along the Santa Ana River. In 2009 OCWD constructed seven rock gabions along the Santa Ana River just downstream of Hamner Avenue bridge crossing over the Santa Ana River. The gabions were filled with rocks and fastened within a wire mesh basket. As part of the project OCWD implemented a monitoring program to document changes and fish usage associated with the presence of gabions. The results of the monitoring program showed that the gabions function as current deflectors and created localized erosion that exposed existing gravel beds, one the essential habitat elements for the sucker. A view of one of the gabions installed in 2009 and the gravel bar that was created from it is shown in Figure 1.

2.2 Project Description

To build on the success of the previous gabion project, OCWD is proposing to build 10 below grade and 10 above grade rock gabions along the Santa Ana River upstream of the River Road Bridge on property owned by OCWD. As shown on Figure 2, five below/above grade gabions are proposed along the south side of the river and five below/above grade gabions are proposed along the north side of the river. The proposed gabions would be positioned in alternating locations at 45 degree angles along the banks of the river, spaced approximately 150 feet from each other on the same bank and staggered on the opposite bank.

Rock gabion 9 months after installation

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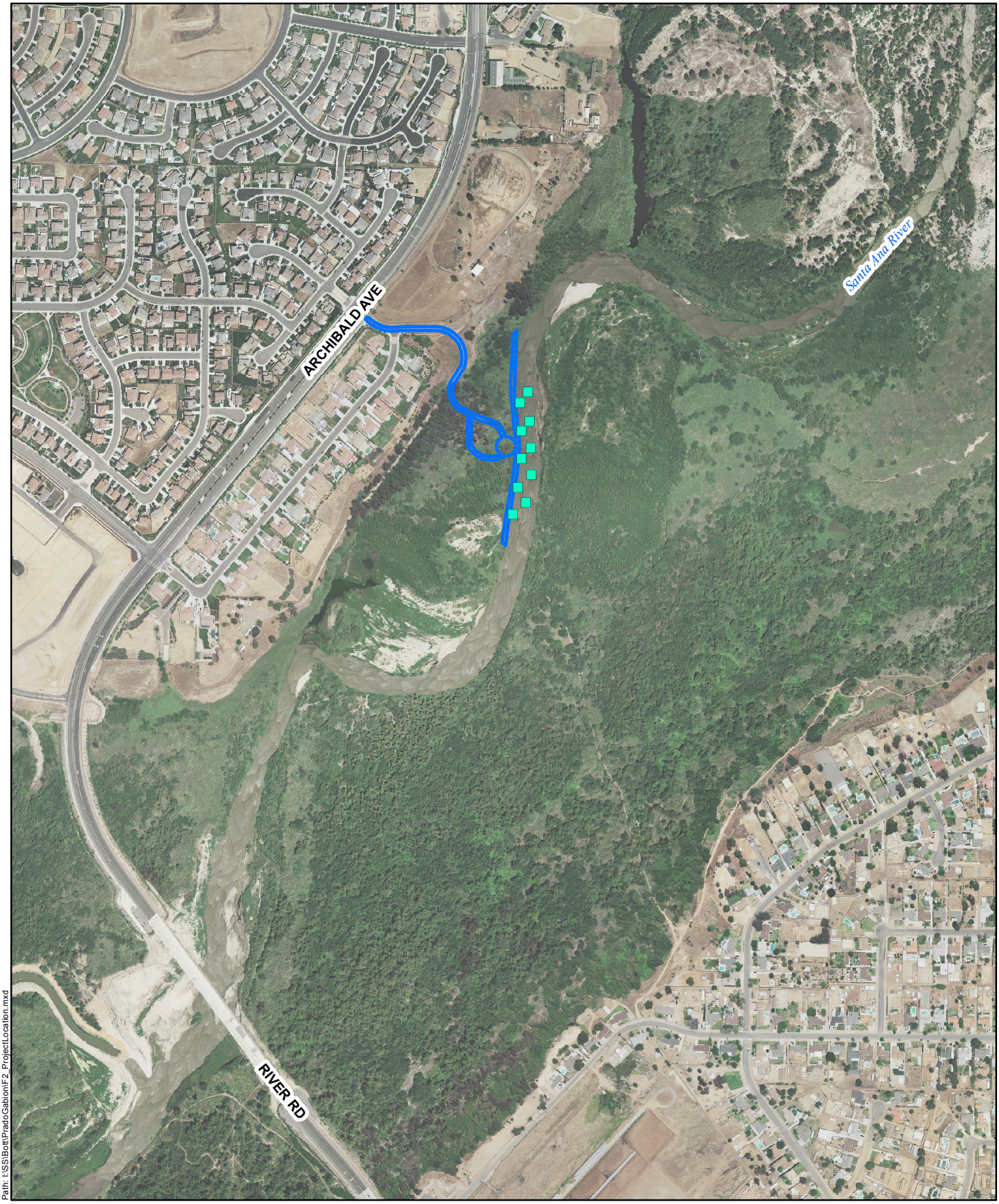
Santa Ana Sucker Habitat Restoration Project
Gabion Images

Figure 1



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N
W
E
S

12x3x3 Gabion
Road & Staging Area

0 400 800
Feet

Santa Ana Sucker Habitat Restoration Project
Project Area Location

Figure 2

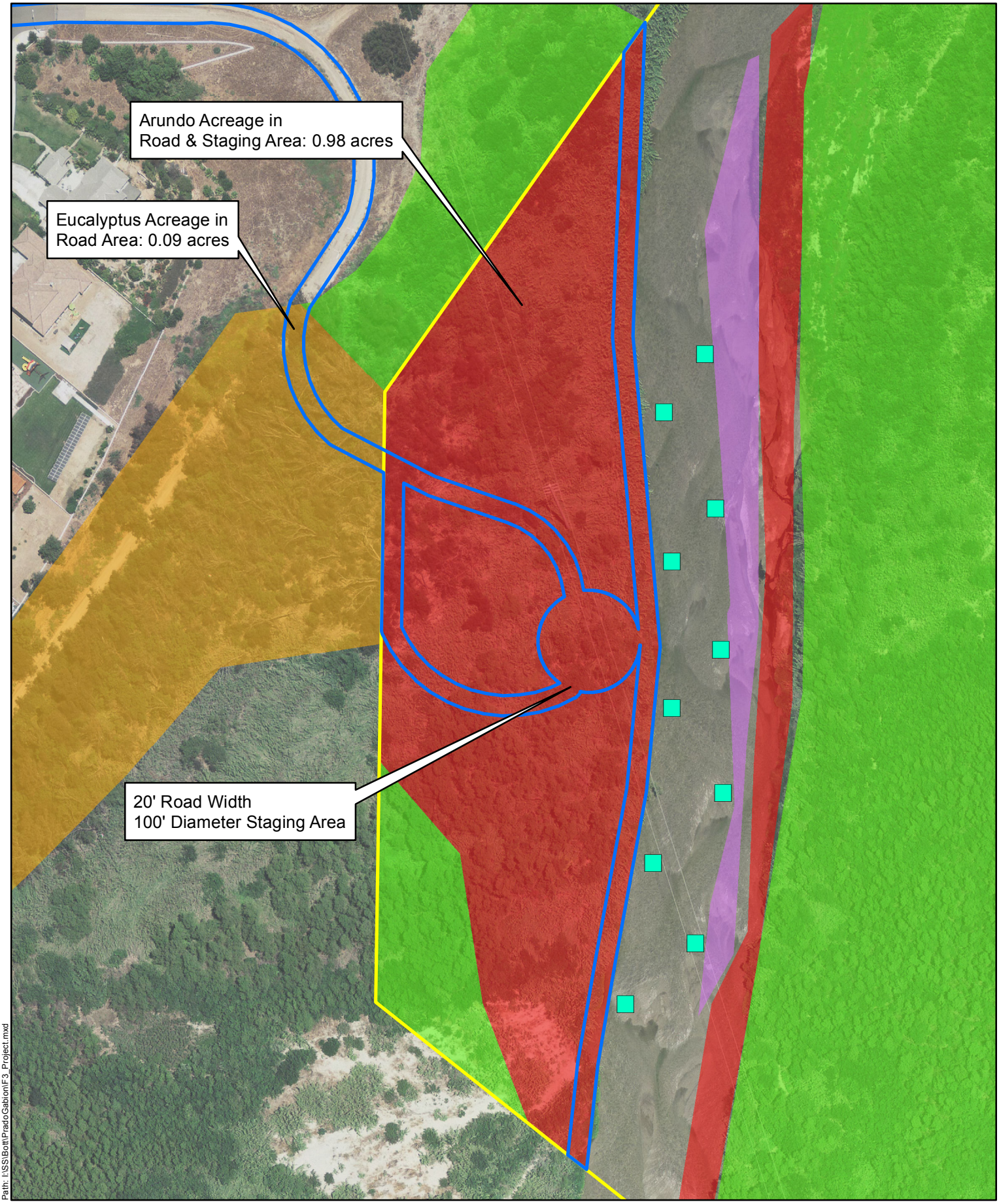
Project Area

The project area is located along the north side and south side of the Santa Ana River, approximately 3000 feet upstream of the River Road Bridge. Access to the project area would be provided from Archibald Avenue to Prado Basin Park Road. As shown in Figure 3, to provide construction access to the project area a 20 foot wide temporary loop road, a 100 foot diameter equipment /material staging area and a 20 foot temporary frontage road along the river edge would be created by removing existing Arundo vegetation. To gain access to the gabion sites on the south side of the river, construction equipment would cross the river to each gabion site work area.

Construction Activities

To minimize settlement and to extend the life span of the proposed gabions, at each gabion site, a 5 foot deep by 12 foot long by 3 foot wide area would be excavated. A wire mesh gabion basket, the size of the excavation would be installed in the excavated area. The below grade gabion would be filled with approximately 7 cubic yards of rock material and secured. Once the gabion is filled, a 12 foot long by 3 foot deep by 3 foot wide gabion would be placed and fastened to the top of the below grade gabion. Approximately 4 cubic yards of rock material would be placed in the above grade gabion. The two stacked gabions would consist of a total of 11 cubic yards of rock material. A combination of heavy equipment and manual labor would be used to fill each gabion. To ensure that there would be no net increase in fill material discharged into the river, 11 cubic yards of existing sediment would be removed from the project area and hauled offsite. To construct all 10 gabions, approximately 220 cubic yards of sediment would be removed from the river and hauled offsite. The construction operations would occur over a 10 day period with up to 3 truck trips per day hauling material offsite.

The gabions would be constructed in late summer when flows along the river would be minimal. At the banks of the river where the gabions would be installed the water level should be near sheet flow. To create a dry working area to assemble the gabions a small dozer operating in the river would create 2 foot coffer dam around the perimeter of each gabion site to maintain water quality during construction. If river flows are present, the river flows would be diverted around the berm during the construction of the gabions. The temporary sand berm would be constructed from existing sand material in the river and once the gabions are constructed, the sand berms would be removed.



N
W
E
S

12x3x3 Gabion
Road & Staging Area
Arundo Dominant
Cattails
Eucalyptus Dominant
Native Riparian Dominant

0 200 400 Feet

Santa Ana Sucker Habitat Restoration Project
Vegetation Communities

Figure 3

Maintenance Activities

To help increase the life span of the gabions, each gabion as needed, would be periodically replenished with rock material. A 10 foot long by 3 foot wide by 12 inch deep, flexible wire mesh blanket would be filed with rock material and fastened to the top of the above grade gabion. Each gabion blanket would hold approximately 1 cubic yards of rock material. To ensure that there would be no net increase of fill material discharged into the river, 1 cubic yard of sediment material would be removed from the project area each time a gabion is replenished with new rock material. To maintain the gabions the access road and staging would be retained during the life of the project. After five years when the project ends, the alignment of the access roads and staging area would be established with native riparian vegetation.

Monitoring Program

The objective of Monitoring Program would be to monitor and measure changes in habitat conditions to the project area resulting from the presence of the gabion structures. The focus of the monitoring program would to monitor substrate conditions and fish usage. Through the implementation of the Monitoring Program, OCWD would be able to measure the effectiveness of increasing habitat conditions for the Santa Ana Sucker though the use rock filled gabions. The effectiveness of the gabions to increase habitat conditions would be measured based on the following performance standards.

- The occurrence local erosion and exposing of existing gravel beds.
- The occurrence of algae growth on gravel beds created by the gabions.
- An overall increase in the amount of gravel beds and spawning habitat within the study area.
- The presence of Santa Ana Suckers near the gabions.

Substrate Condition Monitoring

The proposed gabions would be visited bi-weekly when flows allow OCWD biologist to record the physical characteristics of the project area to help measure changes to habitat conditions over time. These physical changes include; river substrate, water appearance, water depth, flow velocity, flow variation, localized scouring and the condition of the gabions. Data collected from OCWD previous gabion project showed that most changes to the physical conditions at the project area occurred upstream and downstream of the gabions. To measure physical changes to the project area, a 2 meter wide transect study area would be established upstream and downstream of each gabion with measurements points at 10 foot intervals below each gabion. Below is a description of the data that would be collected and monitored.

River Substrate: The study area would be monitored to record changes in the composition of the river substrate. The substrate would be defined based on the following criteria;

- **Sand:** The substrate consists of tiny, gritty particles of rock up to 0.1 inch that are smaller than gravel but coarser than silt.
- **Gravel:** The substrate consists of stones ranging from tiny quarter inch pebbles to rocks of about 2 inches. Fine grave would pea size to marble size and coarse gravel would be marble size to tennis ball size.
- **Cobbles:** The substrate consists of rocks between 2 and 10 inches, generally in size between a tennis ball and basketball.

Water Appearance: At each site visit the water appearance would be monitored based on the following criteria.

- **Clear:** The water appearance is colorless and transparent.
- **Milky:** The water appearance is cloudy-white or grey and not transparent.
- **Turbid:** The water appearance is cloudy brown due to suspended silt or organic matter.

Water Depth: Along each transect the water depth would be measured at 10 foot intervals.

Flow Velocity: Surface flow velocity between the gabions would be monitored by us of a flow mete.

Flow Variation: The gabions would be monitored if surface flow variation or riffles is created. The flow variations would be compared to the pre-project condition.

Localized Scouring: The immediate area surrounding the gabions would be monitored for the presence of localized scouring and for the uncovering of existing sediment. The scouring condition would be compared to the pre-project condition.

Gabion Condition: At each site visit the overall condition of the gabion would be monitored to help determine its longevity and usefulness. The gabion would be monitored to see if it is shifting or sinking or is need for additional rock material replenishment. Photographs would be taken at each site visit to document the condition of the gabions.

Fish Usage Monitoring

The proposed gabions would be visited bi-weekly by OCWD biologist to record fish usage. Additionally, Sucker surveys would be conducted twice a year during the spawning season. The first surveys would occur at the beginning of breeding season to detect breeding adults. The second would occur later in the breeding season in to detect the presence of fry and young of the year. The fish usage would be monitored by a combination of the use of snorkel surveys, underwater cameras and seining. A fine mesh seine would be used to conduct the surveys. The seine would be 10 foot x 6 foot and would have a 1/8 inch mesh and 1 ounce weights every 6 inches. The seining would be targeted at gabions that depict improved sucker habitat conditions. For each survey a minimum of 15 seine hauls would be conducted. A smaller mesh dip net (.5 mm or less) would be used in areas that are likely to contain sucker fry. Typically, the small mesh dip net would be used where the water is shallow and separated from the high flow. The fry would be collected and identified using a field lens if necessary. All suckers that are collected would be transferred to buckets, weighted and measured and then immediately released. External parasites would be noted as well as any other injuries or deformities.

Monitoring Program Data Recording/Reporting

Prior to construction of the physical baseline condition of the project area would be documented. Field data would be collected by using a double entry system. First the monitoring data would be recorded on the field data collection forms. Subsequently, the data from the field data collection forms would be entered into a database within 3 days after completing the sampling. Each month's data would be checked for quality control before being entered into the database. The monitoring data would be entered into database where the data could be sorted and graphed by gabion, transect or by 10 foot study area intervals. Digital photos will be transferred from a digital camera to a subdirectory. Photographs will identified by date and time and captions will provided describing conditions. At the end of each year the monthly data would be complied in annual report that would be submitted to United States Fish and Wildlife Service. The annual report would contain results of the analysis with explanations and conclusions supported by text, graphs and photographs.

2.7 Permits and Approvals

The Initial Study/Mitigated Negative Declaration prepared for the Santa Ana Sucker Habitat Restoration Project would be used as the supporting CEQA environmental documentation for the following approvals and permits.

- Orange County Water District project approval and related construction contracts and agreements.
- California Department Fish and Wildlife Streambed Alternation Agreement
- Regional Water Quality Control Board 401 Water Quality
- United States Army Corps of engineers 404 permit

SECTION 3.0 ENVIRONMENTAL CHECKLIST EVALUATIONS

Based OCWD Environmental Checklist evaluation prepared for the Santa Ana Sucker Habitat Restoration Project, it is recommended Mitigated Negative Declaration be prepared to meet the project's CEQA requirements.

Project Title: Santa Ana Sucker Habitat Restoration Project

Lead Agency Name and Address: Orange County Water District, 8700 Ward Street, Fountain Valley, CA 92708

I. Project Contact: Daniel Bott
II. Location: Unincorporated Riverside County
III. Environmental Determination On the basis of this initial evaluation, I find that:

a) ☐ The proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

b) ☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

c) ☐ The proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.

d) ☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR (EIR No. -) pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

e) ☐ Pursuant to Section 15164 of the CEQA Guidelines, an EIR (EIR No. -) has been prepared earlier and only minor technical changes or additions are necessary to make the previous EIR adequate and these changes do not raise important new issues about the significant effects on the environment. An ADDENDUM to the EIR shall be prepared.

f) ☐ Pursuant to Section 15162 of the CEQA Guidelines, an EIR (EIR No. -) has been prepared earlier; however, subsequent proposed changes in the project and/or new information of substantial importance will cause one or more significant effects no previously discussed. A SUBSEQUENT EIR shall be prepared.

_____ _____
Signature Date

_____
Printed Name

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Damage scenic resources, including but not limited to, trees, rock outpourings and historic buildings within a state highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURAL AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland) to non-agricultural use? (The Farmland Mapping and Monitoring Program in the California Resources Agency, Department of Conservation, maintain detailed maps of these and other categories of farmland.)	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned	☐	☐	☐	☒

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Timberland Production (as defined by Government Code section 51104(g))				
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. Air Quality – Where available, the significance criteria established by the applicable air quality management or pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of applicable Air Quality Attainment Plan?	☐	☐	☒	☐
b) Violate any stationary source air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. Biological Resources – Would the project:				
a) Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations or by the California Department of	☐	☒	☐	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fish and Game or U.S. Fish and Wildlife Services?				
b) Have a substantial adverse impact on any riparian habitat or natural community identified in local or regional plans, policies, and regulations or by the California Department of fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Adversely impact federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐
V. Cultural Resources – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to define Section 15064.5?	☐	☒	☐	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
d) Directly or indirectly disturb or destroy a unique paleontological resource or site?				
VI. Geology and Soils – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☐
1. Rupture of a known earthquake fault, as delineated on the most recent on the most recent Alquist-Priolo Earthquake Fault Zoning map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☒
2. Strong seismic ground shaking?	☐	☐	☒	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
4. Landslides?	☐	☐	☐	☒
b) Would the project result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or	☐	☐	☒	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
property?				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
VII. GREENHOUSE GAS EMISSIONS — Would the project?				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
VIII. HAZARDOUS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is located on a list of hazardous materials sites compiled pursuant to Government Code Section 659662.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or where such a plan has not been adopted, within	☐	☐	☐	☒

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
two miles where of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	☐	☐	☒	☐
VIX. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
(j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
X. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of	☐	☐	☒	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
avoiding or mitigating an environmental effect?				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐
XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☒	☐
XII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without project?	☐	☐	☒	☐
d) For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
e) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) Exposure of persons to or generation of excessive groundborne vibration or	☐	☐	☒	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
groundborne noise levels?				
XIII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public service:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☐
Police protection?	☐	☐	☐	☐
Schools?	☐	☐	☐	☐
Parks?	☐	☐	☐	☐
Other public facilities?	☐	☐	☐	☐
XV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial	☐	☐	☐	☒

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
physical deterioration of the facility would occur or be accelerated?				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including but limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐
XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Are sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in the determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's sold waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state and local statutes and regulations related to solid waste?	☐	☐	☒	☐

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

Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Section 65088.

SECTION 4.0 ENVIRONMENTAL ANALYSIS

The following environmental analysis responds to the environmental issues listed on the OCWD CEQA Checklist Form. The analysis identifies the level of anticipated impact that would occur from the implementation of the Santa Ana Sucker Habitat Restoration Project and where needed identifies mitigation measures to reduce potentially significant impacts to the environment to a less than significant level.

4.1 Aesthetics

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

Less than Significant Impact: The proposed gabions would be constructed along the banks of the Santa Ana River upstream of River Road Bridge. Existing scenic vistas of the project area are currently provided from River Road Bridge and potentially from residential uses located to the north of the project area. The proposed gabions would be 12 feet in length, 3 feet in width and 3 feet in height. The gabions would be approximately 3 feet above the water line and most likely would not be discernible. Potential direct long term impacts to existing scenic vista would be insignificant.

Existing views of the project area would be temporarily impacted during the period when the gabions would be assembled and installed. The temporary impacts would be for a short period of time and once the gabions are assembled scenic vistas would be returned to their pre-project condition. Potential construction related scenic vista impacts would be insignificant. No mitigation measures are required.

B. Would the project damage scenic resources, including but limited to, trees, rock outpourings, and historic buildings within a State Highway?

No Impact: The California Department of Transportation Scenic Highways Program identifies that there are not any State Scenic Highways within the vicinity of the project area. Therefore, implementation of the Project would not have any impact on scenic resources along a State Scenic Highway. No mitigation measures are required.

C. Would the project substantially degrade the existing visual character or quality of the site and its surrounding?

Less than Significant Impact: The project area is situated within an open space setting. The presence of the gabions would not adversely change the open space character of the project area. Potential long term aesthetic impacts would be insignificant.

During the construction of the gabions the existing open space character of the project area would be altered. The construction impacts would be for a short period of time and once the gabions are installed the aesthetic character of the project area would be returned to its pre-project condition. Potential construction related aesthetic impacts would be insignificant. No mitigation measures are required.

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

No Impact: The proposed gabions would not introduce any new permanent sources of light and glare impacts into the project area. Potential long term light and glare impacts would be avoided. The construction of the proposed gabions would occur during the day. There would be no construction related light and glare impacts. No mitigation measures are required.

4.2 Agricultural Resources/Forest Resources

A. Would the project convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance to non-agriculture uses?

No Impact: The State of California Farmland Mapping and Monitoring Program, indicates that there is no Prime Farmland, Unique Farmland or Farmland of Statewide Importance within the project area. Therefore, the construction and operation of the Project would not result in adverse impacts to Prime Farmland, Unique Farmland or Farmland of Statewide Importance. No mitigation measures are required.

B. Would the project be in conflict with existing zoning for agriculture use or a Williamson Contract?

No Impact: The County of Riverside Zoning Map shows that the project area is not zoned for agriculture land uses. Therefore, the implementation of the Project would not be in conflict with any existing agriculture zoning or existing agriculture leases or contracts on the property. No mitigation measures are required.

C. Would the project be in conflict with existing zoning for, or cause rezoning of forest land or timberland.

No Impact: The County of Riverside Zoning Map shows that the project area is not zoned for forest or timberland land uses. The implementation of the Project would not cause change of zone of existing forest or timberlands. No mitigation measures are required.

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

No Impact: The project area does not contain forest land. Therefore, the construction and operation of the Project would not convert forest land to non-forest land. No mitigation measures are required.

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

No Impact: There is not existing farmland within the project area. Therefore, the construction and operation of the Project would not result in the loss of any forest land or result in the conversion forest lands to non-forest lands. No mitigation measures are required.

4.3 Air Quality

The following analysis is based on an Air Quality Impact Report prepared by BonTera/Psomas in July 2015 for OCWD's Planned Deviation to the Prado Dam Water Control Plan Project. The Planned Deviation Project would remove approximately 20,000 cubic yards of sediment material from the Prado Basin and export the material to a local landfill. The Santa Ana Sucker Habitat Restoration Project would involve the removal of approximately 220 cubic yards of sediment material and would export the material to a local landfill. Similar equipment would be used for both projects, except that less construction days would be needed for the Santa Ana Sucker Habitat Restoration Project. Therefore, the estimated excavation and hauling emissions analysis from the Planned Deviation Project Air Quality Report would be relevant to evaluate potential air quality impacts generated from the Santa Ana Sucker Habitat Restoration Project. The Air Quality Report is presented in Appendix A.

Affected Environment

The project site is located in unincorporated Western Riverside County within the South Coast Air Basin (Basin). The Basin consists of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate,

serious, severe, or extreme as a function of deviation from standards. The current attainment designations for the Basin are shown in Table 1. The Basin is designated as nonattainment for the state and federal ozone, PM_{10}, and $PM_{2.5}$, standards. The Basin is also in nonattainment for the state nitrogen dioxide annual standard, based on the 2006–2008 data. Based on more recent data (2007–2009), the Basin will be in attainment for nitrogen dioxide; however, the State has not officially designated the Basin as in attainment.

Table 1: South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment – Extreme
Carbon monoxide	Attainment	Maintenance – Serious
Nitrogen dioxide (annual)	Nonattainment	Attainment
Nitrogen dioxide (1-hour)	Attainment	Maintenance
Sulfur dioxide	Attainment	Attainment
PM_{10}	Nonattainment	Maintenance – Serious
$PM_{2.5}$	Nonattainment	Nonattainment – Moderate
Lead (Los Angeles County)	Nonattainment	Nonattainment
Lead (other parts of Basin, including the project area)	Attainment	Attainment
Source of State status: California Air Resources Board 2013b. Source of National status: U.S. Environmental Protection Agency 2014.		

Air Pollution Regulations

Air pollutants are regulated at the national, state, and air basin level and each agency have a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

Federal Regulation

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provide research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards. There are federal standards for the following criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970:

• Ozone	• Particulate matter (PM_{10} and $PM_{2.5}$)
• Nitrogen dioxide	• Carbon monoxide (CO)
• Lead	• Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health.

State Regulation

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that would be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts. The regional air district prepares their federal attainment plan, which is sent to the ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The ARB also administers California Ambient Air Quality Standards (state standards) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six federal standards listed above as well visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

South Coast Management District

The agency for air pollution control for the South Coast Air Basin (Basin) is the SCAQMD. The SCAQMD is responsible for controlling emissions primarily from stationary sources. The SCAQMD is also responsible for developing, updating, and implementing the AQMP for the Basin, in coordination with the Southern California Association of Governments.

Air Quality Management Plans

In response to Federal and State requirements to implement measures to achieve the Federal and State air quality standards, the SCAQMD is responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. An AQMP establishes a program of rules and regulations directed at attaining the Federal and State air quality standards. On November 28, 2007,

CARB submitted a SIP revision to the USEPA for O3, PM2.5, CO, and NO2 in the SoCAB. This revision is identified as the “2007 South Coast SIP”.

The 2007 South Coast SIP demonstrates attainment of the federal PM2.5 standard in the SoCAB by 2014 and attainment of the federal 8-hour O3 standard by 2023. This SIP also includes a request to reclassify the O3 attainment designation from “severe” to “extreme”. The USEPA approved the redesignation effective June 4, 2010. The “extreme” designation requires the attainment of the 8-hour O3 standard in the SoCAB by June 2024. CARB approved PM2.5 SIP revisions in April 2011 and the O3 SIP revisions in July 2011. The USEPA approved the PM2.5 SIP on September 25, 2013, and has approved 47 of the 62 1997 8-hour O3 SIP requirements. On November 30, 2014, the USEPA proposed a finding that the SoCAB has attained the 1997 PM2.5 standards. The comment period closed on January 22, 2015; no subsequent action has been taken.

On December 7, 2012, the SCAQMD adopted the 2012 AQMP, which is a regional and multiagency effort between SCAQMD, CARB, SCAG, and USEPA. The 2012 AQMP incorporates the latest scientific and technical information and planning assumptions including; SCAG’s 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methods for various source categories; and SCAG’s latest growth forecasts. The primary purposes of the 2012 AQMP are to demonstrate attainment of the federal 24-hour PM2.5 standard by 2014 and to update the USEPA-approved 8-hour Ozone Control Plan. On December 20, 2012, the 2012 AQMP was submitted to CARB and the USEPA for concurrent review and approval for inclusion in the SIP. CARB approved the 2012 AQMP on January 25, 2013. The USEPA has not approved the 2012 AQMP portion of the SIP.

A. Would the project be in conflict with or obstruct implementation of the applicable air quality plan or congestion management plan?

Less than Significant Impact: The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and State air quality standards. The 2012 AQMP is the most recently approved AQMP and has been designed to accommodate expected future population, housing, and employment growth based on SCAG’s 2012–2035 RTP/SCS. The SCAG projections were developed from City and County General Plans as well as regional population, housing, and employment projections. The implementation of the Project would not change regional population, housing, and employment projections. Additionally, as shown in Table 2, pollutant emissions from the Project would be less than the SCAQMD thresholds and would not result in a significant impact.

No conflict with the 2012 AQMP would occur from the implementation of the project.

B. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact: The regional construction emissions generated from construction activities is shown in Table 2. These values are compared with the SCAQMD mass daily thresholds. As shown in Table 2, all estimated emissions would be less than the applicable SCAQMD CEQA significance thresholds. No mitigation measures are required.

Table 2: Estimated Daily Construction Emissions (Pounds/Day)

Phase	VOC	NOx	CO	PM10	PM2.5
Site Preparation/Clearing and Grubbing	4	52	31	10	5
Sediment Removal	4	62	36	29	6
Significance Threshold	75	100	550	150	55
Significant Impact?	No	No	No	No	No
See Appendix B for CalEEMod Model outputs.					

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

Less than Significant Impact: The region is a federal and/or State nonattainment area for PM10, PM2.5, and ozone. The Project would contribute particulates and the ozone precursors VOC and NOx to the project area during short-term project construction. SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. As described previously, construction emissions would be less than the SCAQMD CEQA significance thresholds and less than significant. Therefore, regional emissions would not be cumulatively considerable, and the impact would be less than significant. No mitigation measures are required.

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

Less than Significant Impact: Carbon monoxide (CO) “hot spot” thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecasted regional traffic do not exceed state or federal standards for CO at any traffic intersection impacted by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project generated CO concentrations cause a localized violation of the state CO 1-hour standard of 20 ppm, state CO

8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections, where the concentrations will be the greatest. The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: 1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent or 2) the project decreases LOS at an intersection from C to D.

The Project would generate a minimal amount of construction related truck trips. The hauling trips would not occur during peak traffic periods and would not reduce the level of service of any intersections or roadway segments within the project area. Therefore, the Project would not significantly contribute to a CO hotspot.

Federal General Conformity Rule

Less than Significant Impact: The General Conformity Rule of the Federal Clean Air Act (42 USC 7401) implements Section 176(c) of the Clean Air Act, and establishes minimum thresholds for ozone, CO, and other regulated pollutants for nonattainment and maintenance areas. The precursors of ozone include reactive organic gases that are also known as volatile organic gases (VOC) and nitrogen oxides (NOx). The regulations apply to a proposed federal action that would cause emissions of criteria air pollutants or ozone precursors above a *de minimis* level to occur in locations designated as nonattainment or maintenance areas for the emitted pollutants. The purpose of the General Conformity Rule is to:

- Ensure that federal activities do not cause or contribute to new violations of the national ambient air quality standards;
- Ensure that actions do not cause additional or worsen existing violation of, or contribute to new violations of, the national ambient air quality standards; and
- Ensure that attainment of the national ambient air quality standards is not delayed.

A federal agency must make a determination that a federal action conforms to the applicable implementation plan before the action is taken. A conformity determination is required for each pollutant where a total of direct and indirect emissions in a nonattainment or maintenance area caused by the federal action are greater than the *de minimis* thresholds. The General Conformity Rule specifies *de minimis* thresholds, which are based on the severity of an area's

nonattainment with the federal standards. If a project is less than the *de minimis* thresholds, additional analysis would not be required. As shown in Table 3, the project area is in nonattainment for the federal ozone, PM10, and PM2.5 standards.

Table 3: Riverside County Attainment Status and De Minimis Thresholds

Pollutant	Federal Designation and Classification	De Minimis Threshold (tpy)
Ozone	Nonattainment (Extreme)	10a (VOC or NOx)
Carbon monoxide	Maintenance (Serious)	100
Nitrogen dioxide (annual)	Attainment (N/A)	100
Sulfur dioxide	Attainment (N/A)	N/A
PM10	Nonattainment (Serious)	70
PM2.5	Nonattainment (N/A)	N/Ab
Lead (other parts of Basin, including the project area)	Attainment (N/A)	N/A

Notes:
tpy = tons per year
VOC - volatile organic compounds
NOx - nitrogen oxides
N/A = Not applicable
a The applicable de minimis threshold applies equally to each ozone precursor (VOC and NOx)
b The General Conformity rule does not currently address PM2.5.
Source: U.S. Environmental Protection Agency 2013a, Green Book Nonattainment Areas for Criteria Pollutants. Website: www.epa.gov/air/oaqps/greenbk/. Accessed February 7, 2013.
U.S Environmental Protection Agency 2013b, General Conformity De Minimis Levels. Website: http://www.epa.gov/air /genconform/deminimis.html. Accessed February 7, 2013.

The implementation of the Project would not involve the construction of any structures or facilities that would generate long term direct air quality emissions that would to exceed the *de minimis* threshold. The implementation of the Project would result in short-term air quality emission impacts. As shown in Table 4 the annual emissions generated by the Project would be less than the *de minimis* threshold for general conformity. Therefore, no mitigation would be necessary to reduce the emissions to less than the *de minimis* thresholds.

Table 4: Total Construction Emissions (tons)

Phase	VOC	NOx	CO	PM10	PM2.5
Site Preparation/Clearing and Grubbing	0.01	0.13	0.07	0.02	0.01
Sediment Removal	0.07	0.97	0.57	0.44	0.09
Total Emissions	.08	1.10	0.64	0.47	0.10
General Conformity de minimis Thresholds (Tons/Year)	10	10	100	100	100
Exceeds Threshold	No	No	No	No	No
See Appendix B for CalEEMod Model outputs					

E. Would the project create objectionable odors affecting a substantial number of people?

Less than Significant Impact: Land use typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities or agriculture operations. The project would not contain any land uses or activities that would generate long term odor impacts. Diesel would be generated during the operation of heavy equipment. The emissions would disperse rapidly from the project area and should not reach an objectionable level. Potential odor impacts would be less than significant.

4.4 Biological Resources

Setting

The project area is located within the Prado Basin. The biological setting in the Prado Basin is significantly influenced by the presence of Prado Dam. Prado Dam is situated where Chino Creek, Mill Creeks and Temescal Wash meet with the Santa Ana River. As a result of a combination of high groundwater, storm flow accumulation held in the reservoir, ongoing sewage treatment plant effluent and irrigation runoff, perennial flows occur throughout much of the Prado Basin. The presence of the dam has caused vast potions of the Prado Basin to remain inundated with water for long periods of time. The extended periods of inundation has significantly influenced the type of vegetation and wildlife that occurs in the Prado Basin. Additionally, the presence of the dam has caused a buildup of sediment in the basin and has converted once rock cobble substrate of the Santa Ana River to an almost entirely sandy bottom substrate. Additionally, the buildup of sediment has been consistent with an increase in the amount of non-native vegetation and has reduced the quality of existing native aquatic habitat in the basin.

Vegetation Communities

As shown on Figure 3 the project area consists of Arundo Vegetation, Eucalyptus Trees and open water.

Special Status Plants

A search of special status plant species listed in the California Native Plant Society Online Survey of Rare Plants, U.S. Department of Interior Information Planning and Conservation System Database and the California Department of Fish and Wildlife Natural Diversity Data Base for the Prado Dam and Corona North U.S.G.S. Quadrangles was conducted to determine the potential for special status plant species to occur within the project area. A complete listing of special status plant species identified within the two quadrangle areas is shown

in Table 5. To determine the potential for the species to occur within the project area of impact the following criteria was used in the evaluation.

Present: The species is commonly observed or trace signs of the species were observed within the project area within the last year.

High: The project area supports suitable habitat and the species has been observed within the last 2 years and within 2 miles of the project area.

Moderate: The project area supports suitable habitat and the species has been observed within last 5 years and within 5 miles of the project area.

Low: The project area lacks suitable habitat or if the project area has suitable habitat the species has not been observed for over 5 years or observed more than 5 miles from the project area.

Table 5: Special Status Plant List

	Federal	State	CNPS	General Habitat	Potential Occurrence In Action Area
Plants					
Chaparral sand verbena *(Abronia villosa var. aurita)*	NL	NL	1B.1	Coast Bluff Scrub & Chaparral with sandy soils. Flowering period January to September.	**Low Potential**. The project area does not contain adequate amounts of suitable habitat. Species last reported 1933 in lower Santa Ana Canyon, approximately 3 miles from Prado Basin.
Coulters saltbrush (*Atriplex coulteri)*	NL	NL	1B.1	Coastal Bluff Scrub, Strand, Coastal Sage Scrub, valley and foothill grass lands. Flowering period March to October.	**Low Potential**. The project area does not support adequate amount suitable habitat. Species last reported in 1917, segment of Chino Creek, south of City of Ontario.
Intermediate mariposa lily (*Calochortus weedii var. ntermus)*	NL	NL	1B.2	Chaparral, Coastal Sage Scrub, Valley and Foothill Grasslands. Flowering period May to July.	**Low Potential.** The project area does not support adequate amount suitable habitat. Species last reported in 1977 in Santa Ana Canyon, approximately 3 miles from Prado Basin.
Luck Morning-Glory *(Calystegia felix)*	NL	NL	3.1	Riparian Scrub Flowering March to September	**Low Potential.** The project area does not contain suitable habitat. Species last reported

					2013, 6.5 miles from Prado Basin near South SR-71 and Grand Avenue, east of Chino Creek.
Smooth Tarplant *(Centromadia pungens laevis*)	NL	NL	1B.1	Valley and Foothill grassland and riparian woodland. Flowering period April to September.	**Low Potential.** The project area does not contain suitable habitat. Species last observed 2004, near Hidden Valley Wetland, approximately 7 miles from Prado Basin.
Slender horned Spineflower (*Dodecahema leptoceras)*	E	E	1B.2	Sandy places Coastal Sage Scrub, Chaparral, cismontane woodlands, stream banks and washes. Flowering period April to June.	**Low Potential.** The project area does not support adequate amount of suitable habitat. Species last reported 2005, near Valley Vista Road & SR 74, near San Jacinto River, over 10 miles from Prado Basin.
Many-stemmed dudleya *(Dudleya multicaulis)*	NL	NL	1B.2	Coastal Sage Scrub, chaparral, valley grasslands. Flowering period April to July.	**Low Potential.** The project area does not support adequate amount suitable habitat. Species last reported 1983, .8 mile west of Prado Dam along west slope in Santa Ana Mountains.
Santa Ana River woollystar *(Eriastrum densifolium ssp. Sanctorum)*	E	E	1B.1	Sandy gravelly soils on River Floodplain. Flowering period May to September.	**Low Potential.** The project area does not support adequate amount suitable habitat. Species last reported 1927 near SR91 and Weir Canyon exit, approximately 7 miles from Prado Basin.
Robinsons Pepper grass *(Lepidium virginicum Robinson)*	NL	NL	4.3	Chaparral, Coastal Scrub	**Low Potential.** The project area does not contain suitable habitat. Species last observed 2010, near Railroad Street and Yorba, approximately 1 mile from Prado Basin.
Jokerst's monardella *(Monardella australis)*	NL	NL	1B.1	Lower Montane Confierous Forest Flowering period June to September	**Low Potential.** The project area does not support habitat. Species last reported 1951 near California Institute for Women.

White rabbit tobacco (*Pseudognaphalium leucocephalum)*	NL	NL	2.2	Occurs in sandy washes. Flowering period July to November.	**Low Potential.** The project area does not support adequate amount suitable habitat. Species last reported 1928 near Historic Santa Ana Botanical Garden, over 10 miles from Prado Basin.
Coulters matilija poppy (*Romneya coulteria)*	NL	NL	4.2	Dry washes, disturbed sage scrub, chaparral and often found in burn areas. Flowering period March to July.	**Low Potential.** The project area does not support suitable habitat. The species was observed in 2009 in Chino Hills State Park.
Salt Spring checkerbloom (*Sidalalcea neomexicana)*	NL	NL	2.2	Chaparral, coastal scrub, lower montane conifer forest. Flowering period March to June.	**Low Potential.** The action area does not contain suitable habitat. Species last reported in 1917 in segment of Chino Creek near City of Ontario, over 10 miles from Prado Basin.
San Bernardino aster (*Symphyotrichum defoliatum)*	NL	NL	1B.2	Occurs in freshwater Wetlands. Flowering period July to November.	**Low Potential.** The project area does not support adequate amount suitable habitat. Species last reported 1928, 3 miles southeast of City of Chino.

Special Status Wildlife Species

A search of the U.S. Department of Interior Information Planning and Conservation System Database and California Department of Fish and Wildlife California Diversity Data Base for the Prado Dam and Corona North USGS Quadrangles was conducted to determine the potential for special status wildlife species to occur within the area of potential impact. A complete listing of sensitive wildlife species identified within the two quadrangle areas is shown in Table 6. To determine the potential for the species to occur within the project area of impact the following criteria was used in the evaluation.

Present: The species is commonly observed or trace signs of the species were observed within the project area within the last year.

High: The project area supports suitable habitat and the species has been observed within the last 2 years and within 2 miles of the project area.

Moderate: The project area supports suitable habitat and the species has been observed within last 5 years and within 5 miles of the project area.

Low: The project area lacks suitable habitat or if the project area has suitable habitat the species has not been observed for over 5 years or observed more than 5 miles from the project area.

Table 6: List of Special Status Wildlife Species

	Federal	State	General Habitat	Potential Occurrence in Action Area
Reptiles				
Southwestern pond turtle (*Actinemys marmorata pallida)*	NL	SSC	Perennial Ponds, Lakes, Rivers, Streams, Creeks, Marshes, and Irrigation Ditches	**Moderate Potential.** Rare, but observed within Prado Basin within last 2 years, but not within the project area.
Orange-throated whiptail *(Aspidoscelis hyperythra)*	NL	SSC	Low level Coastal Sage Scrub, Chaparral, Grass land, Oak Woodland. Prefers washes and sandy areas with patches of brush and rocks.	**Low Potential.** The project area does not contain suitable habitat. Species last reported 2005, 1.5 miles west of Chino Creek.
Red Diamond Rattlesnake (*Crotalus ruber)*	NL	SSC	Chaparral, Woodland and grassland and desert areas that have dense brush and large rocks or boulders.	**Low Potential.** The project area lacks suitable habitat. Species last reported in Chino Hills 2001, 1 mile north of Santa Ana River at Horseshoe Bend.
Coast horned lizard *(Phrynosoma blainvillii)*	NL	SSC	Most common in lowlands along sandy washes with scattered low brushes, requires open areas for sunning, bushes for cover and abundant supply of ants and other food sources.	**Low Potential.** The project area lacks suitable habitat. Species last reported 2005 north of City of Yorba Linda, approximately 6.5 miles from Prado Basin.
California red-sided garter snake (*Thamnophis sirtalis infernalis*)	NL	SSC	Forest, mixed woodlands, grassland, marshes and streams.	**High Potential.** The Prado Basin supports suitable habitat, and the species has been observed in Prado Basin within last 2 years.
Birds				
Tricolored blackbird (*Agelaius tricolor)*	NL	E	Wetlands, Agricultural Fields	**High Potential**. The project area supports suitable habitat. Species last reported 2014 Mill Creek Wetlands.
Grasshopper sparrow	NL	SSC	Dense grasslands on rolling hills, in valleys	**Low Potential.** The project area lacks suitable habitat.

(*Ammodramus savannarum)*			and on hillsides, favors native grasslands with scattered shrubs.	Species last reported 2015 near Prado Dam Spillway.
Golden Eagle (Aquila chrysaetos	NL	SSC	Upland forest, Cismontane Woodland, Valley and Foothill Grassland	**Low Potential:** The project area does not contain adequate amounts of suitable habitat. Species last reported 1996 Chino Hills State Park.
Long-eared owl *(Asio otus)*	NL	SSC	Riparian bottomlands within tall willow and cottonwood trees, live oak trees near streams, needs adjacent open land productive of food sources and the presence of old nests.	**Low Potential.** The project area lacks suitable habitat. Species last reported 1925 5.5 miles west from Chino Creek.
Burrowing owl (*Athene cunicularia)*	NL	SSC	Open, dry perennial or annual grassland and scrublands characterized by low growing vegetation, subterranean nester.	**Low Potential.** The project area does not contain adequate amounts of suitable habitat. Species last reported 2006, 1 mile north of Chino Airport.
Coastal cactus wren *(Campylorhynchus brunneicapillus)*	NL	SSC	Coastal Sage Scrub in southern California closely associated with areas containing patches of cholla or prickly pear cacti.	**Low Potential**. The project area does not support adequate amount of suitable habitat. Species last reported 1995, 4 miles west of Prado Dam.
Yellow Warbler (*Dendroica Brewsteri)*	NL	SSC	Riparian vegetation associations, prefers willows, cottonwood, sycamores for nesting and foraging.	**Present.** The project area supports suitable habitat and species is commonly reported in Prado Basin.
Least Bell's vireo *(Vireo bellii pusillus)*	E	E	Summer resident of southern California in low riparian habitats in vicinity of water or dry river bottoms, nests placed along margins of bushes or on twigs landing on pathways, usually willow, mesquite or mulefat.	**Present.** The project area supports suitable habitat and species is annually reported in the Prado Basin.
Coastal California gnatcatcher *(Polioptila californica*)	T	SSC	Permanent resident of coastal sage scrub, low scrub, in arid washes, on mesas and slopes.	**Low Potential**. The project area does not support suitable habitat. Species last reported 2000 in Norco Hills.
Western yellow billed cuckoo (*Coccyzus americanus occidentalis)*	T	E	Species typically require a minimum of 25 acres of area and forage predominantly in cottonwood tree stands.	**Moderate Potential.** The project area supports suitable habitat. Within the last 15 years 2 sightings have been reported in the Prado Basin, 1 in 2000 and 1 in 2011. However both

				species were transit and not annual resident to the basin.
Cooper's hawk *(Accipiter cooperii)*	NL	SSC	Woodlands, nest sites mainly in riparian growths of deciduous trees.	**Present.** The project area contains suitable habitat. Species is commonly reported in Prado Basin.
White-tailed kite	NL	FP	Marsh and Swamp Riparian Woodland	**High Potential.** The project area supports suitable habitat and species has commonly been reported in Prado Basin
Southwestern willow flycatcher (*Empidonax traillii extimus)*	E	E	Breeds in willow riparian forest and shrub ands	**Moderate Potential.** The project area supports suitable habitat. Species has intermittently been reported in the Prado Basin. Species last reported in 2012 near OCWD Prado Wetlands.
Yellow breasted chat (*Icteria virens*)	NL	SSC	Summer resident, inhibits riparian thicket of willow and other brushy thickets near water courses, nests in low dense riparian vegetation.	**Present.** The project area supports suitable habitat. Species is commonly reported in Prado Basin.
Double-crested cormorant (*Phalacrocorax auritus*)	NL	SSC	Inhabits lakes, rivers, reservoirs, estuaries or ocean for foraging, nests in tall trees or rugged slopes near aquatic environments.	**Present.** The project area supports suitable habitat and species is commonly reported in Prado Basin.
Great blue heron (*Ardea herodias*)	NL	SSC	Inhabits shallow estuaries, fresh and saline emergent wetland areas.	**Present.** The project area supports suitable habitat and species has commonly been reported in Prado Basin.
Sharp-shinned hawk (*Accipiter striatus*)	NL	SSC	Nests in conifer and riparian forests, prefers north facing slopes near water.	**High Potential.** The project area supports suitable habitat and species has commonly been reported in Prado Basin.
Swainsons hawk *(Buteo swainsoni)*	NL	T	Breeds in interior valleys and high desert with scattered large trees or riparian woodland corridors surrounded by open fields.	**Low Potential.** The project area contains suitable foraging habitat. Species last reported 1919 in the Prado Basin.
Vaux's swift *(Chaetura vauxi)*	NL	SSC	Breeds in coniferous and mixed coniferous forests, requires large diameter trees, hollow trees form breeding, forages in areas of open water.	**High Potential:** The project area supports suitable habitat. Species has been reported in Prado Basin within last 2 years.
Northern harrier	NL	SSC	Prefers open country,	**High Potential.** The project

(Circus cyaneus)			grasslands, stepps, wetland meadows, agriculture fields, roost and nest on ground in shrubby vegetation often at edge of marshes.	area supports suitable habitat and species has been reported in Prado Basin within the last 2 years.
California horned lark *(Eremophila alpestris action)*	NL	SSC	Short-grass prairie, mountain meadows, open coastal plains and fallow grain fields.	**Low Potential.** The project area does not support suitable habitat.
Merlin *(Falco columbarius)*	NL	SSC	Tidal estuaries, open woodlands. Edges of grasslands, requires clumps of trees or windbreaks for roosting in open country.	**High Potential.** Species known to occur in Prado Basin as winter visitor and is likely to forage or fly over Prado Basin.
Loggerhead Shrike *(Lanius ludovicianus)*	NL	SSC	Broken woodland, riparian woodland, pinyon-juniper woodland and washes,	**High Potential.** The project area supports suitable habitat and species is known to forage in upland habitats within Prado Basin and has been reported within last two years.
Amphibians				
Western spadefoot (*spea hammondii)*	NL	SSC	Vernal Pools, Riparian Habitats	**Low Potential**. The project area contains marginally suitable habitat.
Northern leopard frog (*Lithobates Pipiens)*	NL	SSC	Grasslands, Meadows, Forest Woodlands, Marshes, Canals	**Low Potential.** The project area does not support adequate amount suitable habitat. Species last reported in 1967, 3 miles west City of Corona.
Mammals				
Mexican long-tongued bat *(Choeronyceteris mexicana)*	NL	SSC	Well lighted Caves	**Low Potential.** The project area does not have suitable habitat.
San Bernardino kangaroo rat (*Dipodomys merriami parvusi)*	E	T	Alluvial Scrub, Sandy Loam Substrate	**Low Potential.** The project area does not contain adequate amounts of suitable habitat. Species last reported 1972, 1.2 miles southeast Corona Airport.
Stephens Kangaroo Rat (Dipodomy's stephensi)	E	T	Coastal Scrub	**Low Potential.** The project area does not contain adequate amounts of suitable habitat. Species last reported 2003, .25 mile from SR 91 and I-15.
Western mastiff bat (*Eumops perotis californicus)*	NL	SSC	Roosts in cracks and small holes, prefers man-made structures	**Low Potential.** The project area does not contain suitable habitat.

Pocketed free-tailed bat (*Nyctinomops femorosaccus)*	NL	SSC	Crevices in Rocky Cliffs, caves, tunnels mines under roof tiles	**Low Potential.** The project area does not contain suitable habitat.
Aquatics				
Santa Ana sucker (*Catostomus santaanae*)	T	SSC	Cool, Clear Streams, Rivers, rocky Bottom in riparian woodlands	**Moderate Potential.** The Prado Basin does not contain adequate amounts of suitable habitat. Upstream and downstream of Prado Basin is marginally suitable habitat. Individual suckers were reported downstream of Prado Dam near Green River Golf Course in 2010 and 2012.
Southern California arroyo chub (*Gila orcutti)*	NL	SSC	Freshwater Rivers, Creeks, and Streams in riparian woodlands	**Low Potential.** The Prado Basin does not contain adequate amounts of suitable habitat. Upstream and downstream of Prado Basin is marginally suitable habitat. No chubs have been in recent years, within Prado Basin or along the Santa Ana River within the upstream and downstream project area.

Critical Habitat

The Project would be implemented on a segment of the Santa Ana River that has been designated Critical Habitat for the Sucker. Additionally, the project area is adjacent to lands that designated Critical Habitat for the Least Bell's Vireo and the Southwestern Willow Flycatcher.

Least Bell's Vireo Critical Habitat

There are approximately 3,351 acres of Critical Habitat for the vireo within the Prado Basin. The primary constituent elements for the Least Bell's Vireo include riparian woodland vegetation that generally contains both canopy and shrub layers, and includes some associated upland habitats.

Southwestern Willow Flycatcher Critical Habitat

There are approximately 1,502 acres of Critical Habitat for the flycatcher within the Prado Basin. The primary constituent elements of for the Southwestern Willow Flycatcher are thickets of riparian shrubs and small trees with adjacent surface water. The surface water must be available from May to September during breeding season.

Santa Ana Sucker Critical Habitat

The critical habitat for the Santa Ana Sucker extends along the Santa Ana River from above the Seven Oaks Dam in the San Bernardino Mountains to the Prado Basin near Hamner Avenue (excluding most of Prado Basin) and downstream from Prado Dam to Imperial Highway in Orange County. The segment of the Santa Ana River upstream of River Road Bridge is designated critical habitat area for the Santa Ana Sucker. The primarily constituent elements that have been recognized as essential critical habitat for the Santa Ana Sucker include; a functioning hydrological system that experiences peaks and ebbs in the water column reflecting seasonal variation in precipitation throughout the year; a mosaic of loose sand, gravel, cobble and boulder substrates in a series of riffles, runs, pools and shallow sandy margins, water depths greater than 1.2 inches, non-turbid water or only seasonally turbid water, water temperatures less than 86 degree and stream habitat that includes algae, aquatic emergent vegetation, macro invertebrates and riparian vegetation.

Wetland Waters of the United States/State of California

Wetland Waters are a subset of jurisdictional Waters of the U.S. and the State. Generally, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Presently, there is no single definition of wetlands recognized by the state and the federal government. However, the state and federal definitions do share common terms and concepts. For purposes of this analysis wetlands must have the following three attributes: (1) the land periodically supports hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year.

Wildlife Movement Corridors

Corridors and linkages that facilitate regional wildlife movement are generally located near water ways, ridgelines, riparian corridors, flood control channels, contiguous habitat and upland habitat areas. Different types of wildlife movement corridors provide specific types of functions pending on the landscape of the area and habitat conditions.

- Movement corridors are physical connections that allow wildlife to move between patches of suitable habitat.
- Dispersal corridors are relatively narrow, linear features embedded in a dissimilar matrix that links two or more areas of suitable habitat that would

otherwise be fragmented and isolated from one another by rugged terrain, changes in vegetation or human-altered environments.

- Habitat linkages are broader connections between two or more habitat areas.
- Travel routes are usually landscape feature, such as ridgelines, drainages, canyons or riparian corridors within larger natural habitat areas that are used frequently by animals to facilitate movement and provide access to water, food, cover, den sites or other necessary resources.
- Wildlife crossings are small, narrow areas of limited extent that allow wildlife to pass an obstacle or barrier. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges and tunnels to prove access past roads, highways, pipelines or other physical obstacles.

The Santa Ana River is considered a wildlife corridor allowing for the movement of wildlife to open space areas such as the Santa Ana Mountains or Chino Hills. Additionally, riparian corridors and tributary streams within the Prado Basin functions as wildlife movement corridors between landscape features and habitat patches.

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

Special Status Plant Species

As shown in Table 5 there would be low potential for Special Status plant species to occur within project area. The implementation of the Project would not result in adverse impacts to any Special Status plant species.

Special Status Wildlife Species

Least Bell's Vireo, Southwestern Willow Flycatcher, Western Yellow-Billed Cuckoo, Tri-Colored Blackbird

Less than Significant Impact with Mitigation: The project would require the removal of vegetation to provide access to the gabion site locations. To avoid potential direct impacts and indirect construction noise impacts to nesting birds all vegetation removal activities would occur outside of the nesting season. With the implementation of Mitigation Measure BIO-1 potential adverse impacts to the vireo, flycatcher, cuckoo and the Tri-Colored Blackbird would be reduced to a less than significant level.

Mitigation Measure

BIO-1: All vegetation removal activities will be conducted outside of the migratory bird season from March 15 to September 15.

Santa Ana Sucker

Since 2008 no suckers have been reported in the Prado Basin. Based on the lack of occurrence, marginal habitat conditions and high populations of exotic predatory fish, the potential for populations of suckers to occur in the project area would be low. Additionally, the Project would be constructed in late summer along banks of river when the flows would be minimal if not sheet flow. During this time it would very unlikely that suckers would be present.

To construct the gabions a sand berm would be created around each gabion site to maintain water quality. Heavy equipment would be operating in the wetted channel to create the sand berms. In the event there are flows in the river, any aquatic life that might be present would disperse from the construction activity and continue downstream. To avoid potential impacts to spawning fish the construction activities would occur outside of spawning season. With the implementation of Mitigation Measures BIO-2 potential impacts to suckers would be less than significant.

Critical Habitat

The Project would not involve any activities that would result in the loss of Least Bell's Vireo or Southwestern Willow Flycatcher Critical Habitat. The project would remove sand from lands that are designated Santa Ana Sucker Critical Habitat and replace it with rock gabions. The rock gabions would create local erosion and would expose existing gravel beds, one of the primary constituent elements of Santa Ana Sucker Critical Habitat. Implementation of the project would enhance habitat conditions and would have a beneficial impact on Santa Ana Sucker Critical Habitat.

Mitigation Measures

BIO-2: Construction activities will occur outside of the Santa Ana Sucker spawning season.

State Reptile Species of Special Concern

The Southwestern Pond Turtle and the California Red-Sided Garter Snake both occur in streams, creeks and marshes and have the potential to occur within the project area. If these species are present, construction operations could result in direct adverse impacts to individuals. To minimize potential direct adverse impacts OCWD would implement an onsite monitoring program that would focus

on onsite biological monitoring prior to construction and during construction of the Project. With implementation of Mitigation Measure BIO-3 potential significant adverse direct impacts to reptile species of State Special Concern would be reduced to a less than significant level.

Mitigation Measure

BIO-3: To avoid impacts to special status wildlife species, prior to any ground disturbing activities, during operation and during demobilization of construction equipment, a qualified biologist approved by CDFW will conduct a pre-construction sweep of the project site for special status wildlife species. During these surveys the biologist will 1) inspect the project site for any special status wildlife species and prepare a list of species observed and record their activity during construction and operation of the project, 2) ensure that habitats within the construction activity impact area are not occupied by special status species and that the quality of that habitat is maintained, 3) in the event of the discovery of a special status species determining if the construction activity would cause adverse impacts and 4) if it is determined that the project activity would have the potential to adversely affect special status species and no other measures are available to avoid adverse impacts the biologist will require the project activity to cease in the area until the species is no longer in harm's way or is relocated outside of the construction activity impact area.

Sensitive State Bird Species

The project would require the removal of vegetation to provide access to the gabion site locations. To avoid potential direct impacts and indirect construction noise impacts to nesting birds all vegetation removal activities would occur outside of the nesting season. With the implementation of Mitigation Measure BIO-1 potential adverse impacts to nesting birds would be reduced to a less than significant level.

Mitigation Measures

Mitigation Measure BIO-1 is required.

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

Less than Significant Impact: As shown in Table 7 the implementation of the project would temporarily impact 0.98 acre of Arundo and 0.09 acre of Non-Native Weeds/Eucalyptus Trees area. The construction activities would not require the removal of any trees. Both Arundo and Non-Native

Weeds/Eucalyptus Tree vegetation communities are not considered sensitive and are not regulated by California Department Fish and Wildlife or U.S. Fish and Wildlife Service. Potential impacts to sensitive vegetation communities would be less than significant. No mitigation measures are required.

Table 7: Vegetation Community Impacts

Activity	Arundo	Eucalyptus	Open Water
Access Roads, Material/Equipment Laydown Area.	0.98	0.09	0.0
Gabions	0	0	0.008
Total	0.98	0.09	0.008

C. Would the project have a substantially adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling hydrological interruption, or other means?

Less than Significant Impact with Mitigation: A preliminary wetland assessment was conducted at the project area in accordance with Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual Arid Region West. Based on Wetland Delineation Manual a three parameter approach was used to identify Wetland Waters of the U.S and State. These parameters include; the presence of wetland vegetation, presence of hydrology and the presence of hydric soils. As shown in Table 8 the implementation of the Project would not result in the permanent loss of Waters of the U.S./State or Wetlands Waters of the U.S./State. The project would temporarily impact 0.98 acres of Arundo to create access to the project site. Arundo is non-native weed that is classified as wetland plant indicator species. The species provides minimal biological value. The temporary loss of 0.98 acres of Arundo would not be considered a significant impact. The Non-Native Weeds/Eucalyptus Tree area is located in an upland location and not classified as Waters/Wetland Waters of U.S. and State.

Once the project is completed the areas where Arundo was removed would be re-established with native wetland vegetation which would increase the biological values within the project area. With the implementation of Mitigation Measure BIO-4 temporary impacts to Wetland Waters of the U.S./State would be less than significant.

Table 8: Summary of Impacts to Waters/Wetlands

Well Site	Wetlands Permanent Impacts	Wetlands Temporarily Impacts	Water of U.S. Permanent Impacts	Waters U.S. Temporary Impacts
Access Roads,	0.0	0.98	0.0	0.0

material/Equipment Staging Area				
Gabion Sites	0.0	0.0	0.0	0.008

Mitigation Measure

BIO-4: After project completion the alignment of access roads and staging areas will be re-established with native wetland vegetation.

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

Less than Significant Impact with Mitigation: The construction activities for the Project would occur outside of nesting season and spawning season. Therefore, no direct impacts or indirect construction noise impacts would occur to migratory birds or migratory fish. With the implementation of Mitigation Measures BIO-1 and BIO-2 potential adverse significant impacts to migratory birds and migratory fish would be reduced to a less than significant level.

The construction activities would occur during daylight hours, which would avoid disturbance to many of the predatory species and other large mammals which typically move in the evening and early morning hours. Potential wildlife movement impacts would be insignificant.

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

F. Would the project be in conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? Wildlife nursery sites?

Less than Significant Impact: The County of Riverside General Plan identified several polices that provide for the protection of biological resources within the project area. Additionally, the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The focus of the General Plan and MSHCP is to maintain existing native riparian habitats, floodplain process and water quality within the lower Santa Ana River. The Project has been determined to not be in conflict with Riverside County General Plan and the MSHCP for following reasons.

- The Project would not decrease the amount of native riparian habitat within the Prado Basin.
- The Project would adversely impact floodplain processes or water quality along the river.
- The Project would enhance habitat for native fish.

4.5 Cultural Resources

The following analysis is based on cultural resource report prepared for the Santa Ana Sucker Habitat Restoration Project by Bonterra/Psomas in September of 2015. The Cultural Resources Reported is presented in Appendix B.

Setting

Cultural resources include prehistoric archaeological sites, historic archaeological sites, historic structures, and artifacts made by people in the past.

Prehistoric archaeological sites are places that contain the material remains of activities carried out by the native population of the area (Native Americans) prior to the arrival of Europeans in Southern California. Artifacts found in prehistoric sites include flaked stone tools such as projectile points, knives, scrapers, and drills; ground stone tools such as manos, metates, mortars, and pestles for grinding seeds and nuts; and bone tools

Historic archaeological sites are places that contain the material remains of activities carried out by people during the period when written records were produced after the arrival of Europeans. Historic archaeological material usually consists of refuse, such as bottles, cans, and food waste, deposited near structure foundations.

Historic structures include houses, commercial structures, industrial facilities, and other structures and facilities more than 50 years old.

Cultural Resources Record Search

To identify if there are any recorded Native American cultural resource sites within the project area, a record search was conducted at the Eastern Information Center. The results of the Eastern Information Center records search showed that no cultural resource sites have been recorded on or within $^{1}/_{8}$ mile of the project area. The record search results also show that project area was completely surveyed in 1985. A listing of the surveys is shown in Table 9.

Table 9: Cultural Resources Studies Conducted on or within 1/8 mile of Project Area

Report Number	Recorder/Year	Type of Study
RI-00061	Langenwalter and Brock 1985	Prado Basin Phase II Studies
RI-01954	Rosenthal and Schwarz	Cultural Resources Survey
RI-05905	Tang et al. 2002	Archaeological Survey
RI-08921	Tang 2013	Archaeological Survey

Site Field Survey

On April 10, 2015, BonTerra/Psomas Archaeologist David M. Smith met with Daniel Bott and Bonnie Johnson to conduct a site survey at the project area. The thick vegetation at the project area prevented access to the project area.

Project Impacts

A. Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines?

Less than Significant Impact with Mitigation: A cultural resource record search conducted within the vicinity of the project area did not identify any recorded historical resource sites on or within 1/8 mile of the project area. The construction of the Project would not adversely impact any recorded historical sites. Because several historical resource sites have been recorded in the regional area where the project would be located there would be some potential that unknown historical resources could be present. In the event cultural resources are encountered construction activity would cease and a qualified archeologist would be retained to examine the resources and determine the significance of the finding. With the implementation of Mitigation Measure CR-1 potential significant impacts to cultural resources would be less than significant.

Mitigation Measure

CR-1: A qualified Archaeological Monitor will be retained to examine the results of ground-disturbing activities during vegetation removal and to examine spoil piles and other excavations related to mitigation planting and other restoration activities at the three sites. The Archaeologist will be present at the pre-grade conference and will establish a schedule for archaeological resource surveillance after the existing vegetation has been removed and again after the excavation of augur holes for the mitigation plantings. The Archaeologist will establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work, if any is ongoing, to permit the sampling, identification, and evaluation of cultural resources as appropriate. If the archaeological resources are found to be

significant, the archaeological observer will determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. Significant sites that cannot be avoided will require data recovery measures and will be completed upon approval of a Data Recovery Plan.

B. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines?

Less than Significant Impact with Mitigation: Potential impacts to known and unknown archaeological resources would be same as identified for potential impacts to known and unknown historical resources. With the implementation of Mitigation Measure CR-1 potential significant impacts to archaeological resources would be less than significant.

Mitigation Measure

Mitigation Measure CR-1 is required.

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

Less than Significant Impact with Mitigation: On March 19, 2014, BonTerra/Psomas notified the Native American Heritage Commission (NAHC) in writing of the Project. The NAHC was requested to search their Sacred Lands files for any information regarding Native American sites on or near the project area. The NAHC responded to BonTerra Psomas' notification letter and provided a list of Native American contacts with a recommendation that they be contacted for additional information regarding cultural resources in the project area. BonTerra/Psomas, on behalf of OCWD, notified each of the tribes of the proposed project, and requested additional information the tribes might have regarding the project area. No responses have been received to date. Based on facts the no recorded Native American cultural sites were identified during the record search review and no new information was identified by local tribes, the potential for the Project to encounter known Native American cultural resources would be low. Because Native American cultural resources have been recorded in the regional area there would be some potential that unknown Native American cultural resources could be present. . In the event cultural resources are encountered construction activity would cease and a qualified archeologist would be retained to examine the resources and determine the significance of the finding. With the implementation of Mitigation Measure CR-1 and CR-2 potential significant impacts to Native American cultural resources would be less than significant

Mitigation Measure

Mitigation CR-1 is required.

CR-2: Project-related earth disturbance has the potential to unearth previously undiscovered human remains, resulting in a potentially significant impact. If human remains are encountered during excavation activities, all work will halt and the County Coroner will be notified (*California Public Resources Code* §5097.98). The Coroner will determine whether the remains are of forensic interest. If the Coroner determines that the remains are prehistoric, s/he will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the *California Health and Safety Code.* The MLD will make his/her recommendation within 48 hours of being granted access to the site. The MLD's recommendation will be followed if feasible, and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (*California Health and Safety Code* §7050.5). If the landowner rejects the MLD's recommendations, the landowner will rebury the remains with appropriate dignity on the property in a location that will not be subject to further subsurface disturbance (*California Public Resources Code* §5097.98).

D. Would the project directly or indirectly disturb or destroy a unique paleontological resource or site?

Less than Significant Impact: Paleontological sensitivity is the potential for a geologic unit to produce scientifically significant fossils. This potential or sensitivity is determined by rock type, the past of the rock unit producing the fossil materials, and what fossil sites are recorded in the unit. A threefold classification of sensitivity is used by many paleontologists working in southern California. A high sensitivity indicates that paleontological resources are currently observed or are recorded within the study area and/or the unit has a history of producing numerous significant fossil remains. A moderate sensitivity indicates paleontological resources have been recovered from the unit and there is likelihood that fossils would be exposed by earth moving activities. A low potential indicates significant fossil are not likely to be found because of random fossil distribution pattern, the extreme youth of the rock unit, and/or method of rock formation such as alternation by heat and pressure.

Based on Paleontological Overview of Prado Basin prepared by U.S. Army Corps of Engineers, the Prado Basin is immediately underlain by non-marine sedimentary deposits of Quaternary age. The segment of the Santa Ana River

where the project activities would occur is floored by unconsolidated stream alluvium of Holocene age (less than 10,000 years B.P.), which because of their geologically young age, are not considered to be fossiliferous and the paleontological sensitivity would be considered low. The project area has been identified low and defined as stratigraphic units that have not produced scientifically important specimens from the study area or other known areas of exposure. There would be low potential for important fossils being discovered during excavation activities. No mitigation measures are required.

4.6 Geology/Soils

A1. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving rupture of an unknown earthquake fault, as delineated on the most Alquist-Priolo Earthquake Fault Zoning Map?

No Impact: According to the California Geologic Survey Seismic Hazard Zone Map Prado Dam Quadrangle, the Elsinore Fault Zone extends in a north- to south direction at the western end of Prado Basin, near State Highway 71. The fault does not extend through the project area. Therefore, there would be minimal potential from ground rupture impacts. No mitigation measures are required.

A2. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking?

Less than Significant Impact: The project area is located in a seismically active region and could be subject to seismic shaking impacts from several active faults in the region. The Elsinore Fault, the closest active fault to the project area could have the capability of producing an earthquake of 6.8 on the Richter Scale. In the event an earthquake of this magnitude occurs, the project area could experience periodic shaking, possibly of considerable intensity. The seismic shaking risk at the project area would be similar to other areas in southern California. The Project does not propose any habitable or permanent structures or involves a high number of onsite workers that could be subject to ground shaking impacts. The implementation of the Project would not substantially increase the risk or expose people to significant adverse seismic shaking impacts over the current condition. Potential adverse seismic shaking impacts would be less than significant. No mitigation measures are required.

A3. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving liquefaction?

Less than Significant Impact: According to California Geologic Survey Seismic Hazard Zone Map for the Prado Dam Quadrangle, the project area is located within an area where historic occurrence of liquefaction has occurred. The Project does not propose any habitable or permanent structures or involves a high number of workers that would be subject to liquefaction impacts. The implementation of the Project could not substantially increase the risk or exposure of people to significant liquefaction impacts over the current condition. Potential adverse liquefaction impacts would be less than significant. No mitigation measures are required.

A4. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides?

No Impact: According to California Geologic Survey Seismic Hazard Zone Map for the Prado Dam Quadrangle the project area is not located in an area that would be subject to landslide risks. No mitigation measures are required.

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

Less than Significant Impact with Mitigation: To minimize potential erosion impacts, construction projects which disturb one or more acres of soil are required to obtain coverage under a General Construction Permit by the State Water Resources Control Board. The General Construction Permit requires the filing of a Notice of Intent with the State Water Resources Control Board and the preparation of a Storm Water Pollution Prevention Plan. The excavation activities for the Project would disturb less than one acre of area and would not be required to obtain coverage under a General Construction Permit or prepare a Storm Water Pollution Prevention Plan. To minimize any potential erosion impacts during construction activities, Best Management Practices would be implemented at each gabion site when construction activities are occurring. With the implementation of Mitigation Measure G-1 potential erosion impacts would be reduced to a less then significant level.

Mitigation Measure

GEO-1: During construction and operation of the Project, Best Management Practices will be implemented to minimize the potential for erosion. Erosion Control Best Management Practices will include as appropriate; placement of fiber, street sweeping and vacuuming, vehicle wheel washing to prevent the transporting of sediment, establishing and implementing construction equipment delivery and storage procedures, procedures, stockpiling site requirements and solid waste management procedures

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

Less than Significant Impact: The primary geologic concerns within the project area would be potential liquefaction impacts and potential seismic shaking impacts. The Project does not propose any habitable or permanent structures or involves a high number of workers that would be subject to liquefaction impacts or seismic shaking impacts. The project area is not located in an area that would be subject to landslide hazards and there is no documentation of subsidence occurring. The geologic conditions at the project area would not cause the construction or operation of the Project to become unstable. Potential impacts associated with onsite geologic constraints would be less than significant. No mitigation measures are required.

D. Would the project be located on expansive soil, as defined in Table 18-1-B of the uniform Building Code, creating substantial risks to life or property?

Less than Significant Impact: The Project does not propose the construction of any foundations or structures that would be subject to expansive soil conditions. Potential risks associated with expansive soils would be less than significant. No mitigation measures are required. No mitigation measures are required.

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

No Impact: The Project does not involve the construction of septic tanks or other alternative wastewater disposal systems. No mitigation measures are required.

4.7 Greenhouse Gas Emissions

The following analysis is based on a Greenhouse Gas Emission Report prepared by BonTera/Psomas in July 2015 for OCWD's Planned Deviation to the Prado Dam Water Control Plan Project. The Planned Deviation Project would remove approximately 20,000 cubic yards of material from the Prado Basin and export the material to a local landfill. The Santa Ana Sucker Habitat Restoration Project would involve the removal of approximately 220 cubic yards of material and would export the material to a local landfill. Similar equipment would be used for both projects, except that less construction days would be needed for the Santa Ana Sucker Habitat Restoration Project. Therefore, the estimated excavation and hauling emissions analysis from the Planned Deviation Project Greenhouse gas Emission Report would be relevant to evaluate potential greenhouse gas impacts

from the Santa Ana Sucker Habitat Restoration Project. The Greenhouse Gas Emission Report is presented in Appendix A.

Background

Greenhouse Gas Emissions (GHGs) are comprised of atmospheric gases and clouds within the atmosphere that influence the earth's temperature by absorbing most of the infrared radiation that rises from the sun-warmed surface and that would otherwise escape into space. This process is commonly known as the "Greenhouse Effect". GHGs are emitted by natural processes and human activities.

GHGs, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Other greenhouse gases include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Although there could be health effects resulting from changes in the climate and the consequences that can bring about, inhalation of greenhouse gases at levels currently in the atmosphere will not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in air quality criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), carbon dioxide, methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen.

Project Impacts

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

Less than Significant Impact: There are no established Federal, State, or local quantitative thresholds applicable to the Project to determine the quantity of GHG emissions that could have a significant effect on the environment. The California Air Resources Board and the South Coast Air Quality Management District, and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance or threshold levels that require the implementation of GHG emissions reduction measures. Because the Project is not a residential or commercial land use development project, the SCAQMD recommends that the adopted interim threshold of 10,000 MTCO2e for industrial projects be used to evaluate significant adverse GHG emission impacts generated from the Project.

The Council on Environmental Quality guidance on the consideration of GHG emissions in NEPA reviews recommends that the NEPA analysis use a threshold of 25,000 MTCO2e per year of GHGs. Therefore, for NEPA analysis purposes, activities that generate GHG emissions less than 25,000 MTCO2e per year ware

considered to not result in significant adverse impacts. As shown in Table 10, the total construction GHG emissions would be substantially less than the CEQA and NEPA thresholds.

Table 10: Estimated Proposed Project Operational GHG Emissions

Activity	Emissions (MTCO2e)
Site Preparation/Clearing and Grubbing	12
Sediment Removal	145
Total	157
SCAQMD CEQA Threshold (MTCO2e/year)	3,000 or 10,000
Exceeds Threshold	No
CEQ NEPA Threshold (MTCO2e/year)	25,000
Exceeds Threshold	No
See Appendix B for CalEEMod Model Outputs	

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

Less than Significant Impact: There is no greenhouse gas reduction plan applicable to the Project. The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman and child in California down to about 10 tons per person by 2020. The Scoping Plan contains a variety of strategies to reduce the State's emissions. However, none are applicable to the Project. No mitigation measures are required.

4.8 Hazards/Hazardous Materials

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

Less than Significant Impact with Mitigation: The long-term operation of the Project would not involve the routine transportation, disposal or emission of hazardous materials or waste. However, construction operations associated with

the Project would involve the handling of incidental amounts of hazardous materials, such as fuels, oils and solvents. The Project would be required to comply with local, State and Federal laws and regulations regarding the handling and storage of hazardous materials. Additionally, during construction operations, Best Management Practices would be implemented that would include hazardous material management and spill prevention and control practices. Compliance with local, State and Federal laws and regulations in-conjunction with implementation of Mitigation Measure HAZ-1 potential hazardous material safety impacts would be less than significant.

Mitigation Measure

HAZ-1:-During construction activities project will be required to comply with local, State and Federal laws and regulations regarding the handling and storage of hazardous materials and would implement Best Management Practices to minimize the accidental release of hazardous materials.

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

Less than Significant Impact: The operation of the Project would not involve any activities that would have the potential to release hazardous materials into the environment. Diesel particulate matter emissions associated with construction equipment operations would be emitted. A significant exposure to diesel particulate matter is a known cancer risk. The construction activities for the Project would occur over a 10 day period. The assessment of cancer risk is typically based on a 30- to 70-year exposure period. Because the potential exposure to diesel exhaust from the Project would be substantially less than the 30- to 70-year exposure period, the incremental cancer risk to exposed persons would be negligible. The impact would be less than significant and no mitigation would be required.

C. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substance or waste within one-quarter mile of an existing or proposed school.

Less than Significant Impact: The long-term operation and construction activities associated with the Project would not emit hazardous emissions, or involve the handling of acutely hazardous substances within one-quarter mile of an existing or proposed school. No mitigation measures are required.

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

No Impact: In April of 2013 OCWD conducted a conducted a search of data bases to investigate potential hazardous waste sites within the Prado Basin, as part of environmental evaluation of OCWD's Sediment Management Demonstration Project. Based on the record search there were no known hazardous waste sites located within the project area that would pose a significant impact to the environment or the public. No mitigation measures are required.

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

F. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact: The closest airport to project area would be Corona Municipal Airport. According to the Airport Environs Land Use Plans for the Corona Municipal Airport, the project area is located outside of runway protection zones and height restriction zones. Implementation of the Project would not result in any airport safety related hazards. No mitigation measures are required.

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

Less than Significant Impact: The construction and operation of the Project would generate minimal traffic and would not involve any activities that would cause road closures or interfere with emergency response plans. No mitigation measures are required.

H. Would the project expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wild lands?

Less than Significant impact: According to the Riverside County General Plan the Prado Basin and greater area has moderate potential for wild land fire susceptibility. The Project would not involve the construction of any permanent structures that would require long fire protection services. Therefore, implementation of the Project would not have any impact on long term response

times to the project area. The Project does not include any uses or materials that would substantially increase risk for wild land fire impacts. All potential flammable substances would be handled in accordance with local, State and Federal laws and regulations regarding the handling and storage of flammable materials. Potential wild land fire impacts would be less than significant. No mitigation measures are required.

4.9 Hydrology/Water Quality

Existing Setting

The primary water body within the project area is the Santa Ana River. The project area also overlies the Prado Basin Groundwater Management Zone.

Santa Ana River

The Santa Ana River is the most prominent hydrologic feature within the watershed. The river is over 100 miles in length and has over 50 contributing tributaries. The headwaters for the Santa Ana River are in the San Bernardino Mountains and it flows in a southwesterly direction where it is joined by Chino Creek, Mill Creek and Temescal Wash near Prado Dam. During the winter months the river maintains flows throughout Prado Basin. In the summer months when the surface water flow is reduced, the surface water flows of the river can dissipate to sheet flow. Within the project area the width of the river is approximately 120 feet and substrate is predominately sand.

Prado Basin Groundwater Management Zone

The Prado Basin Groundwater Management Zone is generally defined by the 566 ft. elevation within the Prado Basin. The groundwater management zone extends from Prado Dam up to near where Central Avenue crosses Chino Creek to where Mill Creek becomes Cucamonga Creek, and to the concrete lined portion of Temescal Wash. The Prado Basin Management Zone encompasses the Prado Flood Control Basin and the OCWD Prado constructed wetland facility. The flood control operations behind Prado Dam along with an extremely shallow groundwater table and a very thin aquifer significantly affect the surface flows and subsurface flows in the Prado Basin Management Zone. There is little groundwater storage in the Prado Basin Management Zone. Any groundwater in storage is forced to the surface because the foot of Prado Dam extends to bedrock and subsurface flows cannot pass through the barrier created by the dam and surrounding hills.

Regulatory Framework

Federal

Clean Water Act

The objectives of the Clean Water Act are to restore and maintain the chemical, physical, and biological integrity of Waters of the United States. The Clean Water Act establishes basic guidelines for regulating discharges of pollutants into the Waters of the United States and requires states to adopt water quality standards to protect health, enhance the quality of water resources and to develop plans and programs to implement the Act. Below is a discussion of sections of the Clean Water Act that are relevant to the Project.

Section 401

Section 401 of the Clean Water Act requires an applicant for a federal permit that involves a discharge into Waters of the United States to obtain certification that the discharges will not result in adverse water quality impacts. This process is known as the Water Quality Certification. The Santa Ana Regional Water Quality Control Board (RWQCB) issues Section 401 Water Quality Certifications.

Section 402

Section 402 of the Clean Water Act established the National Pollution Discharge Elimination System (NPDES) to control water pollution by regulating point sources that discharge pollutants into Waters of the United States. In the State of California, the EPA has authorized the State Water Resources Control Board (SWRCB) as the permitting authority to implement the NPDES program. The State Water Resources Control Board issues two baseline general permits, one for industrial discharges and one for construction activities (General Construction Permit). Additionally, NPDES Program includes the long-term regulation of storm water discharge from medium and large cities through the MS4 Permit. The County of Riverside is the primary permit holder of the MS4 permit and the cities in Riverside County are co-permittees.

Short-Term Storm Water Management

Under the General Construction Permit, storm water discharges from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or be covered by the Construction General Permit. Coverage under the Construction General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB. Each applicant under the Construction General Permit must ensure that a Storm Water Pollution Prevention Plan (SWPPP) is prepared prior to grading and is implemented during construction. The primary objective of the SWPPP is to identify, construct, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during

construction. BMPs include; programs, technologies, processes, practices, and devices that control, prevent, remove, or reduce pollution.

Long-Term Storm Water Management

On October 22, 2012 the updated Water Quality Management Plan (WQMP), a guidance document for the Santa Ana Region of Riverside County was approved by the State Regional Water Quality Board as part of the approval of the County of Riverside 4th Term Municipal NPDES Permit for Area Wide Urban Storm Water Runoff. Under the 4th Term Municipal NPDES Storm Water Permit, construction projects are defined as Priority Development Projects or Other Development Projects based on the type of project and/or level of development intensity. Based on the classification of the project, a Priority Water Quality Management Plan, Non-Priority Water Quality Management Plan or no Water Quality Management Plan may be required.

Other Development Projects

Certain projects that do not meet the Priority Development Project criteria are considered Other Development Projects and require incorporation of appropriate LID principles, source control, and other BMPs which may or may not include Treatment Control BMPs.

Section 404

Section 404 of the Clean Water Act established a permitting program to regulate the discharge of dredged or filled material into waters of the United States. The permitting program is administered by the U.S Army Corps of Engineers.

Section 303 (d) Water Bodies

Under Section 303 (d) of the Clean Water Act, the State Regional Water Quality Control Board is required to develop a list of impaired water bodies. Each of the individual Regional Water Quality Control Boards are responsible for establishing priority rankings and developing action plans, referred to as total maximum daily loads (TMDLs) to improve water quality of water bodies included in the 303(d) list.

State

Porter Cologne Water Quality Control Act

The Porter Cologne Water Quality Act of 1967 requires the SWRCB and the nine RWQCBs to adopt water quality criteria for the protection and enhancement of Waters of the State of California, including both surface waters and groundwater. Each of the nine regional boards adopts a Water Quality Control Plan or Basin Plan. The project area is located within the Santa Ana River Basin Plan. The

Basin Plan divides the Santa Ana River into six reaches that extend from the Pacific Ocean to the headwaters in the San Bernardino Mountains. The project area is located in Reach 3.

Beneficial Uses

The Basin Plan designates beneficial uses for waters in the Santa Ana River Watershed and provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies in order to protect beneficial uses. The beneficial uses established in the Basin Plan are shown in Table 11.

Table 11: Beneficial Uses

Abbreviation	Beneficial Use
GWR	Groundwater Recharge waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality or halting saltwater intrusion into freshwater aquifers.
REC 1	Water Contact Recreation waters are used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to swimming, wading, water skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.
REC 2	Non-Contact Water Recreation waters are used for recreational activities involving proximity to water, but not normally body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing and aesthetic enjoyment in-conjunction with the above activities.
WARM	Warm waters support warm water ecosystems that may include but are not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.
LWARM	Limited Warm Freshwater Habitat waters support warm water ecosystems which are severely limited in diversity and abundance.
COLD	Cold Freshwater habitat waters support coldwater ecosystems.
BIOL	Preservation of Biological Habitats of Special Significance waters support designated areas of habitats.
WILD	Wildlife Habitat waters support wildlife habitats that may include, but are not limited to the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.
RARE	Rare, Threatened or Endangered Species (RARE) waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened or endangered.
MUN	Municipal and Domestic Supply waters are used for community, military, municipal or individual water supply systems. These uses may include, but are not limited to drinking water supply.

AGR	Agricultural Supply waters are used for farming, horticulture or ranching. These uses may include, but are not limited to irrigation, stock watering, and support of vegetation for range grazing.
IND	Industrial Service Supply waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well depressurization.
PROC	Industrial Process Supply waters are used for industrial activities that depend primarily on water quality. These uses may include, but are not limited to, process water supply and all uses of water related to product manufacture or food preparation.
NAV	Navigation waters are used for shipping, travel, or other transportation by private, commercial or military vessels.
POW	Hydropower Generation waters are used for hydroelectric power generation.
COMM	Commercial and Sport fishing waters are used for commercial or recreational collection of fish or other organisms
EST	Uses of water that support estuarine ecosystems including, but not limited to preservation or enhancement of estuarine habitats, vegetation, fish, shell fish or wildlife.
MAR	Use of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shell fish or wildlife.
SPWN	Use of water that support high quality aquatic habitats suitable for reproduction and early development of fish.
SHELL	Use of water that support habitats suitable for the collection of filter-feeding shellfish for human consumption, commercial or sports purposes.

As shown in Table 12 the Basin Plan designates beneficial uses for Reach 3 of the Santa Ana River and for the Prado Basin Management Zone

Table 12: Beneficial Uses

	Prado Basin Management Zone	Santa Ana River Reach 3
GWR	NL	X
REC-1	X	X
REC-2	X	X
WARM	X	X
WILD	X	X
RARE	X	X
AGR	X	X
COMM	NL	NL
MAR	NL	NL
MUN	NL	NL
IND	NL	NL
PROC	NL	NL

X- Present or potential Beneficial Use
I-Intermittent Beneficial Use
NL—Not Listed

Water Quality Objectives

The Santa Ana Region Basin Plan establishes Water Quality Objectives for water bodies to ensure the protection of Beneficial Uses. Table 13 identifies the beneficial uses for Santa Ana River Reach 3 and for the Prado Basin Management Zone.

Table 13: Water Quality Objectives (mg/L)

Reach	TDS	HARD	Sodium	Chloride	Nitrogen	Sulfate	Oxygen Demand
Santa Ana River Reach 3	700	350	110	140	10	150	30
Prado Basin Management Zone	NL	NL	NL	NL	NL	NL	NL
NL-Not Listed							

Section 303 (d) Water Bodies

A listing of 303(d) impaired water bodies in the vicinity of the project area is shown in Table 14.

Table 14: Impaired Water Bodies

Water Body	Impairment
Santa Ana River, Reach 3	Copper, Lead, Pathogens

Project Impacts

A. Would the project violate Regional Water Quality Control Board Water Quality standards or waste discharge standards?

Less than Significant Impact with Mitigation: The following analysis evaluates if the Project would conflict with beneficial uses, water quality objectives and Section 303 (d) listed water bodies.

Beneficial Uses

The purpose of the Project is to enhance habitat conditions for the Santa Ana Sucker (sucker), a Federal Listed Threatened Species. The implementation of the Project would enhance and maintain Warm, Wild and Rare Beneficial Uses by improving by improving habitat conditions for the sucker in the Santa Ana River.

Construction associated with the Project could have the potential to generate degraded surface water runoff impacts which could adversely impact water quality and conflict with beneficial uses along the river. To minimize construction-related degraded surface water runoff impacts and potential beneficial use conflicts, Best Management Practices would be implemented when construction activities are occurring. With the implementation of Mitigation Measures GE0-1

potential construction related storm water runoff impacts would be less than significant.

Water Quality Objectives

For Reach 3 of the Santa Ana River, the Santa Ana Region Basin Plan identifies numerical water quality objectives for Hardness, Sodium, Chloride, Nitrogen, Sulfate and Oxygen Demand. The construction and operation of the Project would not introduce elevated levels of Hardness, Sodium, Chloride, Nitrogen, Sulfate or would not reduce Oxygen Demand that would be in conflict with the Water Quality Objectives for Reach 3.

The Basin Plan identifies a Water Quality Objective for Total Dissolved Solids. The construction activities for the Project could have the potential to result in localized erosion and degraded surface water runoff impacts that could be discharged into Santa Ana River. The construction-related storm water runoff could contain elevated levels of TDS. During construction the Project would construct coffer dams around each gabion site and would implement Best Management Practices to maintain water quality. These measures could include; minimizing water and wind erosion, establishing and implementing construction equipment delivery and storage procedures, procedures, stockpiling site requirements and solid waste management procedures. With the implementation of Mitigation Measure GEO-1 potential construction related storm water runoff impacts would be less than significant.

Section 303 (d) Impaired Water Bodies

Presently, Reach 3 of the Santa Ana River has been identified as 303 (d) impaired water body for Copper, Lead and Pathogens. The construction and operation of the Project would not involve substances or activities that would increase Copper, Lead or Pathogens loads in Reach 3 of the Santa Ana River.

Mitigation Measure

Mitigation Measure GEO-1 is required.

B. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

No impact: The Project does not include any activities that would extract underground water supplies from the project area. Therefore, the Project would not contribute to the depletion of existing ground water supplies. No mitigation measures are required.

C. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?

Less than Significant impact with Mitigation: The excavation activities associated with the Project would be very limited and confined to the size of each gabion and would not alter existing drainage patterns within the project area. To minimize potential erosion impacts, Best Management Practices would be implemented during construction activities for of the Project. With the implementation of Mitigation Measure GEO-1 potential erosion impacts would be less than significant.

Mitigation Measure

Mitigation Measure GEO-1 is required.

D. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite?

Less than Significant Impact: The implementation of the Project would not construct any impervious surfaces that would increase the rates of surface water runoff within the project area. Existing rates of surface water would not increase over the current condition and would not increase the potential for flood risks. No mitigation measures are required.

E. Would the project create or contribute runoff which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Construction Surface Water Management

Less than Significant Impact with Mitigation: Onsite construction activities associated with the Project could generate degraded surface water runoff impacts. To minimize degraded storm water runoff impacts, the construction operations at each gabion site would implement Best Management Practices to control the surface water runoff. With the implementation of Mitigation Measure GEO-1 and HAZ-1 potential degraded surface water runoff impacts would be reduced to a less than significant level.

Long Term Surface Water Management

Less Than Significant Impact with Mitigation: The implementation of the Project would not involve the construction of any impervious surfaces that would

increase the long-term rates of surface water runoff. Existing rates of surface water would not increase over the current condition.

Mitigation Measure

Mitigation Measure GEO-1 and HAZ-1 is required.

F. Would the project otherwise degrade water quality?

Less than Significant with Mitigation: The Project would incorporate mitigation measures during the construction of the Project to maintain water quality. With the implementation GEO-1 and HAZ-1 potential adverse water quality impacts would be less than significant.

Mitigation Measure

Mitigation Measures GEO-1 and HAZ-1 is required.

G. Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood insurance Rate map or other flood hazard delineation map?

No Impact: The project would not involve construction of residential housing within a 100-year floodplain. No mitigation measures are required.

H. Would the project place within a 100-year floodplain structures which impedes or redirect flows?

Less than Significant Impact: The Project involves the construction of 10 below grade rock gabions and 10 above grade rock gabions. The rock material within the gabions would be contained in a wire mesh basket. Ultimately the gabions would sink and be buried in sediment. Under high flows there could be the potential that the gabions could break up. The size of the rocks within the gabions would be about 12 inches. This size of rock would not redirect or impede any surface water flows in the event they are released from the gabions. No mitigation measures are required.

I. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact: The project area is located upstream of Prado Dam. Therefore, the Project would be subject to flooding from dam failure. No mitigation measures are required.

J. Could the project site be inundated by seiche, tsunami, or mudflow?

No Impact: The project area is not located within a tsunami run up area and would not be within the vicinity of any impounded water that could be subject to

potential seiche impacts. Additionally, there are no slopes within the vicinity of the well sites that would pose mudflow risks. No mitigation measures are required.

4.10 Land Use/Planning

A. Would the project physically divide an established community?

Less than Significant Impact: The Project would be constructed within the Santa Ana River and would not result not result in any long term adverse land use compatibility impacts with existing residential land uses. No mitigation measures are required.

B. Would the project be in conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact: The project area is situated in unincorporated Riverside County and is included within the Temescal Canyon Area Plan of the Riverside County General Plan. The Land Use Element designates the project area for Open Space Conservation land uses. The intent of the Open Conservation land use designation is to provide for the protection of open space for natural hazard protection and natural and scenic resource preservation. The implementation of the Project would enhance habitat conditions for the Santa Ana Sucker, which would be consistent with the intent of the Riverside County General Plan. No land use policy conflicts would occur. No mitigation measures are required.

C. Would the project be in conflict with any applicable habitat conservation plan or natural community conservation plan?

Less than Significant Impact: The project area is included within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The focus of the MSHCP is to maintain existing riparian habitats, floodplain process and water quality within the lower Santa Ana River. The Project has been determined to not be in conflict with MSHCP for following reasons.

- The Project would not decrease the amount of riparian habitat within the Prado Basin.
- The Project would adversely impact floodplain processes or water quality along the river.
- The Project would enhance habitat for native fish.

4.11 Mineral Resources

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

Less than Significant Impact: According to the County of Riverside General Plan**,** Prado Basin is designated MRZ-3, areas where the available geologic information indicates that mineral deposits are likely to exist. However, because of the high amount of sediment build up in the basin it is unlikely any important mineral resources would be encountered from the project excavation activities.

4.12 Noise

Background

A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The zero point on the dB scale is based on the lowest sound level that a healthy, unimpaired human ear can detect. Changes of 3 dB or fewer are only perceptible in laboratory environments. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness.

Local Regulations

The local noise regulations that would be would be applicable to the Project would be the Riverside County Noise Ordinance, City of Norco Noise Ordinance, City of Eastvale Noise Ordinance and the City of Corona Noise Ordinance.

Riverside County Noise Ordinance

Table 15: Riverside County Noise Ordinance Standards

General Plan Land Use	Max Exterior Decibel Level (dB) 7:00 am to 10:00 pm	Max Exterior Decibel Level (dB) 10:00 pm to 7:00 am
Residential Estate, Very Low Density Residential, Low Density Residential, Medium Density Residential, Medium High Density Residential, High Density Residential, Very High Density Residential, Highest Density Residential	55	45
Rural Residential, Rural Mountains, Rural Desert	45	45
Agriculture, Conservation. Conservation Habitat, Recreation, Rural, Watershed	45	45

Exemptions

According the Riverside County Noise Ordinance the following activities are exempt from the noise ordinance standards.

- Facilities owned or operated by or for a governmental agency.
- Capital improvement projects of a governmental agency.
- Private construction projects located ¼ of a mile or more from an inhabited dwelling.
- Private construction projects located within ¼ mile of an inhabited dwelling, provided that construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September, and construction does not occur between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

City of Corona Noise Ordinance

Table 16: City of Corona Noise Ordinance Standards

General Plan Land Use	Max Exterior Decibel Level 7:00am to 10:00pm	Max Exterior Decibel Level 10:00 pm to 7:00 am
Single, Double and Multi Family Residential	55	45
Other Sensitive Land Uses	55	50

Exemptions

According to the City of Corona Noise Ordinance the following activities are exempt from the noise ordinance standards.

- Noise sources associated with the maintenance of real property provided the activities take place between the hours of 7:00 a.m. and 8:00 p.m. on any day except Sunday or between the hours of 9:00 a.m. to 8:00 p.m. on Sunday. Any activity to the extent regulation thereof has been preempted by state or federal law.

City of Norco Noise Ordinance

Table 17: City of Norco Noise Ordinance Standards

General Plan Land Use	Max Exterior Decibel Level 7:00 am to 10:00pm	Max Exterior Decibel Level 10:00 pm to 7:00 am
Residential	55	45
Open Space	45	45

Exemptions

According to the City of Norco Noise Ordinance the following activities are exempt from the noise ordinance standards.

- Facilities owned or operated by or for a governmental agency.
- Capital improvement projects of a governmental agency.
- Private construction projects located ¼ of a mile or more from an inhabited dwelling.
- Private construction projects located within ¼ mile of an inhabited dwelling, provided that construction does not occur between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday and 7:00 and 8:00 on Saturday and Sunday.

City of Eastvale Noise Ordinance

The Noise Ordinance does not establish daytime or night maximum noise levels

Exemptions

According to the City of Eastvale Noise Ordinance the following activities are exempt from the noise ordinance standards.

- Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, grading or demolition work between the hours of 7:00 am on week days and between 8:00 am and 5:00 pm on Saturdays.

Project Impacts

A. Would the project expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant impact: The operation of the Project would be passive and would not emit long term noise impacts. Construction activities for the Project would occur during the day when construction noise would be exempt. The implementation of the Project would be compliance with local noise ordinances and potential adverse noise impacts would be insignificant. No mitigation measures are required.

B. Would the project result in a permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact: The operation of the Project would be passive. Periodically, have equipment may be used to replenish the rock gabions with additional rock material. These activities would occur during the hours of the day when

construction noise would be exempt under local noise ordinances. No long term noise impacts would occur. No mitigation measures are required.

C. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact: Construction operations for the Project would temporarily increase existing noise levels within the project area. All construction activities would occur during the hours of the day when construction noise would be exempt under local noise ordinances. No mitigation measures are required.

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

E. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant: The closest airport to the project area is Corona Municipal Airport. According to the Corona Airport Environs Land Use Plan the project area is not impacted with elevated levels of aircraft noise. No mitigation measures are required.

F. Would the project expose persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact: The construction activities for the Project would require the operation of heavy equipment. The closest sensitive receptor to the construction activity would be existing residential land located uses at approximately 500 feet to the south. At this distance potential vibration impacts would not be discernible. No mitigation measures are required.

4.13 Population/Housing

A. Would the project induce substantial population growth in an area, either directly or indirectly?

No Impact: The Project would not extend new infrastructure into any undeveloped area. Implementation of the Project would not induce substantial new population growth into the project area. No mitigation measures are required.

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

No Impact: The implementation of the Project would not displace any existing housing and therefore would not require the construction of any replacement housing. No mitigation measures are required.

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

No Impact: The implementation of the Project would not displace any households and therefore would not require the construction of any replacement housing. No mitigation measures are required.

4.14 Public Services

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

No Impact: The Project would not increase the demand for public services over the current level of demand and would not require the construction of any new governmental facilities. No mitigation measures are required.

4.15 Recreation

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

No Impact. The implementation of the Project would not involve any activities that would increase the use of existing neighborhood parks or recreation facilities. No mitigation measures are required.

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

No Impact. The Project does not propose new recreation facilities or proposes to expand existing recreation facilities. No mitigation measures are required.

4.16 Transportation/Traffic

The following information is from a traffic evaluation prepared by Urban Crossroads in August of 2015 for OCWD's Planned Deviation to the Prado Dam Water Control Plan Project. The traffic report evaluated potential traffic impacts associated with the removal and export of 20,000 cubic yards of material from

the Prado Basin. The Santa Ana Sucker Habitat Restoration Project would use the same the truck hauling route evaluated in the Planned Deviation Project traffic analysis. Therefore, the existing condition analysis from the Planned Deviation Project Traffic Report would be relevant to evaluate potential traffic impacts from the Santa Ana Sucker Habitat Restoration Project. The Traffic Report is presented in Appendix C.

Setting

The Project involves the removal and hauling of 220 cubic yards of sediment from the project area. Based on the quantities of sediment that would be removed from the river, a total of 20 round trip truck trips would be required to remove the excavated material from, the river and haul it offsite. The project would be constructed over 10 day period. Approximately up three trucks per day would haul material from the site. The haul route for the Project would be River Road to Main Street to SR-91 to I-15 to Temescal Canyon Road to the La Sobrante Landfill.

Existing Traffic Volumes

The SR-91 corridor serves as a commuting corridor primarily carrying residents of the housing-rich Inland Empire to employment opportunities in Orange and Los Angeles Counties. The SR-91 is highly congested during substantial portions of the day, with the heaviest westbound traffic during the morning commute and the heaviest eastbound traffic occurring during the evening commute. The I-15 corridor south of the SR-91 experiences similar traffic patterns, with the heaviest morning traffic in the northbound direction and the heaviest evening traffic in the southbound direction.

Available existing conditions daily traffic volume data have been compiled from the Caltrans website, specifically the Caltrans Performance Management System (PEMS). The PEMS system has been used to compile data for 4 key locations along the two corridors. The four locations include;

- SR-91 east of Main Street
- I-15 north of Temescal Canyon Road
- I-15 south of Magnolia Avenue

A summary of the traffic conditions during the AM peak traffic period along project area traffic corridors is shown in Table 16. The peak direction of travel on the SR-91 Freeway is the westbound direction. The peak direction of travel on the I-15 Freeway south of the SR-91 Freeway is the northbound direction. The AM peak traffic volumes generally begin to occur between 4:00 AM and 6:00 AM, reflecting the congestion of the freeway corridors during the AM peak traffic

period. As shown in Table 18 traffic volumes begin to trend downward no later than 9:00 AM on both the SR-91 and I-15 Freeways.

Table 18: Summary of the AM Traffic Conditions along Project Traffic Corridors

Freeway	SR-91	I-15	I-15
Location	East Main Street	North Temescal Canyon	South Magnolia Avenue
Direction	Westbound	Northbound	Northbound
Peak Volume	5,500 VPH	4,400 VPH	5,200 VPH
Time Peak Volume Reached	7:00 AM	6:00 AM	6:00 AM
Time Peak Volumes Drop	8:00 AM	7:00 AM	9:00 AM
Comments	Secondary peak begins around Noon	Short secondary peak at around Noon	Volume drops substantially by 9:00 AM

A summary of the traffic conditions along project area traffic corridors during the PM peak traffic period is shown in Table 19. The peak direction of travel on the SR-91 Freeway is the eastbound direction. The peak direction of travel on the I-15 Freeway south of the SR-91 Freeway is the southbound direction during the PM peak period. The PM traffic volumes generally begin to peak as early as Noon, with widespread congestion being observed after around 2:00 PM. Peak traffic volumes generally continue well into the early evening, around 6:00 PM to 7:00 PM.

Table 19: Summary of the PM Traffic Conditions along Project Traffic Corridors

Freeway	SR-91	I-15	I-15
Location	East Main Street	North Temescal Canyon	South Magnolia Avenue
Direction	Westbound	Northbound	Northbound
Peak Volume	6,000 VPH	5,200 VPH	5,500 VPH
Time Peak Volume Reached	Noon	4:00 PM	3:00 PM
Time Peak Volumes Drop	6:00 PM	7:00 PM	7:00 PM
Comments	Data reflects ongoing construction activities creating a bottleneck in this area. Data shows a drop in traffic volume between 4:00 and 6:00 PM.	Traffic begins increasing around Noon.	Volume drops substantially by 9:00 AM.

A. Would the project be in conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrians and bicycle paths.

Less than Significant Impact with Mitigation: The project would be constructed over a 10 day period with up to three roundtrip truck trips be generated each day to haul material offsite. To measure potential truck traffic impacts, a passenger car equivalency (PCE) factor of 3.0 is typically applied to large trucks. Based on the PCE Factor of 3, up to 9 vehicle trips would be generated onto the project area circulation system each day. This amount of truck trips would have a negligible impact on the circulation system and would not reduce the level of service of project area roadway or intersection. To minimize the contribution of project traffic during peak traffic periods, the project hauling activities would be limited to occur between 9:00 AM and 3:00 PM.

Mitigation Measure

T-1: The project truck hauling activities will not occur during peak traffic periods.

B. Would the project be in conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards and travel demand measures, or other standards established by County congestion management agency for designated roads and highways.

Less than Significant Impact: The Riverside County Transportation Commission is responsible for the Riverside County Congestion Management Program (CMP). The purpose of the 2007 Riverside County CMP is to develop a coordinated approach to manage and decrease traffic congestion by linking various transportation, land use, and air quality planning programs throughout the County. According to the Riverside County CMP, the adopted minimum level of service (LOS) is LOS E or better, and a deficiency plan is required if the CMP facility LOS is reduced to LOS F. The Riverside County Congestion Management Program facilities located within the Project area is State Route 91 and State Route 15. As identified in the CMP, State Route 91 (SR-91) between State Route 71 and Interstate 15 (I-15) had a LOS of “F” in 1991 when the CMP was first established, and therefore, is exempt from CMP requirements. The only CMP facility that could be potentially impacted would be State Route 15. The hauling activities associated with the Project would contribute up to nine roundtrip vehicle

trips onto State Route 15. The amount of traffic trips generated by the Project would have a *de minimis* impact on the CMP circulation system.

C. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact: The closest airport facility to the project area would be Corona Municipal Airport. The Airport Environs Land Use Plan for Corona Airport indicates that the project area is outside of the Height Restriction Zone and would not cause a change air traffic patterns that would increase aviation safety risks. No mitigation measures are required.

D. Would the project increase hazards to a design feature or incompatible uses or equipment?

Less than Significant Impact with Mitigation: The construction activities for the Project would require the mobilization and demobilization of heavy construction equipment. Based on, an as needed basis, traffic control measure such as flagman could be needed to direct the equipment to the work area. With the implementation of onsite traffic control measures potential traffic hazards would be reduced to a less than significant level.

Mitigation Measure

T-2: OCWD shall coordinate with local agencies on the need for temporary traffic control measures for the accessing of heavy construction equipment to the project area.

E. Would the project result in inadequate emergency access?

Less Than Significant Impact: The construction and operation of the Project would not require the closure of any streets that would impede emergency access. No mitigation measures are required.

F. Would the project be in conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities?

Less than Significant Impact: The construction and operation of the Project would not require closure of public transportation, bicycle or pedestrian circulation systems. No potential conflicts with pedestrian transportation systems would occur. No mitigation measures are required.

4.17 Utilities/Service Systems

A. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The construction and operation of the Project would not generate any wastewater flows. Therefore, implementation of the Project would not exceed any treatment requirements established by the RWQCB. No mitigation measures are required.

B. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact: The Project would not involve the construction of any new water or wastewater facilities. No mitigation measures are required.

C. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact: The Project would not involve construction of new storm water drainage facilities, or the expansion of existing storm water drainage facilities. No mitigation measures are required.

D. Are sufficient water supplies available to serve the project from existing entitlements and resources or new or expanded entitlements needed?

No Impact. The Project would not require new or expanded water supply entitlements. No mitigation measures are required.

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

No Impact: The Project does not include any plans to construct wastewater treatment facilities. No mitigation measures are required.

F. Is the project served by a landfill with sufficient permitted capacity to accommodate the project solid waste disposal need?

Less than Significant Impact: The operation of the Project would not require ongoing solid waste disposal service. Construction operations for the Project would generate minimal amounts of solid waste, which would be removed from the site daily. No mitigation measures are required.

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

Less than significant Impact: The Project would not involve any activities that would be in conflict with Federal, State and local statutes and regulations related to solid waste. All waste generated from the construction and operation of the

Project would be disposed of in accordance with local, State and Federal laws. No mitigation measures are required.

Mandatory Findings of Significance

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

Less than Significant with Mitigation: Implementation of the Project would not result in direct impacts to sensitive plans, wildlife or habitat. The Project would not result in any impacts to any known cultural resources. To avoid impacts to unknown cultural resources measures have been incorporated into the project which require onsite monitoring by qualified archaeologist in the event cultural resources are encountered.

B. Does the project have impacts that are individually limited but cumulatively considerable?

Less than Significant Impact with Mitigation: The Project would comply with local and regional planning programs, applicable codes and ordinances, State and Federal laws and regulations and project mitigation measures. Compliance with these programs would reduce the Project's incremental contributions to cumulative impacts to a less than significant level.

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

Less than Significant Impact with Mitigation: The Project would comply with local and regional planning programs, applicable codes, and ordinances, State and Federal laws and regulations and project mitigation measures to insure that long term operation activities and short term construction activities associated with the Project would not result in direct, or indirect adverse impacts to human beings.

SECTION 5.0 REFERENCES

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