Draft Environmental Impact Report

30-inch Diameter Force Main Relocation at River Road Bridge Project

(State Clearinghouse No. 2010031046)

Prepared for:

Western Riverside County Regional Wastewater Authority
14205 Meridian Parkway
Riverside, California 92518

Prepared by:

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June 2011

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June 2011

K. S. DUNBAR & ASSOCIATES

Executive Summary

Project Background

The Western Riverside County Regional Wastewater Authority (WRCRWA) is a joint powers agency created in 1985 to plan, construct and operate a cost effective regional wastewater conveyance system and reclamation facility. Agencies that comprise the WRCRWA include Western Municipal Water District, Home Gardens Sanitary District, Jurupa Community Services District, City of Norco, and the Santa Ana Watershed Project Authority.

WRCRWA's wastewater conveyance system includes a 30-inch diameter force main that crosses under the Santa Ana River immediately upstream of the River Road crossing within the Prado Basin Park. The eastern portion of the crossing is in the City of Norco and the western portion is in an unincorporated area of Riverside County (Figure ES-1). The force main carries untreated wastewater under pressure from three lift stations and currently serves Western Municipal Water District's retail service areas near Lake Mathews, the Home Gardens Sanitary District, and the City of Norco. The force main is capable of carrying over 8,000 gallons per minute at the river crossing.

The County of Riverside is presently replacing the bridge over the Santa Ana River at this location. The existing force main is in the footprint of the new bridge at two locations and has to be relocated. To facilitate relocation, the County included a section of 30-inch diameter force main within the bridge cell that would allow WRCRWA to abandon its existing 30-inch diameter force main river crossing and utilize the new pipeline in the bridge cell. The new force main was constructed within and as an integral part of the new bridge built over the Santa Ana River by the County of Riverside to serve traffic on River Road. The new bridge when fully completed will span 1200 feet, twice the span of the former bridge of 600 feet. The former bridge was removed after the first span of the new bridge was completed and capable of carrying traffic. The second span of the new bridge is currently being constructed at the site of the former bridge. When the second span is finished, southbound traffic will be carried on the first span and northbound traffic will be carried on the second span. The new force main was constructed within the first span and like the bridge, was designed and constructed to expand and contract as ambient temperatures increase and decrease and to withstand nominal seismic events.

Due to the sensitivity of the area (i.e., Santa Ana River and its associated habitat) WRCRWA desires to also maintain the existing 30-inch diameter force main as a redundant pipeline to create a "fail-safe" system to protect the Santa Ana River and its riparian habitat.

Prior to the new bridge construction, untreated wastewater was conveyed under the Santa Ana River in a directional tunnel bore. WRCRWA continues to own the pipeline below the river, but curtailed operation when the force main in the new bridge became operational. The directional tunnel bore under the river was designed to carry untreated wastewater under pressure in the same quantities as

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Figure ES-1
Project Location

Draft Environmental Impact Report
30-inch Force Main Relocation at River Road Bridge
Western Riverside County Regional Wastewater Authority

the newly constructed force main in the new bridge. The force main was installed under the river just upstream of the former bridge and was placed into service around 1998. The former bridge had a shorter span (600 feet) and its abutments helped define the river channel and riverbanks. The directional tunnel bore under the river started on one bank and ended on the other bank with just over 600 feet separating tunnel entry and terminus.

With the directional tunnel bore located upstream of the former bridge, it was offset from the main force main alignment within the right-of-way of River Road. The directional tunnel bore and force main in River Road were connected with diagonal pipe reaches in 1998 but later in 2009 were found in conflict with the footprint of the new bridge so, portions of the diagonal pipe reaches had to be removed to make way for the new bridge.

As a result of the conflict between the diagonal connecting pipelines and the new bridge and because time was of the essence with respect to grant funding for the new bridge, WRCRWA approved the construction of the new force main within the new bridge.

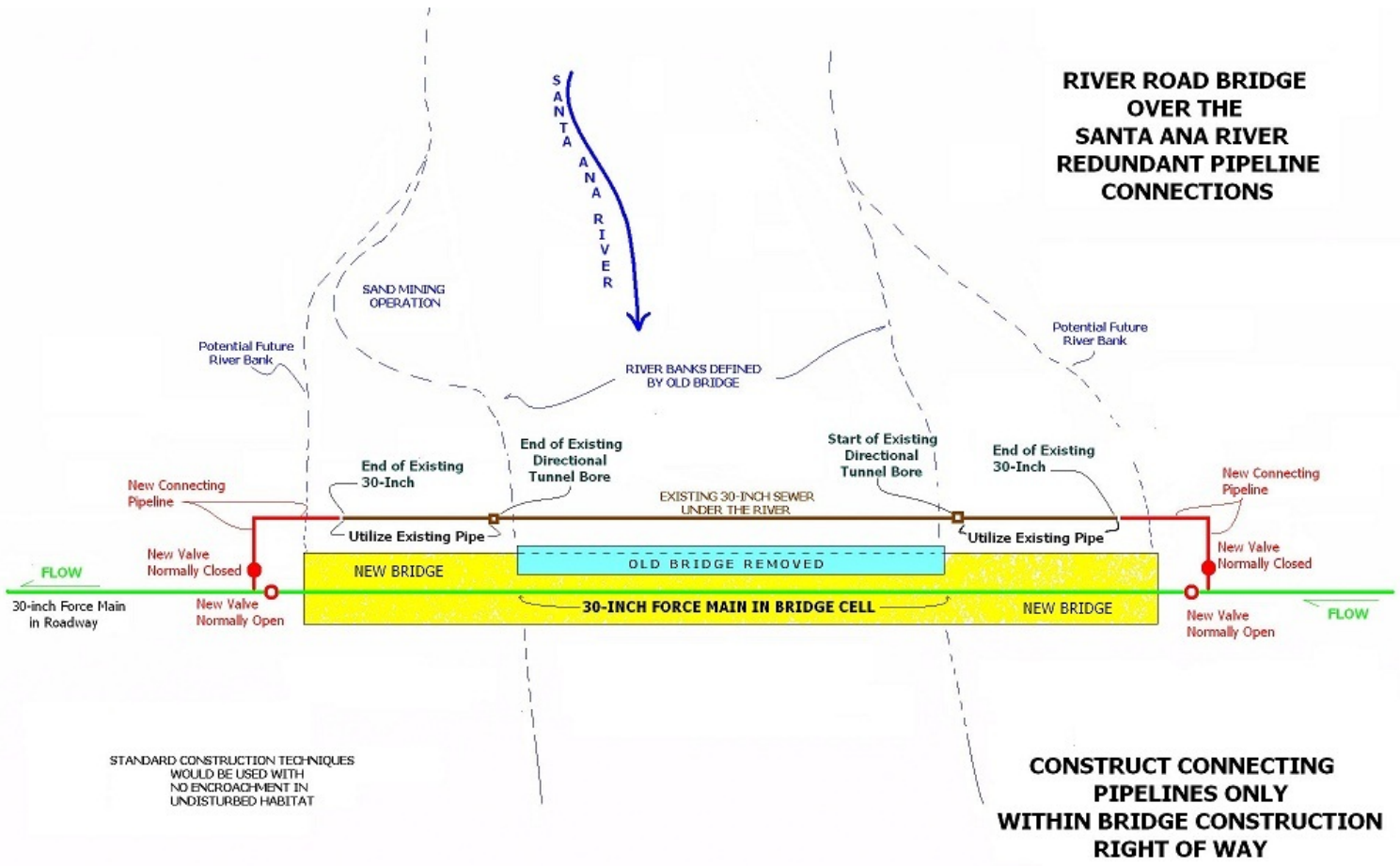
The directional tunnel bore under the river has many remaining years of useful life. Because it is the same size as the new force main in the new bridge with the same useful carrying capacity, it could be used as a back-up to the new force main in the bridge. While the new force main in the bridge is susceptible to bridge movement from ambient temperature changes and seismic events, the force main under the river is susceptible to river scour and sediment shifts during flood events. This diversity in susceptibility makes it possible to create a nearly fail-safe redundant force main system using the new force main in the bridge and the force main under the river to minimize vulnerability and the potential for spills of raw sewage to the river.

Having the force main under the river as a back up to the new force main in the bridge not only minimizes potential pollution of the Santa Ana River and its riparian habitat but also minimizes risk to motorists and workers by allowing any leak repair on the force main in the bridge to be a planned event instead of an emergency. Whenever a leak occurs on the force main in the bridge, valves would immediately be operated to route the untreated wastewater though the force main under the river.

In order to use the force main under the river, the connecting diagonal pipes need to be replaced and the shallow ends of the directional tunnel bore need to be protected or modified.

Project Description

The purpose of the Project is to protect the Santa Ana River and its sensitive riparian habitat from untreated wastewater pollution in the event the pressurized pipeline in the bridge develops a leak or is catastrophically broken. To accomplish "failsafe" protection, WRCRWA would install valves and short pieces of pipeline to create two river crossings; the primary crossing using the new pipeline in the bridge and the secondary crossing using the existing pipeline under the river. As shown on Figure ES-2, it will be



Source: T & K Engineering (1-22-10)

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Figure ES-2
Project Schematic

necessary to install several valves and additional piping to allow the use of the existing force main under the river during emergency conditions.

Approximately 600 feet of 30-inch diameter connecting pipelines (approximately 300 feet at each end of the new bridge) need to be constructed to connect the directional tunnel bore with the main pipelines in River Road. All construction would be within the area disturbed by the new bridge construction and/or the adjacent sand mining operation.

Impacts and Mitigation Measures

Section 15123(b)(1) of the *Guidelines for Implementation of the California Environmental Quality Act* requires that each EIR contain a summary that identifies each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect. That information is included in Table ES-1 that follows.

Proposed mitigation measures are WRCRWA Staff's and its consultant's recommendations to reduce potential impacts associated with implementation of the proposed project. Should WRCRWA's Board of Directors adopt the Mitigation Monitoring and Reporting Program (Appendix C) including these mitigation measures they would become mandatory and part of the Project.

Table ES-1
Impacts and Recommended Mitigation Measures

Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Aesthetics		
None.	None required.	N/A
Agricultural and Forest Resources		
None.	None required.	N/A
Air Quality		
Potential short-term impacts associated with heavy equipment during construction.	The construction agent should include the following mitigation measures in its standard construction specifications: ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications. ❖ Use alternative fuels or clean and low-sulfur fuel for equipment. ❖ Do not idle diesel trucks onsite for more than 5 minutes at a time. ❖ Require construction equipment that meet or exceed Tier 3 emission standards and equip construction equipment with CARB	Less than significant.

Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	verified oxidation catalysts and particulate traps. ❖ Spread soil binders on site, where appropriate, unpaved roads and staging areas. ❖ Water site and equipment every three hours during active construction periods. ❖ Sweep all streets at least once per day using SCAQMD Rule 1186 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets. ❖ Suspend grading activities during first and second stage smog alerts and during high winds in accordance with SCAQMD Rule 403 requirements. ❖ If necessary, wash off trucks leaving the site. ❖ Cover haul trucks.	
Biological Resources		
None	None required.	N/A
Cultural Resources		
None.	Although no evidence of cultural resources was found at the project site, it is always possible that cultural resources could be unearthed during excavation. Therefore, the construction agent should include the following mitigation measures in its standard construction specifications: ❖ If inadvertent discoveries of cultural resources are encountered at any time during construction, mitigation would be conducted consistent with Public Resources Code section 21083.2 State CEQA Guidelines, 15126.4, subdivision (b). Construction personnel shall avoid altering these materials and their context until a qualified archeologist has evaluated the situation and contacted the State Office of Historic Preservation and the closest Indian Tribe to the Project (in this case the Temecula Band of Luiseño Indians). Project personnel shall not collect or retain cultural resources. Prehistoric resources include, but are not limited to: chert or obsidian flakes; projectile points; mortars and pestles; dark, friable soil containing shell and bone; dietary debris;	Less than significant.

Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	heat-affected rock; or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits (glass, metal, wood, ceramics), often found in old wells and privies. ❖ If paleontological resources (e.g., fossils) are encountered at any time during construction of the project, construction personnel shall avoid altering these materials and their context until a qualified paleontologist has evaluated the situation. Project personnel shall not collect or retain paleontological resources. ❖ Consistent with State CEQA Guidelines, section 15064.5, subdivision (e), in the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the remains are found to be Native American, the Native American Heritage Commission shall be notified within 24 hours. The NAHC must immediately notify the Most Likely Descendant(s) under Public Resources Code §5097.98 and the descendants must make recommendations or preference for treatment within 48 hours of being granted access to the site. Guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains in accordance with the provisions of Health and Safety Code §7050.5 and Public Resources Code §5097.98.	
Geology and Soils		
None.	None required.	N/A
Hazards and Hazardous Materials		
During construction, the contractor would utilize equipment that uses petroleum based fuels and lubricants, which are subject to both leakage from engine blocks and containers or spilling during refueling and lubrication operations.	To reduce potentially hazardous conditions and minimize the impacts from the handling of potentially hazardous materials, the construction agent should include the following in its construction contract documents: ❖ The contractor(s) shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor(s) shall store all reserve fuel supplies only within the confines of a	Less than significant.

Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	designated construction staging area, refuel equipment only within the designated construction staging area, and regularly inspect all construction equipment for leaks. ❖ The contractor(s) shall prepare a *Health and Safety Plan* in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§§ 25500—25532). The plan shall include measures to be taken in the event of an accidental spill. ❖ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products so that they do not drain towards receiving waters or storm drain inlets.	
Hydrology and Water Quality		
Potential impacts to water quality due to sediment laden runoff from the construction sites.	The construction agent shall require contractors to implement a program of best management practices (BMP's) and best available technologies to reduce potential impacts to water quality that may result from construction activities. As part of this process, multiple BMP's shall be implemented to provide effective erosion and sediment control. These BMP's shall be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented as part of this mitigation measure shall include, but not be limited to, the following: ❖ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas. ❖ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to WRCRWA, local jurisdictions and the California Regional Water Quality Control Board, Santa Ana Region. ❖ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events. ❖ No disturbed surfaces shall be left without erosion control measures in place between	Less than significant.

Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	October 15 and April 15. The construction agent shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. The construction agent shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. The construction agent shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.	
Construction site dewatering activities could have a potential effect on downstream water quality.	❖ Controls on construction site dewatering shall be implemented. If possible, water generated as part of construction dewatering shall be discharged onsite such that there would be no discharge to surface waters. If discharge to surface waters were unavoidable, WRCRWA shall obtain coverage under the NPDES General Dewatering Permit prior to commencement of construction. The provisions of this permit are sufficiently protective of water quality to ensure that impacts to surface waters would remain below significance thresholds. ❖ During dewatering activities, all permit conditions shall be followed. WRCRWA shall routinely inspect the construction site to verify that the measures specified in the permit are properly implemented. WRCRWA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.	Less than significant.
Land Use and Planning		
None.	None Required.	N/A
Mineral Resources		
None.	None Required.	N/A
Noise		
Construction activities would temporarily increase the ambient noise levels in the Project area.	The construction agent should include the following in its standard construction specifications: ❖ All equipment used during construction shall be muffled and maintained in good operating condition. All internal combustion engines shall be fitted with well maintained mufflers in accordance with manufacturers' recommendations.	Less than significant.

Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Population and Land Use		
None.	None Required	N/A
Public Services		
None.	None Required	N/A
Recreation		
None.	None Required	N/A
Traffic/Transportation		
None.	None Required.	N/A
Utilities and Service Systems		
None.	None Required	N/A

Areas of Controversy

Section 15123(b)(2) of the CEQA Guidelines requires that the summary in an environmental impact report include the discussion of areas of controversy known to the Lead Agency including issues raised by agencies and the public.

There are no known areas of controversy regarding the Western Riverside County Regional Wastewater Authority's 30-inch Diameter Force Main Relocation at River Road Bridge Project.

Issues to be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that the summary in an environmental impact report include a discussion of the issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

There are no issues to be resolved regarding the Western Riverside County Regional Wastewater Authority's 30-inch Diameter Force Main Relocation at River Road Bridge Project.

Document Availability and Contact Personnel

The Draft Environmental Impact Report is available for review at the following locations:

Western Riverside County Regional Wastewater Authority
14205 Meridian Parkway
Riverside, California 92518

and

http://www.wmwd.com

All questions and comments regarding the Project or environmental document should be forwarded to:

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1 Introduction

Introduction

The following Draft Environmental Impact Report (DEIR) evaluates the anticipated environmental impacts associated with implementation of the Western Riverside County Regional Wastewater Authority's (WRCRWA) 30-inch Diameter Force Main Relocation at River Road Bridge Project (Project). The project location is shown on Figure 1-1.

The California Environmental Quality Act (California Public Resources Code §21000 *et seq.*: "CEQA"), requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and eliminated. Therefore, to fulfill the purpose and intent of CEQA, WRCRWA, as the lead agency, has caused this DEIR to be prepared to address the potentially significant adverse environmental impacts associated with the construction and operation of the Project.

Lead Agency

The Lead Agency is "*. . . the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment*" (Public Resources Code §21067). The Lead Agency for this Project is WRCRWA, a joint powers agency created in 1985 to plan, construct and operate a cost effective regional wastewater conveyance system and reclamation facility. Agencies that comprise the WRCRWA include Western Municipal Water District, Home Gardens Sanitary District, Jurupa Community Services District, City of Norco, and the Santa Ana Watershed Project Authority.

Responsible Agencies

CEQA Guidelines §15381 defines a "responsible agency" as ". . . a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration." For the purposes of CEQA, responsible agencies include all public agencies other than the lead agency that have discretionary approval authority over the project. Responsible agencies for this Project include the County of Riverside, Orange County Water District, Western Municipal Water District, City of Norco and Home Gardens Sanitary District.

Trustee Agencies

§15386 of the State CEQA Guidelines defines "Trustee Agency" as a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. For the purposes of the proposed Project, Trustee Agencies include the California Department of Fish and Game with regard to the fish and wildlife of the State, to designated rare or

Source: Google Earth 10/19/10

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Figure 1-1
General Project Location

Draft Environmental Impact Report
30-inch Force Main Relocation at River Road Bridge
Western Riverside County Regional Wastewater Authority

endangered native plants, and to game refuges, ecological reserves, and other areas administered by the department. Other Trustee Agencies which do not have jurisdiction over the proposed Project include: the State Lands Commission, the State Department of Parks and Recreation, and the University of California.

California Environmental Quality Act Compliance

The basic purposes of CEQA as set forth in §15002 of the State CEQA Guidelines are:

1. *Inform the governmental decision-makers and the public about the potential significant environmental effects of proposed activities.*
2. *Identify the way that environmental damage can be avoided or significantly reduced.*
3. *Prevent significant avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds changes to be feasible.*
4. *Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.*

The first three purposes of CEQA fall within the province of the EIR. The fourth purpose is completed by the Lead Agency after its consideration and approval of the Final EIR and at the time it makes its decision on the project, mitigation measures, or alternatives.

Contents of an EIR

An EIR is defined in §15362 of the State CEQA Guidelines as being a detailed statement prepared under CEQA describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects. The contents of an EIR are discussed in CEQA Article 9 commencing with §15120.

This section specifies that a Draft EIR shall contain the information required by §§15122 through 15131. The topic of each of these sections is cited below:

Guidelines	Topic
§15122	Table of Contents or Index
§15123	Summary
§15124	Project Description
§15125	Environmental Setting
§15126	Consideration and Discussion of Environmental Impacts

a. Significant Environmental Effects of the Proposed Project.

b. Significant Environmental Effects Which Cannot be Avoided if the Proposal is Implemented.

c. Significant Irreversible Environmental Changes Which Would be Involved in the Proposed Project Should it be Implemented.

d. Growth Inducing Impact of the Proposed Project.

e. The Mitigation Measures Proposed to Minimize the Significant Effects.

f. Alternatives to the Proposed Project.

§15127 Limitations on Discussion of Environmental Impact

§15128 Effects Not Found to be Significant

§15129 Organizations and Persons Consulted

§15130 Discussion of Cumulative Impacts

§15131 Economic and Social Effects

Adequacy of an EIR

The standards for adequacy of an EIR cited in §15151 of the State CEQA Guidelines are as follows:

> *An EIR should be prepared with sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.*

DEIR Review and Consideration Process

The DEIR for the proposed Project will be subject to a 45-day review period. Interested individuals, organizations and agencies can provide written comments on the document during the review period.

During the public review period, the DEIR will be circulated for review by responsible agencies, trustee agencies and interested individuals. Prior to the preparation of the DEIR, a Notice of Preparation (NOP) was prepared and distributed to responsible agencies, trustee agencies and interested individuals for their comments. A copy of the NOP is provided in Appendix A of this document. Chapter 21 contains a

summary of the written comments submitted in response to the NOP as well as WRCRWA's responses to those comments. Copies of the actual comment letters are provided in Appendix B of this document.

Comments and questions on the DEIR received during the review period will be compiled in a Consultation Summary document. Copies of the Consultation Summary document will be provided to all who commented at least 10 days prior to certification of the Final Environmental Impact Report (FEIR). The DEIR and Consultation Summary document will constitute the FEIR for the proposed Project.

After examining the FEIR, WRCRWA will determine whether or not to certify that the FEIR is adequate and has been completed in compliance with CEQA. It should be noted that certification of an EIR does not constitute project approval; rather, it is a necessary step that precedes project approval. WRCRWA will consider the information in the FEIR in determining whether the proposed Project or reasonable alternatives should be approved, modified, or rejected.

In order for a Lead Agency to approve a project (after certifying the FEIR), it must prepare written findings for each significant adverse environmental effect identified in the EIR. Findings must be accompanied by a brief explanation of the rationale for each significance determination and should indicate that either: (1) changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant effects on the environment; (2) those changes or alterations are the responsibility and jurisdiction of another public agency and have been, or can be, adopted by that agency; or (3) specific economic, legal, social, technological or other considerations, including the consideration for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

Intended Use of this EIR

Use of this EIR by the Western Riverside County Regional Wastewater Authority

WRCRWA, as the Lead Agency, is the public agency responsible for implementing the proposed Project and fulfilling the requirements of CEQA via preparation of appropriate environmental documents for the proposed Project. This DEIR was prepared by K.S. Dunbar & Associates, Inc., Environmental Engineering under contract to WRCRWA. It will be used by WRCRWA during the decision-making process for the proposed Project. The EIR may also be used to satisfy the requirements of other agencies having jurisdiction over the proposed Project.

Approvals for which this DEIR will be Used

The following responsible and trustee agencies may also use this document in their decision-making process concerning the proposed Project.

County of Riverside

Encroachment Permit

Orange County Water District

Encroachment Permit

Western Municipal Water District

Project Approval and Funding

City of Norco

Project Approval and Funding

Home Gardens Sanitary District

Project Approval and Funding

Lead Agency Decisions Subject to CEQA

WRCRWA must make several decisions regarding the proposed Project that are subject to the requirements of CEQA. These decisions will include, but are not limited to, the following:

a. Review the DEIR and direct preparation of the FEIR[1].

b. Certify the FEIR in accordance with §15090 of the State CEQA Guidelines.

c. Make Findings in accordance with §15091 of the State CEQA Guidelines, if necessary.

d. Adopt a Statement of Overriding Considerations for the Project in accordance with §15093 of the State CEQA Guidelines, if necessary.

e. Adopt mitigation measures and a Mitigation Monitoring and Reporting Program for the Project.

f. Approve the Project in accordance with §15092 of the State CEQA Guidelines.

g. Authorize financing of the Project.

[1] NOTE: In accordance with §15132 of the State CEQA Guidelines, the FEIR will consist of the DEIR plus a supplement. The supplement will consists of the comments and recommendations received on this DEIR; a list of persons, organizations, and public agencies commenting on this DEIR; WRCRWA's responses to significant environmental points raised in the review and consultation process; and any other information added by WRCRWA.

2 Project Background and Description

Project Background

The Western Riverside County Regional Wastewater Authority (WRCRWA) is a joint powers agency created in 1985 to plan, construct and operate a cost effective regional wastewater conveyance system and reclamation facility. Agencies that comprise the WRCRWA include Western Municipal Water District, Home Gardens Sanitary District, Jurupa Community Services District, City of Norco, and the Santa Ana Watershed Project Authority.

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Figure 2-1
Project Location

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With the directional tunnel bore located upstream of the former bridge, it was offset from the main force main alignment within the right-of-way of River Road. The directional tunnel bore and force main in River Road were connected with diagonal pipe reaches in 1998 but later in 2009 were found in conflict with the footprint of the new bridge so, portions of the diagonal pipe reaches had to be removed to make way for the new bridge.

As a result of the conflict between the diagonal connecting pipelines and the new bridge and because time was of the essence with respect to grant funding for the new bridge, WRCRWA approved the construction of the new force main within the new bridge.

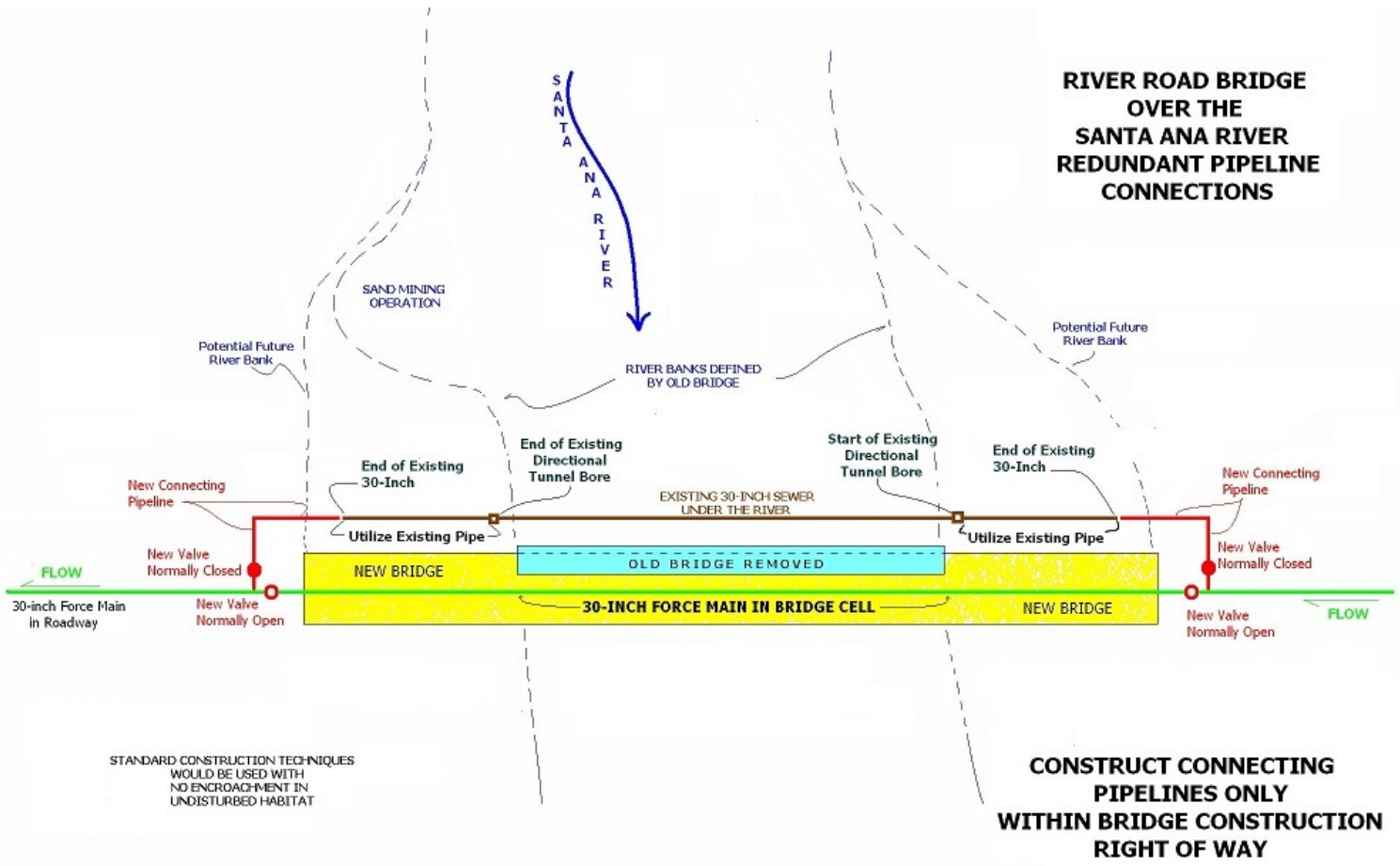
The directional tunnel bore under the river has many remaining years of useful life. Because it is the same size as the new force main in the new bridge with the same useful carrying capacity, it could be used as a back-up to the new force main in the bridge. While the new force main in the bridge is susceptible to bridge movement from ambient temperature changes and seismic events, the force main under the river is susceptible to river scour and sediment shifts during flood events. This diversity in susceptibility makes it possible to create a nearly fail-safe redundant force main system using the new force main in the bridge and the force main under the river to minimize vulnerability and the potential for spills of raw sewage to the river.

Having the force main under the river as a back up to the new force main in the bridge not only minimizes potential pollution of the Santa Ana River and its riparian habitat but also minimizes risk to motorists and workers by allowing any leak repair on the force main in the bridge to be a planned event instead of an emergency. Whenever a leak occurs on the force main in the bridge, valves would immediately be operated to route the untreated wastewater though the force main under the river.

In order to use the force main under the river, the connecting diagonal pipes need to be replaced and the shallow ends of the directional tunnel bore need to be protected or modified.

Project Description

The purpose of the Project is to protect the Santa Ana River and its sensitive riparian habitat from untreated wastewater pollution in the event the pressurized pipeline in the bridge develops a leak or is catastrophically broken. To accomplish "failsafe" protection, WRCRWA would install valves and short pieces of pipeline to create two river crossings; the primary crossing using the new pipeline in the bridge and the secondary crossing using the existing pipeline under the river. As shown on Figure 2-2, it will be



Source: T & K Engineering (1-22-10)

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Figure 2-2
Project Schematic

necessary to install several valves and additional piping to allow the use of the existing force main under the river during emergency conditions.

Approximately 600 feet of 30-inch diameter connecting pipelines (approximately 300 feet at each end of the new bridge) need to be constructed to connect the directional tunnel bore with the main pipelines in River Road. All construction would be within the area disturbed by the new bridge construction and/or the adjacent sand mining operation.

3 Aesthetics

Introduction

Both natural and artificial landscape features contribute to perceived visual images and the scenic attractiveness of a landscape. Scenic attractiveness is influenced by vegetation pattern, water characteristics, landforms, recreational features, and rural and urban features. Individuals respond differently to changes in the physical environment on their experiences of the environment prior to changes, the extent and nature of those changes, and the proximity and duration of their views. The aesthetic value of an area is therefore a subjective measure of the visual character and scenic quality.

Environmental Setting

The proposed 30-inch Diameter Force Main Relocation at River Road Bridge Project would be constructed at the River Road crossing on the Santa Ana River. This area is presently in a disturbed condition as it is the site of the River Road Bridge Replacement Project being carried out by the County of Riverside.

Land uses immediately northwest and southeast of the River Road Bridge are currently predominately agricultural (becoming residential over time) with some parkland and open space. Southeast of the bridge, Bluff Street runs parallel to the river and single-family homes have backyard views over the Santa Ana River Valley and San Bernardino Mountains. However, from most of the residences, River Road and the bridge are not visible (or there is only a very limited view), due to the height of the dense riparian vegetation, which is present year round. Various tree species (eucalyptus, cottonwoods, and willows) are intermixed with the riparian habitat and serve to restrict views of the Project area by residents. Power poles that span the river parallel to the road and bridge are, for most residents, the only indication that the roadway exists. *(FHA June 2005).*

Key views in the immediate Project area are of the river and the riparian vegetation northwest and southeast of the bridge. The sensitive viewer (characterized as having "moderate" sensitivity) is the northwest or southeast bound motorist. *(FHA June 2005).*

Two National Forests are visible from the Project area; the Cleveland National Forest to the southeast and the San Bernardino National Forest to the north. Each provides dramatic topographical relief and creates scenic vistas from many points within the Santa Ana River Valley. Mount Baldly, which is often snow capped during the winter months, and other points within the San Bernardino National Forest, rise to elevations over 8,000 feet. *(FHA June 2005).*

Data used to prepare this section were taken from several sources. Full bibliographic entries are provided at the end of this chapter.

Environmental Impacts Analysis

Threshold Criteria

The following thresholds are based on Appendix G of the 2010 State CEQA Guidelines. According to the State CEQA Guidelines, implementation of the proposed Project could result in potentially significant impacts if the Project would do any of the following:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of light and glare that would adversely affect day or nighttime views in the area.

Environmental Analysis

Potential Impact: Have a substantial adverse effect on a scenic vista.

As previously stated, there are two scenic vistas in the immediate Project area. Those are the views of the river and riparian habitat by passing motorists and the views of the distant mountains in the San Bernardino and Cleveland National Forests.

The proposed construction area is totally disturbed by construction activities on the bridge replacement project and the sand mining operation immediately adjacent to the bridge. Therefore, the views of the river and riparian area will not be affected by implementation of the proposed project. Likewise, the scenic views of the distant mountains would not be affected by implementation of the proposed Project.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Neither Caltrans nor the applicable general plans have designated scenic highways or view corridors within the Project area; therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact: Substantially degrade the existing visual character or quality of the site and its surroundings.

As previously stated, the construction site is totally disturbed due to construction activities associated with the bridge replacement and the sand mining operation immediately adjacent to the bridge. Therefore, there would be no impacts and no further analysis is required.

During construction, there would be equipment and workers at the site. This would be considered a less-than-significant aesthetic impact and no mitigation is required.

Significance of Impact:

Less than significant.

Mitigation Measures:

None required.

Potential Impact: Create a new source of light and glare that would adversely affect day or nighttime views in the area.

The Project would not include security lighting; therefore, no impacts are anticipated and no mitigation measures are required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

References

California Department of Transportation. 2010. List of Scenic Highways in California. www.dot.ca.gov (3/03/10).

Riverside County Board of Supervisors, *Riverside General Plan*, adopted October 7, 2003.

Riverside County Board of Supervisors, *Eastvale Area Plan,* adopted on October 7, 2003.

State of California, *Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 29, 2009.

U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; Riverside County Transportation Department. 2005. *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation*. June.

4 Agricultural and Forest Resources

Environmental Setting

Agricultural Resources

There are four classifications of agricultural lands as established by State and federal agencies: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. These are briefly described below *(County of Riverside, October 7, 2003)*:

Prime Farmland

Prime Farmland is land best suited for producing food, feed, forage, fiber and oil seed crops, and is available for these uses: cropland, pastureland, range land, forest land or other land, but not urban land or water. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed (including water management) according to modern farming methods.

Farmland of Statewide Importance

Farmland of Statewide Importance is land other than Prime Farmland that has a good combination of physical and biological characteristics for producing food, feed, forage, fiber and oil seed crops, or is available for these uses (the land could be cropland, pastureland, range land, forest land, or other land, but not urban land or water).

Unique Farmland

Unique Farmland is land other than Prime Farmland and Farmland of Statewide Importance that is currently being used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season and moisture supply needed to produce a sustained high quality of a specific crop when treated and managed according to modern farming methods. Examples of such economically important crops are citrus, olives and avocados.

Farmland of Local Importance

These farmlands are not covered by the above categories but are of locally significant economic importance. These include the following:

- Lands with soils that would be classified as Prime Farmland or Farmland of Statewide Importance but lack available irrigation water.
- Lands planted in 1980 or 1981 in dry land grain crops such as barley, oats and wheat.

- Lands providing major crops for Riverside County but that are not listed as Unique Farmland crops. Such crops are permanent pasture (irrigated), summer squash, okra, eggplant, radishes and watermelon.
- Dairy lands including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture or hay land of 10 acres of more.
- Lands identified by the County with Agricultural land use designations or contracts.
- Lands planted with jojoba that are under cultivation and are of producing age.

There are some agricultural lands within the greater project area but none that would be impacted by implementation of the proposed Project.

Forest Resources

According to §12220(g) of the California Public Resources Code, forest land is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Timber is further defined in §51104(e) of the Government Code. Timber means trees of any species maintained for eventual harvest for forest products purposes, whether planted or of natural growth, standing or down, on privately or publicly owned land, including Christmas trees, but does not mean nursery stock. Timberland is also defined in §51104(f) of the Government Code. Timberland means privately owned land, or land acquired for state forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber or at least 15 cubic feet per acre. Timberland production zone or TPZ is defined in §51104(g) of the Government Code. TPZ means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber and compatible uses, as defined in subdivision (h). With respect to the general plans of cities and counties, “timberland preserve land” means “timberland production zone”.

A compatible use as defined in §51104(h) of the Government Code means any use which does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber, and shall include, but not be limited to, any of the following, unless in a specific instance such a use would be contrary to the preceding definition of compatible use:

1) Management for watershed.
2) Management for fish and wildlife habitat or hunting and fishing.
3) A use integrally related to the growing, harvesting and processing of forest products, including but not limited to roads, log landings, and log storage areas.
4) The erection, construction, alteration, or maintenance of gas, electric, water, or communication transmission facilities.
5) Grazing.

6) A residence or other structure necessary for the management of land zoned as timberland production.

There are no forest lands or timberlands in the immediate Project area.

Data used to prepare this section were taken from several sources. Full bibliographic entries are provided at the end of this chapter.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this DEIR, implementation of the proposed Project may have a significant adverse impact on agricultural and forest resources if it would:

- Convert Prime Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).
- Result in the loss of forest land or conversion of forest land to non-forest use.
- Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Environmental Analysis

Potential Impact: Convert Prime Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

There is no Farmland in the immediate Project area that would be impacted by implementation of the proposed Project. Therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact: Conflict with existing zoning for agricultural use, or a Williamson Act contract.

The portion of the site within the unincorporated area of Riverside County (northwest side of River) is presently zoned W-1 (Watershed and Conservation Areas). It is also shown as OS-W (Open Space – Water) in the Eastvale Area Plan. The portion of the site within the City of Norco (southeast side of River) is presently zoned OS (Open Space). It is also shown in the City's General Plan as WR (Water Resources).

The site is not within an agricultural preserve or Williamson Act contract; therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact: Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).

As shown above, the Project site is not presently zoned as timberland or timberland production; therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact: Result in the loss of forest land or conversion of forest land to non-forest use.

The project site does not contain forest land; therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact: Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

As stated above, the Project site does not contain any Farmland or forest land; therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

References

County of Riverside. 2010. www3.tlma.co.riverside.ca.us (2/03/10)

Riverside County Board of Supervisors, *Riverside General Plan*, adopted October 7, 2003.

Riverside County Board of Supervisors, *Eastvale Area Plan,* adopted on October 7, 2003.

State of California. 2009. *Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

5 Air Quality

Environmental Setting

Climate

The climate of Southern California is primarily influenced by topography and the position and the strength of the East Pacific High Pressure Area that influences wind flow, rainfall patterns and ocean currents. Generally, rainfall is low in the winter due to this high pressure system. As shown on Figure 5-1, about 95 percent of the precipitation falls from October through April with maximums occurring usually in January and February. The annual precipitation averages about 12.7 inches.

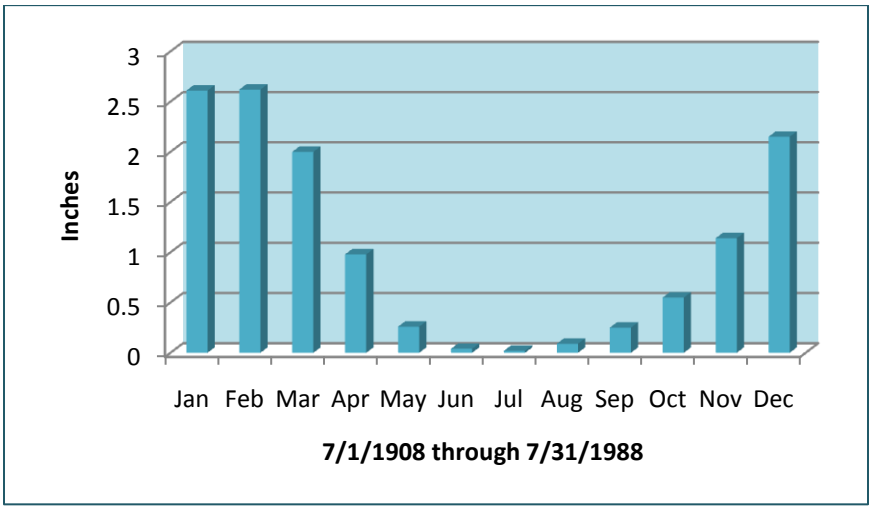

Figure 5-1 Average Precipitation at Corona (042031)

Source: Western Regional Climate Center (www.wrcc.dri.edu, 5/04/11)

The Project area's proximity to the Pacific Ocean combined with varying topography and winds greatly influence temperatures within the area. As shown on Figure 5-2, the average maximum temperature is about 92°F in July and August and the average minimum temperature is about 40°F in December through February.

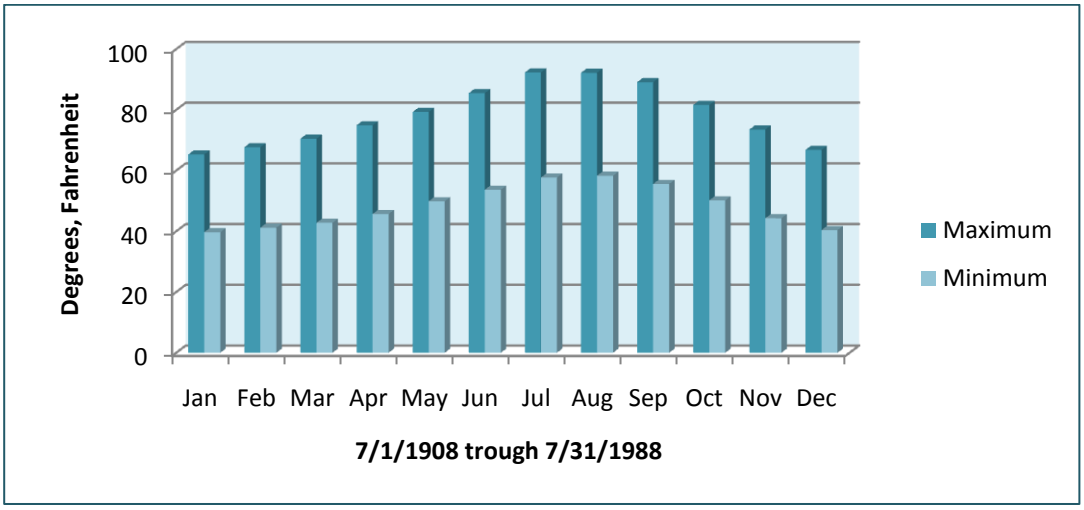

Figure 5-2 Average Temperatures at Corona (042031)

Source: Western Regional Climate Center (www.wrcc.dri.edu, 5/04/11)

Regional Air Quality

Ambient air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence the local and regional dispersal of pollutants. Atmospheric conditions such as wind speed and direction and air temperature gradients combined with local topography provide the link between air pollutant emissions and air quality.

The proposed Project is within the South Coast Air Basin (SCAB), which incorporates 10, 743 square miles, consisting of all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino Counties. It is home to over 16.7 million people – about half the population of the whole State of California. It is the second most populated urban area in the United States and one of the smoggiest.

Planning for the attainment and maintenance of both federal and state air quality standards in the Project area is the responsibility of the South Coast Air Quality Management District (SCAQMD).

Air Pollutants

Pollutants regulated by the State and federal Clean Air Acts fall within three categories:

- criteria air pollutants
- toxic air contaminants, and
- global warming and ozone depleting gases.

Pollutants in each of these categories are monitored and regulated differently. Criteria air pollutants are measured by sampling concentrations in the air; toxic air contaminants are measured at the source and in the general atmosphere, and global warming and ozone-depleting gases are not monitored but are subject to federal and regional policies that call for their reduction and eventual phase-out

(www.aqmd.gov, 10/18/06). California's landmark global warming legislation, AB 32, requires that the State's greenhouse gas emissions be reduced to 1990 levels by 2020. Emissions trading is being considered for achieving the requirements of AB 32 *(www.aqmd.gov, 4/21/07).*

Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health. Those standards have been set at levels to protect the human health with an adequate margin of safety.

The following paragraphs describe the source and health effects of the criteria pollutants. In addition, Table 5-1 lists the primary emission sources of the criteria pollutants and some of the harmful effects of the pollutants.

Table 5-1
Primary Sources and Effects of Criteria Air Pollutants

Pollutant	Source	Primary Health Effects
Lead (Pb)	Contaminated soil	Impairment of blood function and nerve construction. Behavioral and hearing problems in children.
Sulfur Dioxide (SO_2)	Combustion of sulfur-containing fossil fuels. Smelting of sulfur-bearing metal ores. Industrial processes.	Plant injury. Reduced visibility. Deterioration of metals, textiles, leather, finishes, coatings, etc. Irritation of eyes. Reduced lung function. Aggravation of respiratory diseases (asthma, emphysema).
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon-containing substances, such as motor vehicle exhaust. Natural events, such as decomposition of organic matter.	Plant injury. Reduced visibility. Deterioration of metals, textiles, leather, finishes, coatings, etc. Irritation of eyes. Reduced lung function. Aggravation of respiratory diseases (asthma, emphysema).
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust. High temperature stationary combustion. Atmospheric reactions.	Reduced plant growth. Reduced visibility. Aggravation of respiratory illness. Formation of acid rain.
Ozone (O_3)	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	Plant leaf injury. Irritation of eyes. Aggravation of respiratory and cardiovascular diseases. Impairment of cardiopulmonary function.
Respirable Particulate Matter (PM_{10})	Secondary combustion of solid fuels. Construction activities.	Soiling. Reduced visibility.

Pollutant	Source	Primary Health Effects
	Industrial processes. Atmospheric chemical reactions.	Aggravation of the effects of gaseous pollutants. Increased cough and chest discomfort. Reduced lung function. Aggravation of respiratory and cardio-respiratory diseases.
Fine Particulate Matter ($PM_{2.5}$)	Secondary combustion of solid fuels. Construction activities. Industrial processes. Atmospheric chemical reactions.	Soiling. Reduced visibility. Aggravation of the effects of gaseous pollutants. Increased cough and chest discomfort. Reduced lung function. Aggravation of respiratory and cardio-respiratory diseases.

Source: SCAQMD, 1999

Lead

Lead (Pb) in the atmosphere occurs as particulate matter. The combustion of leaded gasoline was the primary source of lead emissions. Other sources of lead include the manufacturing of batteries, paint, ink, ceramics, and ammunition and secondary lead smelters. With the phase-out of leaded gasoline, secondary lead smelters and battery recycling and manufacturing facilities are becoming lead emission sources of greater concern.

Prolonged exposure to lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance (including IQ performance, psychomotor performance and reaction time) and growth. Lead is classified as a probable human carcinogen with an EPA weight-of-evidence classification of B2.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless gas with a pungent, irritating odor. Sulfur dioxide is created by the combustion of sulfur containing fuels. This substance is known to oxidize to sulfur trioxide, which combines with moisture in the atmosphere to form a sulfuric acid mist. Sulfur dioxide damages and irritates lung tissue and accelerates corrosion of materials.

Carbon Monoxide

The automobile and other types of motor vehicles are the primary source of carbon monoxide (CO). This gas is colorless and odorless which adds to its danger. In high concentrations, carbon monoxide can cause physiological and pathological changes, and ultimately death, by incapacitating the red blood cells and interfering with their ability to carry oxygen to body tissues.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is a by-product of fuel combustion. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but nitric oxide reacts quickly to form nitrogen dioxide, creating the mixture of nitric oxide and nitrogen dioxide commonly called NO_x. Nitrogen dioxide acts as an acute irritant and, in equal concentrations, is more injurious than nitric oxide. At atmospheric concentrations, however, nitrogen dioxide is only potentially irritating. There is some indication of a relationship between nitrogen dioxide and chronic pulmonary fibrosis. Some increase in bronchitis in children (two to three years old) has been observed at concentrations below 0.3 ppm. Nitrogen dioxide absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. Nitrogen dioxide also contributes to the formation of suspended particulate matter.

Ozone

Ozone (O_3) is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds and nitrogen oxides, both byproducts of the internal combustion engine, react in the presence of ultraviolet sunlight. Ozone may pose its worst health threat to those who already suffer from respiratory diseases. However, ozone also hurts healthy people. In the past, those effects were thought to be limited to more difficult breathing during work and exercise. However, research has shown that children residing in areas of high ozone concentrations experience a loss in lung function.

Respirable Particulate Matter Less Than 10 Microns in Diameter (PM_{10})

Respirable particulate matter (PM_{10}) consists of extremely small suspended particles or droplets 10 microns or smaller in diameter that can lodge in the lungs contributing to respiratory problems. PM_{10} arises from such sources as road dust, diesel soot, combustion products, abrasion of tires and brakes, construction operations, and windstorms. It is also formed in the atmosphere from nitrogen dioxide and sulfur dioxide reactions with ammonia. PM_{10} scatters light and significantly reduces visibility.

Particulates pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled will be deposited in the lungs and can cause permanent lung damage. Fine particulates can also have a damaging effect on health by interfering with the body's mechanism for clearing the respiratory tract or by acting as a carrier of an absorbed toxic substance.

Fine Particulate Matter ($PM_{2.5}$)

Fine particulate matter ($PM_{2.5}$) is defined as particulate matter with a diameter less than 2.5 microns and is a subset of PM_{10}. It consists mostly of products from the reaction of NO_x and SO_2 with ammonia, secondary organics, and finer dust particles.

Toxic Air Contaminants

There are presently 275 chemicals on the toxic air contaminant list. Exposure to these toxic air contaminants may produce the risk of various adverse health impacts. Potential adverse health impacts

include cancer and non-cancer health impacts. The non-cancer health impacts can be characterized as chronic and acute risks.

Greenhouse Gases

The following discussion on greenhouse gases is excerpted from SCAQMD's *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* dated October 2008.

Gases that trap heat in the atmosphere are often called greenhouse gases. The Kyoto Protocol, adopted in December 1997, is an agreement under which industrialized countries will reduce their collective emissions of greenhouse gases by specified percentages, depending upon the country, compared to 1990 levels. The goal is lower overall emissions of six greenhouse gases – carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons, averaged over the period of 2008-2012.

Similarly, AB 32, defines GHG's as including the following: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO_2), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride [Health and Safety Code, §38505(g)]. The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide.

Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are:

- **Carbon Dioxide (CO_2):** Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

- **Nitrous Oxide (NO_2):** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

- **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes uses as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). Fluorinated gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to

as high global warming potential gases (high GWP gases).

- Hydrofluorocarbons are manmade chemicals that have historically replaced chlorofluorocarbons used in refrigeration and semi-conductor manufacturing.
- Perfluorocarbons are manmade chemicals that are by-products of aluminum smelting and uranium enrichment.
- Sulfur hexafluoride is a manmade chemical that is largely used in heavy industry to insulate high voltage equipment and to assist in the manufacturing of cable cooling systems.

GWP is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming. It is a relative scale that compares the gas in question to the same mass of carbon dioxide (whose GWP by definition is 1). A GWP is calculated over a specific time interval and the value of this must be stated whenever a GWP is quoted or else the value is meaningless. A substance's GWP depends on the time span over which the potential is calculated. A gas which is quickly removed from the atmosphere may initially have a large effect but for longer time periods as it has been removed becomes less important. For the purposes of a CEQA analysis, especially an analysis of operating emissions, the maximum GWP is typically used, regardless of the actual atmospheric lifetime. This approach simplifies the analysis and provides a very conservative analysis, especially for the fluorinated gases. The GWP of the six Kyoto GHGs is shown in Table 5-2 (*EPA, www.epa.gov).*

Table 5-2
Global Warming Potential of Kyoto GHGs

Gas	GWP
Carbon Dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous Oxide (NO_2)	310
HFC-23 (Hydrofluorocarbons)	11,700
HFC-32	650
HFC-125	2,800
HFC-134a	1,300
HFC-143a	3,800
HFC-152a	140
HFC-227ea	2,900
HFC-236fa	6,300
HFC-4310mee	1,300
CF_4 (Perfluorocarbons)	6,500
C_2F_6	9,200
C_4F_{10}	7,000
C_6F_{14}	7,400
Sulfurhexafluoride (SF_6)	23,900

Ambient Air Quality Standards

The current ambient air quality standards are provided in Table 5-3.

Table 3-3
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California	Federal	
		Concentration	Primary	Secondary
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m^3)	--	Same as primary standard.
	8 hour	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	
Respirable Particulate Matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	Same as primary standard.
	Annual Arithmetic Mean	20 µg/m^3	--	
Fine Particulate Matter ($PM_{2.5}$)	24 hour	No separate standard.	35 µg/m^3	Same as primary standard.
	Annual Arithmetic Mean	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	8 hour	9.0 ppm (10 mg/m^3)	9.0 ppm (10mg/m^3)	None.
	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	
Nitrogen Dioxide (NO_2)*	Annual Arithmetic Mean	0.030 ppm (56 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard.
	1 hour	0.18 ppm (338 µg/m^3)	---	None
Sulfur Dioxide (SO_2)	24 hour	0.04 ppm (105 µg/m^3)	---	---
	3 hour	---	---	0.5 ppm (1300 µg/m^3)
	1 hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3))	---
Lead	30 day Average	1.5 µg/m^3	---	---
	Calendar Quarter	---	1.5 µg/m^3	Same as primary standard.
	Rolling 3-month Average	--	0.15 µg/m^3	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 kilometer—visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standards.	
Sulfates	24 hour	25 µg/m^3		
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 hour	0.01 ppm (26 µg/m^3)		

Source: ARB, 9/08/10 (www.arb.ca.gov 2/03/2011)

Ambient Air Quality Data

The California Air Resources Board (ARB) provides ambient air quality data for most air basins in the State. A summary of the data available for the greater project area is provided in Tables 5-4, 5-5 and 5-6.

Table 5-4
Ozone Trends Summary
Riverside - Rubidoux

Year	Days > Standard				1-hr Observations			8-hr Averages				Year Coverage
	State		National		Max	State	Nat'l	State		National		
	1-hr	8-hr	*1-hr*	'08 8-hr		D.V.[1]	D.V.[2]	Max	D.V.[1]	Max	'08 D.V.[2]	
2009	25	57	*0*	36	0.116	0.13	*0.135*	0.101	0.116	0.100	0.099	86
2008	54	89	*8*	64	0.146	0.14	*0.140*	0.116	0.117	0.116	0.107	99
2007	31	69	*2*	46	0.131	0.04	*0.134*	0.111	0.117	0.111	0.105	98
2006	445	75	*8*	57	0.151	0.14	*0.141*	0.117	0.117	0.117	0.109	98
2005	46	83	*3*	56	0.144	0.15	*0.157*	0.129	0.133	0.129	0.112	97
2004	59	87	*8*	70	0.141	0.16	*0.157*	0.115	0.133	0.114	0.113	97
2003	80	98	*18*	85	0.169	0.16	*0.157*	0.140	0.133	0.140	0.112	99
2002	56	94	*12*	65	0.155	0.15	*0.143*	0.124	0.124	0.124	0.108	95
2001	41	64	*7*	50	0.143	0.14	*0.140*	0.120	0.120	0.119	0.106	100
2000	42	71	*3*	50	0.140	0.17	*0.166*	0.113	0.113	0.112	0.114	100

Notes: All concentrations expressed in parts per million (ppm).
The national 1-hr ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked Standard are shown in *italics* or *italics.*
State exceedances shown in green. National exceedances shown in orange.
[1] D.V. = State designation value.
[2] D.V. = National design value.
Source: Air Resources Board 2010 (arb.ca.gov 10/19/10)

Table 5-5
PM_{10} Trends Summary
Riverside - Rubidoux

Year	Est. Days > Std.		Annual Average		3-yr Average		High 24-hr Average		Year Coverage
	Nat'l	State	*Nat'l*	State	*Nat'l*	State	Nat'l	State	
2009	0.0	92.7	*	41.1	*	57	77.0	75.0	100
2008	0.0	140.4	*46.5*	44.8	*54*	57	115	108.0	100
2007	3.1	203.8	*59.5*	57.1	*55*	57	559.0	540.0	100
2006	0.0	213.7	*55.1*	52.7	*54*	53	109.0	106.0	100
2005	0.0	198.2	*51.8*	50.4	*54*	55	123.0	119.0	100
2004	0.0	210.1	*54.8*	53.6	*56*	56	137.0	133.0	100
2003	6.2	201.4	*55.6*	55.1	*59*	56	164.0	159.0	100
2002	0.0	228.1	*58.1*	56.2	*60*	56	130.0	126.0	100
2001	0.0	240.2	*63.3*	52.9	*65*	72	136.0	136.0	100
2000	0.0	247.6	*59.1*	60.1	*63*	72	139.0	139.0	100

Notes: All concentrations expressed in micrograms per cubic meter ($\mu g/m^3$).
The national annual average PM_{10} standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or italics.
State exceedances shown in green. National exceedances shown in orange.
*There was insufficient (or no) data available to determine the value.
Source: Air Resources Board 2010 (arb.ca.gov 10/19/10)

Table 5-6
$PM_{2.5}$ Trends Summary
Riverside - Rubidoux

Year	Est. Days >Nat'l '06 Std.	Annual Average		Nat'l Ann. Std. D.V.[1]	State Ann. D.V.[2]	Nat;l '06 Std. 98th Percentile	Nat'l '06 24-Hr. Std D.V.[1]	High 24-Hour		Year Coverage
		Nat'l	State					Nat'l	State	
2009	**13.5**	15.2	**17.1**	15.9	20	**39.6**	**45**	**64.4**	54.4	95
2008	**15.0**	**16.4**	*	18.1	20	**41.0**	**50**	**57.6**	57.6	92
2007	*	**18.9**	**19.8**	19.6	21	**54.3**	**56**	**75.6**	75.6	81
2006	*	**19.0**	*	20.7	21	**54.4**	**57**	**68.4**	68.4	79
2005	**39.7**	**20.9**	**21.0**	22.6	25	**58.3**	**65**	**98.7**	98.7	92
2004	**57.3**	**22.0**	*	24.8	25	**59.5**	**67**	**91.7**	91.7	93
2003	**78.1**	**24.8**	**24.8**	27.8	25	**76.6**	**72**	**104.3**	104.3	96
2002	**92.6**	**27.4**	*	**28.9**	*	**66.3**	**73**	**77.6**	77.6	88
2001	**120.2**	**30.9**	*	**29.8**	*	**74.3**	**76**	**98.0**	98.0	89
2000	**96.4**	**28.3**	*	*	*	**77.1**	*	**119.6**	119.6	83

Notes: All concentrations expressed in micrograms per cubic meter ($\mu g/m^3$).
State exceedances shown in **green**. National exceedances shown in **orange**.
[1] D.V. = State designation value.
[2] D.V. = National design value.
*There was insufficient (or no) data available to determine the value.
Source: Air Resources Board 2010 (arb.ca.gov 10/19/10)

The ARB has designated the SCAB as non-attainment for the State ozone standard, the State PM_{10} standard and the State $PM_{2.5}$ standard. In addition, the U.S. Environmental Protection Agency has designated the South Coast Air Basin as non-attainment for the federal ozone standard, the federal PM_{10} standard and the federal $PM_{2.5}$ standard.

Emissions Inventory

The ARB provides estimates of annual average emissions for the entire State broken down by counties and air basins. The latest available data for Riverside County within the South Coast Air Basin are summarized in Table 5-7.

Table 5-7
2008 Estimated Annual Average Emissions
Riverside County within South Coast Air Basin
(tons per day)

	TOG	ROG	CO	NO_X	SO_X	PM	PM_{10}	$PM_{2.5}$
Stationary Sources								
Fuel Combustion	2.2	0.3	1.8	3.5	0.7	0.2	0.2	0.2
Waste Disposal	3.4	1.2	0.0	0.1	0.0	0.4	0.2	0.0
Cleaning and Surface Coatings	4.3	3.8	0.0	0.0	0.0	0.2	0.2	0.1
Petroleum Production and Marketing	2.4	2.3	--	--	0.0	--	--	--
Industrial Processes	2.5	2.3	0.0	0.1	0.0	4.5	2.6	1.0
Total Stationary Sources	**14.8**	**10.0**	**1.9**	**3.7**	**0.4**	**5.2**	**3.1**	**1.4**
Areawide Sources								
Solvent Evaporation	14.4	12.6	--	--	--	0.0	0.0	0.0
Miscellaneous Processes	40.7	4.0	108	2.2	0.1	77.8	38.6	7.2
Total Areawide Sources	**55.1**	**16.7**	**10.8**	**2.2**	**0.1**	**77.8**	**38.6**	**7.2**
Mobile Sources								
On-Road Motor Vehicles	25.9	23.4	264.5	57.4	0.3	3.2	3.2	2.3
Other Mobile Sources	14.4	13.3	70.2	22.7	0.1	1.5	1.5	1.3
Total Mobile Sources	**40.3**	**36.7**	**334.6**	**80.1**	**0.3**	**4.8**	**4.7**	**3.7**
Natural (Non-Anthropogenic) Sources								
Natural Sources	27.8	24.1	37.7	1.1	0.3	4.0	3.8	3.2
Total Natural (Non-Anthropogenic) Sources	**27.8**	**24.1**	**37.7**	**1.1**	**0.3**	**4.0**	**3.8**	**3.2**
Total Riverside County in SCAB	**138.0**	**87.4**	**384.9**	**81.2**	**1.1**	**91.8**	**50.3**	**15.4**

Source: ARB 2009 (arb.ca.gov 8/07/09)

Regulatory Framework

Federal

The U.S. Environmental Protection Agency (EPA) is responsible for enforcing the many federal environmental and hazardous waste laws. California is under the jurisdiction of EPA Region IX with offices in San Francisco. The federal 1970 Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The federal Clean Air Act Amendments of 1990 (1990 CAAA) made major changes in deadlines for attaining National Ambient Air Quality Standards (NAAQS) and in actions required of areas of the nation that exceeded these standards. Under the CAA, state and local agencies in areas that exceed the NAAQS are required to develop state implementation plans (SIP) to show how they will achieve the NAAQS for ozone by specific dates (42 USC 7409, 7411). The EPA's responsibility to control air pollution in individual states is primarily to review submittals of SIPs that are prepared by each state. Failure of California's state and local agencies to develop a SIP by the statutory deadline resulted in a series of lawsuits and appeal that began in 1990.

On April 15, 2004, EPA issued Clean Air Ozone Rules of 2004. This new rule, issued at the same time new designations on attainment and nonattainment were issued, replaces the 1-hour ozone standard with the 8-hour ozone standard and outlines a process for reducing ground level ozone pollution.

State of California

In California, the California Air Resources Board (ARB) is responsible for preparing and enforcing the federally-required SIP in an effort to achieve and maintain NAAQS and State Ambient Air Quality Standards (SAAQS) which were developed as part of the California Clean Air Act (CCAA) adopted in 1988. SAAQS for criteria pollutants equal or surpass NAAQS and include other pollutants for which there are no NAAQS. In addition, ARB is responsible for assigning air basin attainment and nonattainment designations in California. Air basins are designated as being in attainment if the levels of a criteria pollutant meet the SAAQS for the pollutant and are designated as being in nonattainment if the level of a criteria pollutant is higher than the SAAQS.

ARB is the oversight agency responsible for regulating statewide air quality, but implementation and administration of SAAQS is delegated to several regional air pollution control districts (APCD) and air quality management districts (e.g., AQMD). These districts have been created for specific air basins and have principal responsibility for:

- developing plans to meet SAAQS and NAAQS;
- developing control measures for non-vehicular sources of air pollution necessary to achieve and maintain SAAQS and NAAQS;
- implementing permit programs established for the construction, modification, and operation of air pollution sources;
- enforcing air pollution statutes and regulations governing non-vehicular sources; and
- developing employer-based trip reduction programs.

To regulate air pollutant emissions within California, the State has been divided into 15 air basins based upon similar meteorological and geographic conditions and consideration for potential boundary lines whenever practicable. The project area is within the South Coast Air Basin.

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is responsible for controlling emissions primarily from stationary sources of air pollution. These can include anything from large power plants and refineries to the corner gas station. There are about 28,000 such businesses operating under SCAQMD permits. Many consumer products are also considered stationary sources; these include house paint, furniture varnish, and thousands of products containing solvents that evaporate into the air. Also 23% of this area's ozone-forming air pollution comes from stationary sources, both businesses and residences. The other 77% comes from mobile sources—mainly cars, trucks and buses, but also construction equipment, ships, trains and airplanes. Emission standards for mobile sources are established by state or federal agencies, such as the California Air Resources Board and the U.S. Environmental Protection Agency, rather than by local agencies such as the SCAQMD.

SCAQMD develops and adopts an Air Quality Management Plan (AQMP), which serves as the blueprint to bring this area into compliance with federal and State clean air standards. Rules are adopted to reduce emissions from various sources, including specific types of equipment, industrial processes, paints and solvents, even consumer products. Permits are issued to many businesses and industries to ensure compliance with air quality rules. SCAQMD staff conducts periodic inspections to ensure compliance with these requirements.

The latest Air Quality Management Plan was adopted in 2007. It is a regional and multi-agency effort (SCAQMD, California Air Resources Board, Southern California Association of Governments, and the U.S. Environmental Protection Agency). State and federal planning requirements include developing control strategies, attainment documentation, reasonable further progress, and maintenance plans.

The 2007 AQMP also incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools. The 2007 AQMP was adopted by SCAQMD on June 1, 2007 and by the California Air Resources Board on September 27, 2007 as part of the SIP.

Subsequently, on November 22, 2010, EPA published its notice of proposed partial approval and partial disapproval of the 2007 AQMP $PM_{2.5}$ Plan primarily because the attainment demonstration relies heavily on emission reductions from several State rules that have not been finalized or submitted to EPA for approval. On March 4, 2011, SCAQMD adopted revisions to the $PM_{2.5}$ and ozone SIP which addressed the critical issues of the proposed disapproval. It updated the implementation status of the AQMP measures to meet the 2015 $PM_{2.5}$ attainment and retained the AQMD's proposal for contingency measures and also referenced and relied on CARB's proposed contingency measures. In addition, SIP revisions will re-initiate its request that EPA voluntarily accept reduction responsibility for 10 tons per day NO_x emissions in 2014 but will propose that AQMD and CARB jointly provide a "fair share" backstop emissions reduction proposal, if necessary.

Climate Change Legislative and Policy Context

The following discussion on Climate Change Legislative and Policy Context is excerpted from the California Department of Water Resources' August 2010 *Proposition 84 and Proposition 1E Integrated Regional Water Management Guidelines.*

While there are numerous pieces of policy and legislation dealing with climate change, three pieces are important regarding the State's response to climate change, including how Integrated Regional Water Management (IRWM) planning efforts analyze climate change on a project level.

- Executive Order (EO) S-2-05 and the California Global Warming Solutions Act of 2006 (AB 32; amending California Health and Safety Code Division 25.5, §38500, *et seq.*) lay the foundation for California's response to climate change.

- Senate Bill 97, signed by the Governor on August 24, 2007 initiated formal changes to the CEQA Guidelines that provides for the way climate change is analyzed in CEQA documents by adding §21083.05 to the Public Resources Code.

- EO S-13-08, signed by the Governor on November 14, 2008, directed the preparation of a sea level rise impact study, a transportation systems vulnerability assessment, and preparation of California Climate Adaptation Strategy.

These pieces of policy and legislation are briefly summarized below:

EO S-3-05

EO S-3-05 made California the first state to formally establish GHG emissions reduction goals. Those are:

- By 2010, reduce GHG emissions to 2000 levels.

- By 2020, reduce GHG emissions to 1990 levels.

- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The final emission target of 80 percent below 1990 levels would put the State's emissions in line with the estimates of the worldwide reductions needed to bring about long-term climate stabilization and avoidance of the most severe impacts of climate change.

AB 32

AB 32 further codified the mid-term GHG reduction targets established in EO S-3-05. AB 32 also identified ARB as the State agency responsible for the design and implementation of emission limits, regulations, and other measures to meet the target. ARB's December 2008 Climate Change Scoping Plan outlined the State's strategy to achieve the 2020 GHG emission limit. It also included 39 measures that were developed to reduce GHG emissions from key sources and activities while improving public health, promoting a cleaner environment, preserving natural resources, and ensuring that the impacts of the reductions are equitable and do not disproportionately impact low-income and minority communities.

SB 97

SB 97 directed the Governor's Office of Planning and Research to develop CEQA Guideline amendments for the analysis of climate change in CEQA documents for the approval of the California Natural Resources Agency. The CEQA GHG Guidelines amendments became effective on March 18, 2010. The Guideline amendments for GHG emissions fit within the existing CEQA framework for environmental analysis which calls for lead agencies to determine baseline conditions and levels of significance, and to evaluate mitigation measures. The Guideline amendments do not include a threshold of significance for GHG emissions nor do they prescribe assessment methodologies or specific mitigation measures. The Guideline amendments encourage lead agencies to consider many factors in performing a CEQA

analysis, but preserve the discretion that CEQA grants lead agencies to make their own determinations based on substantial evidence.

EO S-13-08

The California Climate Change Adaption Strategy, required by EO S-13-08 was finalized in December 2009.

Federal Involvement

Although California has taken the lead in climate change policy and legislation, there have been several recent important developments at the federal level. On September 22, 2009, EPA released its final GHG Reporting Rule. Starting in 2010, facility owners that emit 25,000 MT of carbon dioxide equivalents (CO_2e) or more per year are required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. On December 2, 2009, the EPA Administrator signed two distinct findings regarding GHGs under §202(a) of the Clean Air Act. He found that the current and projected concentrations of the six key well-mixed GHGs in the atmosphere threaten the public health and welfare of current and future generations and that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

Data used to prepare this section were taken from several sources. Full bibliographic entries are provided at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines including the amendments regarding greenhouse gases. For purposes of this DEIR, implementation of the proposed project may have a significant adverse impact on air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases.

While the final determination of whether or not a project is significant is within the purview of the lead agency pursuant to §15064 of the State CEQA Guidelines, the SCAQMD recommends that the following quantitative air pollution thresholds be used by the lead agencies in determining whether the proposed project could result in a significant impact. If the lead agency finds that the proposed project has the potential to exceed these air pollution thresholds, the project should be considered significant. These thresholds have been defined by the SCAQMD for the SCAB based on scientific data that SCAQMD has obtained and factual data within the federal and State Clean Air Acts. Because the Project is located within the SCAB and current air quality in the Project area is typical of the air basin as a whole, these thresholds are considered valid and reasonable. Each of these threshold criteria is discussed below:

Thresholds for Emissions Related to Construction Activities

Projects in the SCAB with construction-related emissions that exceed any of these thresholds[1] should be considered significant:

- Oxides of Nitrogen (NO_x): 100 pounds per day.
- Reactive Organic Gases (ROG): 75 pounds per day.
- Carbon Monoxide (CO): 550 pounds per day.
- Particulate Matter (PM_{10}): 150 pounds per day.
- Particulate Matter ($PM_{2.5}$): 55 pounds per day.
- Oxides of Sulfur (SO_x): 150 pounds per day.
- Lead (Pb): 3 pounds per day.

Thresholds for Emissions Related to Operation of a Project

Specific criteria for determining whether the potential air quality impacts of a project's operation are significant are set forth in the SCAQMD CEQA Air Quality Handbook. The criteria for these emissions thresholds include compliance with the State and National air quality standards and conformity with the existing Air Quality Management Plan (AQMP) for the SCAB. The daily operational emissions "significance" thresholds[2] are:

- Oxides of Nitrogen (NO_x): 55 pounds per day.
- Reactive Organic Gases (ROG): 55 pounds per day.
- Carbon Monoxide (CO): 550 pounds per day.

[1] www.aqmd.gov (11/05/07)
[2] www.aqmd.gov (11/05/07)

- Particulate Matter (PM_{10}): 150 pounds per day.
- Particulate Matter ($PM_{2.5}$): 55 pounds per day.
- Oxides of Sulfur (SO_x): 150 pounds per day.
- Lead (Pb): 3 pounds per day.

Localized Significance Thresholds

In accordance with SCAQMD's Governing Board's direction, the staff developed the localized significance threshold (LST) methodology and mass rate look-up tables, which were formally adopted by the Governing Board on October 3, 2003 for voluntary use by other public agencies. The mass rate LST look-up tables are only applicable to the following criteria pollutants: oxides of nitrogen (NO_x), carbon monoxide (CO), particulate matter less than 10 microns in aerodynamic diameter (PM_{10}) and particulate matter less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$). The mass rate look-up tables were developed for each source receptor area (SRA) and can be used on a voluntary basis by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts. LST's represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each SRA. For PM_{10} LST's, mass rate look-up tables were derived based on requirements in SCAQMD's Rule 403, Fugitive Dust.

The use of LST's is voluntary, to be implemented at the discretion of local public agencies acting as lead agencies pursuant to the CEQA or NEPA. The LST's established for construction of the 30-inch Diameter Force Main Relocation at River Road Bridge Project are as shown in Table 5-8. *(SCAQMD, September 2008)*

Table 5-8
Localized Threshold Criteria for Determining Significance

Pollutant	Allowable Emissions, pounds per day[1]
Oxides of Nitrogen (NO_x)	334
Carbon Monoxide (CO)	4,352
Particulate Matter (PM_{10})	73
Particulate Matter ($PM_{2.5}$)	22

[1] Based on a disturbed area of 1 acre and 200 meters to the nearest receptor.

Source: SCAQMD, October 2009

Toxic Air Contaminants (TACs)

For projects that emit toxic air contaminants (TACs) or for projects with a sensitive receptor within one-quarter mile of a facility that emits TACs, the California Air Resources Board recommends that a health risk assessment (HRA) be conducted. If the HRA determines that the TAC emissions either individually or cumulatively result in an individual cancer risk exceeding ten in one million, it is considered a significant impact.

Greenhouse Gases (GHGs)

SCAQMD has suggested significance threshold levels of 10,000 metric tons (MT)[3] per year CO_2 equivalents for industrial projects for both construction and operation.

De Minimus Thresholds

Pursuant to 40 CFR Part 51, Subpart W, §51.853, paragraphs (b)(1) and (b)(2), the emission levels that trigger an air quality conformity analysis in the South Coast Air Basin are as follows:

- Nitrogen Dioxide (NO_2): 100 tons per year
- Carbon Monoxide (CO): 100 tons per year
- Particulate Matter (PM_{10}): 70 tons per year
- Volatile Organic Compounds (VOC): 10 tons per year
- Sulfur Dioxide (SO_2): 100 tons per year
- Lead (Pb): 25 tons per year

These threshold criteria are used in this DEIR in determining significance of air quality impacts.

Environmental Analysis

Potential Impact: Conflict with or obstruct implementation of the applicable air quality plan.

A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in applicable air quality management plans (i.e., South Coast Air Quality Management District's 2007 Air Quality Management Plan). The Air Quality Management Plan is based on general plans from local jurisdictions, which includes the County of Riverside's Eastvale Area Plan and the City of Norco's General Plan. The Air Quality Management Plan accounts for development that would occur as a result of implementation of the local general plans. Therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

No mitigation is required.

Potential Impact: Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

[3] One metric ton equals 1.10 tons (2,200 pounds).

Heavy construction equipment such as backhoes, loaders, trucks, tractors and other equipment powered by internal combustion engines would emit various levels of air pollutants. It is anticipated that the kinds of construction equipment to be used at each construction site are provided in Table 5-9.

Table 5-9
Typical Heavy Construction Equipment List

Equipment	Number	Utilization Factor
Compressor	1	0.8
Backhoe/Loader	1	0.5
Utility Truck	1	0.8
Water Truck	1	0.4
Sweeper	1	0.1
Crane	1	0.1
Compactor	1	0.1
Welder	1	0.5
Generator Set	1	0.5
On-Road Trucks	2	1.0
Pickups	2	1.0

SCAQMD has also developed heavy equipment emission factors to assist in the preparation of environmental documents. These emission factors for the above equipment are presented in Table 5-10.

Table 5-10
Heavy Construction Equipment Emission Factors

Equipment	Units	ROG	CO	NO_x	SO_x	PM_{10}	CO_2	CH_4
Compressor	pounds/hour	0.0984	0.3445	0.6494	0.0007	0.0469	63.6	0.0089
Backhoe/Loader	pounds/hour	0.0862	0.3824	0.5813	0.0008	0.0435	66.8	0.0078
Utility Truck	pounds/hour	0.2241	0.6635	2.0158	0.0027	0.0715	260	0.0202
Water Truck	pounds/hour	0.2241	0.6635	2.0158	0.0027	0.0715	260	0.0202
Sweeper	pounds/hour	0.1278	0.5215	0.7403	0.0009	0.0576	78.5	0.0115
Crane	pounds/hour	0.1425	0.4946	1.2753	0.0014	0.0553	129	0.0129
Compactor	pounds/hour	0.0050	0.0263	0.0314	0.0001	0.0063	9.4	0.0016
Welder	pounds/hour	0.0703	0.2150	0.2702	0.0003	0.0243	25.6	0.0063
Generator Set	pounds/hour	0.0832	0.3121	0.5779	0.0007	0.0351	61.0	0.0075
On-Road Trucks	pounds/mile	0.00252764	0.01021519	0.03092379	0.00004042	0.00149566	4.21590774	0.00011651
Pickups	pounds/mile	0.00079628	0.00765475	0.00077583	0.00001073	0.00008979	1.10152540	0.00007169

Notes: Emission factors based on a mid-construction year of 2012.
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter
SO_X = oxides of sulfur
ROG = reactive organic gases
CO_2 = carbon dioxide
CH_4 = methane
Heavy-duty On-Road Trucks Emission Factors Based on Highest (Most Conservative EMFAC 2007 (Version 2.3)
Pickup Emission Factors Based on Highest (Most Conservative) EMFAC 2007 (Version 2.3)
Source: www.aqmd.gov (3/18/10)

Based on the equipment list shown in Table 5-9 and the emission factors shown in Table 5-10, estimated emissions from the heavy equipment to be on the job site are shown in Table 5-11.

Table 5-11
Estimated Emissions from Heavy Construction Equipment
(pounds per day)[1]

Equipment	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Compressor	0.63	2.20	4.16	0.00	0.30	0.27	407	0.06
Backhoe/Loader	0.34	1.53	2.33	0.00	0.17	0.15	267	0.03
Utility Truck	1.43	4.25	12.90	0.02	0.46	0.41	1,664	0.13
Water Truck	0.72	2.12	6.45	0.01	0.23	0.20	832	0.06
Sweeper	0.10	0.42	0.59	0.00	0.05	0.04	63	0.01
Crane	0.11	0.40	1.02	0.00	0.04	0.04	103	0.01
Compactor	0.00	0.02	0.03	0.00	0.01	0.01	8	0.00
Welder	0.28	0.86	1.08	0.00	0.10	0.09	102	0.03
Generator Set	0.33	1.25	2.31	0.00	0.14	0.12	244	0.03
On-Road Trucks[3]	0.25	1.02	3.09	0.00	0.15	0.13	422	0.01
Pickups[4]	0.08	0.77	0.08	0.00	0.01	0.01	110	0.01
Totals	4.29	14.83	34.03	0.04	1.65	1.47	4,222	0.38
Significance Thresholds[5]	75	550	100	150	150	55	N/A	N/A
Localized Thresholds[6]	N/A	4,352	334	N/A	73	22	N/A	N/A

[1] Based on the assumption that the equipment operates eight hours per day.
[2] Based on the assumption that $PM_{2.5}$ emissions are 89 percent of PM_{10} emissions for combustion sources. *(SCAQMD, October 2006).*
[3] Based on EMFAC 2007 (version 2.3) emission factors and the assumption that each truck travels 50 miles per day.
[4] Based on EMFAC 2007 (version 2.3) emission factors and the assumption that each pickup truck travels 50 miles per day.
[4] Construction-related threshold limits developed by SCAQMD to determine significance.
[6] Localized significance thresholds developed by SCAQMD to determine localized significance, based on a work area of 1 acre and a 200 meter distance to the nearest receptor.

As can be seen by the data in Table 5-11, emissions from heavy construction equipment would be considered less than significant based on SCAQMD's construction-related threshold criteria and less than SCAQMD's localized significance thresholds for all criteria pollutants.

Vehicles owned by construction workers would be an additional source of air pollutants. An estimate of emissions based on 10 worker vehicles per day of which 100 percent are pickup trucks (gross vehicle weight of 8,500 pounds or less) with an average round trip of 30 miles is presented in Table 5-12

Table 5-12
Construction Worker Commute Vehicle Emissions

	Pollutant (pounds per day)[1]							
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Totals	0.24	2.30	0.23	0.00	0.03	0.02	330	0.02
Threshold[2]	75	550	100	150	150	55	N/A	N/A

[1] Based on EMFAC 2007 (version 2.3) emission factors and the assumption that each pickup truck travels 30 miles per day.

[2] Construction-related threshold limits developed by SCAQMD to determine significance.

As can be seen by the data in Table 5-12 exhaust emissions from commuter traffic to and from the job site would not be sufficient to have any local adverse effect.

Installation of the proposed Project would create fugitive dust emissions. SCAQMD estimates that 10 pounds per acre per day of fugitive dust emissions from construction activities on disturbed soil. Based on this estimate and an exposed area of 0.5 acre per day, the estimated fugitive dust emissions from grading, etc., would be 5 pounds per day. If the soil is watered three times per day, this estimate can be

reduced by 61 percent resulting in approximately 2 pounds per day of fugitive dust from the construction activities. SCAQMD also estimates that the $PM_{2.5}$ emissions in fugitive dust are equal to 21 percent of the PM_{10} emissions in fugitive dust *(SCAQMD, October 2006).* Therefore, the $PM_{2.5}$ emissions would equal 0.4 pound per day.

The total estimated emissions from the installation of the proposed Project are shown in Table 5-13.

Table 5-13
Total Estimated Construction Emissions
(pounds per day)

	Pollutant (pounds per day)							
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Heavy Equipment	4	15	34	0	2	2	4,222	0
Commuters	0	2	0	0	0	0	330	0
Fugitive Dust	0	0	0	0	2	1	0	0
Totals	4	17	34	0	4	3	4,550	0
Threshold Limits[1]	75	550	100	150	150	55	N/A	N/A
Localized Thresholds[2]	N/A	4,352	334	N/A	73	22	N/A	N/A

[1] Threshold limits developed by SCAQMD to determine significance.

[2] Localized significance thresholds developed by SCAQMD to determine localized significance, based on a work area of 1 acre and a 200 meter distance to the nearest receptor.

As shown in Table 5-13, the total estimated emissions from the construction of the proposed Project would not exceed the construction-related threshold criteria for significance or the localized significance threshold. Therefore, based on these threshold criteria, construction of the proposed Project would not cause a significant impact to air quality.

Routine maintenance of the facilities would insure proper operation of the facilities and reduce impacts. This might include approximately one trip per week to the project facilities. The amount of emissions from one pickup trip per week would be considered less than significant by any threshold criteria.

Toxic Air Contaminants (TACs)

The combustion of diesel fuel produces diesel particulate matter as a byproduct. Diesel particulate matter has been identified by the California Air Resources Board (ARB) as a toxic air contaminant (TAC). While TACs can have long-term and/or short-term effects, diesel TAC has been shown by the ARB to have little or no short-term impact.

The ARB determined that the chronic impact of diesel particulate matter was of more concern than the acute impact in the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines *(ARB 2000)*. In that document, ARB noted that "Our analysis shows that the potential cancer risk from inhalation is the critical path when comparing cancer and non-cancer risk. In other words, a cancer risk of 10 cases per million from the inhalation of diesel particulate matter (PM) will result from diesel PM concentrations that are much less than the diesel PM or TAC concentrations that would result in chronic or acute non-cancer hazard index values of 1 or greater." Consequently, any analysis of diesel TAC should focus on the long-term, chronic cancer risk posed by diesel emissions. Chronic cancer risk is

normally measured by assessing what the risk to an exposed individual from a source of TACs would be if the exposure occurred over 70 years. Diesel emissions related to the proposed Project would only occur over a six month period. Therefore, the impact would be considered less than significant and no further analysis is required.

Greenhouse Gases (GHGs)

SCAQMD has suggested significance threshold levels of 10,000 MT per year CO_2 equivalents for industrial projects. Based on the information presented in Table 5-13 and 260 working days per year, the total annual CO_2 emissions from construction of the Project would be 538 MT per year. Therefore, the greenhouse gas emissions from construction would be considered less than significant.

De Minimus Thresholds

A summary comparison of estimated emissions from construction and "de minimus" thresholds is provided in Table 5-14.

Table 5-14
Comparison of Estimated Emissions from Construction and "De Minimis" Thresholds
(Tons per Year)[1]

	CO	ROG	NO_x	SO_x	PM_{10}
Construction Emissions	2	1	4	0	0.5
"De Minimis" Thresholds	100	10	100	100	70

[1] Based on 260 working days in a year.

As can be seen by the data in Table 5-14, the estimated emissions from construction are well below the "de minimis" thresholds for the South Coast Air Basin. Therefore, an air quality conformity analysis is not required.

For SRF-funded projects an additional requirement exists with respect to conformity analysis. A CAA general conformity analysis applies only to projects in a nonattainment area or an attainment area subject to a maintenance plan and is required for each criteria pollutant for which an area has been designated nonattainment or maintenance. If a project's emissions are below the "de minimus" level and are less than 10% of the areas inventory specified for each criteria pollutant in a nonattainment or maintenance area, further general conformity analysis is not required.

The ARB has designated the SCAB as non-attainment for the State ozone standard, the State PM_{10} standard and the State $PM_{2.5}$ standard. In addition, the U.S. Environmental Protection Agency has designated the South Coast Air Basin as non-attainment for the federal ozone standard, the federal PM_{10} standard and the federal $PM_{2.5}$ standard. Therefore, the project's estimated emissions for ozone precursors (i.e., oxides of nitrogen, volatile organic compounds and carbon monoxide) and particulate matter must be compared with the emissions inventory for these pollutants. That comparison is provided in Table 5-15.

Table 5-15
Comparison of Project's Emissions with Emissions Inventory
(tons per day)

	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$
Estimated Emissions	0.002	0.008	0.017	0.002	0.002
Emissions Inventory	87.4	384.9	81.2	50.3	15.4
Project Percentage of Inventory	0.002	0.002	0.021	0.004	0.013

As can be seen by the data in Table 5-15, the percentage of the project's estimated emissions compared to the emissions inventory for the area are several magnitudes less than 10. Therefore, no further general conformity analysis is required.

Significance of Impact:

Less than significant.

Mitigation Measures:

Although there are no significant impacts with respect to emissions from construction, the construction agent should include the following mitigation measures in its standard construction specifications to reduce the air quality emissions:

- The contractor shall:
  - Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications.
  - Use alternative fuels or clean and low-sulfur fuel for equipment.
  - Do not idle diesel trucks onsite for more than 5 minutes at a time.
  - Require construction equipment that meet or exceed Tier 3 emission standards and equip construction equipment with CARB verified oxidation catalysts and particulate traps.
  - Spread soil binders on site, where appropriate, unpaved roads and staging areas.
  - Water site and equipment every three hours during active construction periods.
  - Sweep all streets at least once per day using SCAQMD Rule 1186 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets.
  - Suspend grading activities during first and second stage smog alerts and during high winds in accordance with SCAQMD Rule 403 requirements.
  - If necessary, wash off trucks leaving the site.
  - Cover haul trucks.

Potential Environmental Effects of Mitigation Measures

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DEIR. The impacts of implementing such measures, if any, would be similar to those identified for the project in Sections 3 through 18 of this DEIR.

Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce the construction emissions to a level of less than significant.

Potential Impact: 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).

The ARB has designated the SCAB as non-attainment for the State ozone standard, the State PM_{10} standard and the State $PM_{2.5}$ standard. In addition, the Environmental Protection Agency has designated the SCAB as non-attainment for the federal ozone standard, the federal PM_{10} standard and the federal $PM_{2.5}$ standard. The proposed Project would generate emissions during the construction phase. However, as shown in Table 5-13 the total estimated emissions from the construction of the Project would not exceed the thresholds for significance recommended by the SCAQMD.

Significance of Impact:

Less than significant.

Mitigation Measure:

No additional mitigation beyond that shown above is feasible.

Potential Impact: Expose sensitive receptors to substantial pollutant concentrations.

As shown in Table 5-13, construction emissions from the Project are considered less than significant by the SCAQMD's threshold criteria for significance.

Significance of Impact:

Less than significant.

Mitigation Measure:

No additional mitigation beyond that shown above is feasible.

Potential Impact: Create objectionable odors affecting a substantial number of people.

The proposed Project is a wastewater conveyance facility. However, based on operational history, neither construction nor operation of the Project would create or cause objectionable odors.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance.

As shown above, greenhouse gas emissions are less than the suggested significance thresholds developed by SCAQMD for industrial projects.

Significance of Impact:

Less than significant.

Mitigation Measure:

None required.

Potential Impact: Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

As shown above, greenhouse gas emissions are less than the suggested significance thresholds developed by SCAQMD for industrial projects.

Significance of Impact:

Less than significant.

Mitigation Measure:

None required.

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6 Biological Resources

Environmental Setting

The results of special-status species and habitat surveys conducted at the site of the proposed 30-inch Diameter Force Main Relocation at River Road Bridge Project are described below. Both a literature review and field reconnaissance study was performed. Descriptive data were obtained from the online County of Riverside, Transportation and Land Management Agency's Land Information Geographic Information System (RCTLMA GIS). Species-specific habitat requirements were obtained from online sources, including County of Riverside, Transportation and Land Management Agency's Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP; http://www.rctlma.org/mshcp/volume1/index.html), and the California Department of Fish and Game's Natural Diversity Data Base The results of those studies are summarized below.

California Department of Fish and Game's Natural Diversity Data Base

Prior to the field surveys a list of potential special-status taxa and habitats was prepared based on occurrence records from the region surrounding the site complied by the California Department of Fish and Game in the California Natural Diversity Database for the Corona North and Corona South USGS 1:24,000 quads.[1] Special-status plants and animals within a two-mile buffer around the project site were identified. These CNDDB occurrence records are illustrated on Figures 6-1 and 6-2.

A pedestrian field survey of the project area was conducted on 24 April 2010.

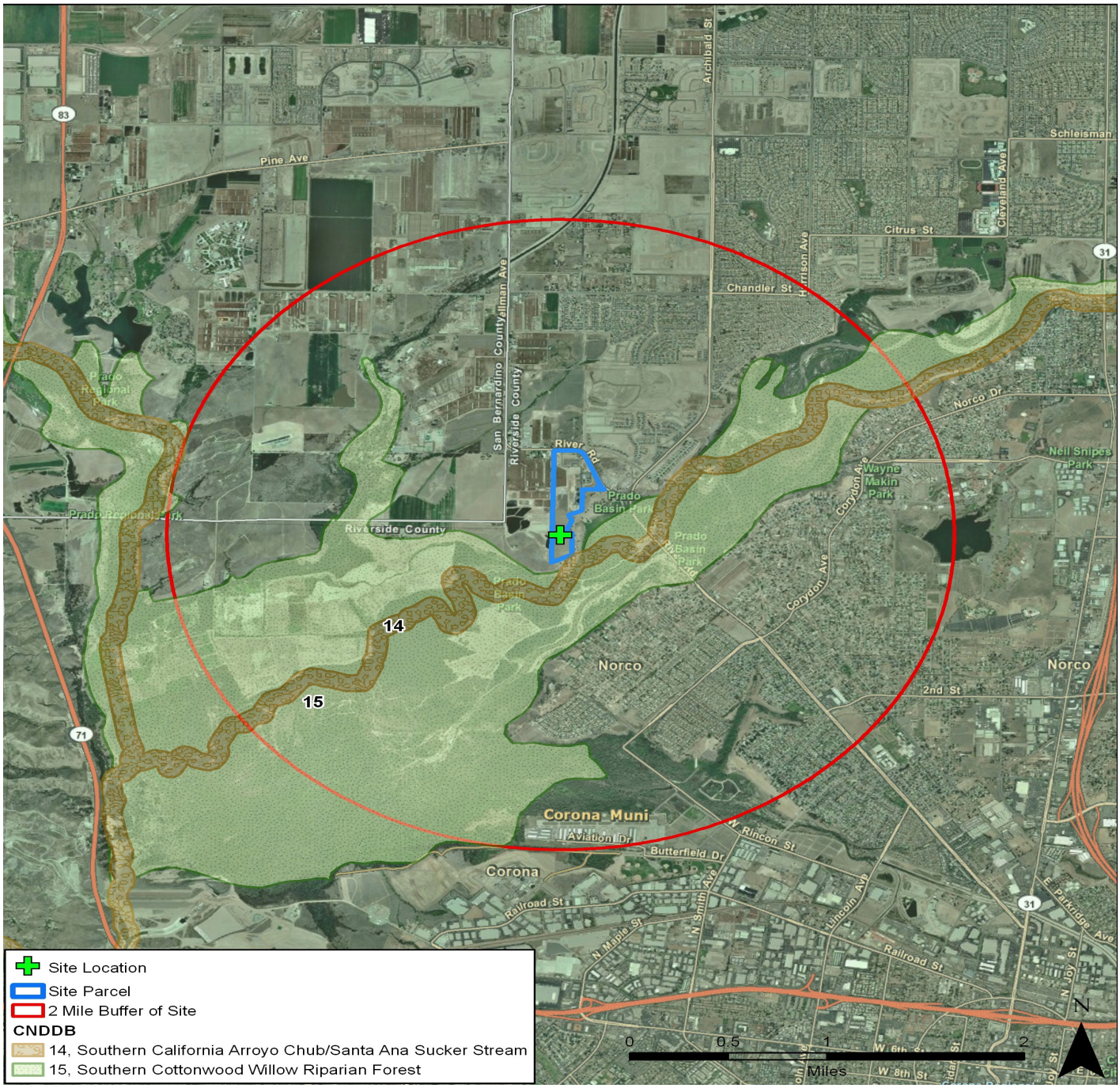
Special-status Plants and Animals

Based on the CNDDB, there are no special-status plant species reported to occur within a two-mile radius of the WRCRWTP expansion area (Figure 6-1). Thirteen special-status animals have been historically reported to occur within two miles of the expansion area (Figure 6-2). The field survey focused on these species and their habitats.

Field Survey

The field survey of the project site was conducted under excellent observation conditions. All of the vegetation in the immediate project area has been removed as part of the County of Riverside's Riverside Bridge Replacement Project or the sand mining operation immediately adjacent to the bridge. Figures 3-2 and 3-3 are typical views of the proposed construction areas.

[1] This records search was performed during the preparation of the April 2010 Final Environmental Impact Report for the Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project prepared by K.S. Dunbar & Associates, Inc.



Note: Records search performed during preparation of the April 2010 Final Environmental Impact Report for the Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project prepared by K.S. Dunbar & Associates, Inc.

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Figure 6-1
CNDDB Sensitive Species Habitat Occurrences

Draft Environmental Impact Report
30-inch Diameter Force Main Relocation at River Road Bridge Project
Western Riverside County Regional Wastewater Authority

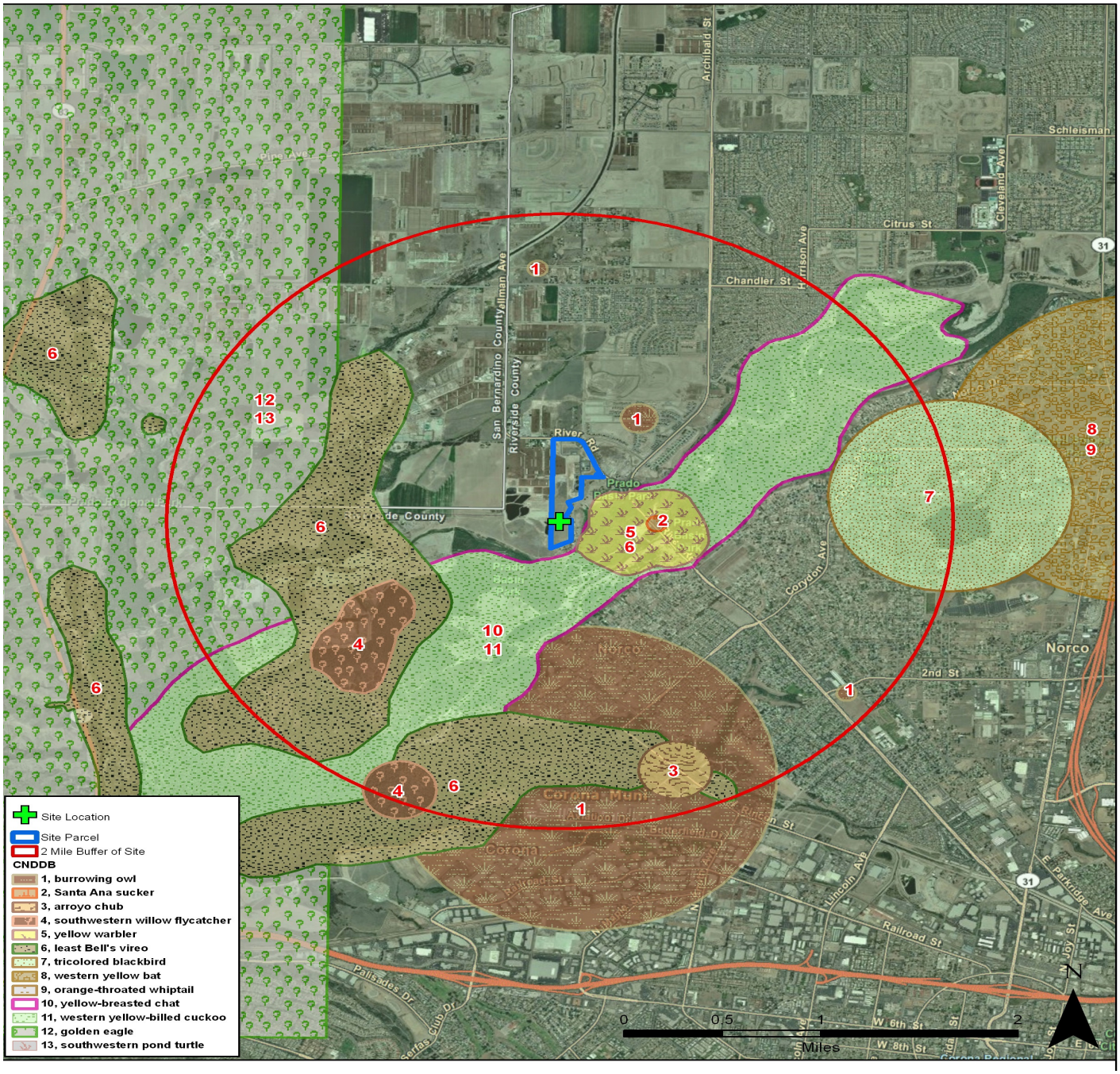

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Figure 6-2
CNDDB Sensitive Animal Occurrences

Draft Environmental Impact Report
30-inch Diameter Force Main Relocation at River Road Bride Project
Western Riverside County Regional Wastewater Authority

The CNDDB lists the following two special habitat areas in the immediate project vicinity: Southern California Arroyo Chub/Santa Ana Sucker Stream and Southern California Willow Riparian Forest. Although these two special habitat areas do still exist in the greater project area, they would not be impacted by the installation of the two connector pipelines as construction activities will not occur outside the existing denuded areas.

The CNDDB also lists the following special-status species as having known to occur in the immediate project area: Santa Ana sucker *(Catostomus santaanae)*, Yellow warbler *(Dendroica petechia),* and Least bell's vireo *(Vireo belli pusillus).* These species were not observed during the field survey; however, if they occur in the immediate project area they would occur either in the River (fish species) or in the riparian area (bird species). These areas would not be affected by construction of the connector pipelines

Western Riverside County Multiple Species Habitat Conservation Plan

The Project site is located in the Eastvale Area Plan and is not within a cell or cell group. The MSHCP has habitat assessment survey requirements for certain plant, bird, mammal, and amphibian species. These are listed below for the project site.

Amphibia Species	Burrowing Owl	Criteria Area Species	Mammalian Species	Narrow Endemic Plant Species	Special Linkage Area
No	Yes	No	No	Yes	No

The narrow endemic plant species include the San Diego ambrosia, Brand's Phacella, and San Miguel savory. A brief description of the burrowing owl and the narrow endemic plant species and their potential to occur on the project site follows:

Burrowing Owl

The burrowing owl *(Athene cunicularia hypugaea)* is a State Species of Special Concern and a Federal Special Concern Species, Partners in Flight Priority Bird Species, and Fish and Wildlife Service Species of Management Concern.

The burrowing owl is narrowly distributed at relatively few locations within the MSCHP Area in suitable habitat. Although the preferred habitat, grassland and some forms of agricultural land, is well distributed, the recent locations of the burrowing owl are clumped in only a few locations. Because this species requires specific soil and micro-habitat conditions, occurs in few locations within a broad habitat category, requires a relatively large home range to support its life history requirements, occurs in relatively low numbers, and is semi-colonial, the burrowing owl will require site-specific considerations and management conditions.

The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-

long resident. They may also use golf courses, cemeteries, road allowances within cities, airports, vacant lots in residential areas and university campuses, fairgrounds, abandoned buildings and irrigation ditches. They may also occur in forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. They require large open expanses of sparsely vegetated areas on gentle rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover. They may also dig their own burrows in soft, friable soil (as found in Florida) and may also use pipes, culverts, and nest boxes where burrows are scarce. The mammal burrows are modified and enlarged. One burrow is typically selected for use as the nest, however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

Within Western Riverside County, the burrowing owl occurs within the central portion within the open lowlands. It has a sparsely scattered distribution throughout the Area Plan outside of the montane areas. Breeding and burrow locations have not been identified within the UCR database, although most observations that have been recorded are probably located near a burrow due to the relatively sedentary habits of the species.

The species has been detected east of the Jurupa Mountains, along the Santa Ana River, at Lake Mathews, at Good Hope, Alberhill, Murrieta, March Air Reserve Base, the Lake Perris/Mystic Lake area, the Badlands, within the vicinity of Beaumont and Banning, San Jacinto, Valle Vista, between San Jacinto River and Lakeview Mountains, west of Hemet, the area around Diamond Valley Lake, east and south of Lake Skinner area, along Santa Gertrudis Creek and Tucalota Creek, in Long Canyon, and along De Portola Road as documented in the UCR database and from other sources.

Based on the information above, clusters of locations, and information from the USFWS, the Core Areas may include Santa Ana River, Lake Matthews area, Lake Perris/Mystic Lake areas, playa west of Hemet, Lake Skinner/Diamond Valley Lake area, and Valle Vista. Smaller numbers of clustered locations include the area west of the Jurupa Mountains, San Jacinto, Rancho California area (Long Canyon and De Portola Road), and March ARB. Historically, there were a number of locations concentrated within the Moreno Valley area, however, due to the age of the location and the development in the area, the number currently within this area is unknown.

The Project site does not provide suitable foraging or nesting habitat for the burrowing owl. There is essentially no vegetation to provide opportunities for foraging. In addition, no ground squirrel burrows or other suitable burrows were observed in the immediate area of the proposed site. Burrowing owls were not observed on the site.

Narrow Endemic Plant Species

As previously stated, the immediate project area has been denuded by construction activities associated with the County of Riverside's bridge replacement project and the sand mining activity immediately adjacent to the bridge. Therefore, the potential for narrow endemic plant species to occur on the site is problematic at best.

Regulatory Setting

U.S. Fish and Wildlife Service

Endangered Species Act

Projects that would result in adverse effects on federally listed threatened or endangered species are required to consult with and mitigate through consultation with the U.S. Fish and Wildlife Service (USF&WS). The objective of consultation is to determine whether the project would impact a protected species or designated critical habitat, and to identify mitigation measures that would be required to avoid or reduce impacts to the species. This consultation can be pursuant to either Sections 7 or 10 of the Endangered Species Act (ESA). Section 7 consultation is required when a federal agency is involved in project approval, funding, or permitting. Section 10 consultation is required when no federal agencies are involved with the project.

The federal ESA of 1973[2] provides legal protection for plant and animal species in danger of extinction, and requires definitions of critical habitat and development of recovery plans for specific species. Section 7 of the ESA requires federal agencies to make a finding on the potential to jeopardize the continued existence of any listed species potentially impacted by all federal actions, including the approval of a public or private action. Section 9 of the ESA prohibits the take of any member of an endangered species. Take is defined in the ESA as "… to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USF&WS has further defined the terms harass and harm. Harass is defined as follows:

> "… an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding, feeding, or sheltering."

Harm is defined as follows:

> "… significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering."

Section 10(a) of the ESA permits the incidental take of listed species if the take is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

Section 3 of the ESA defines an endangered species as any species, including subspecies, in danger of extinction throughout all or a significant portion of its range. This section defines threatened species as any species "likely to become endangered within the foreseeable future throughout all or a significant portion of its range". Federally listed or "listed" indicates that a species has been designated as endangered or threatened through publication of a final rule in the *Federal Register*. Designated endangered and threatened species, listed under Section 4 of the ESA, receive the full protection of the ESA. Proposed endangered and threatened species are those for which a proposed regulation, but not a

[2] The federal Endangered Species Act of 1973, as amended (16 USC 1531 et seq.), Sections 7, 9, and 10.

final rule, has been published in the *Federal Register.* Proposed species are granted limited protection, while candidate species and species of special concern are afforded no protection under the ESA.

Migratory Bird Treaty Act—1936

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10-13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USF&WS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). Six families of raptors occurring in North America were included in the amendment:

- Accipitridae (kites, hawks, and eagles);
- Catharidae (New World vultures);
- Falconidae (falcons and caracaras);
- Pandionidae (ospreys);
- Strigidae (typical owls); and
- Tytonidae (barn owls).

All species and subspecies of the families listed above are protected under the amendment.

California Department of Fish and Game

California Endangered Species Act

The California Department of Fish and Game (CDFG) administers a number of laws and programs designed to protect fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 (CESA-Fish and Game Code Section 2050), which regulates the listing and take of state-endangered and state-threatened species. CESA declares that deserving species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA established that it is state policy to conserve, protect, restore, and enhance endangered species and their habitats.

Species listed under CESA cannot be taken without adequate mitigation and compensation. The definition of take under CESA is the same as described above for the federal ESA. However, based on findings of the California Attorney General's office, take under CESA does not prohibit indirect harm by way of habitat modification. Typically, CDFG implements endangered species protection and take determinations by entering into management agreements (Section 2018 Management Agreements) with project applicants.

CDFG maintains lists for Candidate-Endangered Species and Candidate-Threatened Species. California candidate species are given equal protection to the law as listed species have. CDFG also lists Species of Special Concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Species of special concern do not receive protection under the CESA or any section of the California Fish and Game Code and do not necessarily meet CEQA Guidelines Section 15380 criteria as rare, threatened, endangered, or of other public concern. Like federal species of concern, the determination of significance for California species of special concern must be made on a case-by-case basis. Designation of Species of Special Concern is intended by CDFG to be used as a management tool for consideration in future land use decisions.

Fish and Game Code – Sections 3503, 3503.5 and 3513

California Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act. These regulations could require that elements of a proposed project (particularly vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFG and/or USF&WS.

Fish and Game Code – Sections 3511, 4700, 5050, and 5515

California Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians) and 5515 (fish) designate certain species as “fully protected”. Fully protected species, or parts thereof, may not be taken or possessed at any time, and no provision of the Code or any other law may be construed to authorize the issuance of permits or licenses to take any fully protected species. No such permits or licenses heretofore issued may have any force or effect for any such purpose, except that the California Fish and Game Commission may authorize the collecting of such species for necessary scientific research. Section 3511 of the Code may authorize the live capture and relocation of fully protected birds pursuant to a permit for the protection of livestock. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFG.

Streambed Alteration Agreements

Under sections 1600-1607 of the California Fish and Game Code, the CDFG regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFG’s jurisdiction are defined in the code as the . . . “bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit...” (Section 1601).

This broad definition gives the CDFG great flexibility in deciding what constitutes a river, stream, or lake. The CDFG defines streams under the jurisdictions of sections 1600-1607 as follows:

1. The term "stream" can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams [United States Geological Survey (USGS) maps], and water courses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.

2. Biological components of any stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species that derive benefits from the stream systems.

3. As a physical system, a stream not only includes water (at least on an intermittent or ephemeral basis), but also a bed or channel, a bank and/or levee, instream features such as logs or snags, and various floodplains depending on the return frequency of the flood event being considered.

4. The lateral extent of a stream can be measured in several ways depending on a particular situation and the type of fish and wildlife resource at risk. The following criteria are present in order from the most inclusive to the least inclusive:

    a. The floodplain of a stream can be the broadcast measurement of a stream's lateral extent depending on the return frequency of the flood event used. For most flood control purposes, the 100-year flood event is the standard measurement. However, because it may include significant amounts of upland or urban habitat, in many cases the 100-year floodplain may not be appropriate.

    b. The outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats and is therefore a reasonable and identifiable boundary for the lateral extent of a stream. In most cases, the use of this criterion should result in protecting the fish and wildlife resources at risk.

    c. Most streams have a natural bank which confines flows to the bed or channel except during flooding. In some instances, particularly on smaller streams or dry washes with little or no riparian habitat, the bank should be used to mark the lateral extent of a stream.

    d. A levee or other artificial stream bank could also be used to mark the lateral extent of a stream. However, in many instances, there can be extensive areas of valuable riparian habitat located behind a levee.

In practice, the CDFG usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

Riverside County

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) encompasses 1,966 square miles of western Riverside County including approximately 842,500 acres of unincorporated County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as approximately 372,700 acres within the jurisdictional areas of cities. The MSHCP provides for the creation of a conservation area that protects and manages 500,000 acres of habitat for covered species (146 species). The MSHCP provides for habitat conservation, species protection and management, program costs, and development certainty to the County and cities; State and federal wildlife agencies; development, agriculture, and environmental communities; and the public at large. The goal of the MSHCP is to target the highest quality habitats for preservation, while allowing development of less important habitat areas.

Riverside County Ordinance No. 663.10, Stephens' Kangaroo Rat Mitigation Fee Ordinance

The purpose of this ordinance is to finance the preparation, development and implementation of a Habitat Conservation Plan, including the acquisition of habitat reserve sites, and the application for a Section 10(a) permit under the Federal Endangered Species Act of 1973. It is the further purpose of this ordinance to provide a method for mitigation of impacts to the Stephens' Kangaroo Rat caused by the loss of its habitat due to development during the preparation and implementation of a Habitat Conservation Plan and provide for habitat mitigation to be identified in the Habitat Conservation Plan. Mitigation of impacts to the Stephens' Kangaroo Rat will be accomplished through the review of each proposed development project within the Fee Assessment Area to determine whether on-site mitigation through the reservation or addition of lands included within or immediately adjacent to a potential habitat reserve site or payment of the Mitigation Fee or a combination of both is appropriate and furthers the ultimate Habitat Conservation Plan objectives. A proposed development project may be referred, for review, to Federal and State resource agencies based upon criteria which may be established and agreed upon by the County and said agencies.

This ordinance provides for the establishment of this review process and satisfaction of on-site mitigation to protect potential habitat reserve sites or payment of the Mitigation Fee or a combination of both, which upon implementation will satisfy U.S. Fish and Wildlife Service, California Department of Fish and Game, as well as County mitigation requirements for the Stephens' Kangaroo Rat and its habitat which may occur within the unincorporated areas of the County designated herein.

Data used for this section were obtained from various sources including the California Natural Diversity Data Base and Western Riverside County Multiple Species Habitat Conservation Plan. Full bibliography entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this DEIR, implementation of the proposed project may have a significant adverse impact if it would result in any of following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

Environmental Analysis

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

Based on literature searches, analysis of aerial photographs and field studies, there are no special-status species that would be impacted by implementation of the proposed project.

Significance of Impact:

No Impact.

Mitigation Measures:

None required.

Potential Impact. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Although there is riparian habitat and other sensitive natural communities identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service in the immediate project area, they would not be impacted by implementation of the proposed project as all construction activities would occur in a presently denuded area. Therefore, no impacts are anticipated and no mitigation is required

Significance of Impact:

No impact.

Mitigation Measures:

None required.

Potential Impact. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Although there are federally protected wetlands immediately adjacent to the project site, implementation of the project would not impact them as all construction activities would occur in a presently denuded area. Therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The proposed Project contains only below ground facilities. Therefore, implementation would not interfere with any migratory activities or impact migratory corridors. No impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Conflict *wit*h any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No other ordinances are in place that would apply to the proposed Project.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

As shown above, implementation of the proposed project would not conflict with the provisions of the Western Riverside County Multiple Species Habitat Conservation Plan.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

References

California Natural Diversity Data Base. 2009. California Department of Fish and Game. Biogeographic Data Branch. Commercial Version – Dated 1 August 2009. U.S. Geological Survey topographic maps at 1:24,000 for *Corona South* and *Corona North*.

K.S. Dunbar & Associates, Inc., 2010. Final Environmental Impact Report, Western Riverside County Regional Wastewater Treatment plant Enhancement and Expansion Project (SCH No. 2009091040). Western Riverside County Regional Wastewater Authority, April.

Riverside County Board of Supervisors. 2009. Riverside County Land Information System.

Riverside County Board of Supervisors. Western Riverside County Multiple Species Habitat Conservation Plan.

Riverside County Board of Supervisors. 2003. General Plan. October.

Riverside County Board of Supervisors. 2003. Eastvale Area Plan. October.

Riverside County Board of Supervisors. Riverside County Ordinance No. 663.10, Stephens' Kangaroo Rat Mitigation Fee Ordinance.

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act. December 30*.

U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; Riverside County Transportation Department. 2005. *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation*. June.

7 Cultural Resources

History

The following historic context is taken from the Final EA/EIR for the River Road Bridge Replacement Project *(FHA, June 2005).*

The Project site is located within an area that was occupied prehistorically by the Gabrielino and Serrano Native American groups. European explorers, such as Portola, de Anza and Garces, first entered the Prado Basin in the 18th century en route to Spanish missions and the Pacific coast. An *asistencia,* or branch church, for the Mission San Gabriel was established in the San Bernardino Valley and influenced subsequent settlement in the Prado Basin. After mission lands were secularized in 1833, Bernardo Yorba received the first private land grand in the region. In the years following Yorba's acquisition of Rancho Canon de Santa Ana in 1834, Juan Lorenzo Bardini received the Jurupa Ranch grant (1838), Tibercio Tapia received Rancho Cucamonga (1839), and Antonio Maria Lugo received Rancho Santa Ana del Chino (1841). The signing of the Treaty of Guadalupe Hidalgo brought California under control of the United States, after which the legality of Mexican land grants was challenged in the courts and by squatting gold miners. Many of the Mexican rancheros who retained their rights to land after lengthy court battles were defeated in the 1860s by two years of floods followed by years of drought. Those who had not lost their holdings during the drought years were soon faced with the land boom that occurred in southern California during the 1880s and began subdividing their holdings.

The Project vicinity did not undergo development by Euro-Americans until the first decades of the 20th century. In 1886, the South Riverside Land and Water Company purchased 12,000 acres to the south of the Project area and proceeded to plot the town of South Riverside. The town's name was changed to Corona in 1896 in reference to circular Grand Boulevard. In 1908, James W. Long purchased some land north of Corona, which was the town of Norco, a derivation of North Corona, and proceeded to construct improvements. From the North Corona Land Company office in Los Angeles, Clark advertised his town as "the complete residential income community" located in an area "where living conditions more nearly approach perfection than in any other section of the United States." Norco was promoted as an agricultural-based community containing small farmsteads where owners could earn a sufficient income through tending crops, poultry, or rabbits. The Company was a cooperative, which provided owners with building materials and equipment at a reasonable price, and marketed their products to Los Angeles buyers. Clark's ideology has survived to a certain extent. Today, Norco is a moderately sized community with approximately 24,000 residents, and still promotes its rural atmosphere and horse-friendly reputation.

Previous Records Search

During the preparation of the Final EA/EIR for the River Road Bridge Replacement Project *(FHA, June 2005),* an Area of Potential Effect (APE) was defined for the project that included the proposed Force Main Relocation at River Road Bridge Project area. Studies were conducted, pursuant to 36 CFR 800 and Caltrans procedures, to identify potential historic or archeological resources within the APE. No such resources were discovered. These findings are documented in a Negative Historic Property Survey Report (NHPSR) and Negative Archeological Survey Report (NASR); these reports were approved by Caltrans and FHWA on July 10, 2001.

Native American Consultation

In his March 16, 2010 letter, Dave Singleton, Program Analyst, Native American Heritage Commission, in response to the Notice of Preparation, stated:

> *A record search of the Sacred Land File has failed to indicate the presence of Native American cultural resources in the immediate area.*

The Native American Heritage Commission also provided a list of Native Americans to be consulted with in Riverside County. The Notice of Preparation of a Draft Environmental Impact Report was mailed to the eight tribes recommended by the Native American Heritage Commission. Those are:

Anthony Madrigal, Jr., Chairperson
Cahuilla Band of Indians
Post Office Box 381760
Anza, California 92539

Paul Macarro
Cultural Resources Center
Pechanga Band of Mission Indians
Post Office Box 1477
Temecula, California 92593

Joseph Hamilton, Vice Chairman
Ramona Band of Cahuilla Mission Indians
Post Office Box 391670
Anza, California 92539

Cindi Alvitre
Ti'At Society
6515 E. Seaside Walk, #C
Long Beach, California 90603

Anthony Morales, Chairperson
Gabrielino/Tongva San Gabriel Band of Mission Indians
Post Office Box 693
San Gabriel, California 91778

John Marcus, Chairman
Santa Rosa Band of Mission Indians
Post Office Box 609
Hemet, California 92546

Sam Dunlap, Tribal Secretary
Gabriellino/Tongva Council / Gabrielino Tongva Nation
761 Terminal Street, Building 1, 2nd Floor
Los Angeles, California 90021

Erica Helms, Cultural Resources Manager
Soboba Band of Luiseño Indians
Post Office Box 487
San Jacinto, California 92581

Only the Soboba Band of Luiseño Indians responded to that NOP. John Ontiveros of the Cultural Resources Department's letter, dated March 16, 2010, as well as WRCRWA's response, is included in Chapter 21 of this DEIR.

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this DEIR, implementation of the proposed project may have a significant adverse impact if it would result in any of following:

- Cause a substantial adverse change in the significance of a historical resource, as defined in §15064.5 of the State CEQA Guidelines.

- Cause a substantial adverse change in the significance of an archeological resource, pursuant to §15064.5 of the State CEQA Guidelines.
- Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

Environmental Analysis

Potential Impact. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

Based on the review of records maintained by the Eastern Information Center and the Native American Heritage Commission (Appendix D), and the intensive field inspection of the project area, there are no historical resources as defined in §15064.5 of the CEQA Guidelines in the immediate Project area. Therefore, a further analysis is not required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Cause a substantial adverse change in the significance of an archeological resource as defined in §15064.5.

There are no known archeological resources within the Project area that could be impacted by implementation of the Project. Although there were no archeological resources as defined in §15064.5 of the State CEQA Guidelines identified within the immediate Project area, there is always a possibility that buried cultural resources that were not previously identified could be unearthed during excavation activities thus leading to a potentially significant impact.

Significance of Impact:

Less than significant with mitigation incorporated.

Mitigation Measures:

The construction agent should include the following mitigation measure in its construction contract documents:

- If inadvertent discoveries of cultural resources are encountered at any time during construction, mitigation would be conducted consistent with Public Resources Code section 21083.2 State CEQA Guidelines, 15126.4, subdivision (b). Construction personnel

shall avoid altering these materials and their context until a qualified archeologist has evaluated the situation and contacted the State Office of Historic Preservation and the closest Indian Tribe to the Project (in this case the Temecula Band of Luiseño Indians). Project personnel shall not collect or retain cultural resources. Prehistoric resources include, but are not limited to: chert or obsidian flakes; projectile points; mortars and pestles; dark, friable soil containing shell and bone; dietary debris; heat-affected rock; or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits (glass, metal, wood, ceramics), often found in old wells and privies.

Potential Environmental Effects of Mitigation Measure

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DEIR. The impacts of implementing such measures, if any, would be similar to those identified for the Project in Sections 3 through 18 of this DEIR.

Level of Significance After Mitigation:

Less than significant.

Potential Impact. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

It is possible that paleontological resources could be unearthed during excavation activities thus leading to a potentially significant impact. Implementation of the mitigation measure below would reduce this impact to a less than significant level. Therefore, no further analysis is required.

Significance of Impact:

Potentially significant.

Mitigation Measure:

The construction agent should include the following mitigation measure in its construction contract documents:

- If paleontological resources (e.g., fossils) are encountered at any time during construction of the project, construction personnel shall avoid altering these materials and their context until a qualified paleontologist has evaluated the situation. Project personnel shall not collect or retain paleontological resources

Potential Environmental Effects of Mitigation Measure

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DEIR. The impacts of implementing such measures, if any, would be similar to those identified for the Project in Sections 3 through 18 of this DEIR.

Level of Significance After Mitigation:

Less than significant.

Potential Impact. Disturb any human remains, including those interred outside of formal cemeteries.

No human remains, including formal cemeteries were identified within or immediately adjacent to the proposed project. However, it is always possible that unmarked burials could be unearthed during excavation activities.

Significance of Impact:

Potentially significant.

Mitigation Measure:

The construction agent should include the following mitigation measure in its construction contract documents:

- Consistent with State CEQA Guidelines, section 15064.5, subdivision (e), in the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the remains are found to be Native American, the Native American Heritage Commission shall be notified within 24 hours. The NAHC must immediately notify the Most Likely Descendant(s) under Public Resources Code §5097.98 and the descendants must make recommendations or preference for treatment within 48 hours of being granted access to the site. Guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains in accordance with the provisions of Health and Safety Code §7050.5 and Public Resources Code §5097.98.

Potential Environmental Effects of Mitigation Measure

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DIR. The impacts of implementing such measures, if any, would be similar to those identified for the Project in Sections 3 through 18 of this DIR.

Level of Significance After Mitigation:

Less than significant.

References

Riverside County Board of Supervisors. 2003. General Plan. October 7.

Riverside County Board of Supervisors. 2003. Eastvalle Area Plan. October 7.

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; Riverside County Transportation Department. 2005. *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation*. June.

8 Geology and Soils

Environmental Setting

The following geology and soils environmental setting was excerpted from the *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation* prepared by the U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; and Riverside County Transportation Department dated June 2005.

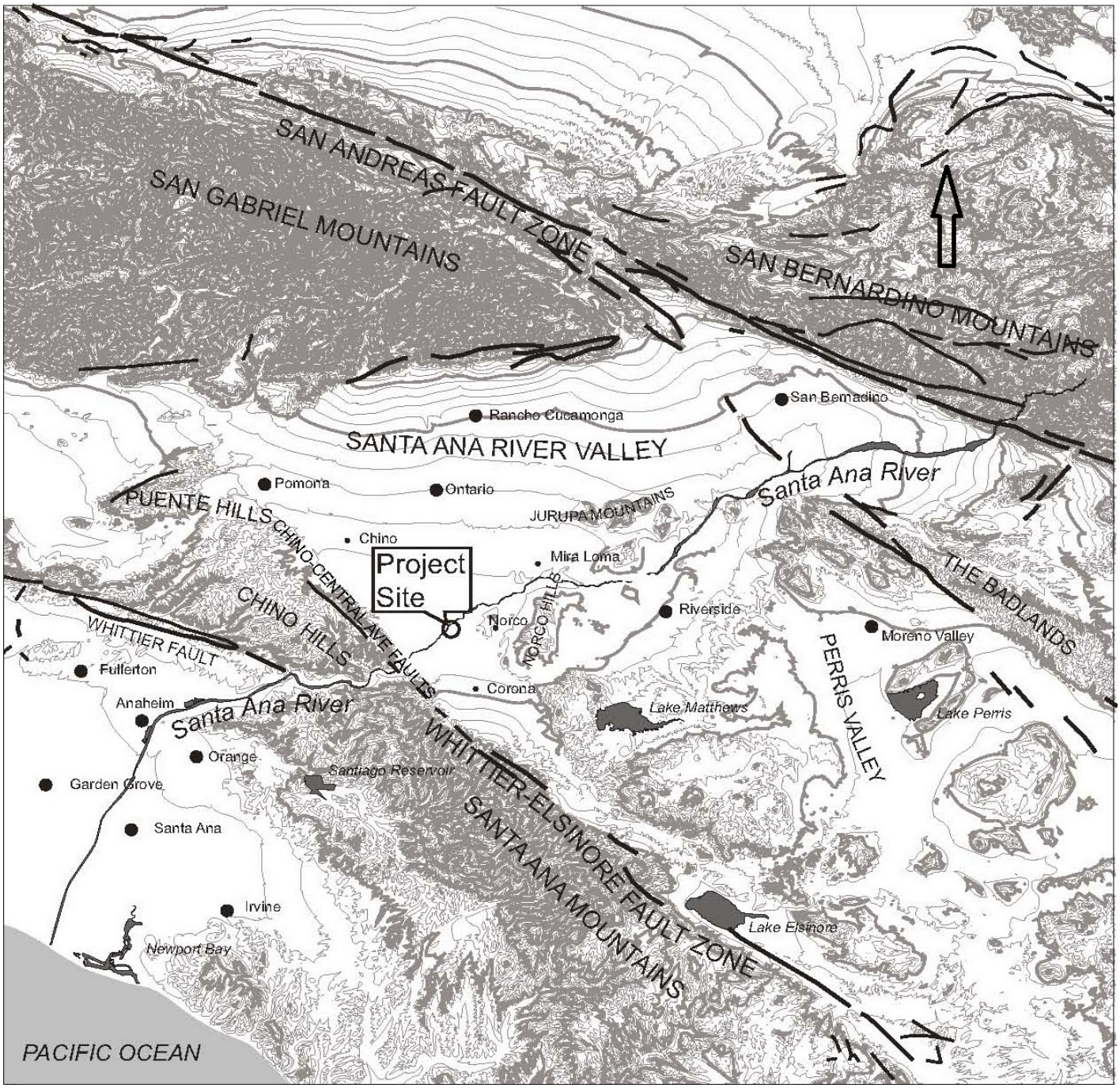
Physiography

The Project area is in the southwest corner of the Upper Santa Ana River Valley near the cities of Corona and Norco. The Upper Santa Ana River Valley is a gently southerly sloping plain bounded by the San Gabriel Mountains on the north, the San Bernardino Mountains on the northeast and east, the Puente Hills and Chino Hills on the west, and the Perris Block (uplands) on the south (Figure 8-1). The western, northern, and eastern boundaries of the valley are abrupt and rise sharply to the surrounding mountains. The southern margin is more gradual and is characterized by several scattered low-elevation hills and intervening valleys. The Norco Hills just east of the site are typical of these low-elevation rounded hills and rise to about 1,200 feet.

The Santa Ana River is the major regional trunk stream and flows westerly across the southern margin of the valley from the high-standing San Bernardino Mountains on the east to the Los Angeles Basin on the west, through a narrow canyon between the Chino Hills and the Santa Ana Mountains called the Santa Ana Narrows. Elevations on the plains range from about 1,800 to 1,900 feet on the north to about 450 to 700 feet on the south. The Project site is in the lowest part of the valley at an elevation of about 500 feet. In the immediate Project area, the Santa Ana River flows within a shallow channel about 0.5 mile wide along the north side of the Norco Hills and into the Prado Basin.

Stratigraphy

The Upper Santa Ana River Valley is an alluvial plain consisting of Quaternary-age sands and gravels derived from the surrounding hills and mountains. This alluvium is generally coarser grained near the mountains and hills and becomes finer away from the hills. In the immediate Project area, these alluvial deposits consist of two units (Qpv and Qov). The Qpv unit represents Holocene-age floodplain alluvium including modern-day channel and basin deposits. The Qov deposits are older materials ranging from a few tens of thousands of years to a few hundred thousand years old (Weber, 1977) and represent late-Pleistocene-age floodplain and valley alluvium.



Source: FHA , June 2005

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Figure 8-1
Project Area Topography

In the Project area, the alluvial deposits are 400 to 500 feet thick (French, 1976) and overlie Tertiary-age marine and continental sediments and sedimentary rocks (e.g., Puente and Fernando Formations) to depths of 1,000 to 1,500 feet. The Tertiary rocks are underlain by basement rocks consisting primarily of Cretaceous-age igneous rocks (e.g., quartz diorite, granodiorite, granite) similar to the basement rocks of the Perris Block on the south.

Geologic Structure

The Quaternary-age sediments of the Upper Santa Ana River Valley are generally flat lying and undeformed. These sediments overlie the Tertiary-age sedimentary rocks and igneous basement rocks, both of which are locally folded and faulted. In the immediate Project area, the Tertiary sedimentary rocks along the eastern margin of the Chino/Puente Hills and the sediments below Prado Basin are displaced by faults, which appear to represent a northwesterly extension of the Elsinore Trough that occupies the western part of the Perris Block to the south. Just south of the Project site, the Elsinore fault splits into the Whittier and Chino faults. The Whittier fault extends northwesterly along the southwest side of the Chino/Puente Hills and the Chino fault lies along the northeast side of the Chino/Puente Hills (Figure 8-1).

The Chino fault is primarily within Tertiary sedimentary rocks but there is local evidence of fault offsets in the Quaternary sediments where the fault extends across the floor of the Upper Santa Ana River Valley. The fault is generally considered to be potentially active.

The Central Avenue fault is parallel to the Chino fault and together they form a northwest-southeast trending structural trough (graben) west of the site. The Central Avenue fault is poorly understood but oil wells and geophysical data indicate abrupt changes in elevation of basement rocks, and thickness of Tertiary sedimentary rocks along the southwest margin of the Upper Santa Ana River Valley. To the northwest, the Central Avenue fault is represented by groundwater barriers (Fife et al, 1977). In the Prado Basin area, geomorphic features such as linear alignment of gullies and channels suggest Quaternary-age faulting. This fault has similar stratigraphic and structural relationships to the Chino fault and therefore probably represents the southeasterly continuation of the Chino fault and the feature may be an earthquake hazard. Other faults occur in the project region but these are widely scattered and even less understood than the Central Avenue fault. These unnamed faults are generally short and discontinuous.

None of the faults are known to extend through the proposed Project area so the surface rupture potential is considered to be very low. No nearby Alquist-Priolo Earthquake Fault Zones have been designated by the California Division of Mines and Geology.

Seismicity

The Project site is located in seismically active southern California and is subject to shaking from both local and distant earthquakes. Large events on the distant San Andreas and San Jacinto faults can affect the Project site but should not control seismic design of the Project. Historically, there have been only a few small earthquakes in the Project region and none of these are known with certainty to have been associated with the Chino or Central Avenue faults. Small earthquakes occur frequently to the south along the Elsinore fault. The largest of these was a Magnitude 6.0 earthquake in 1910. The possible interconnection between the Elsinore, Whittier, and Chino faults suggests that the Chino and Central Avenue faults could represent a latent earthquake hazard. Table 8-1 lists the faults in the Project area along with their magnitudes, and the estimated peak ground accelerations from the maximum earthquakes.

Table 8-1
Maximum Probable Earthquakes and Ground Motion

Fault Name	Type of Slip[1]	Maximum Easthquake[2]	Distance from Site (miles)	Peak Bedrock Acceleration (g)
San Andreas	ST	8.0	24	0.27
San Jacinto	ST	7.5	19	0.19
Whittier-Elsinore	ST	7.5	4.7	0.49
Chino	ST	6.5	3.0	0.43
Central Avenue	XX	6.5	0.9	0.55

[1] ST = strike slip, XX = Unknown (Mualchin and Jones, 1992)
[2] Richter Magnitude (Mualchin and Jones, 1992)

Soil Conditions

Based on observations made during a site visit and available geologic information, the soils within the Project study area are anticipated to be loose younger and older alluvium. The soils are also anticipated to be predominantly granular. Due to the seasonally high groundwater levels and potential for significant ground shaking, the liquefaction potential of the loose granular soils is considered to be high.

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this DEIR, implementation of the proposed Project may have a significant adverse impact if it would result in any of following:

- 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 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; or 4) landslides.

- Result in substantial soil erosion or the loss of topsoil.

- 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.

- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Environmental Analysis

Potential Impact: 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 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; or 4) landslides.

1. The Alquist-Priolo Earthquake Fault Zoning Act identifies special study zones for areas where existing known faults are located. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act also required the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. There are no Alquist-Priolo faults in the immediate Project area. Therefore, the seismic-related impacts regarding Alquist-Priolo faults would be less than significant.

2. As stated above, the Chino and Central Avenue faults are the nearest earthquake sources to the Project area. Both faults are considered capable of generating a Maximum Credible Earthquake (MCE) of Magnitude 6.5 *(Mualchin, 1996).* The Caltrans ground motion map *(Mualchin, 1996)* considers the Chino fault to control seismic design with a peak bedrock acceleration of 0.43g. However, local geological and geophysical data indicate that the Central Avenue fault, with a peak acceleration of 0.55g, has a southeast extension not recognized by Caltrans. This fault extends west of the Project site and therefore should be used for seismic design because it is the nearest fault to the site. *(FHA, June 2005)*

3. The potential for liquefaction depends upon potential ground movement during seismic events, soil conditions, and depth to groundwater. As stated above, due to the loose nature of the soils and the year-round existence of high groundwater levels at the site, the potential for liquefaction is high. These

seismic conditions can also be mitigated by special design using reasonable construction and/or maintenance practices common to the Riverside County area. Therefore, the seismic-related impacts would be less than significant.

4. Based on field reconnaissance trips, there were no landslides noted in the Project area. Therefore, it is not anticipated that the Project would impact landslides nor does the Project have the potential to create or generate landslides.

Significance of Impact:

Less than significant.

Mitigation Measure:

None required.

Potential Impact. Result in substantial soil erosion or the loss of topsoil.

Construction activities would disturb less than one acre of soil that would result in the potential for wind and water erosion. However, compliance with the mitigation measures included in the air quality section to control fugitive dust would also control the potential for soil erosion or the loss of top soil. These include:

- Spread soil binders on site, where appropriate, unpaved roads and staging areas.
- Water site and equipment every three hours during active construction periods.
- Suspend grading activities during first and second stage smog alerts and during high winds in accordance with SCAQMD Rule 403 requirements.

Therefore, no impacts are anticipated and no further mitigation is required.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. 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 landslides, lateral spreading, subsidence, liquefaction or collapse.

The Project site is located on soils that have the potential for liquefaction and compression *(FHA June 2005)*. These seismic conditions can also be mitigated by special design using reasonable construction and/or maintenance practices common to the Riverside County area.

Significance of Impact:

Less than significant.

Mitigation Measure:

None required.

Potential Impact. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

The Project site is not located on expansive soil as defined in Table 18-1-B of the Uniform Building Code.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

There are no on-site wastewater disposal facilities required as part of the Project.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

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9 Hazards and Hazardous Materials

Environmental Setting

Hazards

Hazards are defined as natural and man-made conditions that must be respected if life and property are to be protected as growth and development occur. These hazards include seismic and other geologic hazards, fire and flooding. These hazards are explained in more detail in the following paragraphs.

Seismicity

As described in Chapter 8, based on the maximum credible and probable earthquake magnitudes for the faults in the area, as well as the distance of the site from these faults, the most significant seismic event that could affect the site would be the Maximum Credible Earthquake of magnitude 6.5 of the Central Avenue Fault system. The estimated peak horizontal bedrock acceleration produced at the Project site by such an event would be 0.55g.

Liquefaction

The liquefaction potential at the Project site is very high *(www3.tlma.co.riverside.ca.us, 3/2/10).*

Slope Instability and Erosion

The Project site is relatively flat due to the construction work on the bridge site. Therefore, slope instability should not be a problem at this site. The mitigation measures included in the Geology and Soils section would insure that erosion at the Project site is not a problem.

Fire

The Project site is not within a high fire hazard area *(www3.tlma.co.riverside.ca.us, 3/2/10).*

Flooding

The Federal Emergency Management Agency (FEMA) Flood insurance Rate Map (FIRM) indicates that the Project area lies within the 100-year flood plain. The Riverside County Flood Control and Water Conservation District also requires flood plain management review for all proposed projects in this area *(www3.tlma.co.riverside.ca.us, 3/2/10).*

Hazardous Materials

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases are briefly described in the following paragraphs.

National Priorities List (NPL)

The National Priorities List (NPL) is a federal database of uncontrolled hazardous waste sites that warrant further investigation to determine if long-term "remedial action" is necessary. There are no NPL sites located in the immediate vicinity of the Project site.

Envirostor

Envirostor is a database maintained and primarily used by the California Department of Toxic Substances Control to determine the location of all hazardous waste sites. There are no sites listed in Envirostor located in the vicinity of the Project site.

Geotracker

Geotracker is the State Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. There is one site listed in the Geotracker data management system in the immediate vicinity of the Project site. That site is the Greenwaste River Road disposal site located at 14545 River Road, Corona. The site and its cleanup status is closed. It is Regional Board Case #8 332539001.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. In implementing this law, the Environmental Protection Agency (EPA) compiles a list of known hazardous waste sites that are under consideration for the Superfund list. This list is known as the CERCLIS database. There are no CERCLIS sites located in the immediate vicinity of the Project site.

Resource Conservation and Recovery Act (RCRA)

The primary goals of the Resource Conservation and Recovery Act (RCRA) are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner. In implementing this law, EPA compiles a list of known hazardous waste generators. There are no known hazardous waste generators within the immediate vicinity of the Project site.

Hazardous Materials Response Plans and Inventory

The Governor's Office of Emergency Services (OES) administers the Hazardous Materials Response Plans and Inventory program (Article 1, Chapter 6.95, Health and Safety Code. As part of this program, OES

maintains a database of all hazardous materials spills in the State (RIMS). According to that database, there have not been any hazardous materials spills within the immediate vicinity of the Project site.

Leaking Underground Storage Tank Information System (LUSTIS)

The State Water Resources Control Board (SWRCB) administers the Leaking Underground Storage Tank Information System (LUSTIS). The LUSTIS database includes all reported leaks from underground storage tanks. There are no facilities in the LUSTIS database within the immediate vicinity of the Project site.

Site Mitigation Program Property Database (formerly CalSites)

The California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) administers the CalSites program. Information in the CalSites database is preliminary in nature; therefore, most sites listed in the database need additional work to determine if contamination exists. There are no sites in the CalSites database within the immediate vicinity of the Project site.

Hazardous Waste and Substances Sites List (Cortese)

California's Government Code §65962.5 requires the California Department of Toxic Substances Control to develop, at least annually, an updated list of Hazardous Waste and Substances Sites. This list, known as the Cortese List, is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local agencies are required to provide additional hazardous materials release information for the Cortese List. The Cortese List is to be submitted to the Secretary of the California Environmental Protection Agency. There are no sites on the Cortese List within the immediate vicinity of the Project site.

Solid Waste Information System (SWIS)

The Solid Waste Information System (SWIS) is a database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations. There is one site in the SWIS database within the immediate area of the Project site. That site is the Greenwaste River Road disposal site located at 14545 River Road, Corona. The site and its cleanup status is closed. It is Regional Board Case #8 332539001.

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this DEIR, implementation of the proposed Project may have a significant adverse impact if it would result in any of following:

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- 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 result in a safety hazard for people residing or working in the project area.
- 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.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Environmental Analysis

Potential Impact. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.

Implementation of the proposed Project would not create any significant hazards as a result of the routine transport, use, storage, or disposal of hazardous materials. However, construction would include the temporary use and transport of fuels, lubricating fluids, solvents and other hazardous materials. The contractor would be required to adhere to the requirements of a *Health and Safety Plan* that it would develop for the Project.

Significance of Impact:

Potentially significant.

Mitigation Measures:

To reduce potentially hazardous conditions and minimize the impacts from the handling of potentially hazardous materials, the construction agent should include the following in its construction contract documents:

- The contractor(s) shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor(s) shall store all reserve fuel supplies only within the confines of designated construction staging areas, refuel equipment only within the designated construction staging areas, and regularly inspect all construction equipment for leaks.

- The contractor(s) shall prepare a *Health and Safety Plan* in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§§ 25500—25532). The plan shall include measures to be taken in the event of an accidental spill.

Potential Environmental Effects of Measures

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DEIR. The impacts of implementing such measures, if any, would be similar to those identified for the Project in Sections 3 through 18 of this DEIR.

Level of Significance After Mitigation:

Implementation of the above mitigation measures would reduce the impacts to a level of less than significant.

Potential Impact. Create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment.

Construction equipment used to construct the Project would have the potential to release oils, grease, solvents and other finishing products through accidental spills.

Significance of Impact:

Potentially significant.

Mitigation Measure:

- The construction staging areas shall be designed to contain contaminants such as oil, grease, and fuel products so that they do not drain towards receiving waters or storm drain inlets.

Potential Environmental Effects of Mitigation Measure

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DEIR. The impacts of implementing such measures, if any, would be similar to those identified for the Project in Sections 3 through 18 of this DEIR.

Level of Significance After Mitigation:

Implementation of the above mitigation measure would reduce the impacts to a level of less than significant.

Potential Impact. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

There are no schools within one-quarter mile of the Project site. Therefore, there are no impacts anticipated and no further mitigation is required. *(The Thomas Guide, 2008)*.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. As previously described, those databases were researched to determine the location of potential hazardous waste sites within the proposed Project area. In summary, the proposed Project is near one site that is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and other standard lists. However, this site would not have any effect on the proposed Project.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. 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 result in a safety hazard for people residing or working in the project area.

The Project site is not within an airport land use plan or within two miles of a public airport of public use airport. *(The Thomas Guide, 2008 and www3.tlma.co.riverside.ca.us, 3/2/10)*.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. 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.

The Project site is not within the vicinity of a private airstrip *(The Thomas Guide, 2008)*.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Implementation of the proposed Project would not physically interfere with an adopted emergency response plan or emergency evacuation plan.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

As previously stated, the Project would not be within a high fire hazard area.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

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10 Hydrology and Water Quality

Environmental Setting

The Project site is at the River Road crossing of the Santa Ana River within the Prado Flood Control Basin. The flood control basin has a watershed area of 2,255 square miles which includes the Santa Ana River and, downstream of the River Road crossing, Cucamonga, Chino and Temescal Creeks. During periods of heavy flooding from all of these sources, ponding occurs within the basin behind the dam for subsequent controlled release downstream.

As stated above, the Santa Ana River Watershed above Prado Dam encompasses 2,255 square miles. Rainfall over the basin averages about 20 inches per year; however, it varies considerably from year to year. There are no active stream flow recording stations near the Project site[1]. The closest one is upstream at the Metropolitan Water District's crossing which has a tributary drainage area of 852 square miles (USGS Station No. 11066460 at elevation 685 feet. Mean monthly flows at this station are provided in Table 10-1.

Table 10-1
Mean Monthly Flows
USGS Station 11066460, Santa Ana River at MWD Crossing
(cubic feet per second)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1999										82.0	81.5	85.9
2000	97.4	221.5	164.3	134.7	84.8	81.8	73.0	71.0	77.5	95.1	99.7	100.6
2001	175.3	217.9	125.6	114.9	76.5	76.3	72.2	72.9	75.0	81.5	124.8	103.6
2002	98.7	87.9	102.9	109.6	110.9	92.3	82.1	74.3	72.5	72.9	141.3	147.3
2003	82.1	300.8	253.2	129.2	86.0	84.3	81.5	83.9	80.3	72.5	92.1	168.3
2004	109.5	305.8	130.7	83.8	70.9	66.9	60.8	62.5	63.6	497.5	95.4	255.3
2005	2,325	755.5	498.1	500.5	314.4	191.7	137.2	200.6	86.6	142.3	90.2	117.6
2006	142.2	213.5	199.9	471.6	195.8	75.7	60.1	85.7	67.6	77.5	81.5	91.5
2007	90.7	91.0	82.8	95.4	75.5	68.8	62.7	68.9	73.9	68.9	110.5	144.0
2008	344.4	154.4	79.5	75.4	88.2	62.3	51.5	55.8	63.8	72.3	101.0	233.1
2009	74.8	306.1	74.8	56.2	48.1	58.6	51.7	44.4	39.3	51.0	51.5	217.0
2010	762.8	309.5	99.4	91.0	56.1	53.0	72.5	52.4	53.6			
Mean	**393**	**269**	**165**	**169**	**110**	**83**	**73**	**79**	**69**	**119**	**97**	**151**

Source: USGS 2010 (www.usgs.gov 5/05/11)

As shown by the data in Table 10-1 and the plot on Figure 10-1, the mean monthly flows at this location vary considerably from a high of 393 cfs to a low of 69 cfs. Due to the larger drainage area at the Project site (1,010 square miles vs 852 square miles), the mean monthly flows are undoubtedly higher at the Project site.

[1] There is one stream flow recording station downstream of Prado Dam but it is highly influenced by dam operations and not indicative of natural stream flow.

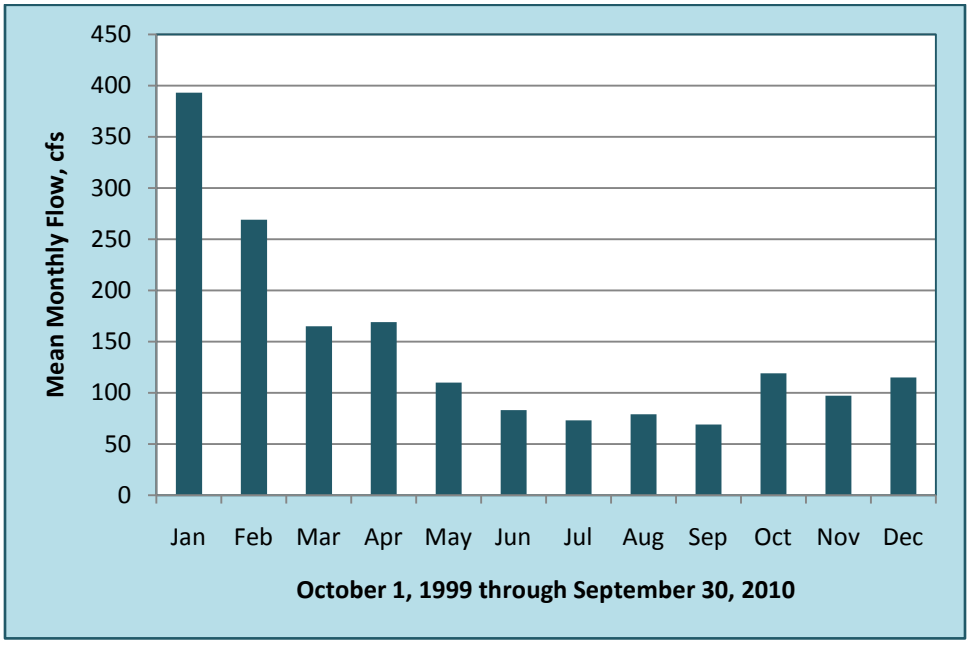


Figure 10-1, Santa Ana River at the MWD Crossing (USGS Station No. 11066460) Mean Monthly Flows

Prado Dam is a flood control and water conservation project constructed and operated by the U.S. Army Corps of Engineers, Los Angeles District (ACOE). The original construction was completed in April 1941. It is located at the upper end of the Lower Santa Ana River Canyon, which is a natural constriction controlling the 2,255 square miles of the 2,450 square mile Santa Ana River Watershed.

Prado Dam has an existing storage capacity of 362,000 acre-feet (af). It provides flood control between the invert elevation of 460 feet to the spillway elevation 594.4 feet. The inlet structure allows a maximum release of 30,000 cfs. The maximum surface area of the reservoir is 10,256 acres.

Regulatory Framework

Federal, California and local regulations have been promulgated to protect the quality of ground and surface water resources. These are briefly explained in the following paragraphs.

Federal

The primary federal laws for protecting water quality are the Clean Water Act (CWA), and the Safe Drinking Water Act (SDWA). These regulations range from establishing maximum contaminant levels to setting anti-degradation policies.

The U.S. Army Corps of Engineers administers certain sections of the CWA, specifically Section 404. Section 404 established a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. The basic premise of the program is that no discharge of dredged or

fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly threatened.

Proposed activities are regulated through a permit review process. An individual permit is required for potentially significant impacts. Individual permits are reviewed by the U.S. Army Corps of Engineers, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA 404(b)(1) Guidelines. However, for most discharges that will have only minimal adverse effects, a general permit may be suitable. General permits are issued on a nationwide, regional or state basis for particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met.

Nationwide Permit No. 12 regulates activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than ½ acre of waters of the United States.

The primary regulatory program for implementing water quality standards is the federal National Pollutant Discharge Elimination System (NPDES) program. In the Project area, the NPDES permits are administered by the California Regional Water Quality Control Board, Santa Ana Region.

California

In California, the State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards are the primary State agencies that regulate water quality. Individual Regional Boards regulate activities by developing and promulgating a Basin Plan that identifies beneficial uses of waters in the region and establishes policies to protect those uses.

The greater Project area is within the Santa Ana River Basin. The Water Quality Control Plan for the Santa Ana River Basin was adopted by the California Regional Water Quality Control Board, Santa Ana Region on March 11, 1994 and approved by the State Water Board on July 21, 1994 and by the Office of Administrative Law (OAL) on January 24, 1995. It was last updated in February 2008. The Basin Plan sets standards to protect all waters in the Basin and prescribes programs to implement these standards. The standards consist of the designated beneficial uses of the waters, narrative and numerical objectives to protect these uses, and the State's antidegradation policy.

In the Basin Plan, the main stem of the Santa Ana River is divided into six reaches. Each reach is actually a hydrologic and water quality unit. Reach 3 includes the river from Mission Boulevard Bridge to Prado Dam, which includes the Project area.

The Basin Plan designates eight beneficial uses of the waters in this reach of the Santa Ana River. Those are:

- **Agricultural Supply (AGR)** 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.

- **Groundwater Recharge (GWR)** 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 salt water intrusion into fresh water aquifers.

- **Water Contact Recreation (REC-1)** 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, white water activities, fishing and use of natural hot springs.

- **Non-contact Water Recreation (REC-2)** waters are used for recreational activities involving proximity to water, but not normally involving contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing and aesthetic enjoyment in conjunction with the above activities.

- **Warm Freshwater Habitat (WARM)** waters support warm water ecosystems that may include, but are not limited to, preservation or enhancement of aquatic habitats, vegetation, fish and wildlife including invertebrates.

- **Wildlife Habitat (WILD)** waters that support wildlife habitats that may include, but are not limited to, the preservation or enhancement of vegetation and prey species used by waterfowl and other wildlife.

- **Rare, Threatened or Endangered Species (RARE)** waters support the habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened or endangered.

- **Spawning, Reproduction and Development (SPWN)** waters support high quality aquatic habitats necessary for reproduction, and early development of fish and wildlife.

The Basin Plan also includes water quality objectives. There are numerous narrative water quality objectives that apply to all inland surface waters. In addition, the following numerical objectives apply to the base flow[2] in Reach 3. These are as follows:

[2] Base flow is defined in the Basin Plan as the combination of wastewater, rising water, and non-point sources.

Constituent	Total Dissolved Solids	Hardness	Sodium	Chloride	Total Inorganic Nitrogen	Sulfate	Chemical Oxygen Demand	Boron
Objective (mg/l)	700	350	110	140	10[a]	150	30	0.75

[a] Total nitrogen, filtered sample.

The Prado Settlement, a stipulated court judgment (Orange County Water District vs City of Chino, et al), which requires that a certain minimum amount of water be released each year from the upper basin, is overseen by the Santa Ana River Watermaster. The U. S. Geological Survey (USGS) operates a permanent continuous monitoring station immediately below Prado Dam, and the data collected there are utilized by the Watermaster. Orange County Water District samples the river monthly at the USGS gage and determines the water quality. Compliance with the objective for reaches 2 and 3 is monitored by the Regional Board, using the data from the USGS gage and these sources, plus the data from its own specific sampling programs.

Construction activities disturbing one or more acres are required by the State Water Board to comply with the provisions of the General Permit for Discharges of Storm Water Associated with Construction and Land Disturbing Activities (Order No. 2009-0009-DWQ adopted on September 2, 2009 and became effective on July 1, 2010) which is administered by the Regional Boards. Compliance with this permit requires the applicant to prepare a Storm Water Pollution Prevention Plan (SWPPP), implement best management practices (BMP's), and monitor to insure impacts to water quality are minimized.

Pursuant to Section 401 of the CWA, the Army Corps of Engineers cannot issue a federal permit under Section 404 of the CWA until the State has issued a water quality certification or waiver to ensure that the project will comply with State water quality standards. The authority to issue the water quality certification or waiver in the Project area is vested with the Regional Board.

Those projects that have received a water quality certification must also comply with the provisions of the State Water Resources Control Board's *Water Quality Order No. 2003-0017-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that Have Received State Water Quality Certification (General WDRs)* adopted on November 19, 2003. That Order states:

… dischargers shall comply with the following:

1. *Dischargers shall implement all the terms and conditions of the applicable CWA section 401 Certification issued for the discharge. This provision shall apply irrespective of whether the federal license or permit for which the Certification was obtained is subsequently deemed invalid because the water body subject to the discharge has been deemed outside of federal jurisdiction.*

2. *Dischargers are prohibited from discharging dredged of fill material to waters of the United States without first obtaining Certification from the applicable RWQCB or SWRCB.*

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this DEIR, implementation of the proposed Project may have a significant adverse impact if it would do any of following:

- Violate any water quality standards or waste discharge requirements.
- 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).
- 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 that would result in substantial erosion or siltation on- or off-site.
- 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 that would result in flooding on- or off-site.
- 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.
- Otherwise substantially degrade water quality.
- 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.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- 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.
- Be inundated by seiche, tsunami, or mudflow.

Environmental Analysis

Potential Impact. Violate any water quality standards or waste discharge requirements.

As stated above, the Project includes the installation of numerous valves and connecting pipelines in an area that has been previously denuded by construction activities associated with the County of Riverside's replacement of the River Road Bridge and the sand mining operation immediately adjacent to the bridge. However, during construction, if not controlled sediment laden runoff from the construction site could enter surface waters if not properly controlled.

Significance of Impact:

Potentially significant.

Mitigation Measures:

The construction agent should require contractors to implement a program of best management practices (BMP's) and best available technologies to reduce potential impacts to water quality that may result from construction activities. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented as part of this mitigation measure should include, but not be limited to, the following:

- The construction agent shall comply with the conditions and provisions of all regulatory permits and agreements.

- Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas.

- Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to the construction agent, local jurisdictions and the California Regional Water Quality Control Board, Santa Ana Region.

- Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events.

- No disturbed surfaces shall be left without erosion control measures in place between October 15 and April 15. The construction agent shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. The construction agent shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. The construction agent shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.

- Controls on construction site dewatering shall be implemented. If possible, water generated as part of construction dewatering shall be discharged onsite such that there would be no discharge to surface waters. If discharge to surface waters were unavoidable, the construction agent shall obtain coverage under the NPDES General Dewatering Permit prior to commencement of construction. The provisions of this permit are sufficiently protective of water quality to ensure that impacts to surface waters would remain below significance thresholds. During dewatering activities, all permit conditions shall be followed. The construction agent shall routinely inspect the construction site to verify that the measures specified in the permit are properly implemented. The construction agent shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.

Potential Environmental Effects of Mitigation Measures:

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DEIR. The impacts of implementing such measures, if any, would be similar to those identified for the Project in Sections 3 through 18 of this DEIR.

Level of Significance After Mitigation:

Implementation of the above mitigation measures would reduce the impacts to a level of less than significant.

Potential Impact. 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).

The proposed Project, which is the relocation of an existing force main, would have no affect on groundwater supplies or groundwater recharge activities.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. 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 that would result in substantial erosion or siltation on- or off-site.

The proposed Project would not substantially alter the existing drainage pattern of the site or area or increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. 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 that would result in flooding on- or off-site.

As stated above, the proposed Project would not significantly change the amount of surface runoff. Therefore, the Project would not contribute to increased storm water flows or flooding on- or off-site.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. 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.

The proposed Project would not 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.

Significance of Impact:

No impact.

Mitigation Measure:

None Required.

Potential Impact. Otherwise substantially degrade water quality.

As described above, construction of the proposed Project would not degrade water quality as it would have to comply with the terms of several regulatory permits and agreements.

Significance of Impact:

No impact.

Mitigation Measure:

None Required.

Potential Impact. 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.

The proposed Project does not involve housing.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Place within a 100-year flood hazard area structures that would impede or redirect flood flows.

No above ground facilities would be constructed within the 100-year flood plain *(www.countyofriverside.us. 3/2/10).*

Significance of Impact:

No impact.

Mitigation Measure:

None Required.

Potential Impact. 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.

Implementation of the Project would not 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.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Be inundated by seiche, tsunami, or mudflow.

The proposed Project is not close to any existing water bodies that would be subject to seiches or tsunamis, or significant topography that would cause mud flows.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

References

California Regional Water Quality Control Board, Santa Ana Region. 1994. Water Quality Control Plan for the Santa Ana River Basin. March 11. (Updated February 2008).

County of Riverside. 2010. (www.countyofriverside.us 3/2/10)

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

State Water Resources Control Board. 2009. *NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbing Activities (NPDES No. CAS000002).* September 2.

State Water Resources Control Board. 2003. *Water Quality Order No. 2003-0017-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that Have Received State Water Quality Certification (General WDRs).* November 19.

U.S. Army Corps of Engineers, Los Angeles District. 1997. Final Environmental Assessment. Western Riverside County Regional Wastewater Treatment System and Outfall Project in Prado Basin, Riverside County. March.

U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; Riverside County Transportation Department. 2005. *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation*. June.

U.S. Environmental Protection Agency. EPA843-F-04-001. *The Wetland Fact Sheet Series. Wetland Regulatory Authority.* www.epa.gov (4/12/10).

11 Land Use and Planning

Environmental Setting

Existing Land Use

Land use in the greater Project area has historically been agricultural with some single-family residential and commercial uses gradually developing over time. More recently, development trends have been toward more rapid conversion of agricultural land to residential and commercial uses and the local dairy farming industry has relocated to other areas. New residential developments are anticipated in areas previously utilized for agricultural, particularly in the area north of the proposed Project site.

Within the immediate vicinity of the proposed force main relocation, land uses are a mix of open space/recreation, agricultural and single-family residential. The Prado Basin Park and Santa Ana River corridor are the predominant land use, with land uses to the north of the river generally devoted to agricultural purposes, including dairy farming. Substantial residential development has also been initiated north of the river as part of the Eastvale Area Plan. South of the river, in the City of Norco, there are residential uses along the river bluffs, with commercial and industrial areas situated farther to the south.

Zoning in the immediate Project area is governed by the County of Riverside and the City of Norco. The County portion of the Project area (northwest) is zoned W-1, Watercourse, Watershed & Conservation Areas. The southeast portion of the Project area in the City of Norco is zoned OS, Open Space.

Planned Land Use

The County of Riverside's Eastvale Area Plan shows the northwest portion of the Project area as OS-W, Open Space – Water. The City of Norco's General Plan shows the southeast portion of the Project area as WR, Water-Related.

Data used to prepare this section were taken from several sources. Full bibliographic entries are provided at the end of this chapter.

Environmental Impact Analysis

Threshold Criteria

Section 15382 of the State CEQA Guidelines defines a "significant effect on the environment" as a "substantial or potentially substantial adverse change in the physical conditions within the area affected by the proposed project". The following thresholds of significance are based on Appendix G of the 2010

State CEQA Guidelines. According to the State CEQA Guidelines, significant land use or planning impacts would occur if a proposed project would result in any of the following:

- Physically divide an established community.
- 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 avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

Environmental Analysis

Potential Impact. Physically divide an established community.

All facilities would be constructed underground. Therefore implementation of the Project would not interfere with or divide an established community.

Significance of Impact:

No Impact.

Mitigation Measure:

None Required.

Potential Impact. 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 avoiding or mitigating an environmental effect.

The Project includes the relocation of an existing force main adjacent to the County's River Road Bridge. Therefore, implementation of the Project would not conflict with any land use plan, policy or regulation of an agency with jurisdiction over the project.

Significance of Impact:

No Impact.

Mitigation Measure:

None Required.

Potential Impact. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Implementation of the proposed Project would not conflict with the Western Riverside County Multiple Species Habitat Conservation Plan. Additional information concerning this subject is contained in the Biological Resources section of this document.

Significance of Impact:

No Impact.

Mitigation Measure:

None Required.

References

City of Norco. 2007. General Plan. May 2.

County of Riverside. 2010 www3.tlma.co.riverside.ca.us (3/02/10).

Riverside County Board of Supervisors. 2003. General Plan. October 7.

Riverside County Board of Supervisors. 2003. Eastvale Area Plan. October 7.

State of California. 2009. *14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; Riverside County Transportation Department. 2005. *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation*. June.

12 Mineral Resources

Environmental Setting

There is one active mining site within the Project area. A private contractor presently mines sand immediately downstream of the River Road Bridge to alleviate sediment buildup around the existing bridge. This practice will be abandoned once the new bridge is completed *(FHA, June 2005).* According to the local general plans there are no other important mineral resources within the Project area.

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. According to the State CEQA Guidelines, a project would normally have a significant effect on the environment if it would:

- Result in the loss of availability of a known resource that would be of value to the region and the residents of the state.
- 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.

Environmental Analysis

Potential Impact. Result in the loss of availability of a known resource that would be of value to the region and the residents of the state.

As stated above, other than the sand build up around the existing bridge, there are no known mineral deposits within the immediate Project area.

Significance of Impact:

No Impact.

Mitigation Measures:

None required.

Potential Impact. 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.

There are no locally-important mineral resource recovery sites delineated in the applicable general plans. Consequently, the Project would not result in the loss of a locally-important mineral resource.

Significance of Impact:

No Impact.

Mitigation Measures:

None required.

References

Riverside County Board of Supervisors. 2003. General Plan. October 7.

Riverside County Board of Supervisors. 2003. Eastvalle Area Plan. October 7.

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; Riverside County Transportation Department. 2005. *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation*. June.

13 Noise

Environmental Setting

Noise is usually defined as "unwanted sound". It consists of any sound that may produce physiological or psychological damage and/or interfere with man's communication, work, rest, recreation and sleep. People recognize that noise has become an environmental pollutant.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect our ability to hear. Pitch is the number of complete vibrations (cycles per second) of a wave that results in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment. It is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the ear. The sound intensity refers to how hard the sound wave strikes objects, which, in turn, produces the sound's effect. This is a characteristic of sound that can be precisely measured with instruments.

Sound intensity or acoustic energy is measured in decibels (dB) that are weighted to correct for the relative frequency response of the human ear. For example, an A-weighted noise level dB(A) includes a de-emphasis on high frequencies of sound that are heard by a dog's ear but not by a human's ear. The zero on the decibel scale is based on the lowest level that the healthy, unimpaired human ear can detect. Unlike linear units (inches or pounds), decibels are measured on a logarithmic scale, representing points on a sharply rising curve.

Many noise rating schemes have been developed for various time periods, but an appropriate rating of ambient noise affecting human communities also needs to account for the annoying effects of sound. The predominant rating scales for human communities are the Noise Equivalent Level (Leq), the Community Noise Equivalent Level (CNEL), and the Day-Night Average Sound Level (Ldn), all of which are based on A-weighted decibels [dB(A)]. The Leq is the total sound energy of time-varying noise over a sample period. The CNEL is the time-varying noise over a 24-hour period with a weighting factor applied to noise occurring during the evening hours of 7:00 pm to 10:00 pm (relaxation hours) and at night from 10:00 pm to 7:00 am (sleeping hours) of 5 and 10, respectively.

Physical damage to human hearing begins at prolonged exposures to more than 85 decibels. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 decibels increasing body tension, thereby affecting blood pressure, functions of the heart, and the nervous system. Extended periods of noise exposure above 90 dB(A) will result in permanent cell damage. A sound level of 190 dB(A) will rupture the ear drum and permanently damage the inner ear.

The ambient noise problem is widespread and generally more concentrated within urban areas than in outlying residential neighborhoods. Environmental sound levels in high density urban areas are doubling

every 10 years. Suburban areas are not experiencing such a significant increase in noise levels because of their relative distance from major noise sources.

According to Occupational Safety and Health Administration (OSHA) regulations, protection against the effects of noise exposure shall be provided when the sound level exceeds those shown in Table 13-1. This table shows the maximum exposure in Ldn for various land use categories and locations (whether indoor or outdoor). This maximum is provided according to the health and psychological effects described above, with a reasonable margin of safety. Table 13-1 identifies also whether the threshold applies to activity interference, hearing loss consideration, or both effects.

Table 13-1
Yearly Average Equivalent Sound
Identified to Protect the Public Health and Welfare

	Measure	Indoor		To Protect Against Both Effects(a)	Outdoor		To Protect Against Both Effects(a)
		Activity Interference	Hearing Loss Consideration		Activity Interference	Hearing Loss Consideration	
Residential with Outside Space and Farm Residences	Ldn Leq(24)	45	70	45	55	70	55
Residential with No Outside Space	Ldn Leq(24)	45	70	45			
Commercial	Leq(24)	(b)	70		(b)	70	70(c)
Industrial	Leq(24)(d)	(b)	70	(b)	(b)	70	70(c)
Hospitals	Ldn Leq(24)	45	70	70(c)	55	70	55
Educational	Ldn Leq(24)	45	70	45	55	70	55
Recreational Areas	Leq(24)	(b)	70	45	(b)	70	70(c)
Farm Land and General Unpopulated Land	Leq(24)		70	70(c)	(b)	70	70(c)

Code:

a. Based on lowest level.
b. Because different types of activities appear to be associated with different levels, identification of a maximum level for activity interface may be difficult except in those circumstances where speech communication is a critical activity.
c. Based only on hearing loss.
d. An Leq(8) may be identified in these situations so long as the exposure over the remaining 16 hours per day is low enough to result in a negligible contribution to the 24-hour average (i.e., no greater than an Leq of 60 dB.

Note: Explanation of identified level for hearing loss: the exposure period which results in hearing loss at the identified level is a period of 40 years.

Source: California Occupational Safety and Health Administration.

A maximum of 45 dB protects against indoor activity interference and hearing loss for residential, hospital, and educational land uses. Outdoor activity interference threshold levels are high for these land uses, at 55 dB. Commercial, transportation, industrial and recreation activities are considered highly variable, so thresholds for these land uses have not been determined. Similarly, agricultural-related outdoor activities have no stated interference noise levels. Hearing loss consideration for all activities becomes an issue at 70 dB or greater, for both indoor and outdoor noises.

Noise sources may either be a "line source" (e.g., a heavily traveled roadway) or a "point source" (e.g., a stationary engine or compressor). Highway traffic noise on high volume roadways simulates a "line source" and the drop-off rate of sound with distance approaches 3 dB(A) drop with every doubling of distance between the noise source and the noise receiver.

Environmental factors such as the wind direction and speed, temperature gradients, the characteristics of the ground (hard or soft) and the air (relative humidity), the presence of grass, shrubbery, and trees, often combine to increase the actual attenuation achieved outside laboratory conditions to a 4.5 dB(A) drop with every doubling of distance. Thus, a noise level of 74.5 decibels at 50 feet from a highway centerline would attenuate to 70.0 decibels at 100 feet, 65.5 decibels at 200 feet, and so forth.

This is particularly true where the view of the roadway is interrupted by isolated buildings, clumps of bushes or scattered trees, or the intervening ground is soft and covered with vegetation and the source or receiver is located more than 3 meters above the ground. It should be noted, however, that the nominal value of 3.0 dB(A) with doubling applies to sound propagation from a "line source": (1) over the top of a barrier greater than 3 meters in height, or (2) when there is a clear unobstructed view of the highway, the ground is hard, there are no intervening structures, and the height of the line-of-sight averages more than 3 meters above the ground.[1]

Noise levels adjacent to roadways vary with the volume of traffic, the average vehicular speed, and truck mix. The noise levels adjacent to line sources of noise such as roadways increase by 3.0 dB(A) with each doubling in the traffic volume (provided that the speed and truck mix do not change). From the relationship between increases in the number of noise sources (motor vehicles) and the increase in the adjacent noise level, it can be shown that a 26 percent increase in the traffic volumes on a given route increases the adjacent noise levels 3.0 dB(A), but changing the vehicle speed or truck mix has an even more dramatic effect.

The truck mix on a given roadway also has a significant effect on the adjacent noise levels. As the number of trucks increases and becomes a larger percentage of the total vehicle volume, the adjacent noise levels increase. This effect is more pronounced if the number of heavy duty (3+ axle) trucks is large when compared to the number of medium duty (2 axle) trucks.

Noise from motor vehicles is generated by engine vibration, the interaction between the tires and the road, and the exhaust system. As vehicle speed increases, so does the noise from these areas of the vehicle. The noise level adjacent to a roadway is highly dependent on the average vehicle speed,

[1] Source: Caltrans, 1980.

especially at lower speed levels. The higher speeds are typically measured at midlink, where traffic lights, stop signs and cross traffic provide less interference. Although some vehicles will go faster that the posted speed limit, in most areas the average speed is just below this limit. The exception is found along lone stretches of highway and streets outside city limits.

The ambient noise level of a region is the total noise generated within the specific environment and is usually composed of sounds emanating from natural and manmade sources. Noise levels monitored in a region tend to have wide spatial and temporal variation due to the great diversity of contributing sources. This is especially true for the greater project area with its blend of rural land uses adjacent to a mix of residential and recreational uses.

Characterization of the Project area noise levels is difficult due to the lack of actual field measurements. Very little noise measurement data are available for the Project area in general. However, typical noise levels in areas like the proposed force main relocation site are in the range of 50 to 55 dB(A).

Generally, the noise levels in the Project area are affected by natural and manmade sources. However, the sound levels are more strongly influenced by human rather than natural sound sources. Within the Project area, the major sources of noise include vehicular traffic and aircraft flyovers.

On the northwest end of the Project, there are no potentially affected existing or planned sensitive receptors within 300 feet. Located further to the north, on the north side of the river, is the Eastvale residential area, which is approximately one-half mile from the Project area. The nearest area in Prado Basin Park that would be considered sensitive to noise is a picnic area that is located about 900 feet from the Project area. The intervening uses that are closer include a ball field and a parking area. On the southeast end of the Project, one residence is located approximately 1,200 feet from the Project area. *(FHA, June 2005).*

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. According to the State CEQA Guidelines, a project would have a significant effect on the environment if it would result in:

- 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.
- Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels.

- A substantial permanent increase in ambient noise levels above levels existing without the project.
- A substantial temporary or periodic increase in noise levels in the project vicinity above levels existing without the project.
- 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.
- 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.

Environmental Analysis

Potential Impact. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Riverside County has adopted noise standards for a variety of land uses. Community Noise Equivalent Levels (CNEL) to 60 dB(A) are normally acceptable and CNEL to 70 dB(A) are conditionally acceptable with an analysis for noise reduction. These noise levels were developed for review of land use projects such as highways, airports, and manufacturing plants. However, there is no mention of temporary construction-related noise impacts in the County's Noise Ordinance. The City of Norco has not adopted a noise ordinance. Therefore, no impacts are anticipated and no further analysis is required.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Expose persons to or generate excessive groundbourne vibration or groundbourne noise levels.

Construction activities associated with the Project could result in some minor amount of ground vibration. Vibration from construction activity is typically below the threshold of perception when the activity is more than 50 feet from receivers. Due to the fact that there are no receivers within 50 feet of the construction site, there would be no potentially significant groundbourne impacts.

Significance of Impact:

Less than significant.

Mitigation Measure:

None required.

Potential Impact. A substantial permanent increase in ambient noise levels above levels existing without the project.

The force main would be underground and not generate any noise. Therefore, the proposed Project would not result in a substantial permanent increase in ambient noise levels above levels existing without the Project.

Significance of Impact:

Less than Significant.

Mitigation Measure:

None Required.

Potential Impact. A substantial temporary or periodic increase in noise levels in the project vicinity above levels existing without the project.

The analysis of noise impacts resulting from any project must consider both the construction and operational phases. However, due to the nature of this Project, no noise would be associated with the operational phase of the Project. Therefore, the following noise analysis concentrates on the construction phase of the Project.

Operation of equipment used during construction would temporarily increase noise levels to well in excess of ambient noise levels. The construction noise would vary with the particular construction stage in progress due to the different pieces of construction equipment being used. Table 13-2 lists equipment expected to be used during construction and identifies the number of pieces of equipment typically used, their utilization factor, their range of noise level and their reference sound level at a distance of 50 feet.

Table 13-2
Construction Equipment List
Utilization Factors and Reference Sound Levels

Equipment	Number Required	Horsepower Rating	Utilization Factor	Range of Noise Level at 50 feet dB(A)	Nominal Noise Level, Leq at 50 feet dB(A)
Compressor	1	100	0.8	68-87	78
Backhoe	1	200	0.5	71-93	85
Utility Truck	1	225	0.8	76-85	82
Water Truck	1	500	0.4	79-88	84
Sweeper	1	225	0.1	80-90	85
Crane	1	200	0.1	75-95	80
Compactor	1	20	0.1	84-90	86
Welder	1	50	0.5	76-85	80
Generator	1	50	0.5	69-81	74
On-Road Trucks	2	N/A	1.0	70-92	82
Pickups	2	N/A	1.0	65-80	72

As shown above, noise associated with construction could be locally significant during the construction period. However, the exact degree of impact on the surrounding community would depend on the type of equipment being used at any one time, the distance from the equipment, and the hours of operation. It is anticipated that noise levels associated with construction would range from 72 to 86 dB(A) within 50 feet of the equipment being used. The nearest receptor would be more than 500 feet from the construction site. Therefore, these noise levels would be attenuated by about 15 dB(A) due to the distance to the nearest receptor.

Significance of Impact:

Potentially Significant.

Mitigation Measures:

The construction agent should include the following in its construction contract documents:

- All equipment used during construction shall be muffled and maintained in good operating condition. All internal combustion engines shall be fitted with well maintained mufflers in accordance with manufacturers' recommendations.

Potential Environmental Effects of Measures:

All physical improvements or activities that could result in changes to the physical environment required by these mitigation measures would be located within areas evaluated elsewhere in this DEIR. The impacts of implementing such measures, if any, would be similar to those identified for the Project in Sections 3 through 18 of this DEIR.

Level of Significance After Mitigation:

Implementation of the above mitigation measures would reduce the impacts to a level of less than significant.

Potential Impact. 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.

The proposed Project would not be within an airport land use plan.

Significance of Impact:

No impact.

Mitigation Measure:

None Required.

Potential Impact. 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.

The proposed Project would not be within the vicinity of a private airstrip.

Significance of Impact:

No impact.

Mitigation Measure:

None Required.

References

California Department of Transportation. 1980. Traffic Manual.

California Occupational Safety and Health Administration. Yearly Average Equivalent Sound Identified to Protect the Public Health and Welfare.

Riverside County Board of Supervisors. 2003. General Plan. October 7.

Riverside County Board of Supervisors. 2003. Eastvalle Area Plan. October 7.

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

U.S. Department of Transportation, Federal Highway Administration; State of California Department of Transportation; Riverside County Transportation Department. 2005. *River Road Bridge Replacement Project, Riverside County, CA 08-Riv-KP 4.62/5.76 (PM 2.87/3.58), Final Environmental Assessment, Final Environmental Impact Report and Programmatic Section 4(f) Evaluation*. June.

14 Population and Housing

Environmental Setting

The Project facilities would be located in U.S. Postal Zip Codes 92860 and 92880. According to the 2000 Census, the population in these two Zip Code Areas was 39,415 and the number of housing units was 10,750.

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. According to the State CEQA Guidelines, a project would normally have significant population and housing impacts if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Environmental Analysis

Potential Impact. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

The proposed Project is a wastewater force main relocation. It would not induce substantial population growth in the area of proposed new homes or businesses.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

The proposed Project would not displace any existing housing, necessitating the construction of replacement housing elsewhere.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

Potential Impact. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The proposed Project would not displace any people, necessitating the construction of replacement housing elsewhere.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

References

Riverside County Board of Supervisors. 2003. General Plan. October 7.

Riverside County Board of Supervisors. 2003. Eastvalle Area Plan. October 7.

State of California. 2009. *14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

U.S. Census Bureau *(www.census.gov)* 3/17/10.

15 Public Services

Environmental Setting

Public services in the Project area are provided by the following entities:

- Police Protection: Riverside County Sheriff's Department
  California Highway Patrol
- Fire Protection: Riverside County Fire Department
  California Department of Forestry and Fire Protection
  City of Norco Fire Department
- Schools: Corona-Norco Unified School District
- Ambulance: AMR Ambulance under contract to Riverside County

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. With respect to public services, a project would normally have a significant impact on the environment if it would:

- 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 any of the following public services: fire protection, police protection, schools, parks, or other public services.

Environmental Analysis

Potential Impact. 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 any of the following public services: fire protection, police protection, schools, parks, or other public services.

The proposed Project would not require additional public services.

Significance of Impact:

No impact.

Mitigation Measure:

None required.

References

County of Riverside. www.countyofriverside.ca.us 3/02/10.

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

Thomas Brothers Guide. San Bernardino and Riverside Counties 2008.

16 Recreation

Environmental Setting

Several recreational opportunities exist in the greater Project area including Prado Basin Park, Santa Ana River Regional Park and several golf courses and community parks.

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. According to the State CEQA Guidelines, a project would normally have a significant effect on the environment if it would: 1) increase the use of existing recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated or 2) include recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Environmental Analysis

Potential Impact. Increase the use of existing recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.

The proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Include recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

The proposed Project does not include housing units and therefore would not require the construction or expansion of recreational facilities.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

References

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

The Thomas Guide, San Bernardino and Riverside Counties, 2008.

17 Transportation/Traffic

Environmental Setting

Regional access to the project site is from the Riverside Freeway (Highway 91), Main Street in Corona, and River Road.

The California Department of Transportation's latest traffic counts (2008) for State Highway 91 at Main Street in Corona are as shown in Table 17-1.

Table 17-1
Traffic Counts on State Highway 91 at Main Street in Corona
(2009)

Eastbound			Westbound		
Peak Hour	Peak Month	Average Annual Daily Traffic	Peak Hour	Peak Month	Average Annual Daily Traffic
15,000	259,000	247,000	15,000	245,000	233,000

Source: Caltrans 2011, www.dot.ca.gov (5/09/11)

The City of Corona also takes traffic counts on City streets. The latest counts on Main Street indicate an annual average daily traffic count of 28,100.

The County of Riverside also takes traffic counts of County roads. The latest counts for River Road east of Hellman Avenue (4/07/09) indicate an average daily traffic count of 4,095.

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on transportation/traffic if it would:

- 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 paths, and mass transit.

- Conflict with an applicable congestion management program, including, but not 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.

- 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.

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

- Result in inadequate emergency access.

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Environmental Analysis

Potential Impact. 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 paths, and mass transit.

Neither construction nor operation of the proposed Project would 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 paths, and mass transit. Therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No impact.

Mitigation Measures:

None required.

Potential Impact. Conflict with an applicable congestion management program, including, but not 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.

The proposed Project would not conflict with an applicable congestion management program, including, but not 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. Therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. 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.

The proposed Project would not 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.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The proposed Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) due to the fact that it will not change the design of any highway or street.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Result in inadequate emergency access.

Implementation of the Project would not result in inadequate emergency access.

Significance of Impact.

No impact.

Mitigation Measure:

None required.

Potential Impact. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The proposed Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, no impacts are anticipated and no mitigation is required.

Significance of Impact.

No impact.

Mitigation Measure:

None required.

References

Caltrans. www.dot.ca.gov (5/09/11).

City of Corona. www.ci.corona.ca.us (5/09/11).

County of Riverside. www.countyofriverside.us (5/09/11).

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

18 Utilities and Services Systems

Environmental Setting

Several entities provide utilities and service systems within the project area. These are:

❖ Water	Western Municipal Water District
	City of Norco Public Works Department
❖ Wastewater	Western Riverside County Regional Wastewater Authority
	City of Norco Public Works Department
❖ Electricity	Southern California Edison
❖ Telephone	Verizon
❖ Natural Gas	The Gas Company

Data used for this section were obtained from various sources. Full bibliographical entries for all reference material are contained at the end of this section.

Environmental Impact Analysis

Threshold Criteria

The following thresholds of significance are based on Appendix G of the 2010 State CEQA Guidelines. For purposes of this DEIR, implementation of the proposed Project may have a significant adverse impact on utilities and service systems if it would:

- ❖ Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- ❖ Require or result in the construction of new water or wastewater treatment facilities, the construction of which could cause significant environmental effects.
- ❖ 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.
- ❖ Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
- ❖ Result in a determination by the wastewater treatment provider that 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.

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, state, and local statutes and regulations related to solid waste.

Environmental Analysis

Potential Impact. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

The Project consists of relocation of an existing force main that transports wastewater to WRCRWA's wastewater treatment plant. The relocated force main would have the same capacity as the existing force main; therefore, there would be no additional demand on the existing treatment facilities.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Require or result in the construction of new water or wastewater treatment facilities, the construction of which could cause significant environmental effects.

WRCRWA is in the final planning stages of its enhancement and expansion of the existing wastewater treatment facilities project. The environmental effects of the enhancement and expansion project are detailed in the April 2010 *Final Environmental Impact Report for the Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project (SCH No. 2009091040)* prepared for the Western Riverside County Regional Wastewater Authority by K.S. Dunbar & Associates, Inc.

Significance of Impact:

Less than significant with mitigation.

Mitigation Measures:

Specific mitigation measures are detailed in Sections 3-17 of the April 2010 FEIR.

Potential Impact. 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.

The Project would not require additional storm water facilities.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

The local water purveyors have sufficient water supplies and entitlements to serve the proposed Project.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

The Project, which is the relocation of an existing force main, would have no additional demand on the existing wastewater treatment facilities.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

The Project would not require solid waste service.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

Potential Impact. Comply with federal, state, and local statutes and regulations related to solid waste.

The Project would not require solid waste service.

Significance of Impact:

No Impact.

Mitigation Measure:

None required.

References

California Regional Water Quality Control Board, Santa Ana Region. 2008. *Order No. R8-2008-0005, NPDES No, CA8000316, Waste Discharge and Producer/User Water Recycling Requirements for Western Riverside County Regional Wastewater Authority, Western Riverside County Regional Wastewater Treatment Plant, Riverside County.* July 18.

K.S. Dunbar & Associates, Inc. 2010. *Final Environmental Impact Report for the Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project (SCH No. 2009091040), Western Riverside County Regional Wastewater Authority.* April.

State of California. 2009. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* December 30.

19 Other Environmental Considerations

Significant Unavoidable Adverse Effects

The following discussion is intended to fulfill the requirements of §15126.2(b) of the State CEQA Guidelines that states:

> *Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.*

A significant impact, or significant effect on the environment, is defined in §15382 of the State CEQA Guidelines as:

> *Significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change related to a physical change may be considered in determining whether the physical change is significant.*

The environmental effects of the 30-inch Diameter Force Main Relocation at River Road Bridge Project are discussed in detail under the appropriate headings in Chapters 3 through 18 of this DEIR. All of the impacts identified in those chapters as potentially significant can be mitigated to a level of insignificance through implementation of the mitigation measures described in those same chapters.

Significant Irreversible Environmental Changes

The following discussion is intended to fulfill the requirements of §15126.2(c) of the CEQA Guidelines that states:

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

During construction, the use of energy resources (e.g., fuel for construction equipment) would essentially be irreversible and irretrievable. However, this would not be considered a significant impact.

Growth-Inducing Impacts

The following discussion is intended to fulfill the requirements of §15126.2(d) of the CEQA Guidelines that states:

> *Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in population may further tax existing community service facilities so consideration must be given to this impact. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.*

The proposed Project is the relocation of an existing force main. There would be no increased capacity in the relocated facility; therefore, it would not foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment.

Effects Not Found to be Significant

§15128 of the CEQA Guidelines states:

> *An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study.*

As shown in Chapters 3 through 18 of this document, several potential environmental effects associated with the 30-inch Diameter Force Main Relocation at River Road Bridge Project were deemed not to be significant.

Cumulative Impacts

§15130(a) of the CEQA Guidelines states in part:

> *An EIR shall discuss cumulative impacts of a project when the projects incremental effect is cumulatively considerable as defined in §15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable", a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.*

WRCRWA is in the final planning stages of its Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project. However, timing of construction of this project is unknown at this time. The County of Riverside is presently completing the new River Road Bridge Project which is in the immediate area of the proposed Project. However, construction of that facility should be completed prior to the construction of the proposed Project. Therefore, the Project would not contribute to cumulative impacts.

Economic and Social Effects

According to §15131 of the CEQA Guidelines, economic or social information may be included in an EIR or may be presented in whatever form the agency desires. §15131 of the CEQA Guidelines also states:

a) *Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed to any detail greater than necessary to trace the cause and effect. The focus of the analysis shall be on the physical changes.*

b) *Economic or social effects of a project may be used to determine the significance of a physical change caused by a project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant. As an additional example, if the construction of a road and the resulting increase in noise in an area disturbed existing religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environment. The religious practices would need to be analyzed only to the extent to show that the increase in traffic and noise would conflict with the religious practices. Where an EIR uses economic or social effects to determine that a physical change is significant, the EIR shall explain the reason for determining that the effect is significant.*

c) *Economic, social and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information from these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the project.*

Socioeconomic resources include population and economic activity. Some related secondary components, such as housing availability and public services, are not considered in this analysis because the Project has no potential to generate measurable changes in population that will create demand from these resources.

Adverse socioeconomic impacts are not anticipated as a result of implementation of the30-inch Diameter Force Main Relocation at River Road Bridge Project. The project is designed to:

- Remain in compliance with Order No. R8-2008-0005 adopted by the California Regional Water Quality Control Board, Santa Ana Region on July 18, 2008 and any amendments thereto.

- Provide a "fail safe" back-up wastewater force main crossing of the Santa Ana River to be used in the event of a leak or catastrophic break in the new force main constructed within the bridge cell.

These aspects would be beneficial and result in positive socioeconomic impacts.

Short-term Uses vs Long-term Productivity

As previously stated, the environmental effects of the 30-inch Diameter Force Main Relocation at River Road Bridge Project are discussed in detail under the appropriate headings in Chapters 3 through 18 of this DEIR. All of the impacts identified in those chapters as potentially significant can be mitigated to a level of less than significant through implementation of the mitigation measures described in those same chapters. In addition, fuel, materials and human energy utilized to construct the Project would be considered irreversible commitments of resources although this commitment is considered less than significant.

Also as stated above, the project is designed to:

- Remain in compliance with Order No. R8-2008-0005 adopted by the California Regional Water Quality Control Board, Santa Ana Region on July 18, 2008 and any amendments thereto.

- Provide a "fail safe" back-up wastewater force main crossing of the Santa Ana River to be used in the event of a leak or catastrophic break in the new force main constructed within the bridge cell.

These aspects would be beneficial and result in long-term productivity which greatly outweighs the short-term uses of the environment.

Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Indian Tribes or individuals. The Secretary of the Interior, acting as the trustee, holds many assets in trust. Examples of objects that may be trust assets are lands, minerals, hunting and fishing rights, and water rights. While most ITAs are on reservations, they may also be found off-reservations. The United States has an Indian trust responsibility to protect and maintain rights reserved by or granted to Indian Tribes

or Indian individuals by treaties, statutes, and executive orders. These are sometimes further interpreted through court decisions and regulations. There are no ITAs in the immediate project area.

Tribal lands are lands that have been deeded to tribes or upon which tribes have a historical claim. There are no such lands within the immediate Project area.

Consequently, the 30-inch Diameter Force Main Relocation at River Road Bridge Project would not have any adverse impacts on Indian Trust Assets.

Environmental Justice

Executive Order 12898, Federal Activities to Address Environmental Justice in Minority Populations and Low-Income Populations, dated February 11, 1994, requires agencies to identify and address disproportionately high and adverse human health or environmental effects of their actions on minorities and low-income populations and communities as well as the equity of the distribution of the benefits and risks of their decisions. Environmental justice addresses the fair treatment of people of all races and incomes with respect to actions affecting the environment. Fair treatment implies that no group of people should bear a disproportionate share of negative impacts from an environmental action.

To comply with the environmental justice policy established by the Secretary, all U.S. Department of the Interior agencies are to identify and evaluate any anticipated effects, direct or indirect, from the proposed project, action, or decision on minority and low-income populations and communities, including the equity of the distribution of the benefits and risks.

In addition, California Senate Bill 115 (Solis) (Government Code Section 65040.12 (c)) established the Governor's Office of Planning and Research (OPR) as the coordinating agency in State government for environmental justice programs. As defined by SB 115, environmental justice is "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws and policies."

Under the legislation, the following activities should be subjected to Environmental Justice review by approving agencies:

- Determination of or underwriting land use decisions,
- Approval of permitting decisions,
- Creation or adoption of regulations that may impact the environment or environmental laws or policies,
- Engaging in public interactions that may result in impacts to the environment or upon environmental laws or polices,

- Approving funds for activities that may impact the environment or environmental laws or policies, or
- Initiating discretionary decisions actions that may have impacts on the environment or upon environmental laws or policies.

In addition to the State's environmental justice requirements for State agencies, many state and local government agencies have additional responsibilities under Title VI of the Civil Rights Act (42 USC Section2000d). Title VI requires recipients of federal funds to conduct their activities and/or programs in a nondiscriminatory manner. Many of the programs and activities described above are funded, at least in part, with federal funds.

Most frequently, adverse environmental justice effects have been associated with environmental insults thrust upon communities involving the siting or continued existence of operations involving the use, manufacture, storage, or disposal of hazardous materials. Another common form of insult is the development of environmentally beneficial benevolent projects that impose aesthetic or use limitation burdens upon selected communities or neighborhoods. The proposed Project is not expected to involve either of these actions. Consequently, no environmental justice impacts are anticipated with implementation of the proposed project.

20 Alternatives

Introduction

Section 15126.6 of the CEQA Guidelines requires all EIR's to consider and discuss alternatives to the proposed project. That section states:

a) *Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*

b) *Purpose. Because an EIR must identify ways to mitigate or avoid significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.*

c) *Selection of a range of reasonable alternatives. The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or significantly lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scooping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.*

d) *Evaluation of alternatives. The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant*

effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

e) "No Project" Alternative.

- *The specific alternative of "no project" shall also be evaluated along with the impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (see Section 15125).*

- *The "no project" analysis shall discuss the existing conditions at the time of the notice of preparation is published, or if no notice of preparation is published, at the time the environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.*

f) Rule of Reason. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

Project Purpose and Objectives

The purpose and objectives of the proposed project are to:

- Remain in compliance with Order No. R8-2008-0005 adopted by the California Regional Water Quality Control Board, Santa Ana Region on July 18, 2008 and any amendments thereto.

- Provide a "fail safe" back-up wastewater force main crossing of the Santa Ana River to be used in the event of a leak or catastrophic break in the new force main constructed within the bridge cell.

Significant Effects

All significant impacts associated with the proposed Project can be reduced to a level of less than significant by implementation of the recommended mitigation measures provided in Chapters 3 through 18 of this DEIR.

No Project Alternative

The No Project Alternative would include maintaining the status quo. In other words, there would be no construction of new facilities. Implementation of the No Project Alternative would not allow WRCRWA to meet the project objectives with respect to having a "fail-safe" system for the river crossing. Therefore, the No Project Alternative was deemed unacceptable.

Other Project Alternatives

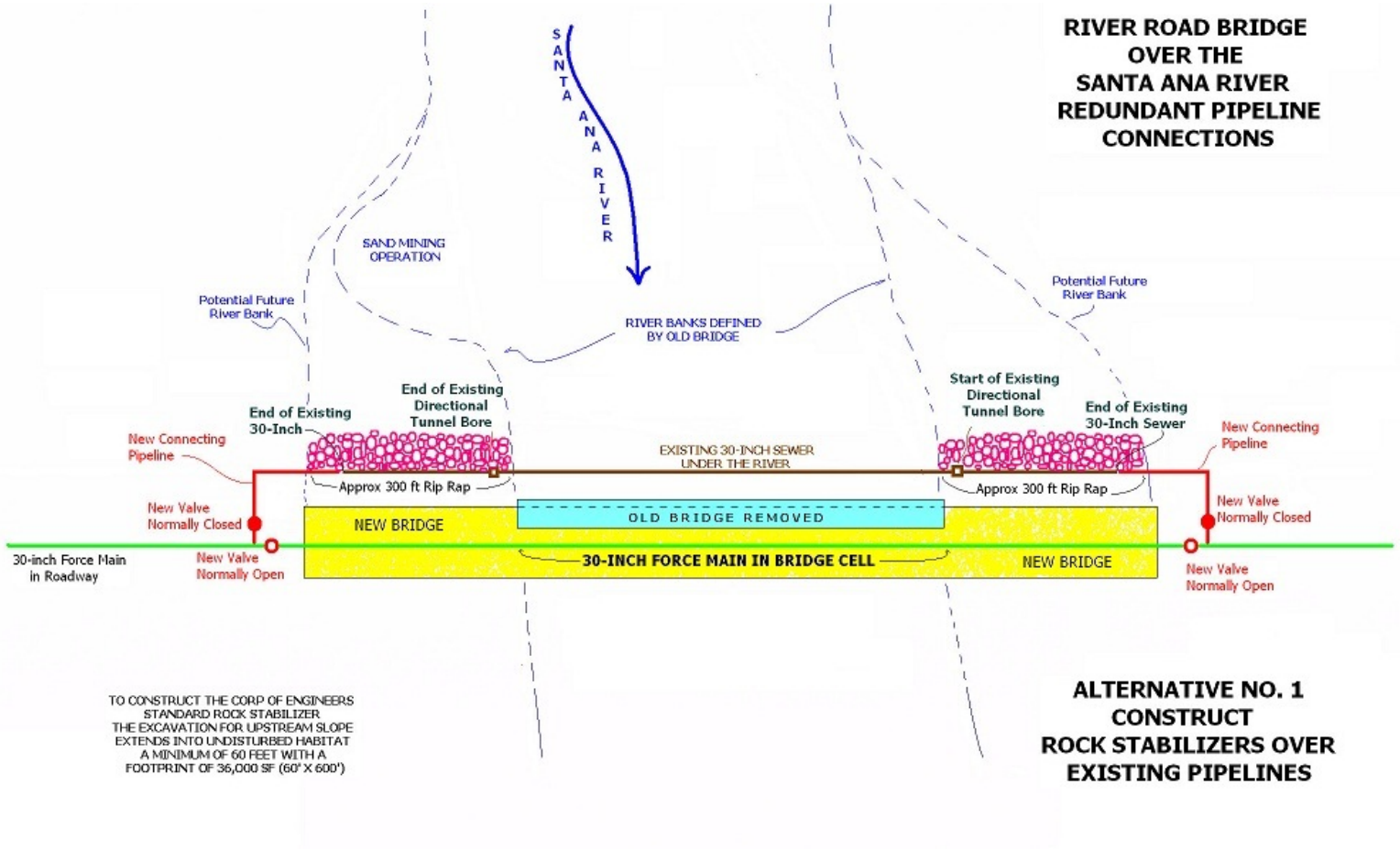
The proposed project would not provide a complete "fail-safe" system as the pipeline in the bridge would be subject to strong seismic shaking and the pipeline under the river would be subject to scour from a large flood. To protect the pipeline from scour, approximately 600 feet of 30-inch diameter connecting pipelines (approximately 300 feet at each end of the new bridge) would need to be constructed to connect the directional tunnel bore with the main pipelines in River Road. Approximately 180 feet of the 600 feet of pipeline would have to be constructed outside the area disturbed by the new bridge construction and within undisturbed habitat so that the pipelines are a safe distance away from river scour caused by the new bridge abutments.

Protecting the Ends of the Directional Tunnel Bore and Connecting Pipelines

There are two alternatives for protecting the ends of the directional tunnel bore and the proposed, replacement connecting pipelines. (1) place a rock stabilizer over the shallow ends of the directional tunnel bore and the shallow connecting pipelines, or (2) cut the directional tunnel bore a safe depth below the scour depth of the river and attach the connecting pipelines at that same depth.

Alternative No. 1

As much as 600 lineal feet of rock stabilizer (a.k.a. rip rap), would be constructed approximately 75 feet wide, 16 feet deep, in the river bed to protect existing and proposed connecting pipelines. A project schematic is shown on Figure 20-1. Dr. Howard H. Chang Ph.D., P.E. of Chang Consultants predicted potential channel-bed scour depth using the FLUVIAL-12 computer model to simulate flood stages within the river. The maximum riverbed scour is predicted to reach the minimum bed elevation of 519 feet at the pipeline crossing during the 100 year flood. The recommended toe elevation for the rock stabilizers is five feet below the minimum elevation reached by general scour during a 100-year flood, an elevation of 514 feet to provide a safety factor to account for unexpected factors, such as erratic



Source: T & K Engineering (1-22-10)

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
FAX (951) 699-2087
E-Mail: ksdpe67@gmail.com

Figure 20-1
Project Schematic of Alternative No. 1

hydrologic phenomenon, bed settlement, bed forms, fallen tree trunks, etc. The U.S. Corps of Engineers created a Standard Design and Standard Drawing in 1994 for rock stabilizers. This Standard has been used to plan the proposed 30-inch connecting pipelines.

Length of rock stabilizers could be as much as 150 feet at each riverbank to protect the proposed connecting pipelines and ends of the directional tunnel bore and an additional 150 feet at each riverbank to protect existing connecting pipelines formerly protected by the old bridge abutments but now unprotected because the old bridge abutments have been removed. Total length of the rock stabilizers in the Santa Ana River would be approximately 600 feet (the difference between the length of old and new bridge). Although some of the existing force main runs linearly 5 feet outside the sensitive habitat a significant amount of construction would be in sensitive habitat to install the rock stabilizers.

Large rock would be placed directly above the pipe trench a width of 6 feet, upstream of the pipe approximately 12-20 feet in width, and downstream of the pipe approximately 55-60 feet in width. Total footprint of rock placement would therefore be approximately 75 feet in width and 600 feet in length, 300 feet on each side of the main river channel and directional tunnel bore.

The trench needed to place upstream rock would be approximately 10 feet deep at its deepest location and approximately 40 feet in width to provide a safe trench side-slope. An additional 20-30 feet would be needed for equipment operation during trench construction and rock placement. The footprint of disturbance in sensitive habitat would be approximately 180 feet in length and 70 feet in width, all on the south side of the main channel. Upstream rock placement on the north side of the main channel would be in area disturbed by either the sand mining operation or the bridge construction.

The trench needed to place downstream rock would be approximately 80 feet in width. The trench and areas needed for construction equipment would all be in the area disturbed by sand mining and bridge construction. The downstream rock placement would extend beyond the leading edge of the new bridge piers by about 7 feet with the temporary construction trench extending about 30 feet as shown in Figure 20-2. The trench around the new bridge piers would be approximately 16 feet deep for rock placement and the bridge piers would be exposed until backfill of the trench was accomplished. Therefore, approval from Riverside County and its structural bridge engineers would be required if this alternative were selected.

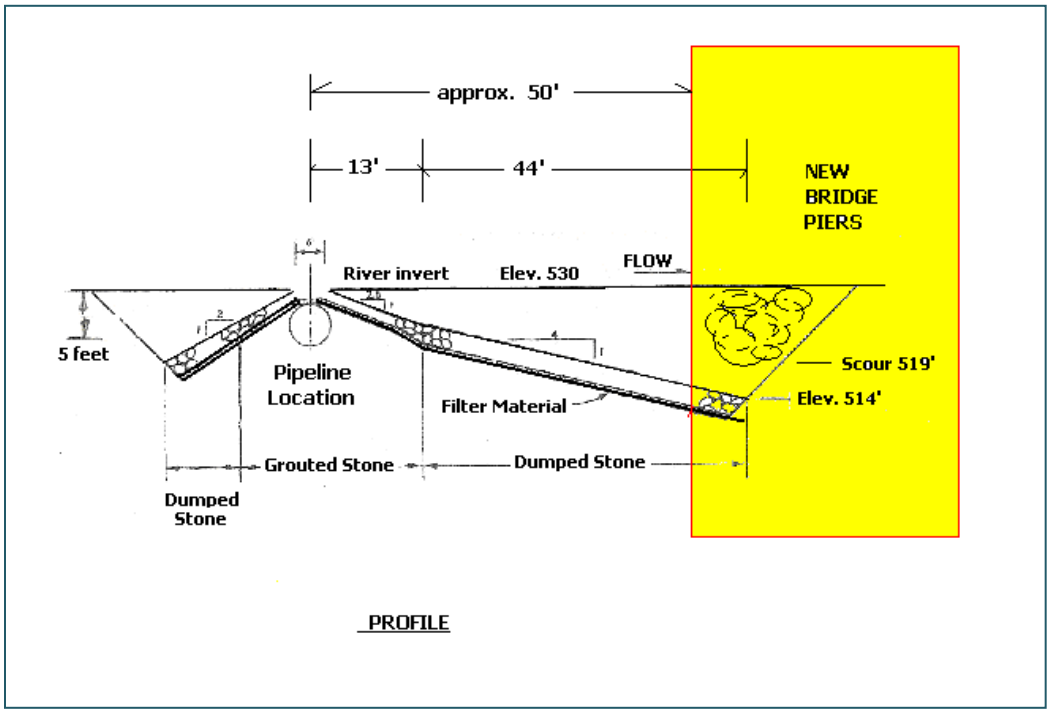
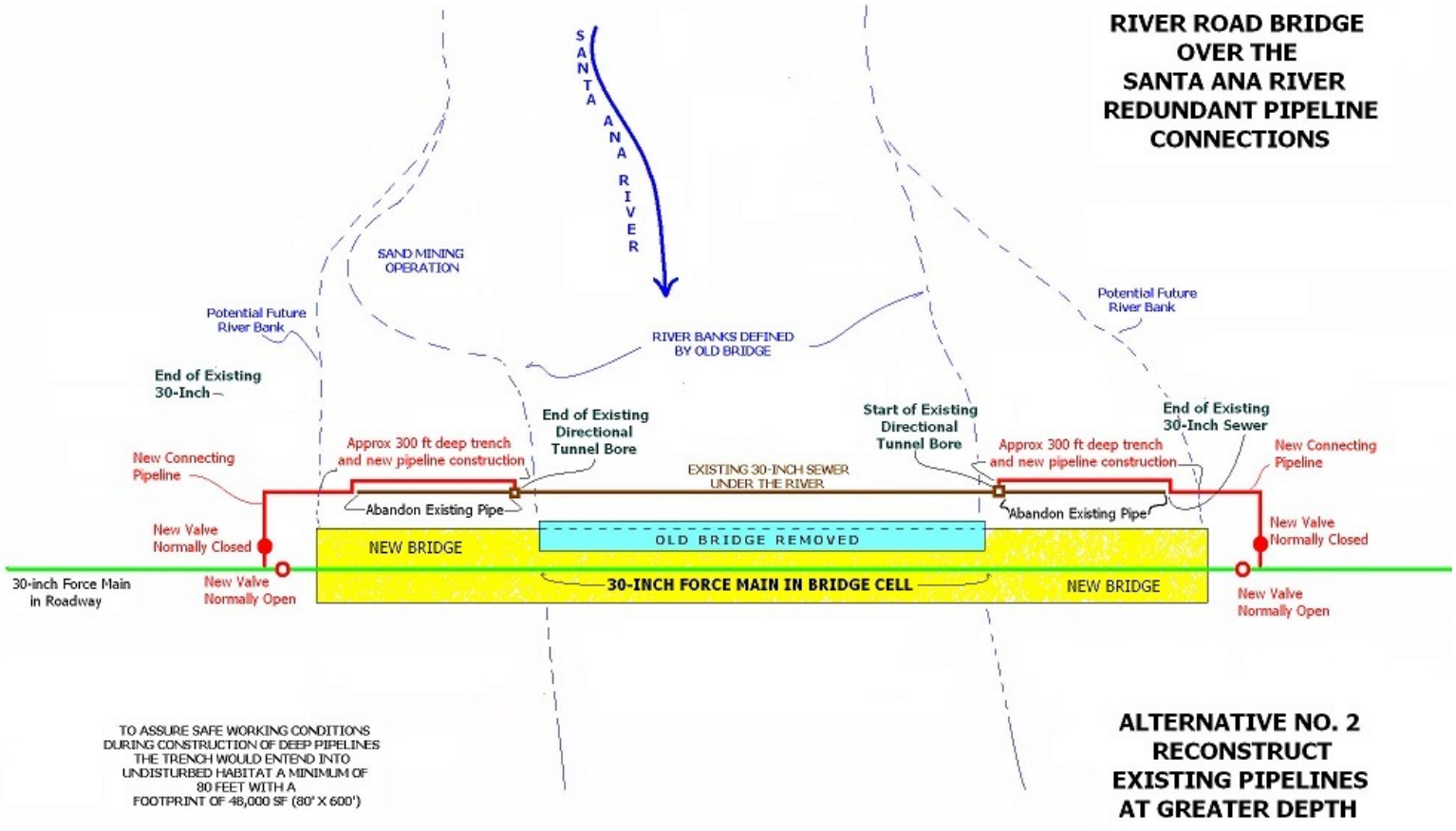


Figure 20-2 Rock Stabilizer by the U.S. Army Corps of Engineers (1994)

Alternative No. 2.

Approximately 600 feet of 30-inch diameter connecting pipelines (approximately 300 feet at each end of the new bridge) would be constructed at elevation 514 feet, five feet below river scour depth and 16 feet below grade to connect the directional tunnel bore with the main pipelines in River Road. The ends of the directional tunnel bore would be cut off at elevation 514 feet to meet the connecting pipelines constructed at the same depth. Neither the connecting pipelines nor the ends of the directional tunnel bore would need rock stabilizer protection because both would be 16 feet deep, 5 feet below the depth of river scour at the 100 year flood stage. The new connecting pipelines would include the proposed pipelines needed to replace those removed to make way for the new bridge and replacement pipelines to allow the existing normal depth pipelines to be abandoned.

At least 180 lineal feet of the 600 feet of pipeline trenching would be within sensitive habitat. Trench width would be approximately 80 feet to accommodate the installation of pipeline with 16 feet of cover. Typically slip shoring would be used to minimize trench width but the trench will be in river sand that flows easily around shoring. The construction trench and equipment areas would create a footprint within sensitive habitat approximately 180 feet by 60 feet (1/4 acre). A project schematic is shown on Figure 20-3.



Source: T & K Engineering (1-22-10)

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45375 Vista Del Mar
Temecula, CA 92590-4314
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Figure 20-3
Project Schematic of Alternative No. 2

Summary

Neither of these alternatives were deemed acceptable by WRCRWA as implementation of both of them would damage the existing sensitive riparian habitat in the project area.

Environmentally Superior Alternative

The proposed project is considered the environmentally superior alternative as the No Project would not provide a fail-safe system, the rock stabilizers would damage the existing sensitive riparian habitat, and the deep trench would also damage the existing sensitive riparian habitat. Although the proposed project does not provide the highly reliable infrastructure described in Alternatives 1 and 2, it relies on the probability that a damaging seismic event would not occur at the same time as a 100-year flood event.

21 Persons and Organizations Consulted

NOP Circulation

On March 10, 2010, WRCRWA's environmental consultant, K.S. Dunbar & Associates, Inc., mailed copies of the Notice of Preparation of a Draft Environmental Impact Report and Attachment to those agencies, entities and individuals in the following list:

Federal Agencies

Karen A. Goebel
Assistant Field Supervisor
Fish and Wildlife Service
U.S. Department of the Interior
6010 Hidden Valley Road
Carlsbad, California 92009

Forrest Vanderbilt, Project Manager
Regulatory Division
U.S. Army Corps of Engineers
Los Angeles District
Post Office Box 532711
Los Angeles, California 90053-2325

James J. Fletcher, Superintendent
Southern California Agency
Bureau of Indian Affairs
U.S. Department of the Interior
1451 Research Park Drive, Suite 100
Riverside, California 92507-2154

State Agencies

Scott Morgan, Acting Director
State Clearinghouse and Planning Unit
Governor's Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

Gabrina Gatchel
Habitat Conservation Program
Inland Deserts Region
California Department of Fish and Game
3602 Inland Empire Boulevard, Suite C-220
Ontario, California 91764

Mr. Gerard Thibeault, Executive Officer
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Wayne Donaldson
Office of Historic Preservation
California Department of Parks and Recreation
Post Office Box 942896
Sacramento, California 94296-0001

Nadell Gayou
California Resources Agency
Post Office Box 942836
Sacramento, California 94236-0001

Dave Singleton
Program Analyst
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, California 95814

Daniel Kopulski, Office Chief
Regional Planning, IGR/CEQA Review
California Department of Transportation
464 West Fourth Street, 6th Floor
San Bernardino, California 92401

Greg Holmes, Unit Chief
Southern California Cleanup Operations Branch
Cypress Regional Office
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630-4732

Regional Agencies

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
South Coast Air Quality Management District
Post Office Box 4939
Diamond Bar, California 91765-0939

Celeste Cantú, General Manager
Santa Ana Watershed Project Authority
11615 Sterling Avenue
Riverside, California 92503

County Agencies

Mark Wills
Chief of Regulatory Section
Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, California 92501

Juan C. Perez, P.E., T.E., Director
Department of Transportation
County of Riverside
Post Office Box 1090
Riverside, California 92502-1090

Ron Goldman, Director
Planning Department
County of Riverside
Post Office Box 1409
Riverside, California 92501

City Agencies

Brad Robbins, Assistant City Manager
City of Corona
400 South Vicentia Avenue
Corona, California 92882-3238

Bill Thompson, Public Works Director
City of Norco
1281 Fifth Street
Norco, CA 92860

Interested Entities

Eldon Horst, General Manager
Jurupa Community Services District
11201 Harrel Street
Mira Loma, California 91752

Carl Shiloh, General Manager
Home Gardens County Water District
3832 Grant Street
Corona, California 92879-1845

Michael R. Marcus, P.E.
General Manager
Orange County Water District
Post Office Box 8300
Fountain Valley, California 92728-8300

Rebecca De Leon
Environmental Planning Team
The Metropolitan Water District of Southern California
700 N. Alameda Street, US3-230
Los Angeles, California 90012

George Hague
Sierra Club-San Gorgonio Chapter
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Moreno Valley, CA 92555-1906

Anthony Madrigal, Jr., Chairperson
Cahuilla Band of Indians
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Anza, California 92539

Paul Macarro
Cultural Resources Center
Pechanga Band of Mission Indians
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Temecula, California 92593

Joseph Hamilton, Vice Chairman
Ramona Band of Cahuilla Mission Indians
Post Office Box 391670
Anza, California 92539

Cindi Alvitre
Ti'At Society
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Long Beach, California 90603

Anthony Morales, Chairperson
Gabrielino/Tongva San Gabriel Band of Mission Indians
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San Gabriel, California 91778

John Marcus, Chairman
Santa Rosa Band of Mission Indians
Post Office Box 609
Hemet, California 92546

Sam Dunlap, Tribal Secretary
Gabriellino/Tongva Council / Gabrielino Tongva Nation
761 Terminal Street, Building 1, 2nd Floor
Los Angeles, California 90021

Erica Helms, Cultural Resources Manager
Soboba Band of Luiseno Indians
Post Office Box 487
San Jacinto, California 92581

Autumn Miller-DeWoody
Inland Empire WATERKEEPER
3741 Merced Drive, Unit F2
Riverside, California 92503-4956

Also on March 10, 2010, Scott Morgan, Acting Director, State Clearinghouse and Planning Unit sent copies of the NOP and Attachment to the following State agencies:

- Resources Agency
- Department of Parks and Recreation
- Department of Water Resources
- Department of Fish and Game, Region 6
- Office of Emergency Management Agency, California
- Native American Heritage Commission
- State Lands Commission
- Caltrans, District 8
- State Water Resources Control Board, Division of Financial Assistance
- Regional Water Quality Control Board, Region 8.

Responders to the NOP

During the 30-day public review period, written responses were received from the following:

Scott Morgan, Acting Director
State Clearinghouse and Planning Unit
Governor's Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

Dave Singleton, Program Analyst
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, California 95814

Greg Holmes, Unit Chief
Southern California Cleanup Operations Branch
Cypress Regional Office
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630-4732

Jeff Brandt, Senior Environmental Scientist
Habitat Conservation Planning
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, California 91764

Mark G. Adelson, Chief
Regional Planning Programs Section
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3348

Ian MacMillan
Program Supervisor, CEQA Intergovernmental Review
Planning, Rule Development & Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765-4178

Kris Flanigan, Senior Civil Engineer
Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, California 92501

Greg Woodside
Planning and Watershed Management Director
Orange County Water District
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Fountain Valley, California 92728-8300

The Metropolitan Water District of Southern California
700 N. Alameda Street, US3-230
Los Angeles, California 90012

Joseph Ontiveros
Soboba Cultural Resources Department
Post Office Box 487
San Jacinto, California 92581

WRCRWA's Responses to Comments on the NOP

Copies of the actual comment letters received on the Notice of Preparation are included in Appendix B of this document. Summaries of the comment letters and Western Riverside County Regional Wastewater Authority's responses follow:

Governor's Office of Planning and Research

In his March 10, 2010 letter to the Reviewing Agencies, Scott Morgan, Acting Director, State Clearinghouse and Planning Unit assigned the Project State Clearinghouse No. 2010031046 and established a public review period of 30 days which ended on April 9, 2010.

Response:

No response is required to this informational comment.

Native American Heritage Commission

In his March 16, 2010 letter to K.S. Dunbar, P.E., Dave Singleton, Program Analyst stated:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 designated to protect California's Native American Cultural Resources. (Also see Environmental Protection Information Center v. Johnson (1985) 170 Cal App. 3rd 604). The California Environmental Quality Act (CEQA – CA Public Resources Code §21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per California Code of Regulations §15064.5(b)(c)(f) (CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as " a substantial, or potentially substantial, adverse change in an of physical conditions within an area affected by the proposed project, including … objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on cultural resources, the Commission recommends the following:

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.64(a) and Native American Cultural Resources were not identified within the area of potential effect (APE), as described. However, there are Native American Cultural Resources in close proximity to the APE. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties', for this purpose,

that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g., APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource. Also, the NAHC recommends that a Native American Monitor or Native American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental planning processes. Furthermore, we suggest that you contact the California Historic Resources information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 11.

Consultation with tribes and interested Native American tribes and interested Native American individuals, as consulting parties, on the NAHC list should be conducted in compliance with the requirements of federal NEPA (42 USC 4321-4351) and section 106 and 4(f) of federal NHPA (16 USC 470[f], et seq), 36 CFR Part 800.3, the President's Council on Environmental Quality (CSO, 42 USC 4371 et seq) and NACPRA (25 USC 3001-3013), as appropriate. The 1992 Secretary of the Interior's Standards for the Treatment of Historic Properties were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes.

Response:

The list of Native American Tribes and interested Native American individuals contacted by WRCRWA and its consultants during the planning process is included in Sections 7 and 21 of this document. The results of the search by the Eastern Information Center are provided in Appendix D of this document.

WRCRWA will continue to coordinate its efforts on this Project with the Native American contacts shown previously.

Section 106 and Section 4(f) consultation activities would be carried out by the responsible federal official, if necessary, for this Project.

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected bgy a project. Also, Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'. Discussion of these should be included in your environmental documents, as appropriate.

Response:

Appropriate mitigation measures are included in Section 7 of this document as well as in the Mitigation Monitoring and Reporting Program (Appendix E of this document).

The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of the NHPA or at the Secretary of the Interior's direction, if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf 42 USC 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

Response:

The above information is noted.

CEQA Guidelines Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the Initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. Although tribal consultation under the California Environmental Quality Act (CEQA, CA Public Resources Code Section 21000 – 21177) is advisory rather than mandated, the NAHC does request lead agencies to work with tribes and interested Native American individuals as 'consulting parties', on the list provided by the NAHC in order that cultural resources will be protected. However, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does mandate tribal consultation for the electric transmission corridors. This is codified in California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC.

Response:

Section 7 of this document, as well as the Mitigation Monitoring and Reporting Program (Appendix E of this document), contains appropriate mitigation measures for the inadvertent discovery of Native American human remains during construction.

There are no electric transmission corridors associated with this project. The Project consists of the relocation of a wastewater force main.

Health and Safety Code §7050.5, Public Resources Code §5097.98 and §15064.5(d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. Note that §7052 of the Health and Safety Code states that disturbance of Native American cemeteries is a felony.

Response:

The DEIR did not identify the presence or likely presence of Native American human remains. However, in the unlikely event that they are found during construction activities, Chapter 7 of the DEIR includes the appropriate mitigation measure.

Again, Lead agencies should consider avoidance, as defined in Section 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning and implementation.

Response:

There would be no anticipated impacts to cultural resources associated with implementation of the proposed project.

Department of Toxic Substances Control

In his March 26, 2010 letter to Keith S. Dunbar, P.E., Greg Holmes, Unit Chief, Brownfields and Environmental Restoration Program – Cypress Office stated:

DTSC has the following comments:

1) *The EIR should identify the current or historic uses of the Project area that may have resulted in a release of hazardous wastes/substances, and any known or potentially contaminated sites within the proposed Project area. For all identified sites, the EIR should evaluate whether conditions at the site may pose a threat to human health or the environment. Following are the databases of some of the pertinent regulatory agencies:*

   - *National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S. EPA).*
   - *EnviroStor: A database primarily used by the California Department of Toxic Substances Control, at www.Envirostor.dtsc.ca.gov.*
   - *Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.*

- *Comprehensive Environmental Response Compensation and Liability Information System (CERCLA): A database of CERCLA sites that is maintained by U.S. EPA.*
- *Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.*
- *Leaking Underground Storage Tanks (LUST)/Spills, Leaks, Investigations and Cleanups (SLIC). A list maintained by Regional Water Quality Control Boards.*
- *Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.*
- *The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017 (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).*

Response:

The above referenced databases and others were utilized during the preparation of the Hazards and Hazardous Materials section of the DEIR. All databases that were consulted are listed in Chapter 9.

2) *The EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC would require an oversight agreement in order to review such documents. Please see comment No. 11 below for more information.*

Response:

The Project site is not contaminated; therefore, no further investigation is necessary.

3) *All environmental investigations, sampling and/or remediation for a site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found above regulatory standards should be clearly summarized in a table.*

Response:

The Project site is not contaminated; therefore, no further investigation is necessary.

4) *Proper investigation, sampling and remedial actions overseen by the respective regulatory agencies, if necessary, should be conducted in the Project area prior to the new*

development or any construction. All closure, certification or remediation approval reports by these agencies should be included in the EIR.

Response:

The Project site is not contaminated; therefore, no further investigation is necessary.

5) *If buildings, other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should also be conducted for the presence of other hazardous chemicals, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints (LBP) or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.*

Response:

None of these activities are planned as part of the Project.

6) *Project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination.*

Response:

It will be necessary to excavate soil to construct the proposed facilities. However, based on the results of researching the databases and the prior use of the properties It is not anticipated that soil at the sites would be contaminated. Clean sand could be imported to the site to be used as bedding material for the pipelines. WRCRWA's standard construction specifications require the contractor to provide suitable information that insures that the imported materials are contaminant free.

7) *Human health and the environment of sensitive receptors should be protected during all construction or demolition activities. If necessary a health risk assessment overseen and approved by the appropriate government agency should be conducted by a qualified health risk assessor to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.*

Response:

There are no sensitive receptors in the immediate vicinity of the Project site.

8) *If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, this facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for the authorization can be obtained by contacting your local CUPA.*

Response:

The proposed Project includes wastewater and recycled water pipelines and appurtenances only. No hazardous waste would be generated by these facilities.

9) *If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented.*

Response:

WRCRWA's standard construction contract documents include such provisions.

10) *If the Project area was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of an approved by government agency at the site prior to construction of the project.*

Response:

The site was not previously used for any of these activities.

11) *DTSC can provide guidance for cleanup oversight through an Environmental Oversight Agreement (EOA) for governmental agencies that are not responsible parties, or a Voluntary Cleanup Agreement (VCA) for private parties. For additional information on the EOA or VCA, please see* www.dtsc.ca.gov/ *SiteCleanup/Brownfields, or contact Ms. Maryam Tasnif-Abbasi, DTSC's Voluntary Cleanup Coordinator, at (714) 484-5489.*

Response:

No cleanup activities are anticipated at this site.

California Department of Fish and Game

In his March 30, 2010 letter to Keith S. Dunbar, Jeff Brandt, Senior Environmental Scientist, Habitat Conservation Planning, Inland Deserts Region, stated:

The Department's focus of the project is on the potential impacts on sensitive fish, wildlife, and plant species, and jurisdictional waters of the State. The Department is concerned about the continuing loss of jurisdictional waters of the State and the encroachment of development into areas with sensitive habitat. The DEIR, should contain, at a minimum: sufficient, specific, and current biological information on the existing habitat and fish, wildlife and plant species at the project site; measures to minimize and avoid impacts to and protect sensitive fish, wildlife , and plant resources, habitat and jurisdictional waters of the State; and mitigation measures to compensate for the loss of native fish, wildlife, and plant species, habitat, and jurisdictional waters of the State. If the project site contains State- and/or Federally-listed endangered, threatened, and/or candidate species, the DEIR should include measures to avoid and minimize impacts to and protect these species, as well as comprehensive mitigation measures. The DEIR should not defer impact analysis and avoidance, minimization, protection, and/or mitigation measures, to future regulatory discretionary actions, such as a LSA Agreement or Incidental Take Permit.

Response:

The requested information in contained in Chapter 6, Biological Resources in this DEIR. As shown, the DEIR does not defer impact analysis, etc., to future regulatory discretionary actions.

The proposed project is subject to the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. Please note that the MSHCP process does not negate the requirement for an LSA Agreement. The Department's criteria for determining the presence of jurisdictional waters under the Lake and Streambed Alteration Program are generally more comprehensive that the MSHCP criteria in Section 6.1.2. If the project site contains jurisdictional waters of the State under the LSA Program that will be altered by the proposed project, a LSA Agreement will be required.

Response:

A Lake and Streambed Alteration Agreement will not be required for this project.

The proposed project has the potential to have significant environmental impacts on sensitive fish, wildlife, and plant resources. The project site is located within a perennial section of the Santa Ana River that contains southern cottonwood willow riparian forest habitat. The aquatic and riparian habitat within and adjacent to the project site is known to contain several State- and Federally-listed endangered, threatened, and/or candidate species, including but not limited to: arroyo chub (Gila orcutti), burrowing owl (Athene curicularia), least Bell's vireo (Vireo bellii pusillus), Santa Ana sucker (Catostomus sanaanae), southwestern willow flycatcher (Empidonax traillii extimus), western

yellow-billed cuckoo (Coccyzus americanus occidentalis), yellow-breasted chat (Ictgeria virens), and yellow warbler (Dendroica petechia brewsteri). The DEIR should include an analysis of fish, wildlife, and plant species, habitat, and jurisdictional waters of the State within and adjacent to the project site and provide avoidance, minimization, protection, and mitigation measures to offset impacts to these sensitive resources.

Response:

The requested information in contained in Chapter 6, Biological Resources in this DEIR.

To allow Department staff to adequately analyze and comment on the proposed project, the Department recommends that biological studies are conducted no more than one year prior to any environmental or discretionary approvals. The following information should be included in all biological reports or supplementary environmental reports:

1. *A complete assessment of the fish, wildlife, and plant species within and adjacent to the project site, with particular emphasis on identifying endangered, threatened, candidate, and locally unique species and sensitive habitats.*

   a) *A thorough assessment of rare plants and rare natural communities, using the Department's November 2009 Guidance for Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The guidance document can be found at the following link:*

   http://www.dfg.ca.gov/biogeodata/cnddb/Protocols_for_Surveying_and_Evaluating_Impacts.pdf

   Response:

   As shown in Chapter 6, Biological Resources in this DEIR, implementation of the project will not impact special status species.

   b) *A complete assessment o sensitive fish, amphibian, reptile, bird, and mammal species. Seasonal variations of project work activities should be considered during the assessment. Focused species-specific surveys, conducted at the appropriate time of year and time of day when sensitive species are active or otherwise detectable, are required. Appropriate species-specific survey procedures should be developed in consultation with the Department and the United States Fish and Wildlife Service (USFWS).*

Response:

As shown in Chapter 6, Biological Resources in this DEIR, implementation of the project will not impact special status species.

c) *Endangered, threatened, candidate, and rare species to be addressed under the assessment should include all of those species which meet the CEQA definition (CEQA Guidelines Section 15380).*

Response:

As shown in Chapter 6, Biological Resources in this DEIR, implementation of the project will not impact special status species.

d) *The Department's California Natural Diversity Database (CNDDB) in Sacramento should be contacted by telephone at (916) 327-5960 to obtain current information on any previously reported sensitive species and habitat within and adjacent to the project site, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Please note that the CNDDB may not be able to provide an exhaustive list of all sensitive species and habitat found within and adjacent to the project site.*

Response:

As shown in Chapter 6, Biological Resources in this DEIR, the CNDDB was utilized.

2. *A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect fish, wildlife, and plant species, habitat, and jurisdictional waters of the State, with specific measures to offset such impacts.*

a) *CEQA Guidelines Section 15125(a) identifies that knowledge of a regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.*

Response:

The requested information is contained in the environmental setting section of Chapter 6, Biological Resources in this DEIR.

b) *Project impacts should be analyzed relative to their effects on adjacent habitats. Specifically, this should encompass adjacent public lands, open space areas, natural lands, and riparian ecosystems. In addition, impacts to and maintenance of wildlife*

corridors/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided.

Response:

Project impacts are discussed in detail in Chapter 6, Biological Resources in this DEIR.

c) *The zoning of areas for development projects or other uses that are close or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR.*

Response:

WRCRWA has no authority over zoning issues in the Project area. Zoning is the responsibility of the County of Riverside and the City of Norco.

d) *A cumulative effects analysis should be developed as described under CEQA Guidelines Section 15130. General and specific plans, as well as past, present, and anticipated future projects (including maintenance activities) should be analyzed relative to their impacts on similar species and habitat.*

Response:

A cumulative effects analysis as required by §15380 of the CEQA Guidelines is contained in Chapter 19 of this DEIR.

e) *The DEIR should include an analysis of the effect that the project may have on completion and implementation of regional and/or subregional conservation programs. Under Sections 2800 through 2835 of the Fish and Game Code, the Department, through the Natural Communities Conservation Planning Program (NCCP Program) is coordinating with local jurisdictions, land owners, and the federal government to preserve local and bioregional diversity.*

Response:

The Project will have no effect on completion and implementation of regional and/or subregional conservation programs. The Project is an underground pipeline relocation project.

3. *A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated (CEQA Guidelines Section 15126.6). A range of alternatives which would avoid or otherwise minimize impacts to sensitive species and habitat should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.*

   Response:

   An alternative analysis in accordance with §15126.6 of the CEQA Guidelines is provided in Chapter 20 of this DEIR.

   a) *Mitigation measures for project impacts to sensitive fish, wildlife, plant, and habitat should emphasize evaluation and selection of alternatives which avoid and/or otherwise minimize project impacts. Offsite compensatory mitigation for unavoidable impacts through acquisition and protection of high quality habitat should be considered.*

      Response:

      The main purpose of the Project is to protect the Santa Ana River and its sensitive riparian habitat from untreated wastewater pollution in the event the pressurized pipeline in the bridge develops a leak or is catastrophically broken. To accomplish this, WRCRWA would install valves and short pieces of pipeline to create two river crossings; the primary crossing using the new pipeline in the bridge and secondary crossing using the existing pipeline under the river.

   b) *The Department considers Rare Natural Communities as threatened habitat having both local and regional significance. These communities should be fully avoided and otherwise protected from project impacts.*

      Response:

      As shown in Chapter 6, Biological Resources in this DEIR, implementation of the project will not impact Rare Natural Communities.

   c) *The Department generally does not support the use of relocation, salvage, and/or transplantation actions as mitigation to endangered, threatened, candidate or rare species. Department studies have concluded that these efforts are experimental in nature and are largely unsuccessful.*

Response:

WRCRWA does not anticipate any of these activities with respect to this Project.

4. *An Incidental Take Permit must be obtained if the project has the potential to result in the "take" of plant and animal species listed under the California Endangered Species Act (CESA). Incidental Take Permits are issued to conserve, protect, enhance, and restore State-listed endangered or threatened species and their habitats. Early consultation with the Department is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain and (sic) Incidental Take Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of an Incidental Take Permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation, monitoring, and reporting plan that will meet the requirements of the Incidental Take Permit. For these reasons, the following information should be considered in the DIER (sic):*

    a. *Biological mitigation, monitoring, and reporting proposals with sufficient detail and resolution to satisfy the requirements for an Incidental Take Permit.*

    b. *A Department-approved mitigation agreement and mitigation plan is required for plants listed as rare under the Native Plant Protection Act.*

    Response:

    As shown in Chapter 6, Biological Resources in this DEIR, implementation of the project will not impact special status species.

5. *The Department does not support the elimination of watercourses and/or their channelization or conversion to subsurface drains. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, shall be retained and provided with substantial setbacks which preserve their associated aquatic and riparian habitats and onsite and offsite fish, wildlife, and plant populations. The Department has a no net loss policy for wetlands.*

    Response:

    WRCRWA does not intend to eliminate watercourses and/or their channelization or conversion to subsurface drains in this Project.

a. *Section 1600 of the Fish and Game Code requires the project applicant to notify the Department of any activity that will divert or obstruct the natural flow of, or change or use any material from the bed, channel, or bank of, any river, stream, or lake (which includes associated riparian resources) prior to the project applicant's commencement of the activity. Streams include, but are not limited to: ephemeral, intermittent, and perennial streams, rivers, creeks, washes, sloughs, blue-line streams, drainages, and watercourses with subsurface flow. The Department's issuance of an LSA Agreement for a project that is subject to CEQA will require CEQAS (sic) compliance actions by the Department as a responsible agency. The Department, as a responsible agency under CEQA, may consider the local jurisdiction's (lead agency) Negative Declaration or Environmental Impact Report for the project. However, if the CEQA document does not fully identify potential impacts to streams, lakes, and associated resources (including, but not limited to riparian and alluvial fan sage scrub habitats), and provide adequate avoidance, minimization, protection, and mitigation measures (including monitoring and reporting commitments), additional CEQA analysis and documentation will be required prior to execution of the LSA Agreement. In order to avoid delays or repetition of the CEQA process, potential impacts to a stream of lake and associated habitat, as well as avoidance, minimization, protection, and mitigation measures, need to be discussed within the DEIR. The Department recommends the following measures to avoid subsequent CEQA documentation and project delays.*

   i. *Include all information regarding project impacts to streams, lakes, and associated habitat within the DEIR. Please note that long term maintenance of facilities located within a stream or lake or associated habitat is considered and (sic) impacts and subject to a LSA Agreement. The DEIR should include, at a minimum, the following information regarding jurisdictional waters of the State: (a) a jurisdictional delineation of all streams, lakes and associated habitat within the project site, (b) an analysis of all jurisdictional waters that will be directly and indirectly impacted by the proposed project, (c) details regarding the fish, wildlife, and plant resources associated with jurisdictional waters of the State within the project site and identification of their presence and absence, (d) a discussion of environmental alternatives, (e) a discussion of avoidance, minimization, and protection measures to reduce project impacts, (f) a discussion of potential mitigation measures required to reduce projects impacts to a level of insignificance, and (g) an analysis of impacts to habitat caused by a change in water flow across the site.*

   ii. *The Department recommends that the project applicant and/or lead agency consult with the Department to discuss potential project impacts and avoidance, minimization, protection, and mitigation measures. Early consultation with the Department is encouraged since modification of the proposed project may be*

required to avoid or reduce impacts to fish, wildlife, and plant resources. To obtain a LSA Agreement Notification package, please visit the Department's website at:

http://www.dfg.ca.gov/habcon/1600/forms.html

Response:

A Lake and Streambed Alteration Agreement will not be required for this project.

California Regional Water Quality Control Board, Santa Ana Region

In his April 8, 2010 letter to K.S. Dunbar, Mark G. Adelson, Chief, Regional Planning Programs (signed by Glenn Robertson) stated:

Because the Project appears to result in excavation of ("dredging") and/or placement of fill into "waters of the United States", this Project may fall within the jurisdiction of the United States Army Corps of Engineers (USACE) and require their issuance of a Clean Water Act (CWA) Section 404 permit (please contact Jason Lambert of USACE at 213-452-3361). Therefore, the Project should be conditioned to have the applicant (WRCRWA) conduct the studies necessary to establish whether or not any part of the Project falls under USACE jurisdiction. Jurisdictional waters and acreage, not established by the NOP, should be delineated in the DEIR.

Response:

The Project does not fall within the jurisdiction of the United States Army Corps of Engineers and will not require its issuance of a 404 Permit.

The Project should be further conditioned such that if it does fall within USACE jurisdiction, the applicant is advised to promptly apply for a CWA Section 401 Water Quality Standards Certification (Certification) from the Regional Board that construction and operation of the project will not adversely affect water quality standards (water quality objectives and beneficial uses). Certifications are required before a Section 404 permit can be issued.

Response:

As stated above, the Project does not fall within the jurisdiction of the USACE and therefore it will not be necessary for the applicant to apply to the Regional Board for a Section 401 Certification.

The issuance of a Certification represents a determination by the Executive Officer that discharges of wastes to waters of the U.S. that are associated with the referenced Project will comply with the

applicable provisions of CWA Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards), and with other application requirements of State law. In order for such a determination to be meaningful, project subject to Certification are evaluated for their direct, indirect, and cumulative impacts to waters of the U.S., specifically, impacts to water quality standards. Such impacts must be mitigated to receive a Certification. Information concerning Certification can be found at www.swrcb.ca.gov/santaana/water_issues/programs/401_certification/index.shtml.

Response:

The Project's impacts on water quality, as well as any required mitigation, are discussed in Chapter 10, Hydrology and Water Quality in this DEIR.

South Coast Air Quality Management District

In his March 16, 2010 letter to Keith S. Dunbar, P.E., BCEE, F. ASCE Ian MacMillan, Program Supervisor, CEQA Inter-Governmental Review, Planning, Rule Development & Area Sources stated:

The SCAQMD comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. ***In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Electronic files include spreadsheets, database files, input files, output files, etc., and does not mean PDF files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing the supporting air quality documentation will require additional time for review beyond the end of the comment period.***

Response:

SCAQMD is on the mailing list to receive the Draft EIR. It will also be sent the Excel spreadsheets that were used to calculate the air quality emissions.

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using

the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

Response:

WRCRWA's consultant utilizes the California Environmental Quality Act (CEQA) Air Quality Handbook and its amendments as well as the EMFAC2007 (version 2.3) emission factors in its air quality analysis. The URBEMIS 2007 Model is designed to analyze land development projects and is not directly applicable to such projects as the Force Main Relocation Project.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile equipment (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

Response:

All of the potential adverse air quality impacts and the above recommendations are discussed in Chapter 5, Air Quality in this document.

The SCAQMD has developed a methodology for calculating $PM_{2.5}$ emissions from construction and operational activities and processes. In connection with developing $PM_{2.5}$ calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify $PM_{2.5}$ emissions and compare the results to the recommended $PM_{2.5}$ significance thresholds. Guidance for calculating $PM_{2.5}$ emissions and $PM_{2.5}$ significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

Response:

The recommended methodologies were utilized in developing the air quality analysis in Section 5 of this document.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air

quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LST's developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www,aqmd.ca.gov/ceqahandbookLST*/LST.html.*

Response:

The LST analysis is contained in Chapter 5, Air Quality, of this document.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on SCAQMD's web page at the following internet address: http://www.aqmd.gov\ceqa\handbook/mobile_toxic/mobile_toxic.html*. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutant should also be included.*

Response:

None of the above conditions apply to the proposed Project.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: http://www/aqmd.ca.gov/ceqahandbook/mitigation/*MM_intro.html. Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address:* http://www.aqmd.ca.gov/prdas/aqguide/aqguide.html/*. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook, A Community Perspective, which can be found at the following internet address: heep://arb.ca.gov/ch/handbook.pdf. Pursuant to state CEQA Guidelines §15126.4(a)(1)(D), any impacts resulting from mitigation measures must also be discussed.*

Response:

The recommended sources for mitigation were utilized in the development of Chapter 5, Air Quality in this document.

Data Sources

*SCAQMD rules and relevant air quality reports and data are available by calling SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (*http://www.aqmd.gov*).*

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are adequately identified, categorized, and evaluated. Please call Ian MacMillan, Program Supervisor, CEQA Section, at (909) 396-3244 if you have any questions regarding this letter.

Response:

These sources as well as the California Air Resources Board's web site (www.arb.ca.gov) were used in the air quality analyses provided in Chapter 5 of this document.

Riverside County Flood Control and Water Conservation District

In his March 31, 2010 letter to Keith S. Dunbar, Kris Flanigan, Senior Civil Engineer stated:

The District is providing the following comment/concern that should be addressed in the DEIR.

The project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, any impacts made to the floodplain shall be in accordance with FEMA regulations.

Response:

This issue is discussed in Chapter 10, Hydrology and Water Quality in this DEIR.

Orange County Water District

In his April 5, 2010 letter to Keith S. Dunbar, Greg Woodside, Planning and Watershed Management Director, stated:

The Orange County Water District (OCWD) requests a copy of the DEIR and all other environmental documents related to the relocation of the 30-inch diameter force main at the River Road Bridge. This proposed project may be located at or adjacent to property owned by the OCWD in the Prado Basin and also may be in the vicinity of sensitive environmental habitat.

Response:

The OCWD is on the mailing list to receive a copy of the DEIR as well as all other environmental documents associated with this Project. The proposed Project would be located within Assessor's Parcel Numbers 130-080-015 and 130-080-029, which according to Riverside County records are owned by OCWD. It is also known that these two parcels are in the vicinity of sensitive environmental habitat.

The Metropolitan Water District of Southern California

The Metropolitan Water District of Southern California returned a copy of the NOP to Keith Dunbar with a stamp at the bottom that read: *The Metropolitan Water District of Southern California has no existing facilities or rights of sway within the limits of the project. 3-24-10, Job No. 10032404.*

Response:

No response is required to this informational comment.

Soboba Band of Luiseño Indians

In his March 16, 2010 letter to Keith S. Dunbar, P.E., BCEE, F. ASCE, John Ontiveros, Soboba Cultural Resources Department stated:

Soboba Band of Luiseño Indians is requesting the following:

1) *Government to government consultation in accordance with SB18. Including the transfer of information to the Soboba Band of Luiseño Indians regarding the progress of this project should be done as soon as new developments occur.*

   Response:

   Based on WRCRWA's review of SB-18, *Local and Tribal Intergovernmental Consultation* it appears that it requires cities and counties to contact, and consult with "California Native American Tribes" before adopting or amending a General Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places. In addition, Special Districts, School Districts and Water Districts are specifically exempted from the provisions of SB-18. SB-18 is also not part of the CEQA statute. However, WRCRWA will continue its coordination efforts with the Soboba Band of Luiseño Indians concerning this project.

2) *Soboba Band of Luiseño Indians continues to be a lead consulting tribal entity for this project.*

Response:

As stated above, WRCRWA will continue its coordination efforts with the Soboba Band of Luiseño Indians concerning this project.

3) *Working in and around traditional use areas intensifies the possibility of encountering cultural resources during the construction/excavation phase. For this reason the Soboba Band of Luiseño Indians request that Native American Monitor(s) from the Soboba Band of Luiseño Indians Cultural Resources Department be present during any ground disturbing proceedings. Including surveys and archeological testing.*

Response:

WRCRWA will continue to inform the Soboba Band of Luiseño Indians Cultural Resources Department of its construction schedule for this project.

4) *Requests that proper procedures be taken and request of the tribe be honored (Please see the attachment).*

Response:

As shown by the mitigation measures in the DEIR and Mitigation Monitoring and Reporting Program, WRCRWA will comply with those items listed in the attachment (included in Appendix B to this document) with respect to cultural items (artifacts), treatment and disposition of remains, coordination with County Coroner's Office, and non-disclosure of location reburials.

Draft EIR Circulation

On June 30, 2011, WRCRWA mailed electronic copies of the DEIR to those agencies, entities, and individuals in the following list:

Federal Agencies

Karen A. Goebel
Assistant Field Supervisor
Fish and Wildlife Service
U.S. Department of the Interior
6010 Hidden Valley Road
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Corice J. Farrar
Acting Chief, Orange & Riverside Section
South Coast Branch
U.S. Army Corps of Engineers
Los Angeles District
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James J. Fletcher, Superintendent
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State Agencies

Scott Morgan, Director
State Clearinghouse and Planning Unit
Governor's Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

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Mr. Kurt V. Berchtold, P.E., Executive Officer
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California Department of Transportation
464 West Fourth Street, 6th Floor
San Bernardino, California 92401

Greg Holmes, Unit Chief
Southern California Cleanup Operations Branch
Cypress Regional Office
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630-4732

Regional Agencies

Ian MacMillan
Program Supervisor, CEQA Section
South Coast Air Quality Management District
Post Office Box 4939
Diamond Bar, California 91765-0939

Celeste Cantú, General Manager
Santa Ana Watershed Project Authority
11615 Sterling Avenue
Riverside, California 92503

County Agencies

Kris Flanigan, Senior Civil Engineer
Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, California 92501

Juan C. Perez, P.E., T.E., Director
Department of Transportation
County of Riverside
Post Office Box 1090
Riverside, California 92502-1090

City Agencies

Bill Thompson, Public Works Director
City of Norco
1281 Fifth Street
Norco, CA 92860

Interested Entities

Eldon Horst, General Manager
Jurupa Community Services District
11201 Harrel Street
Mira Loma, California 91752

Janey Gress
Home Gardens Sanitary District
13538 Magnolia Avenue
Corona, California 92879-2032

Marsha Westropp
Orange County Water District
Post Office Box 8300
Fountain Valley, California 92728-8300

Joe Ontiveros
Cultural Resources Department
Soboba Band of Luiseno Indians
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24 Acronyms and Abbreviations

AAM	annual arithmetic mean
AGM	annual geometric mean
AQMP	Air Quality Management Plan
ARB	Air Resources Board
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CRWQCB, SAR	California Regional Water Quality Control Board, Santa Ana Region
dB(A)	decibels on the A-scale
DFG	California Department of Fish and Game
DEIR	Draft Environmental Impact Report

DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
EPDC	expected peak day concentration
ESA	Endangered Species Act
FEIR	Final Environmental Impact Report
g	acceleration due to gravity
GHG	greenhouse gases
GIS	Geographic Information System
gpm	gallons per minute
GWP	global warming potential
HDP	Historic Property Directory
HWL	high water line
KSD&A	K.S. Dunbar & Associates, Inc.
Ldn	day-night average sound level
Leq	noise equivalent
LUSTIS	Leaking Underground Storage Tank Information System
mg	million gallons
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
MT	metric tons
MWD	The Metropolitan Water District of Southern California
NAAQS	National Ambient Air Quality Standards

NAHC	Native American Heritage Commission
NO	nitrogen oxide
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NPL	National Priorities List
O_3	ozone
OES	Office of Emergency Services
OHP	Office of Historic Preservation
Pb	lead
Pga	peak ground acceleration
PM_{10}	particulate matter (less than 10 microns in diameter)
$PM_{2.5}$	particulate matter (less than 2.5 microns in diameter)
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RCFCWCD	Riverside County Flood Control and Water Conservation District
ROG	reactive organic gases
Sa	spectral acceleration
SAAQS	State Ambient Air Quality Standards
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_x	oxides of sulfur

State Water Board	State Water Resources Control Board
SWIS	Solid Waste Information System
TDS	total dissolved solids
TOG	total organic gases
UCR	University of California, Riverside
USACOE	U.S. Army Corps of Engineers
USC	United States Code
USF&WS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
WMWD	Western Municipal Water District
WRCRWA	Western Riverside County Regional Wastewater Authority
$\mu g/m^3$	micrograms per cubic meter

Appendix A

NOP and Attachment

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, F. ASCE
Chief Executive Officer

Celebrating Over 30 Years of Service
to the
Water and Wastewater Industry

March 10, 2010

Interested Entities

Notice of Preparation of a Draft Environmental Impact Report
30-inch Diameter Force Main Relocation at River Road Bridge Project
Western Riverside County Regional Wastewater Authority (WRCRWA)

Dear Gentlepersons:

WRCRWA will be the Lead Agency and will prepare a Draft Environmental Impact Report (EIR) for its 30-inch Diameter Force Main Relocation at River Road Bridge Project.

We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by WRCRWA when considering your permit or other approval for the project.

The project description, location and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☐ is ☒ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Keith S. Dunbar, P.E., BCEE, P.E., F. ASCE at the letterhead address. We will need the name of a contact person in your agency.

Sincerely,

K.S. Dunbar

Keith S. Dunbar, P.E., BCEE, F. ASCE

Enclosure

pc: Norm Thomas, P.E.
BJ Carroll

Attachment to Notice of Preparation of a Draft Environmental Impact Report

30-inch Diameter Force Main Relocation at River Road Bridge

Prepared for:

Western Riverside County Regional Wastewater Authority
450 E. Alessandro Boulevard
Riverside, California 92508-2449

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
3035 Calle Frontera
San Clemente, California 92673-3012
(949) 366-2089
E-Mail: ksdpe@cox.net

March 2010

K. S. DUNBAR & ASSOCIATES

Project Background and Description

Project Background

The Western Riverside County Regional Wastewater Authority (WRCRWA) is a joint powers agency created in 1985 to plan, construct and operate a cost effective regional wastewater reclamation facility and conveyance system. Agencies that comprise the WRCRWA include Western Municipal Water District, Home Gardens Sanitary District, Jurupa Community Services District, City of Norco, and the Santa Ana Watershed Project Authority.

WRCRWA's wastewater conveyance system includes a 30-inch diameter force main that crosses under the Santa Ana River immediately upstream of the River Road crossing within the Prado Basin Park. The eastern portion of the crossing is in the City of Norco and the western portion is in an unincorporated area of Riverside County (Figure 1).

The County of Riverside is presently replacing the bridge over the Santa Ana River at this location. The existing force main is in the footprint of the new bridge at two locations and has to be relocated. To facilitate relocation, the County included a section of 30-inch diameter force main within the bridge cell that would allow WRCRWA to abandon its existing 30-inch diameter force main river crossing and utilize the new pipeline in the bridge cell. However, due to the sensitivity of the area (i.e., Santa Ana River and its associated habitat) WRCRWA desires to also maintain the existing 30-inch diameter force main as a redundant pipeline to create a "fail-safe" system to protect the Santa Ana River and its riparian habitat.

Project Description

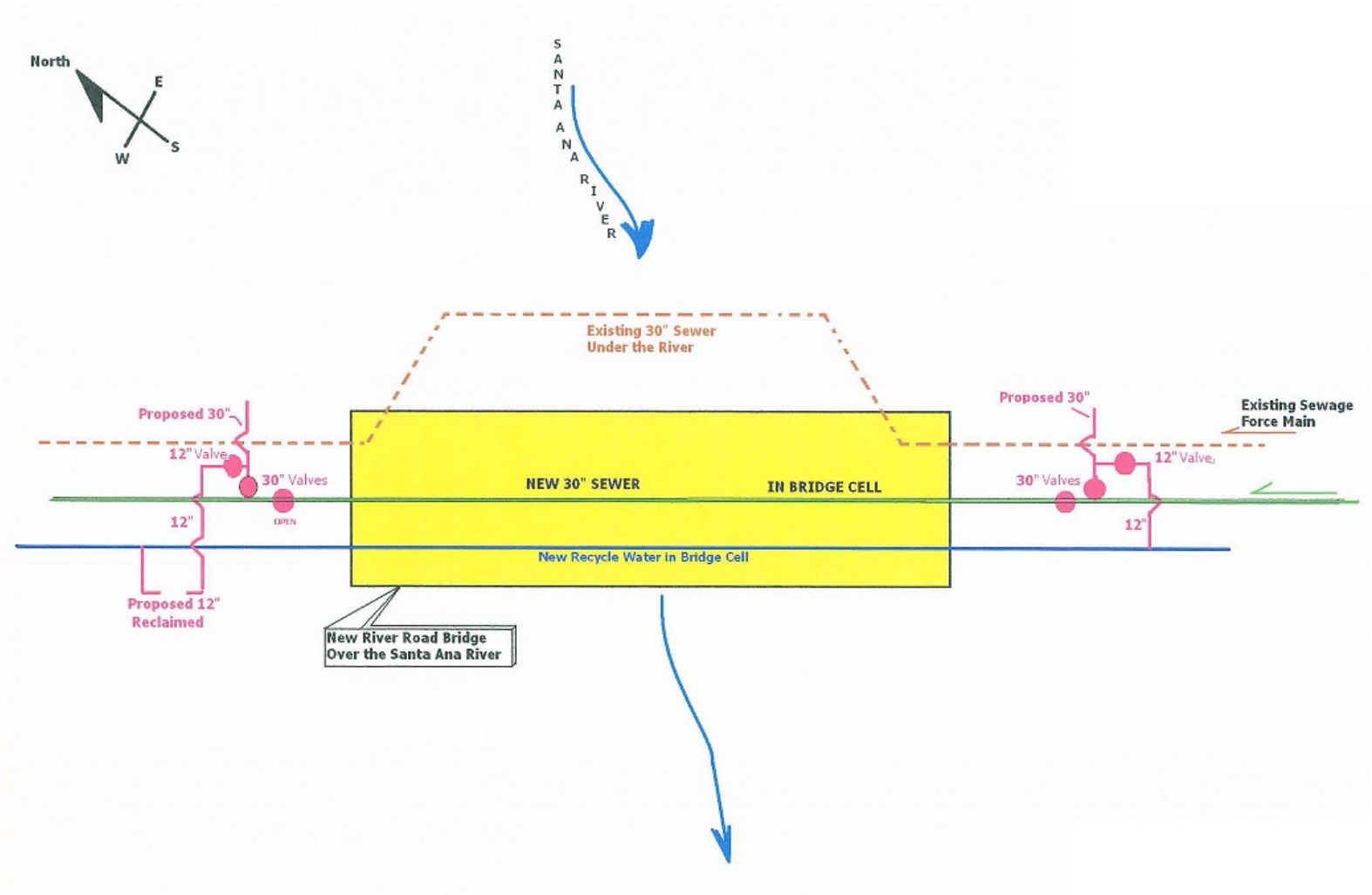
The purpose of the Project is to protect the Santa Ana River and its sensitive riparian habitat from untreated wastewater pollution in the event the pressurized pipeline in the bridge develops a leak or is catastrophically broken. To accomplish "failsafe" protection, WRCRWA would install valves and short pieces of pipeline to create two river crossings; the primary crossing using the new pipeline in the bridge and the secondary crossing using the existing pipeline under the river. As shown on Figure 2, it will be necessary to install several valves and additional piping to allow the use of the existing force main under the river during emergency conditions.

Figures 3 and 4 demonstrate wastewater and recycled water routing. As shown on Figure 3, during normal operation, the untreated wastewater would flow through the new 30-inch diameter force main in the bridge cell. However, in order to maintain the existing 30-inch diameter force main, it is proposed to connect it to Norco's new recycled water main also constructed in the bridge cell. A 12-inch pipeline with associated valves would allow recycled water to flow through the existing pipeline so it would not plug or "float" when not being used for wastewater conveyance. The recycled water would be discharged back into the new 30-inch diameter force main in the bridge until adequately flushed and the

K.S. Dunbar & Associates, Inc.
Environmental Engineering
3035 Calle Frontera
San Clemente, CA 92673-3012
(949) 366-2089
FAX (949) 366-5315
E-Mail: ksdpe@cox.net

Figure 1
Project Location

Notice of Preparation of Draft Environmental Impact Report
30-inch Force Main Relocation at River Road Bridge
Western Riverside County Regional Wastewater Authority

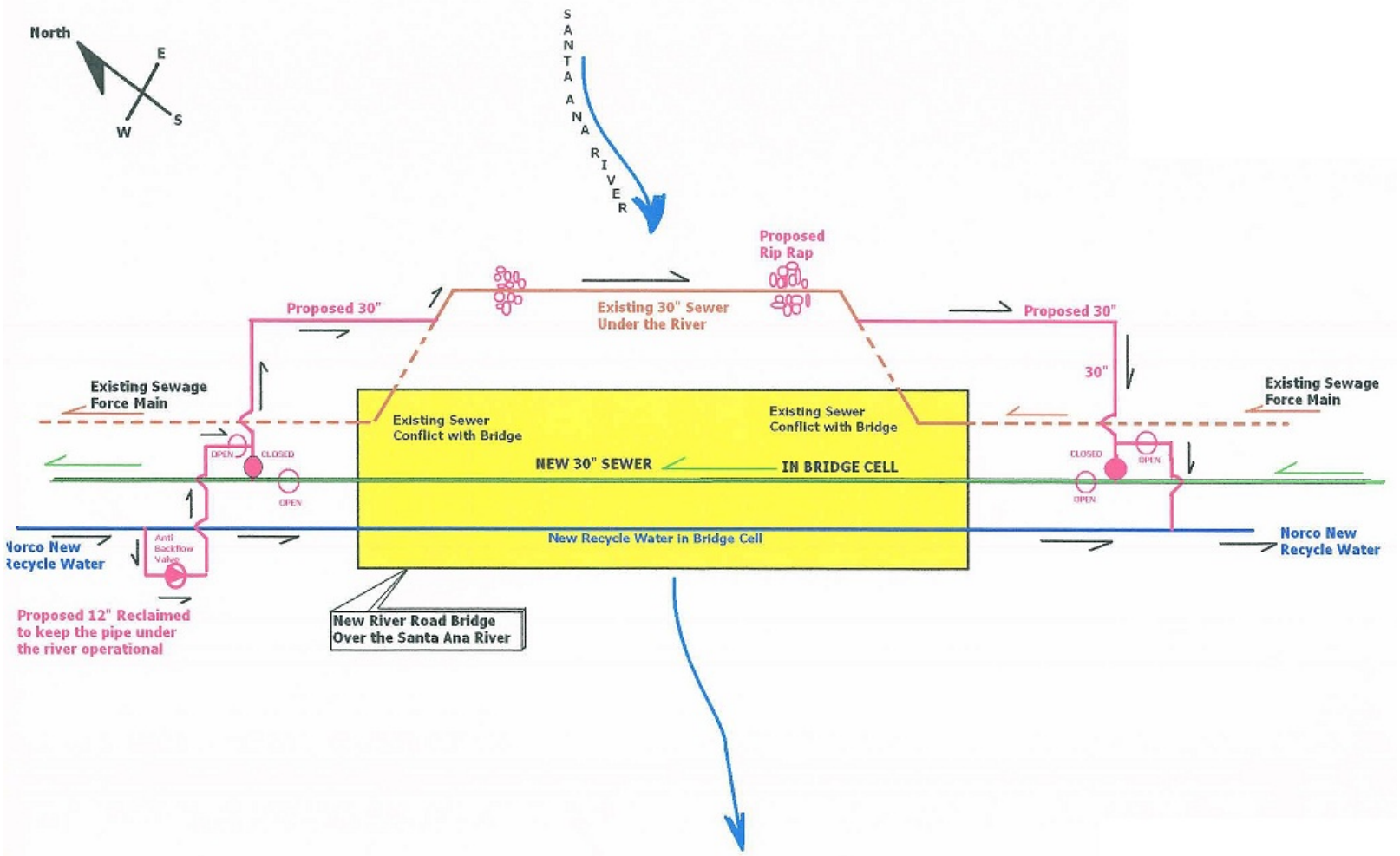


Source: T & K Engineering (1-22-10)

K.S. Dunbar & Associates, Inc.
Environmental Engineering
3035 Calle Frontera
San Clemente, CA 92673-3012
(949) 366-2089
FAX (949) 366-5315
E-Mail: ksdpe@cox.net

Figure 2
Project Schematic

Notice of Preparation of Draft Environmental Impact Report
30-inch Force Main Relocation at River Road Bridge
Western Riverside County Regional Wastewater Authority



Source: T & K Engineering (1-22-10)

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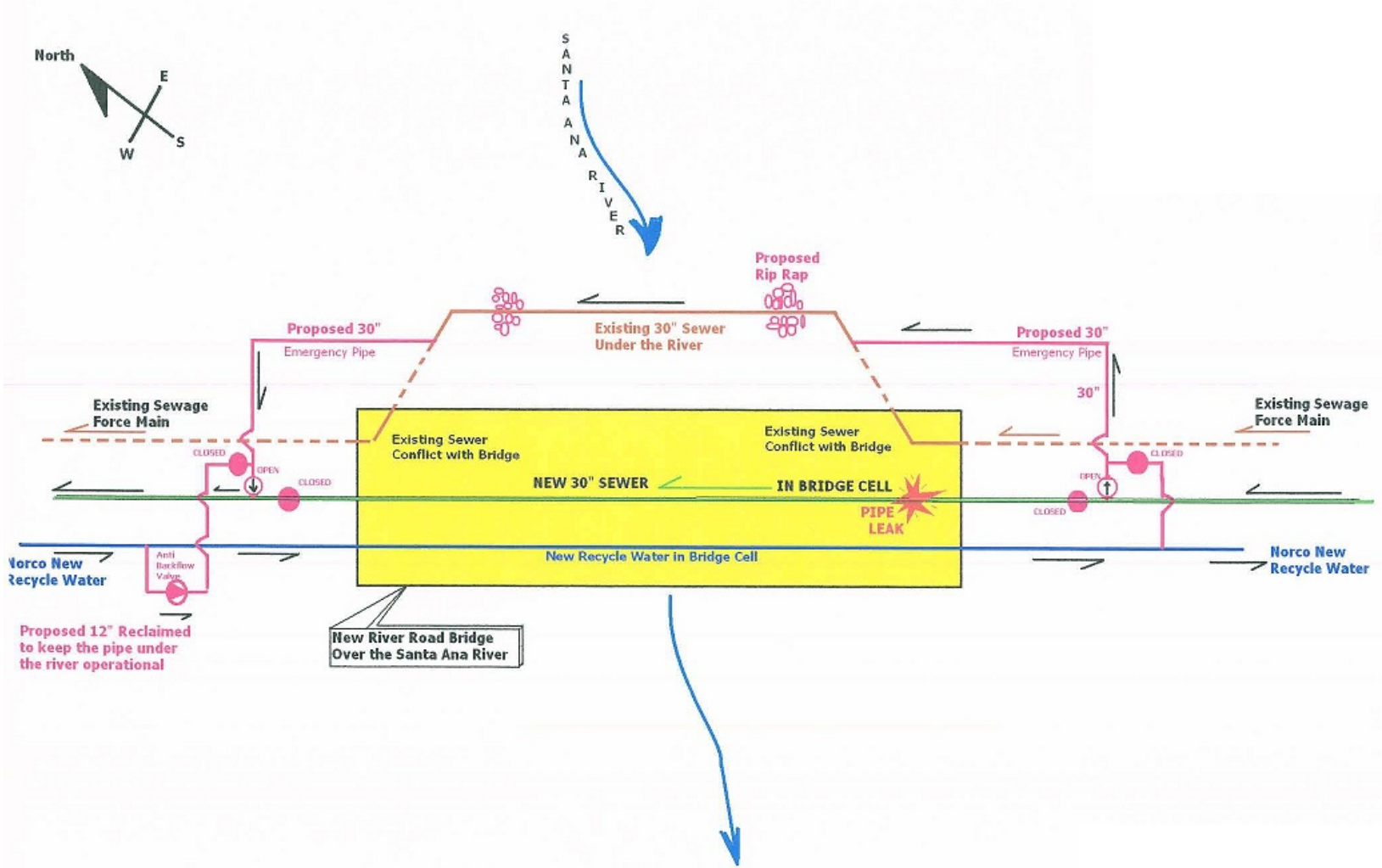
Figure 3
Project Schematic Normal Operation

Notice of Preparation of Draft Environmental Impact Report
30-inch Force Main Relocation at River Road Bridge
Western Riverside County Regional Wastewater Authority



Source: T & K Engineering (1-22-10)

K.S. Dunbar & Associates, Inc.
Environmental Engineering
3035 Calle Frontera
San Clemente, CA 92673-3012
(949) 366-2089
FAX (949) 366-5315
E-Mail: ksdpe@cox.net

Figure 4
Project Schematic Emergency Operation

Notice of Preparation of Draft Environmental Impact Report
30-inch Force Main Relocation at River Road Bridge
Western Riverside County Regional Wastewater Authority

water was in compliance with recycle standards. It would also be necessary to place rip rap along the river banks to protect the existing force main which is now protected by the bridge abutments which will be removed as part of the bridge reconstruction project.

As shown on Figure 4 wastewater routing, during emergency conditions (e.g., a potential leak or catastrophic failure of the new pipeline in the bridge), and the diversion of untreated wastewater through the existing 30-inch diameter force main under the river. Once the necessary repairs were made to the pipeline in the bridge, flow would resume as shown previously on Figure 3.

Potential Environmental Impacts

Implementation of the Western Riverside County Regional Wastewater Authority's 30-inch Force Main Relocation at River Road Bridge Project could result in the following environmental impacts:

- **Aesthetics**
  - Temporary aesthetic impacts due to removal of riparian vegetation in construction area.
  - Presence of riprap along the river banks which is now riparian vegetation.
- **Air Quality Impacts**
  - Temporary air quality impacts due to emissions from heavy construction equipment and fugitive dust.
- **Biological Impacts**
  - Temporary biological impacts due to removal of riparian vegetation in construction area.
- **Geology and Soils Impacts**
  - Construction activities would disturb approximately 1 acre of soil that would result in the potential for wind and water erosion.
- **Hazards and Hazardous Materials**
  - Construction would require the handling of potentially hazardous materials (e.g., fuels, lubricating fluids, solvents, etc.).
- **Hydrology and Water Quality Impacts**
  - During site grading and excavation, bare soil would be exposed to wind and water erosion. If precautions are not taken to contain sediments, construction activities could produce sediment laden storm runoff.
- **Noise Impacts**
  - There would be temporary noise impacts during the construction period.

Appendix B

Comment Letters on NOP

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

March 10, 2010

To: Reviewing Agencies

Re: 30-inch Diameter Force Main Relocation at River Road Bridge
SCH# 2010031046

Attached for your review and comment is the Notice of Preparation (NOP) for the 30-inch Diameter Force Main Relocation at River Road Bridge draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

KS Dunbar
Western Riverside County Regional Wastewater Authority
c/o 3035 Calle Frontera
San Clemente, CA 92673-3012

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Acting Director

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2010031046
Project Title 30-inch Diameter Force Main Relocation at River Road Bridge
Lead Agency Western Riverside County Regional Wastewater Authority

Type NOP Notice of Preparation

Description WRCRWA intends to relocate its 30-inch diameter force main at the River Road Bridge crossing of the Santa Ana River due to replacement of the existing Bridge by the County of Riverside. The County has installed a new pipeline in the bridge cell; however, for redundancy and use as a fail safe system to protect the Santa River, WRCRWA will maintain its existing force main under the River for emergency use in case of a leak or catastrophic break of the new line in the bridge cell.

Lead Agency Contact

Name KS Dunbar
Agency Western Riverside County Regional Wastewater Authority
Phone 949 366-2089 **Fax**
email
Address c/o 3035 Calle Frontera
City San Clemente **State** CA **Zip** 92673-3012

Project Location

County Riverside
City Norco
Region
Cross Streets River Road and Archibald Avenue
Lat / Long 33° 55' 25" N / 117° 35' 51" W
Parcel No. 130-080-015,130-080-029
Township 3S **Range** 7W **Section** 10 **Base** SBB&M

Proximity to:

Highways
Airports
Railways
Waterways Santa Ana River
Schools
Land Use

Project Issues Aesthetic/Visual; Air Quality; Biological Resources; Noise; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Water Quality; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 6; Office of Emergency Management Agency, California; Native American Heritage Commission; State Lands Commission; Caltrans, District 8; State Water Resources Control Board, Divison of Financial Assistance; Regional Water Quality Control Board, Region 8

Date Received 03/10/2010 **Start of Review** 03/10/2010 **End of Review** 04/08/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: RIVERSIDE

SCH# 2010051040

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Mike Sotelo
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Dept. of Conservation**
  Rebecca Salazar
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Allen Robertson
- [ ] **Office of Historic Preservation**
  Wayne Donaldson
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Game Region 2**
  Jeff Drongesen
- [ ] **Fish & Game Region 3**
  Charles Armor
- [ ] **Fish & Game Region 4**
  Julie Vance
- [ ] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [x] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Brad Henderson
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Dept. of Public Health**
  Bridgette Binning
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Linda Flack
- [x] **Cal EMA (Emergency Management Agency)**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [x] **State Lands Commission**
  Marina Brand
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [ ] **California Highway Patrol**
  Scott Loetscher
  Office of Special Projects
- [ ] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Bruce de Terra
- [ ] **Caltrans, District 4**
  Lisa Carboni
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Elmer Alvarez
- [x] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Chris Herre

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Douglas Ito
- [ ] Industrial Projects
  Mike Tollstrup
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [x] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [x] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

_____

_____

Last Updated on 01/04/2010

Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control

Maureen F. Gorsen, Director
5796 Corporate Avenue
Cypress, California 90630

Arnold Schwarzenegger
Governor

March 26, 2010

Mr. Keith S. Dunbar, P.E.
K.S. Dunbar & Associates, Inc.
3035 Calle Frontera
San Clemente, California 92673-3012

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE FORCE MAIN RELOCATION AT RIVER ROAD BRIDGE PROJECT WESTERN RIVERSIDE COUNTY REGIONAL WASTEWATER AUTHORITY (SCH#), RIVERSIDE COUNTY

Dear Mr. Dunbar:

The Department of Toxic Substances Control (DTSC) has received your submitted Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) for the above-mentioned Project. The following project description is stated in your document: "The Western Riverside Regional Wastewater Authority (WRCRWA) is a joint powers agency created in 1985 to plan, construct and operate a cost effective regional wastewater reclamation facility and conveyance system. WRCRWA's wastewater conveyance system includes 1 30-inch diameter force main that crosses under the Santa Ana River immediately upstream of the River Road crossing within the Prado Basin Park. The County of Riverside is presently replacing the bridge over the Santa Ana River at this location. The existing force main is in the footprint of the new bridge at two locations and has to be relocated. However, WRCRWA desires to also maintain the existing 30-inch diameter force main as a redundant pipeline to create a "fail-safe" system to protect the Santa Ana River and its riparian habitat. To accomplish "failsafe" protection, WRCRWA would install valves and short pieces of pipeline to create two river crossings; the primary crossing using the new pipeline in the bridge and the secondary crossing using the existing pipeline under the river. The eastern portion of the crossing is in the City of Norco and the western portion is in an unincorporated area of Riverside County". DTSC has the following comments:

1) The EIR should identify the current or historic uses in the Project area that may have resulted in a release of hazardous wastes/substances, and any known or potentially contaminated sites within the proposed Project area. For all identified sites, the EIR should evaluate whether conditions at the site may pose a threat to human health or the environment. Following are the databases of some of the pertinent regulatory agencies:

- National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).
- EnviroStor: A Database primarily used by the California Department of Toxic Substances Control, accessible through DTSC's website (see below).
- Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.
- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S.EPA.
- Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.
- Leaking Underground Storage Tanks (LUST) / Spills, Leaks, Investigations and Cleanups (SLIC): A list that is maintained by Regional Water Quality Control Boards.
- Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.
- The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).

2) The EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC would require an oversight agreement in order to review such documents. Please see comment No. 11 below for more information.

3) All environmental investigations, sampling and/or remediation for the site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found should be clearly summarized in a table.

4) Proper investigation, sampling and remedial actions overseen by the respective regulatory agencies, if necessary, should be conducted in the Project area prior to the new development or any construction. All closure, certification or remediation approval reports by these agencies should be included in the EIR.

5) If buildings or other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should be conducted for the presence of other related hazardous chemicals, lead-based paints or products, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

6) Project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination.

7) Human health and the environment of sensitive receptors should be protected during construction or demolition activities. If it is found necessary, a site investigation and a health risk assessment overseen and approved by the appropriate government agency and a qualified health risk assessor should be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

8) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that

hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

9) If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented.

10) If the Project area was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project.

11) DTSC can provide guidance for cleanup oversight through an Environmental Oversight Agreement (EOA) for government agencies that are not responsible parties under CERCLA, or a Voluntary Cleanup Agreement (VCA) for private parties. For additional information on the EOA or VCA, please see www.dtsc.ca.gov/SiteCleanup/Brownfields, or contact Ms. Maryam Tasnif-Abbasi, DTSC's Voluntary Cleanup Coordinator, at (714) 484-5489.

If you have any questions regarding this letter, please contact Mr. Rafiq Ahmed, Project Manager, at rahmed@dtsc.ca.gov or by phone at (714) 484-5491.

Sincerely,

Greg Holmes
Unit Chief
Brownfields and Environmental Restoration Program

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
state.clearinghouse@opr.ca.gov

cc: CEQA Tracking Center
Department of Toxic Substances Control
Office of Environmental Planning and Analysis
1001 I Street, 22nd Floor, M.S. 22-2
Sacramento, California 95814
ADelacr1@dtsc.ca.gov

CEQA # 2836

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

March 16, 2010

KS Dunbar, P.E. *for the*
WESTERN RIVERSIDE COUNTY REGIONAL WASTEWATER AUTHORITY
c/o 3035 Calle Frontera
San Clemente, CA 92673=3012

Re: SCH#2010031046 CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the **3-inch Diameter Force Main Relocation at River Road Bridge Project;** located at the River Road Bridge crossing the Santa Ana River in Riverside County, California

Dear Mr. Dunbar:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources.. (Also see *Environmental Protection Information Center v. Johnson (1985) 170 Cal App. 3rd 604).* The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following.

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural resources **were not identified** within the APE, as described. However, there are Native American cultural resources in close proximity to the APE. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or Native American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental planning processes.. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic

Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 11.

Consultation with tribes and interested Native American tribes and interested Native American individuals, as consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f)]*et se),* 36 CFR Part 800.3, the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq.*) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. The 1992 *Secretary of the Interior's Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including *cultural landscapes.*

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance' may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C, 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. Although tribal consultation under the California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) is 'advisory' rather than mandated, the NAHC does request 'lead agencies' to work with tribes and interested Native American individuals as 'consulting parties,' on the list provided by the NAHC in order that cultural resources will be protected. However, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does <u>mandate tribal consultation</u> for the 'electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

Again, Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse

Native American Contacts
March 17, 2010
Riverside County

Los Coyotes Band of Mission Indians
Francine Kupsch, Spokesperson
P.O. Box 189 Cahuilla
Warner , CA 92086
loscoyotes@earthlink.net
(760) 782-0711
(760) 782-2701 - FAX

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 609 Cahuilla
Hemet , CA 92546
srtribaloffice@aol.com
(951) 658-5311
(951) 658-6733 Fax

Pauma & Yuima
Christobal C. Devers, Chairperson
P.O. Box 369 Luiseno
Pauma Valley CA 92061
paumareservation@aol.com
(760) 742-1289
(760) 742-3422 Fax

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Prog.
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
mcontreras@monongo-nsn.
(951) 755-5025
(951)201-1866 - cell
(951) 922-0105 Fax

Pechanga Band of Mission Indians
Paul Macarro, Cultural Resource Center
P.O. Box 1477 Luiseno
Temecula , CA 92593
pmacarro@pechanga-nsn.
(951) 308-9295 Ext 8106
(951) 676-2768
(951) 506-9491 Fax

Kupa Cultural Center (Pala Band)
Shasta Gaughen, Assistant Director
35008 Pala-Temecula Rd.PMB Box Luiseno
Pala , CA 92059
cupa@palatribe.com
(760) 891-3590
(760) 742-4543 - FAX

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resources Manager
P.O. Box 487 Luiseno
San Jacinto , CA 92581
jontiveros@soboba-nsn.gov
(951) 654-2765
FAX: (951) 654-4198

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2010031001; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Recycled Water Distribution Pipeline Expansion Project; located in the Hemet Area; Riverside County, California.

Native American Contacts
March 17, 2010
Riverside County

Cahuilla Band of Indians
Luther Salgado, Sr.
PO Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
915-763-5549

Anna Hoover, Cultural Analyst
Pechanga Cultural Resources Department
P.O. Box 2183 Luiseño
Temecula , CA 92593
(951-770-8104
(951) 694-0446 - FAX
ahoover@pechanga-nsn.gov

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.com
(951) 849-4676

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2010031001; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Recycled Water Distribution Pipeline Expansion Project; located in the Hemet Area; Riverside County, California.

California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
(909) 484-0459
www.dfg.ca.gov

***ARNOLD SCHWARZENEGGER**, Governor*
***JOHN McCAMMAN**, Director*

March 30, 2010

Mr. Keith S. Dunbar
K.S. Dunbar & Associates, Inc.
3035 Calle Frontera
San Clemente, CA 92673-3012

Subject: Notice of Preparation of Draft Environmental Impact Report
30-inch Diameter Force Main Relocation at River Road Bridge Project
Western Riverside County Regional Wastewater Authority

Dear Mr. Dunbar:

The Department of Fish and Game (Department) appreciated this opportunity to comment on the Notice of Preparation (NOP) for the Draft Environmental Impact Report (DEIR) for the Western Riverside County Regional Wastewater Authority's (WRCRWA) 30-inch Diameter Force Main Relocation at River Road Bridge Project. The project will involve the installation of a new 30-inch diameter force main within the improved River Road Bridge structure currently being built by the Riverside County Transportation Department, and maintenance of the existing 30-inch diameter force main located underneath the Santa Ana River at the bridge site.

The Department is responding as a Trustee Agency for fish and wildlife resources [Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act (CEQA) Guidelines Section 15386], and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (LSA Agreement) (Fish and Game Code Sections 1600 et seq.) and/or a Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (Incidental Take Permit) (Fish and Game Code Sections 2080 and 2080.1).

The Department's focus of the project is on the potential impacts on sensitive fish, wildlife, and plant species, and jurisdictional waters of the State. The Department is concerned about the continuing loss of jurisdictional waters of the State and the encroachment of development into areas with sensitive native habitat. The DEIR should contain at a minimum: sufficient, specific, and current biological information on the existing habitat and fish, wildlife, and plant species at the project site; measures to minimize and avoid impacts to and protect sensitive fish, wildlife, and plant resources, habitat, and jurisdictional waters of the State; and mitigation measures to compensate

for the loss of native fish, wildlife, and plant species, habitat, and jurisdictional waters of the State. If the project site contains State- and/or Federally-listed endangered, threatened, and/or candidate species, the DEIR should include measures to avoid and minimize impacts to and protect these species, as well as comprehensive mitigation measures. The DEIR should not defer impact analysis and avoidance, minimization, protection, and/or mitigation measures to future regulatory discretionary actions, such as a LSA Agreement or Incidental Take Permit.

The proposed project is subject to the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. Please note that the MSHCP process does not negate the requirement for an LSA Agreement. The Department's criteria for determining the presence of jurisdictional waters under the Lake and Streambed Alteration Program are generally more comprehensive than the MSHCP criteria in Section 6.1.2. If the project site contains jurisdictional waters of the State under the LSA Program that will be altered by the proposed project, a LSA Agreement will be required.

The proposed project has the potential to have significant environmental impacts on sensitive fish, wildlife, and plant resources. The project site is located within a perennial section of the Santa Ana River that contains southern cottonwood willow riparian forest habitat. The aquatic and riparian habitat within and adjacent to the project site is known to contain several State- and Federally-listed endangered, threatened, and/or candidate species, including, but not limited to: arroyo chub (*Gila orcuttii*), burrowing owl (*Athene cunicularia*), least Bell's vireo (*Vireo bellii pusillus*), Santa Ana sucker (*Catostomus santaanae*), southwestern willow flycatcher (*Empidonax traillii extimus*) western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Dendroica petechia brewsteri*). The DEIR should include an analysis of fish, wildlife, and plant species, habitat, and jurisdictional waters of the State within and adjacent to the project site and provide avoidance, minimization, protection, and mitigation measures to offset impacts to these sensitive resources.

To allow Department staff to adequately analyze and comment on the proposed project, the Department recommends that biological studies are conducted no more than one year prior to any environmental or discretionary approvals. The following information should be included in all biological reports or supplementary environmental reports:

1. A complete assessment of the fish, wildlife, and plant species within and adjacent to the project site, with particular emphasis on identifying endangered, threatened, candidate, and locally unique species and sensitive habitats.

a. A thorough assessment of rare plants and rare natural communities, using the Department's November 2009 guidance for Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The guidance document can be found at the following link:

http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf

b. A complete assessment of sensitive fish, amphibian, reptile, bird, and mammal species. Seasonal variations of project work activities should be considered during the assessment. Focused species-specific surveys, conducted at the appropriate time of year and time of day when sensitive species are active or otherwise detectable, are required. Appropriate species-specific survey procedures should be developed in consultation with the Department and the United States Fish and Wildlife Service (USFWS).

c. Endangered, threatened, candidate, and rare species to be addressed under the assessment should include all of those species which meet the CEQA definition (CEQA Guidelines Section 15380).

d. The Department's California Natural Diversity Database (CNDDB) in Sacramento should be contacted by telephone at (916) 327-5960 to obtain current information on any previously reported sensitive species and habitat within and adjacent to the project site, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Please note that the CNDDB may not be able to provide an exhaustive list of all sensitive species and habitat found within and adjacent to the project site.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect fish, wildlife, and plant species, habitat, and jurisdictional waters of the State, with specific measures to offset such impacts

a. CEQA Guidelines Section 15125(a), identifies that knowledge of a regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to a region.

b. Project impacts should be analyzed relative to their affects on adjacent habitats. Specifically, this should encompass adjacent public lands, open space areas, natural lands, and riparian ecosystems. In addition, impacts to and maintenance of wildlife corridors/movement areas, including access

to undisturbed habitat in adjacent areas, should be fully evaluated and provided.

c. The zoning of areas for development projects or other uses that are close or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR.

d. A cumulative effects analysis should be developed as described under CEQA Guidelines Section 15130. General and specific plans, as well as past, present, and anticipated future projects (including maintenance activities), should be analyzed relative to their impacts on similar species and habitat.

e. The DEIR should include an analysis of the effect that the project may have on completion and implementation of regional and/or subregional conservation programs. Under Sections 2800 through 2835 of the Fish and Game Code, the Department, through the Natural Communities Conservation Planning Program (NCCP Program) is coordinating with local jurisdictions, landowners, and the federal government to preserve local and bioregional diversity.

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated (CEQA Guidelines Section 15126.6). A range of alternatives which would avoid or otherwise minimize impacts to sensitive species and habitat should be included. Specific alterative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

a. Mitigation measures for project impacts to sensitive fish, wildlife, plant, and habitat should emphasize evaluation and selection of alternatives which avoid and/or otherwise minimize project impacts. Offsite compensatory mitigation for unavoidable impacts through acquisition and protection of high quality habitat should be considered.

b. The Department considers Rare Natural Communities as threatened habitat having both local and regional significance. These communities should be fully avoided and otherwise protected from project impacts.

c. The Department generally does not support the use of relocation, salvage, and/or transplantation actions as mitigation for impacts to endangered, threatened, candidate, or rare species. Department studies have

concluded that these efforts are experimental in nature and are largely unsuccessful.

4. An Incidental Take Permit must be obtained if the project has the potential to result in the "take" of plant and animal species listed under the California Endangered Species Act (CESA). Incidental Take Permits are issued to conserve, protect, enhance, and restore State-listed endangered or threatened species and their habitats. Early consultation with the Department is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain and Incidental Take Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of an Incidental Take Permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation, monitoring, and reporting plan that will meet the requirements of the Incidental Take Permit. For these reasons, the following information should be considered in the DIER:

   a. Biological mitigation, monitoring, and reporting proposals with sufficient detail and resolution to satisfy the requirements for an Incidental Take Permit.

   b. A Department-approved mitigation agreement and mitigation plan is required for plants listed as rare under the Native Plant Protection Act.

5. The Department does not support the elimination of watercourses and/or their channelization or conversion to subsurface drains. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, shall be retained and provided with substantial setbacks which preserve their associated aquatic and riparian habitats and onsite and offsite fish, wildlife, and plant populations. The Department has a no net loss policy for wetlands.

   a. Section 1600 et seq. of the Fish and Game Code requires the project applicant to notify the Department of any activity that will divert or obstruct the natural flow of, or change or use any material from the bed, channel, or bank of, any river, stream, or lake (which includes associated riparian resources) prior to the project applicant's commencement of the activity. Streams include, but are not limited to: ephemeral, intermittent, and perennial streams, rivers, creeks, washes, sloughs, blue-line streams, drainages, and watercourses with subsurface flow. The Department's issuance of an LSA Agreement for a project that is subject to CEQA will require CEQAS compliance actions by the Department as a responsible agency. The Department, as a responsible agency under CEQA, may consider the local jurisdiction's (lead agency) Negative Declaration or

Environmental Impact Report for the project. However, if the CEQA document does not fully identify potential impacts to streams, lakes, and associated resources (including, but not limited to riparian and alluvial fan sage scrub habitats), and provide adequate avoidance, minimization, protection, and mitigation measures (including monitoring and reporting commitments), additional CEQA analysis and documentation will be required prior to execution of the LSA Agreement. In order to avoid delays or repetition of the CEQA process, potential impacts to a stream or lake and associated habitat, as well as avoidance, minimization, protection, and mitigation measures, need to be discussed within the DEIR. The Department recommends the following measures to avoid subsequent CEQA documentation and project delays.

i. Include all information regarding project impacts to streams, lakes, and associated habitat within the DEIR. Please note that long term maintenance of facilities located within a stream or lake or associated habitat is considered and impacts and subject to a LSA Agreement. The DEIR should include, at a minimum, the following information regarding jurisdictional waters of the State: (a) a jurisdictional delineation of all streams, lakes and associated habitat within the project site, (b) an analysis of all jurisdictional waters that will be directly and indirectly impacted by the proposed project, (c) details regarding the fish, wildlife, and plant resources associated with jurisdictional waters of the State within the project site and identification of their presence and absence, (d) a discussion of environmental alternatives, (e) a discussion of avoidance, minimization, and protection measures to reduce project impacts, (f) a discussion of potential mitigation measures required to reduce project impacts to a level of insignificance, and (g) an analysis of impacts to habitat caused by a change in water flow across the site.

ii. The Department recommends that the project applicant and/or lead agency consult with the Department to discuss potential project impacts and avoidance, minimization, protection, and mitigation measures. Early consultation with the Department is encouraged since modification of the propsed project may be required to avoid or reduce impacts to fish, wildlife, and plant resources. To obtain a LSA Agreement Notification package, please visit the Departments' website at:

http://www.dfg.ca.gov/habcon/1600/forms.html

Thank you for this opportunity to comment. If you have any questions regarding this matter, please contact Anna Milloy by electronic mail at amilloy@dfg.ca.gov or telephone at (909) 987-8176.

Sincerely,

Jeff Brandt
Senior Environmental Scientist
Habitat Conservation Planning

cc: State Clearinghouse, Sacramento

California Regional Water Quality Control Board
Santa Ana Region

Linda S. Adams
Secretary for
Environmental Protection

3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (951) 782-4130 • FAX (951) 781-6288 • TDD (951) 782-3221
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Arnold Schwarzenegger
Governor

April 8, 2010

K.S. Dunbar
Western Riverside County Regional Wastewater Authority
C/o 3035 Calle Frontera
San Clemente, CA 92673-3012

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT, RELOCATION OF 30-INCH DIAMETER FORCE MAIN AT RIVER ROAD BRIDGE PROJECT, WESTERN RIVERSIDE COUNTY REGIONAL WASTEWATER AUTHORITY, RIVER ROAD AT SANTA ANA RIVER, NORCO, SCH# 2010031046

Dear Mr. Dunbar:

Staff of the Regional Water Quality Control Board, Santa Ana Region (Regional Board) have reviewed the Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the proposed relocation (Project) of a portion of the 30-inch diameter force main that is within the footprint of the new River Road bridge at the Santa Ana River (SAR), Norco. The relocation will be built by the Western Riverside County Regional Wastewater Authority (WRCRWA). Additionally, although a section of the existing force main will remain within the bridge cell, rip rap will be placed along the SAR banks to protect it when bridge abutments are removed. The NOP states that the rip rap placement will necessitate removal of riparian vegetation in the construction area.

Because this Project appears to result in excavation of ("dredging") and/or placement of fill into "waters of the United States," this Project may fall within the jurisdiction of the United States Army Corps of Engineers (USACE) and require their issuance of a Clean Water Act (CWA) Section 404 permit (please contact Jason Lambert of USACE at 213-452-3361). Therefore, the Project should be conditioned to have the applicant (WRCRWA) conduct the studies necessary to establish whether or not any part of the Project falls under USACE jurisdiction. Jurisdictional waters and acreage, not established by the NOP, should be delineated in the DEIR.

The Project should be further conditioned such that if it does fall within USACE jurisdiction, the applicant is advised to promptly apply for a CWA Section 401 Water Quality Standards Certification (Certification) from the Regional Board that construction and operation of the project will not adversely affect water quality standards (water quality objectives and beneficial uses). Certifications are required before a Section 404 permit can be issued.

The issuance of a Certification represents a determination by the Executive Officer that discharges of waste to waters of the U.S. that are associated with the referenced Project will comply with the applicable provisions of CWA Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards), and with other applicable requirements of State law. In order for such a determination to be meaningful, projects subject to Certification are evaluated for their direct, indirect, and cumulative impacts to waters of the U.S., specifically, impacts to water quality standards. Such impacts must be mitigated to receive a Certification. Information concerning Certification can be found at www.swrcb.ca.gov/santaana/water_issues/programs/401_certification/index.shtml.

If you have any questions, please contact Glenn Robertson of my staff at (951) 782-3259 or grobertson@waterboards.ca.gov, or me at (951) 782-3234 or madelson@waterboards.ca.gov

Sincerely,

Glenn Robertson, for

Mark G. Adelson, Chief
Regional Planning Programs Section

cc: State Clearinghouse
U.S. Army Corps of Engineers, Los Angeles – Jason Lambert
California Department of Fish and Game, Ontario - Michael Flores

X:Groberts on Magnolia/Data/CEQA/401/401 Notification for River Road Bridge Force Main, Norco, WRCRWA.doc

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

March 16, 2010

Mr. Keith S. Dunbar, P.E., BCEE, P.E., F. ASCE
K.S. Dunbar and Associates, Inc.
Environmental Engineering
3035 Calle Frontera
San Clemente, CA 92673

Dear Mr. Dunbar:

Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the 30-inch Diameter Force Main Relocation and River Road Bridge Project

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Electronic files include spreadsheets, database files, input files, output files, etc., and does not mean Adobe PDF files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Ian MacMillan, Program Supervisor, CEQA Section, at (909) 396-3244 if you have any questions regarding this letter.

Sincerely,

Ian V. MacMillan

Ian MacMillan
Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

IM:AK
RVC100311-02AK
Control Number

WARREN D. WILLIAMS
General Manager-Chief Engineer

1995 MARKET STREET
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RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

March 31, 2010

Mr. Keith S. Dunbar
K.S. Dunbar & Associates, Inc.
3035 Calle Frontera
San Clemente, CA 92673-3012

Dear Mr. Dunbar:

Re: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the 30-inch Diameter Force Main Relocation Project at River Road Western Riverside County Regional Wastewater Authority (WRCRWA)

This letter is written in response to the Notice of Preparation (NOP) of the Draft Environmental Impact Report (DEIR) for the above referenced project. The proposed project is part of the 30-inch diameter force main relocation project. The County is presently replacing the bridge over the Santa Ana River at River Road. The existing force main is in the footprint of the new bridge at two locations and must be relocated. The County included a section of 30-inch diameter force main within the bridge cell that would allow Western Riverside County Regional Wastewater Authority (WRCRWA) to abandon its existing 30-inch diameter force main river crossing and utilize the new pipeline in the bridge cell. However, WRCRWA desires to maintain the existing 30-inch diameter force main as a redundant pipeline to create a "fail-safe" system to protect the Santa Ana River and its riparian habitat.

The District is providing the following comment/concern that should be addressed in the DEIR:

> This project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, any impacts made to the floodplain shall be in accordance with FEMA regulations.

Thank you for the opportunity to review the NOP of the DEIR. Please forward any subsequent environmental documents regarding the project to my attention at this office. Any questions concerning this letter may be referred to me at 951.955.8581.

Very truly yours,

KRIS FLANIGAN
Senior Civil Engineer

ec: Riverside County Planning
Attn: Kathleen Browne

HAE:mcv
P8\130485

ORANGE COUNTY WATER DISTRICT
ORANGE COUNTY'S GROUNDWATER AUTHORITY

April 5, 2010

Keith S. Dunbar, President
K.S. Dunbar & Associates, Inc.
3035 Calle Fontera
San Clemente, CA 92673

Subject: NOP of a Draft Environmental Impact Report
30-inch Diameter Force Main Relocation at River Road Bridge Project
Western Riverside County Regional Wastewater Authority

Dear Mr. Dunbar:

The Orange County Water District (OCWD) requests a copy of the DEIR and all other environmental documents related to the relocation of the 30-inch diameter force main at the River Road Bridge. This proposed project may be located on or adjacent to property owned by OCWD in the Prado Basin and also may be in the vicinity of sensitive environmental habitat.

OCWD was established by the State of California in 1933 to manage the Orange County Groundwater Basin and owns approximately 2,000 acres of land in the Prado Basin. OCWD works together with the state and federal government to manage habitat in the basin, and has invested significant public funds to enhance the quality of both habitat and water quality. In cooperation with the Army Corps of Engineers, stormwater is temporarily stored in Prado Basin for subsequent release and recharge into the Orange County Groundwater Basin. This program is contingent upon the continued health of natural resources in Prado Basin.

We look forward to working with you during the environmental review process for this proposed project.

Sincerely,

Greg Woodside

Greg Woodside
Planning and Watershed Management Director

PO Box 8300
Fountain Valley, CA 92728-8300

18700 Ward Street
Fountain Valley, CA 92708

(714) 378-3200
(714) 378-3373 fax

www.ocwd.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, F. ASCE
Chief Executive Officer

Celebrating Over 30 Years of Service
to the
Water and Wastewater Industry

K. S. DUNBAR & ASSOCIATES

March 10, 2010

Interested Entities

Notice of Preparation of a Draft Environmental Impact Report
30-inch Diameter Force Main Relocation at River Road Bridge Project
Western Riverside County Regional Wastewater Authority (WRCRWA)

Dear Gentlepersons:

WRCRWA will be the Lead Agency and will prepare a Draft Environmental Impact Report (EIR) for its 30-inch Diameter Force Main Relocation at River Road Bridge Project.

We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by WRCRWA when considering your permit or other approval for the project.

The project description, location and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☐ is ☒ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Keith S. Dunbar, P.E., BCEE, P.E., F. ASCE at the letterhead address. We will need the name of a contact person in your agency.

Sincerely,

K.S. Dunbar

Keith S. Dunbar, P.E., BCEE, F. ASCE

Enclosure

pc: Norm Thomas, P.E.
BJ Carroll

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA HAS NO EXISTING FACILITIES OR RIGHTS OF WAY WITHIN THE LIMITS OF THE PROJECT.
3.24.10
JOB NO.: 100324D4

K.S. DUNBAR & ASSOCIATES, INC. ENVIRONMENTAL ENGINEERING
3035 Calle Frontera San Clemente, CA 92673-3012 949-366-2089 FAX 949-366-5315 Email: ksdpe@cox,net

March 16, 2010

Attn: Keith S. Dunbar, P.E., BCEE, F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
3035 Calle Frontera
San Clemente, CA 92673-3012

Re: Notice of Availability of a Draft Environmental Impact Report for 30-inch Diameter Force Main Relocation at River Road Bridge Project

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Tribal Traditional Use Areas. This project location is in close proximity to known village sites and is a shared use area that was used in ongoing trade between the Luiseno and Cahuilla tribes. Therefore it is regarded as highly sensitive to the people of Soboba.

Soboba Band of Luiseño Indians is requesting the following:

1. **Government to Government** consultation in accordance to SB18. Including the transfer of information to the Soboba Band of Luiseno Indians regarding the progress of this project should be done as soon as new developments occur.

2. Soboba Band of Luiseño Indians continues to be a lead consulting tribal entity for this project.

3. Working in and around traditional use areas intensifies the possibility of encountering cultural resources during the construction/excavation phase. For this reason the Soboba Band of Luiseño Indians requests that Native American Monitor(s) from the Soboba Band of Luiseño Indians Cultural Resource Department to be present during any ground disturbing proceedings. Including surveys and archaeological testing.

4. Request that proper procedures be taken and requests of the tribe be honored (Please see the attachment)

Sincerely,

Joseph Ontiveros
Soboba Cultural Resource Department
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137

Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Cultural Items (Artifacts). Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer should agree to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

The Developer should waive any and all claims to ownership of Native American ceremonial and cultural artifacts that may be found on the Project site. Upon completion of authorized and mandatory archeological analysis, the Developer should return said artifacts to the Soboba Band within a reasonable time period agreed to by the Parties and not to exceed (30) days from the initial recovery of the items.

Treatment and Disposition of Remains

A. The Soboba Band shall be allowed, under California Public Resources Code § 5097.98 (a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods shall be treated and disposed of with appropriate dignity.

B. The Soboba Band, as MLD, shall complete its inspection within twenty-four (24) hours of receiving notification from either the Developer or the NAHC, as required by California Public Resources Code § 5097.98 (a). The Parties agree to discuss in good faith what constitutes "appropriate dignity" as that term is used in the applicable statutes.

C. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code § 5097.98 (a) and (b). The Soboba Band, as the MLD in consultation with the Developer, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains.

D. All parties are aware that the Soboba Band may wish to rebury the human remains and associated ceremonial and cultural items (artifacts) on or near, the site of their discovery, in an area that shall not be subject to future subsurface

disturbances. The Developer should accommodate on-site reburial in a location mutually agreed upon by the Parties.

E. The term "human remains" encompasses more than human bones because the Soboba Band's traditions periodically necessitated the ceremonial burning of human remains. Grave goods are those artifacts associated with any human remains. These items, and other funerary remnants and their ashes are to be treated in the same manner as human bone fragments or bones that remain intact

Coordination with County Coroner's Office. The Lead Agencies and the Developer should immediately contact both the Coroner and the Soboba Band in the event that any human remains are discovered during implementation of the Project. If the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner shall ensure that notification is provided to the NAHC within twenty-four (24) hours of the determination, as required by California Health and Safety Code § 7050.5 (c).

Non-Disclosure of Location Reburials. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (r).

Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer agrees to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

Appendix C

Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program
30-inch Diameter Force Main Relocation at River Road Bridge Project

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document which includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a reporting or monitoring program. This requirement ensures that environmental impacts found to be significant will be mitigated. The reporting or monitoring program must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

In compliance with Public Resources Code Section 21081.6, the following MITIGATION MONITORING AND REPORTING CHECKLIST has been prepared for the 30-inch Diameter Force Main Relocation at River Road Bridge Project. This Mitigation Monitoring and Reporting Checklist is intended to provide verification that all applicable Conditions of Approval relative to significant environmental impacts are monitored and reported. Monitoring will include: 1) verification that each mitigation measure has been implemented, 2) recordation of the actions taken to implement each mitigation, and 3) retention of records in the 30-inch Diameter Force Main Relocation at River Road Bridge Project file.

This Mitigation Monitoring and Reporting Program delineates responsibilities for monitoring the Project, but also allows Western Riverside County Regional Wastewater Authority (WRCRWA) flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented.

Reporting consists of establishing a record that a mitigation measure is being implemented and generally involves the following steps:

- WRCRWA distributes reporting forms to the appropriate persons for verification of compliance.
- Departments/agencies with reporting responsibilities will review the Environmental Impact Report which provides general background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance will be submitted to WRCRWA as appropriate.
- Periodic meetings may be held during project implementation to report on compliance of mitigation measures.
- Responsible parties provide WRCRWA with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented. Monitoring compliance

may be documented through existing review and approval programs such as field inspection reports and plan review.

- WRCRWA or Applicant prepares a reporting form periodically during the construction phase and an annual reporting summarizing all project mitigation monitoring efforts.

- Appropriate mitigation measures will be included in construction documents and/or conditions of permits/approvals.

Minor changes to the Mitigation Monitoring and Reporting Program, if required, would be made in accordance with CEQA and would be permitted after further review and approval by WRCRWA. Such changes could include reassignment of monitoring and reporting responsibilities, program redesign to make any appropriate improvements, and/or modification, substitution or deletion of mitigation measures subject to conditions described in CEQA Guidelines Section 15162. No change will be permitted unless the Mitigation Monitoring and Reporting Program continues to satisfy the requirements of Public Resources Code Section 21081.6.

Mitigation Monitoring and Reporting Program Checklist
30-inch Diameter Force Main Relocation at River Road Bridge Project

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Air Quality				
WRCRWA will include the following mitigation measures in its standard construction specifications: ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications. ❖ Use alternative fuels or clean and low-sulfur fuel for equipment. ❖ Do not idle diesel trucks onsite for more than 5 minutes at a time. ❖ Require construction equipment that meet or exceed Tier 3 emission standards and equip construction equipment with CARB verified oxidation catalysts and particulate traps. ❖ Spread soil binders on site, where appropriate, unpaved roads and staging areas. ❖ Water site and equipment every three hours during active construction periods. ❖ Sweep all streets at least once per day using SCAQMD Rule 1186 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets. ❖ Suspend grading activities during first and second stage smog alerts and during high winds in accordance with SCAQMD Rule 403 requirements. ❖ If necessary, wash off trucks leaving the site. ❖ Cover haul trucks.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Cultural Resources				
Although no evidence of cultural resources was found at the project site, it is always possible that cultural resources could be unearthed during excavation. Therefore, WRCRWA will include the following mitigation measures in its standard construction specifications:				
❖ If inadvertent discoveries of cultural resources are encountered at any time during construction, mitigation would be conducted consistent with Public Resources Code section 21083.2 State CEQA Guidelines, 15126.4, subdivision (b). Construction personnel shall avoid altering these materials and their context until a qualified archeologist has evaluated the situation and contacted the State Office of Historic Preservation and the closest Indian Tribe to the Project (in this case the Temecula Band of Luiseño Indians). Project personnel shall not collect or retain cultural resources. Prehistoric resources include, but are not limited to: chert or obsidian flakes; projectile points; mortars and pestles; dark, friable soil containing shell and bone; dietary debris; heat-affected rock; or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits (glass, metal, wood, ceramics), often found in old wells and privies.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
❖ If paleontological resources (e.g., fossils) are encountered at any time during construction of the project, construction personnel shall avoid altering these materials and their context until a qualified paleontologist has evaluated the situation. Project personnel shall not collect or retain paleontological resources	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
❖ Consistent with State CEQA Guidelines, section 15064.5, subdivision (e), in the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the remains are found to be Native American, the Native American Heritage Commission shall be notified within 24 hours. The NAHC must immediately notify the Most Likely Descendant(s) under Public Resources Code §5097.98 and the descendants must make recommendations or preference for treatment within 48 hours of being granted access to the site. Guidelines of the Native American Heritage Commission shall be adhered to in the treatment and	Site Inspection.	During Inspection.	Field Engineering Inspector.	By: _____ Date: _____

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
disposition of the remains in accordance with the provisions of Health and Safety Code §7050.5 and Public Resources Code §5097.98.				
Hazards and Hazardous Materials				
To reduce potentially hazardous conditions and minimize the impacts from the handling of potentially hazardous materials, WRCRWA will include the following in its construction contract documents:				
❖ The contractor(s) shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor(s) shall store all reserve fuel supplies only within the confines of a designated construction staging area, refuel equipment only within the designated construction staging area, and regularly inspect all construction equipment for leaks.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
❖ The contractor(s) shall prepare a *Health and Safety Plan* in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§§ 25500—25532). The plan shall include measures to be taken in the event of an accidental spill.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
❖ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products so that they do not drain towards receiving waters or storm drain inlets.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
Hydrology and Water Quality				
WRCRWA will require contractors to implement a program of best management practices (BMP's) and best available technologies to reduce potential impacts to water quality that may result from construction activities As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented as part of this mitigation measure should include, but not be limited to, the following:				
❖ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
❖ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to WRCRWA, local jurisdictions and the California Regional Water Quality Control Board, Santa Ana Region.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
❖ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
❖ No disturbed surfaces shall be left without erosion control measures in place between October 15 and April 15. WRCRWA shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. WRCRWA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. WRCRWA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____
❖ Controls on construction site dewatering shall be implemented. If possible, water generated as part of construction dewatering shall be discharged onsite such that there would be no discharge to surface waters. If discharge to surface waters were unavoidable, WRCRWA shall obtain coverage under the NPDES General Dewatering Permit prior to commencement of construction. The provisions of this permit are sufficiently protective of water quality to ensure that impacts to surface waters would remain below significance thresholds. During dewatering activities, all permit conditions shall be followed. WRCRQA shall routinely inspect the construction site to verify that the measures specified in the permit are properly implemented. WRCRWA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.	Site Inspection.	During Construction. .	Field Engineering Inspector. .	By: _____ Date: _____
Noise				
WRCRWA will include the following in its standard construction specifications: ❖ All equipment used during construction shall be muffled and maintained in good operating condition. All internal combustion engines shall be fitted with well maintained mufflers in accordance with manufacturers' recommendations.	Site Inspection.	During Construction.	Field Engineering Inspector.	By: _____ Date: _____