

Memorandum

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: April 25-26, 2012

Reference No.: 2.2c.(7)
Action Item

From: NORMA ORTEGA
Chief Financial Officer

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Environmental Analysis

Subject: **APPROVAL OF PROJECT FOR FUTURE CONSIDERATION OF FUNDING
11-SD-76, PM 12.1/17.7, 11-SD-15, PM 46.1/47.3
RESOLUTION E-12-17**

RECOMMENDATION:

The California Department of Transportation (Department) recommends that the California Transportation Commission (Commission), as a responsible agency, approve the attached Resolution E-12-17.

ISSUE:

The attached resolution proposes to approve for consideration of funding the following project for which a Final Environmental Impact Report (FEIR) has been completed:

- Routes 76 and 15 in San Diego County. Roadway improvements including lane additions and interchange improvements on a portion of SR 76 and SR 15 in and near the city of Fallbrook. (PPNO 25711)

This project in San Diego County will widen and realign State Route 76 from two to four lanes, from South Mission Road in Bonsall to just east of the Interstate 15 interchange, including interchange improvements. The project is fully funded with federal and local funds. The total estimated project cost is \$201,000,000 for capital and support. Construction is estimated to begin in Fiscal Year 2012-13.

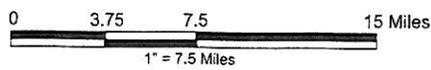
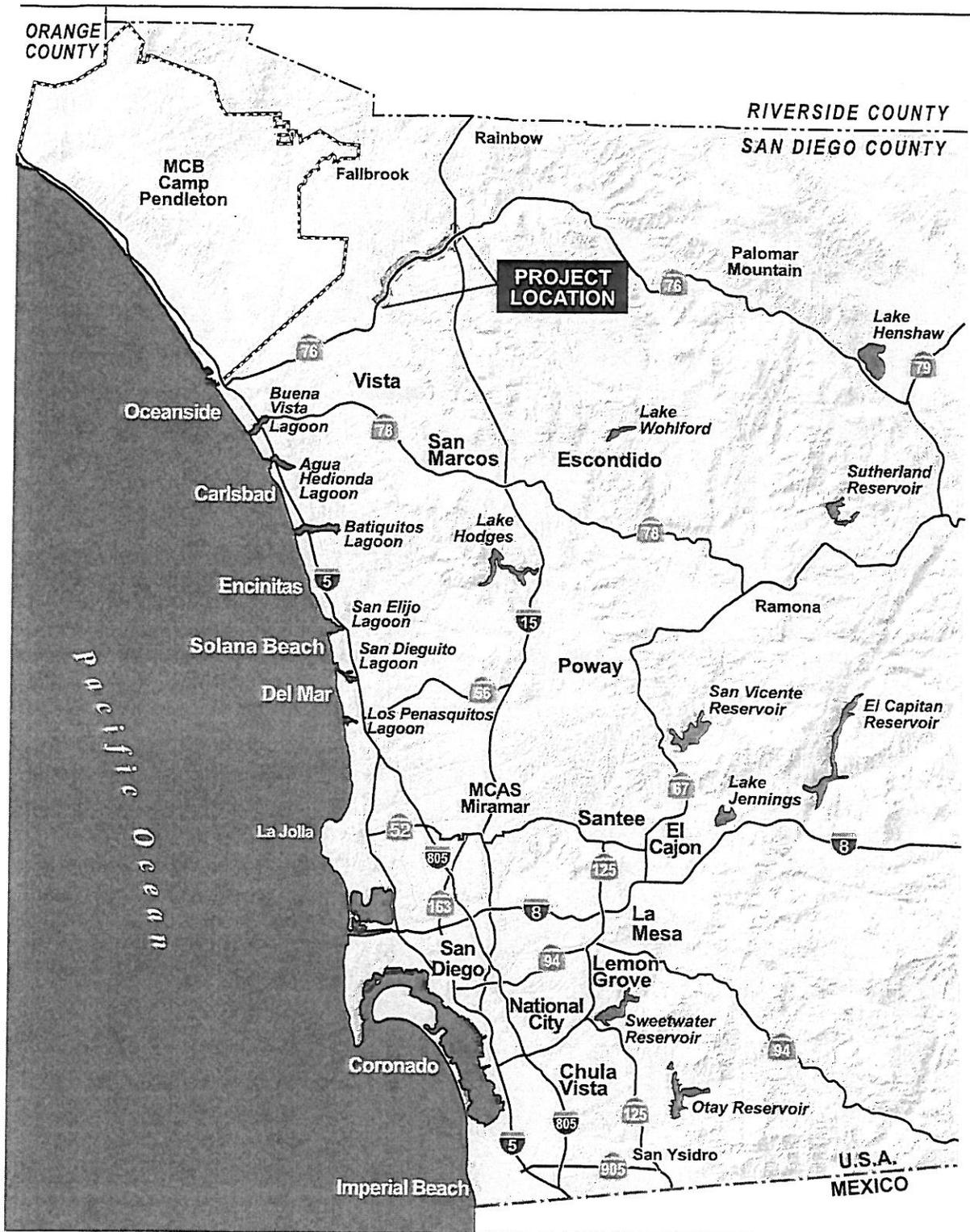
A copy of the FEIR has been provided to Commission staff. Resources that may be impacted by the project include; land use, growth, noise, biological, socio-economics, farmlands, cultural, paleontological, and wetlands. Potential impacts associated with the project that cannot be mitigated to below significance through proposed mitigation measures include land use, community character and cohesion, growth, and visual. As a result, a Final Environmental Impact Report including a Statement of Overriding Considerations was prepared for the project.

Attachments

CALIFORNIA TRANSPORTATION COMMISSION

Resolution for Future Consideration of Funding 11-SD-76, PM 12.1/17.7, 11-SD-15, PM 46.1/47.3 Resolution E-12-17

- 1.1** **WHEREAS**, the California Department of Transportation (Department) has completed an Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines for the following project:
- Routes 76 and 15 in San Diego County. Roadway improvements including lane additions and interchange improvements on a portion of SR 76 and SR 15 in and near the city of Fallbrook. (PPNO 25711)
- 1.2** **WHEREAS**, the Department has certified that the Environmental Impact Report has been completed pursuant to CEQA and the State CEQA Guidelines for its implementation; and
- 1.3** **WHEREAS**, the California Transportation Commission, as a responsible agency, has considered the information contained in the Environmental Impact Report; and
- 1.4** **WHEREAS**, Findings were made pursuant to the State CEQA Guidelines.
- 2.1** **NOW, THEREFORE, BE IT RESOLVED** that the California Transportation Commission does hereby support approval of the above referenced project to allow for consideration of funding.



**Figure 1.1-1
Project Location Map**

FINDINGS
CALIFORNIA DEPARTMENT OF TRANSPORTATION
FINDINGS FOR WIDENING AND REALIGNING
STATE ROUTE 76 FROM SOUTH MISSION ROAD TO INTERSTATE 15
IN SAN DIEGO COUNTY, CALIFORNIA

The following information is presented to comply with State of California Environmental Quality Act (CEQA) Guidelines (Title 14 California Code of Regulations, Chapter 3, Section 15901) and the California Department of Transportation (Caltrans) and California Transportation Commission Environmental Regulations (Title 21, California Code of Regulations, Chapter 11, Section 1501). Reference is made to the Final Environmental Impact Report (EIR) for the project, which is the basic source for the information.

The following effects have been identified in the EIR as resulting from the project. Effects found not to be significant have not been included.

Community Character and Cohesion

Adverse Environmental Effects:

The Existing Alignment Alternative (Preferred Alternative) will moderately affect the existing visual landscape through landform modification to the steep hillsides along the north side of State Route 76 (SR-76) between Gird Road and Old Highway 395, and the additional paving and construction of intersections and other segments of the Preferred Alternative into areas immediately south of the current SR-76 corridor, which moves it closer to the river. The Preferred Alternative also requires removal of a variety of vegetation types, including mature trees and substantial masses of plant material, particularly where it incurs into steep slopes and the river basin due to modifications in roadway geometry and alignment. The proposed future Park and Ride facility will be constructed in an undeveloped area south of SR-76 and will moderately change the visual landscape. The Visual Impact Assessment (VIA) prepared for the project concluded that the Preferred Alternative will have moderate to moderately high-level impacts to the existing landscape viewshed.

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts

Mitigation efforts overlap with those for visual impacts, including more natural slope contouring (2:1), and minimal project lighting. Mitigation proposed for visual impacts is discussed below and in the Final EIR.

Use of the visual measures, such as the proposed plant palette, colored median barrier, wall/bridge treatments, and light fixtures, will ensure that the rural community character is maintained. The plant palette will consist of native trees, shrubs, and ground covers that are similar in composition to the adjacent vegetation communities. These will be developed with the Caltrans District -11 landscape architect and biologist. The plant palette will be consistent with native vegetation on the hillsides, and will include vegetation such as California sagebrush, (*Artemisia californica*) coyote bush (*Baccharis pilularis*), bush sunflower (*Encelia californica*), toyon (*Heteromeles arbutifolia*), and lemonadeberry (*Rhus integrifolia*). Vegetation such as California sycamore (*Platanus racemosa*), western cottonwood (*Populus fremontii*), and willow species (*Salix* spp.) will be planted along the riverbed. Small spaces within developed, urbanized areas will be landscaped with noninvasive ornamental plant materials. The size of the material selected will be large enough to visually reduce the scale of the highway improvements.

Mitigation for both temporary and permanent impacts will have management and monitoring plans to further ensure that all the vegetation types are self-sustaining over the long-term. Additional measures to further reduce impacts include the use of sustainable landscape treatments, replacement plantings, and sufficient maintenance and irrigation for landscaping. These additional measures are described in the Final EIR.

Visual/Aesthetics

Adverse Environmental Effects:

The Preferred Alternative will result in moderate visual impacts, primarily due to the extent of landform modification to the steep hillsides along the north side of SR-76 between Gird Road and Old Highway 395. Major grading operations and resulting landform alterations will contrast with the existing visual environment. In addition, paving and construction of road segments into areas south of the current SR-76 corridor will introduce a new portion of the transportation corridor. Construction will also result in removal of a variety of vegetation types, including mature trees and substantial masses of plant material. These impacts to the existing visual environment are considered significant before mitigation.

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts:

Caltrans will mitigate for impacts to the existing visual environment with the following measures:

- Existing scenic and visual resources will be preserved to the maximum extent possible, which includes preservation of existing mature trees, shrubs, and groundcover along the north side of SR-76.
- Sustainable landscape treatment will be designed to help reinforce and maintain the rural and riparian character of the project area, minimize the adverse visual impacts resulting from construction, provide visual cohesion, and control erosion. Landscape design will reflect existing natural tree and shrub massing while softening and enhancing the project area. Large tree and shrub masses will be used for maximum visual effect. Straight lines associated with formal street landscape planting design will be avoided.
- Replacement plantings of the same species will occur in areas where mature trees and shrubs will be removed during construction.
- Sustainable plant material that can be readily established with an extended plant establishment period and limited irrigation will be used. The plant palette will consist of native trees, shrubs, and ground covers that are similar in composition to the adjacent habitats and that reinforce the landscape concept. This plant palette will be consistent with native vegetation on the steep hillsides and along the riverbed. Small spaces within developed, urbanized areas may be landscaped with noninvasive ornamental plant materials. The size of the material selected will be large enough to visually reduce the scale of the widened highway improvements.
- Caltrans will use sensitive design of landform alteration to achieve natural-appearing slopes, to soften long or high slope banks, and to reduce visual scarring of the existing terrain.
- While standard highway grading techniques are designed to meet engineering requirements, contour grading shall be used to create a finished grade that blends the construction into the surrounding landscape. Contour grading shall be employed to construct subtly undulating landforms while minimizing the usual straight cut and fill manufactured slopes typical of much highway construction.
- Grading will result in land surfaces that reflect the naturally occurring contours prior to the alteration or that suggest natural terrain that is rounded and nonplanar. Slopes will have variable gradients and undulate to simulate a natural slope. For instance, slopes may range from 2:1 to 4:1 in some areas, while

slopes steeper than 2:1 may be considered in others. Tops of cut slopes and where constructed slopes join natural grades will be rounded to make a more naturally appearing transition. Rounding will also be employed at the toe of fill slopes to help blend the slope with the existing terrain.

- Blasting and cutting through granite and other rock will be sculpted in a way to achieve a rough, irregular, naturally appearing surface. Smooth, uniform cutting will be avoided in favor of blasting. Planting pockets and irregular stepped slopes will be created to provide opportunities for successful natural-appearing revegetation. Any existing rock outcroppings will remain in place when possible. Slope molding and rock cut sculpting will be integral to the clearing and grading construction operations. Large rocks will be left in place and graded around with varying slopes. Rock surfaces exposed after blasting or cutting will be coated with a desert varnish (rock staining) to create an aged effect.

Additional mitigation measures have been identified in the Final EIR/EIS prepared for the project that will further reduce impacts to the existing visual environment. These include measures to address specific roadway elements such as the future Park and Ride facility, exposed rock, rock slope protection, walls, bridges, fences, pavement, barriers and guardrails, and lighting.

Hydrology and Floodplain

Adverse Environmental Effects:

The Preferred Alternative will result in five longitudinal floodplain encroachments into the San Luis Rey River floodplain, totaling 55.9 acres. The Preferred Alternative will have an impact to the water surface elevation (WSE) of the 100-year floodplain equal to a maximum increase of 3 inches. According to the Federal Emergency Management Agency (FEMA), any increase in the WSE of less than 1 foot is considered “low risk,” and the Preferred Alternative will not result in a substantial encroachment on the floodplain or have any substantial surface water elevation risks associated with its implementation.

Findings:

Changes or alterations have been required in, or incorporated into, the project, to avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts:

The Preferred Alternative was designed to avoid encroachments into the floodplain to the maximum extent practicable, and it includes cross culverts under the highway to convey flow from the creeks north of the project to the San Luis Rey River. The culverts will be designed without headwaters rising above an elevation that will cause undesirable backwater depths or outlet velocities. The cross culverts will be used along the roadway to facilitate drainage and wildlife movement. The 40 proposed cross

culverts will be constructed using pipe materials per recommendations from Caltrans District 11 Materials Lab. These features will vary in width from approximately 2 to 32 feet, and will range in height from 2 to 10 feet.

Paleontology

Adverse Environmental Effects:

The Preferred Alternative has the potential to impact paleontological resources during earthwork activities, such as mass grading and/or trenching operations, that could cut into the geological deposits (formations) within which fossils are buried. These direct impacts have the potential of physical destruction of fossil remains. Since fossils are the remains of prehistoric animal and plant life, they are considered nonrenewable. The Preferred Alternative crosses geologic deposits assigned as zero, minor, and major paleontological resource sensitivity. Deposits of zero sensitivity occur along the slopes of the mountains adjacent to the existing SR-76 alignment. Deposits of minor sensitivity occur across the entire floor of the San Luis Rey River Valley. Deposits of major sensitivity occur in the vicinity of Flowerwood Lane; at the intersection of Gird Road and SR-76; and in the vicinity of Pala Mesa at the SR-76/Interstate 15 (I-15) interchange. Impacts to paleontological resources are considered significant before mitigation.

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts:

Caltrans will mitigate for impacts to paleontological resources by developing and implementing a Paleontological Mitigation Plan (PMP). Once specific design layouts for project elements are available, details of the areas where mitigation is specifically required will be called out in a final PMP. Elements of the PMP will include the following:

- A qualified paleontologist will be at the preconstruction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. (A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is familiar with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological mitigation project supervisor in the region for at least one (1) year.)
- A paleontological monitor will be on-site on a full-time basis during the original cutting of previously undisturbed deposits of moderate sensitivity paleontological resources (Pleistocene older alluvial deposits) to inspect exposures for contained

fossils. (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials. The paleontological monitor will work under the direction of a qualified paleontologist). As grading progresses, the qualified paleontologist and paleontological monitor will have the authority to reduce the scope of the monitoring program to an appropriate level if it is determined that the potential for impacts to paleontological resources are lower than anticipated.

- When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. In most cases this fossil salvage can be completed in a short period of time. However, some fossil specimens (such as a complete large mammal skeleton) may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) will make a request to the Resident Engineer to temporarily divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen washing operation on the site.
- During the monitoring and recovery phases of the PMP, the qualified paleontologist and/or paleontological monitor will routinely collect stratigraphic data (e.g., lithology, vertical thickness, lateral extent of strata, nature of upper and lower contacts, and taphonomic character of exposed strata). Collection of such data is critical for providing a stratigraphic context for any recovered fossils.
- Fossil remains collected during monitoring and salvage will be cleaned (removal of extraneous enclosing sedimentary rock material), repaired (consolidation of fragile fossils and gluing together broken pieces), sorted (separating fossils of the different species), and cataloged (scientific identification of species, assignment of inventory tracking numbers, and recordation of these numbers in a computerized collection database) as part of the mitigation program.
- A curation agreement will be prepared as part of the mitigation program and the recovered materials along with copies of all pertinent field notes, photos, and maps, will be deposited in an approved repository for curation.
- A final summary report will be completed that outlines the results of the mitigation program. This report will include discussions of the methods used, stratigraphic section(s) exposed and documented, fossils collected, and significance of recovered fossils.

Hazardous Waste/Materials

Adverse Environmental Effects:

Construction of the Preferred Alternative is likely to encounter petroleum hydrocarbons and MTBE in groundwater and possibly soil contamination at a depth of at least 6 feet near the existing ExxonMobil service station located on the northeast corner of Old Highway 395 and SR-76. Due to underground storage tanks, contaminated groundwater is migrating from the existing station to the southeast in the direction of the

project site. The lateral and vertical extent of the contamination southeast of the station has not been determined to date. Contamination may have migrated across the existing SR-76 highway onto the property that has been proposed for construction of a future Park and Ride facility. Portions of the proposed highway construction include traffic signals, which require signal pole placement and footings for the signal poles will encounter groundwater.

The Preferred Alternative will include demolition of portions of the existing SR-76 bridge structure overcrossing I-15, which may contain asbestos and lead-based paint. It will also involve disturbance of traffic striping and thermoplastic pavement markings and striping within the boundaries of the project site that may contain hazardous materials.

The Preferred Alternative will be constructed passing through parcels associated with agricultural uses that possibly have involved the application of pesticides to surface soils.

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts:

Caltrans will mitigate for possible impacts associated hazardous waste/materials with the following:

- A limited hazardous waste study will be performed for potentially elevated levels of petroleum hydrocarbon and MTBE contamination within the limits of proposed construction, and/or right-of-way acquisition, adjacent to the existing ExxonMobil gas station. If contaminated soils and/or groundwater are encountered within the areas proposed for construction, the soils and/or groundwater will require chemical characterization and subsequent disposal at an appropriate landfill or reuse as fill material prior to/during construction in accordance with federal, state, and local regulations. If dewatering is performed in this area, an NPDES permit will be required for discharge of water (Order No. R9-2008-0002, NPDES No. CAG919002).
- Asbestos surveys and lead-based paint surveys will be conducted by a certified consultant prior to any modification to, or demolition of, the existing SR-76 bridge structure overcrossing I-15. If asbestos and/or lead-based paint are encountered on any bridge components, such materials will be properly handled and removed by a qualified abatement company and contained, labeled, and disposed of off-site at a solid waste disposal facility designated to accept lead and asbestos waste.
- To avoid impacts from pavement striping during construction testing of paint striping and/or markings for the presence of lead and other heavy metals will be

performed prior to construction. Any paint stripings and/or markings found to contain heavy metals will be removed and disposed of in accordance with Caltrans Standard Special Provisions.

- A preliminary investigation and screening will be performed for potentially elevated levels of pesticides and/or herbicides within the areas of right-of-way acquisition on Assessor Parcel Numbers (APNs) 125-080-18-00, 125-080-19-00, and 125-090-36-00 to the full depth of planned construction activities prior to demolition/improvement activities involving soil disturbance. If potentially elevated levels of pesticides and/or herbicides are found within the areas of right-of-way acquisition, chemical characterization of the soils will be performed and the soils will be disposed of at an appropriate landfill or reused as fill material prior to/during construction in accordance with federal, state, and local regulations.
- The potential exists for unknown hazardous contamination to be revealed during project construction. For any previously unknown hazardous waste/material encountered during construction, the procedures outlined in *Caltrans Hazards Procedures for Construction* will be followed.

Development and implementation of a site-specific Health and Safety Plan and Excavation/Remediation Plan will be implemented for these and other hazardous waste issues, including gas utilities, treated wood, leaks from electrical transformers, and any other hazardous wastes or materials encountered during construction.

Natural Communities

Natural Communities include wetland and riparian habitat, upland vegetation communities, and wildlife corridors.

Adverse Environmental Effects:

Wetland and Riparian Vegetation

The Preferred Alternative will impact wetland and riparian vegetation including disturbed wetlands, coastal and valley freshwater marsh, mule fat scrub, southern cottonwood willow riparian forest, southern willow scrub and open water.

Upland Vegetation Communities

The Preferred Alternative will impact upland vegetation communities including coast live oak woodland, Diegan coastal sage scrub; disturbed Diegan coastal sage scrub and nonnative grassland.

Wildlife Corridors

The Preferred Alternative will impact the San Luis Rey River regional wildlife corridor and local wildlife corridors. The impacts will result from the loss of habitats that

contribute to the corridors, reduction or fragmentation of habitat connectivity, reduction of corridor width, and increased edge effects. The majority of the Preferred Alternative will continue to be located within the transitional area between upland and riparian habitat and will widen the existing barrier to local wildlife movement. Impacts to wildlife corridors are considered significant before mitigation.

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts:

Wetland and Riparian Vegetation

Caltrans has identified three mitigation sites for impacts to riparian and wetland communities, and has agreed upon mitigation ratios with the resource agencies. These ratios are reflected on Table 1. Compensation for impacts to wetland and riparian vegetation will occur on portions of the total acreage available for mitigation at these three sites, as discussed below.

- The 33.75-acre Tabata property is located adjacent to the SR-76 Melrose to South Mission Highway Improvement Project footprint, south of SR-76 and east of Camino Del Rey. The majority of the parcel is southern cottonwood-willow riparian forest habitat. Additional areas include disturbed habitat and an abandoned agricultural field. The riparian area is degraded by arundo and tamarisk. Of the 33.75-acre parcel, approximately 7.3 acres of riparian forest will be created and 15.4 acres of riparian forest will be restored. The remaining 11.1 acres of the parcel will be used to build a portion of the SR-76 Melrose to South Mission Highway Improvement Project.
- The 162-acre Vessels Ranch Biological Mitigation Site has approximately 87.7 acres available for riparian creation, and 22.9 acres available for riparian restoration and enhancement.
- The Jeffries Ranch property is located adjacent to the SR-76 Melrose to South Mission Highway Improvement Project footprint south of SR-76 and west of East Vista Way. The parcel has been identified for off-site mitigation for impacts to riparian and wetland habitat. This property has approximately 2 acres of riparian forest and scrub, 56 acres of coastal sage scrub, 9 acres of coast live oak woodland, and 41 acres of nonnative grassland. These habitats will be restored or preserved.

Table 1
Impacts to Wetland and Riparian Vegetation

Vegetation Communities and Cover Type	Total Area within the BSA (acres)	Project Impacts (acres)					Total Indirect Impacts (mitigated at 1:1)
		Permanent Impacts	Mitigation Ratios and Acres for Permanent Impacts	Temporary Impacts (mitigated on-site at 1:1)	Indirect Impacts (300-foot buffer) ^a	Noise ≥ 60 dBA (beyond 300-foot buffer)	
<i>Riparian and Wetlands</i>							
Disturbed Wetland (Arundo Scrub)	8.52	0.63	1:1 = 0.63 restoration	0.31	0.18	0.25	0.43
Coastal and Valley Freshwater Marsh	2.86	0.06	3:1 = 0.18 creation	0.05	0.01	0	0.01
Elderberry Scrub	6.93	0.0	0	0.0	0.21	0.15	0.36
Mulefat Scrub	23.88	5.36	3:1 = 16.08 5.36 creation; 10.72 restoration	0.93	0	0	0
Southern Cottonwood-Willow Riparian Forest	507.08	22.58	3:1 = 67.8 22.6 creation; 45.2 restoration	7.73	7.33	20.30	27.63
Southern Willow Scrub	73.86	3.99	3:1 = 11.97 3.99 creation; 7.98 restoration	1.49	4.15	3.11	7.26
Tamarisk Scrub	1.21	0.0	0	0.0	0	0	0
Open Water (San Luis Rey River)	10.29	0.01	3:1 = 0.03 0.01 creation; 0.02 restoration	0.09	0.08	1.20	1.28
<i>Riparian and Wetlands Total</i>	634.63	32.65	96.69 = 32.14 creation; 64.55 restoration	10.6	11.96	25.01	36.97

^a Impacts to wetland and riparian vegetation are considered significant before mitigation.

BSA=biological study area; dBA=A-weighted decibels

Additional mitigation measures have been identified in the Final EIR/EIS that will further reduce impacts to sensitive resources. These mitigation measures will be incorporated into project implementation via preconstruction meetings, contractor awareness programs, and temporary fencing and signage for all sensitive resource areas immediately adjacent to the project footprint. Biological monitors will be present during construction activities adjacent to wetlands and all construction activities will adhere to standard best management practices (BMPs) that will be implemented during construction activities.

Upland Vegetation Communities

Caltrans has acquired properties along SR-76 and within the San Luis Rey watershed as potential mitigation sites for impacts resulting from proposed projects. The mitigation sites have been identified in regional planning efforts as important to the conservation of sensitive species and to the buildout of the preserve identified in the Draft North County Multiple Species Conservation Plan (NCMSCP) and City of Oceanside Subarea Plan within the Multiple Habitat Conservation Plan (MHCP) area. Mitigation ratios for impacts to upland vegetation communities are listed on Table 2 below, and have been agreed upon by the resource agencies. Impacts will be mitigated both onsite (typically at a 1:1 ratio for temporary impacts) and offsite at various ratios.

- The Groves property is located at the southwest corner of SR-76 and Olive Hill Road in the community of Bonsall. This site is entirely composed of upland vegetation types. A majority of the area contains designated critical habitat for the threatened coastal California gnatcatcher. Approximately 55.87 acres of coastal sage scrub occurs on-site. This property also consists of about 9.67 acres of coast live oak woodland and 12.69 acres of nonnative grassland. The site will be preserved in perpetuity and will have controlled access. The Groves property also has 2.51 acres of land available for preservation of coast live oak woodland, 55.89 acres available for mitigation of impacts to coastal sage scrub, and 12.69 acres available for mitigation of impacts to nonnative grassland.
- The 162-acre Vessels mitigation site has approximately 3.03 acres available for creation of coast live oak woodland and 46.37 acres for mitigation of impacts to nonnative grassland.

Wildlife Corridors

The Preferred Alternative was designed to minimize road mortality and adverse effects to wildlife movement. Wildlife crossings beneath the roadway will permit movement between habitats. Their design will provide suitable environmental conditions (soil, vegetation, lighting, and height/width) to encourage use. The project includes two large crossings, five medium crossing, six small crossings, and seven wildlife escapes. Such crossings will include directional fencing and be located where natural landscape and habitat connectivity indicate probable directional wildlife movement. Drainage structures will be used as undercrossings and suitably designed. Additionally, movement of wildlife across roadways will be discouraged where suitable habitat does not exist on the other side. Wildlife will be directed to areas identified in the Draft NCMSCP as Pre-Approved Mitigation Areas (PAMAs). Wildlife will not be directed into developed areas. A complete list of all avoidance, minimization, and/or mitigation measures that will be implemented for impacts to wildlife corridors are detailed in the United States Fish and Wildlife Service (USFWS) Biological Opinion for this project.

Table 2
Impacts to Upland Vegetation Communities

Vegetation Communities and Cover Type	Total Area within the BSA (acres)	Project Impacts (acres)					Total Indirect Impacts (mitigated at 1:1)
		Permanent Impacts	Mitigation Ratios and Acres for Permanent Impacts	Temporary Impacts (mitigated on-site at 1:1)	Indirect Impacts (300-foot buffer) ^a	Noise ≥ 60 dBA (beyond 300 foot buffer)	
Coast Live Oak Woodland	20.76	2.09	2:1 = 4.18	0	1.36	0	1.36
Diegan Coastal Sage Scrub	138.91	0.54	2:1 = 1.08	1.83	0	1.93	1.93
Diegan Coastal Sage Scrub (Disturbed)	68.67	6.35	2:1 = 12.7	1.66	0.13	2.63	2.76
Nonnative Grassland	396.43	27.14	Total = 26.88 1:1 toad habitat = 26.61; 0.5:1 other = 0.27	20.72	27.18	40.30	67.48
Valley Needlegrass Grassland (native)	3.46	0.0	0	0.0	0.0	0	0
Uplands Total	628.23	36.12	44.84	24.21	28.67	44.86	73.53

^a Impacts to upland vegetation communities are considered significant before mitigation. BSA=biological study area; dBA=A-weighted decibels

Wetlands and Other Waters

Adverse Environmental Effects:

The Preferred Alternative will permanently impact 32.52 acres of US Army Corp of Engineers (USACE) and California Department of Fish and Game (CDFG) jurisdictional waters. These impacts are summarized on the table below. Permanent impacts to jurisdictional waters of the State are considered significant before mitigation.

Table 3
Impacts to Jurisdictional Waters

	Permanent Impacts	Temporary Impacts	Indirect Impacts
<i>USACE and CDFG Jurisdictional Waters</i>	4.61	3.99	11.75
<i>CDFG Jurisdictional Waters</i>	27.91	6.22	0.21
Total	32.52	10.21	11.96

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the final EIR.

Statement of Facts:

Unavoidable impacts to USACE and CDFG wetlands require compensatory mitigation. Temporary impacts to USACE and CDFG jurisdictional waters will be compensated at a 1:1 ratio with on-site restoration of the same habitat type that was temporarily disturbed. Indirect impacts will be compensated at a 1:1 ratio with off-site restoration of the same habitat that was indirectly disturbed. Permanent impacts to USACE and CDFG jurisdictional wetlands will be mitigated at off-site mitigation sites through a combination of creation, restoration, and enhancement. Mitigation for impacts to wetlands will occur at the Tabata and Vessels properties, which are described above.

All impacts to wetlands will be compensated at a 1:1 ratio, except permanent impacts to vegetated wetlands will be compensated at a 3:1 mitigation ratio with no net loss.

Additional measures to further avoid and reduce impacts to these resources are described in the Final EIR.

Animal Species

Adverse Environmental Effects:

The Preferred Alternative will result in direct, indirect, permanent, and temporary impacts to suitable riparian and upland habitat that supports special-status wildlife species. The Preferred Alternative will result in direct and indirect impacts to special-status species from the permanent loss of individuals during construction activities; temporary increase in erosion, sedimentation, and pollution runoff; and the temporary or permanent loss of habitat necessary to support these species, during construction activities and after the expansion and realignment of the highway. Indirect impacts will also occur from an increase in noise levels and artificial night lighting during construction activities.

Riparian vegetation in the biological study area is known to support sensitive species such as the western spadefoot toad, two-striped garter snake, Cooper's hawk, yellow warbler, yellow breasted chat, white-faced ibis, and mountain lion. Upland vegetation is known to support sensitive species such as the silvery legless lizard, San Diego coast horned lizard, orange-throated whiptail, Coronado skink, northern red-diamond rattlesnake, northern harrier, white-tailed kite, California horned lark, loggerhead shrike, grasshopper sparrow, southern California rufous-crowned sparrow, American badger, southern mule deer, and San Diego pocket mouse. There were an additional four species detected in the BSA during migration or wintering, but they are not likely to breed within the BSA. These are Swainson's hawk, ferruginous hawk, sharp-shinned hawk, and vermilion flycatcher. Consequences on the fishery resources, will include permanent, temporary and indirect impacts to instream habitat, freshwater marsh, disturbed wetlands and associated riparian areas. These potential impacts to animal species are considered significant before mitigation.

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts:

Mitigation for impacts to species habitats will be met through the proposed mitigation measures for Diegan coastal sage scrub, riparian habitat, and wetland vegetation.

All vegetation within the construction limits will be cleared outside the breeding season to avoid impacts to the following species:

- coastal California gnatcatcher: February 15 through August 31
- least Bell's vireo: March 15 through September 15
- southwestern willow flycatcher: May 1 through September 15
- arroyo toad: March 15 through July 31

If activities must occur during those timeframes, a mandatory preconstruction survey by a qualified biologist will be conducted to ensure that no nesting birds are present within the proposed work area. Should nest sites be located, appropriate measures may include designation of the location as an ESA and delaying/restricting project activities until nesting/fledging is completed.

Permanent noise effects from operations will be mitigated through compensatory mitigation as determined through consultation and discussions with state and federal wildlife agencies. Pile driving and blasting associated with construction will be conducted September 16 through February 14, which is outside of the bird breeding season. When construction activities occur during the breeding season, temporary noise walls will be installed and maintained around the perimeter of the construction limits, as determined necessary by the project biologist, to minimize effects to nesting animal species.

During any nighttime construction, all project lighting will be directed at the roadway or the construction site and away from sensitive habitats. Light glare shields may also be used to reduce the extent of illumination onto adjoining areas.

Additional mitigation measures for impacts to wildlife species are detailed in the Biological Opinion (BO) prepared for the project.

Threatened and Endangered Species

Threatened and endangered species and their critical habitat impacted by the project include California coastal gnatcatcher, least Bell's vireo, southwestern willow flycatcher, arroyo toad, and San Diego ambrosia.

Adverse Environmental Effects:

Coastal California Gnatcatcher and Critical Habitat

The Preferred Alternative will impact up to four individual (two pairs) coastal California gnatcatchers. Additionally, the proposed project is located within and adjacent to Designated Critical Habitat Unit 5 for coastal California gnatcatcher. The Preferred Alternative will impact gnatcatcher critical habitat as follows: permanent direct impacts to 41.79 acres, temporary direct impacts to 30.19 acres, and indirect impacts to 31.92 acres.

Least Bell's Vireo and Critical Habitat

The Preferred Alternative will result in permanent direct impacts to up to six individual (three pairs) least Bell's vireos and indirect impacts to 11 individual (approximately six territories) least Bell's vireos. Additionally, the project is located within the San Luis Rey area of designated critical habitat for least Bell's vireo. The Preferred Alternative will result in impacts to least Bell's vireo critical habitat as follows: permanent direct impacts to 63.15 acres, temporary direct impacts to 32.6 acres, and indirect impacts to 73.72 acres.

Southwestern Willow Flycatcher and Critical Habitat

The Preferred Alternative will result in indirect impacts to four individual (two pairs) southwestern willow flycatchers. Additionally, the project is located within the San Diego Management Unit of the Coastal California Recovery Unit of southwestern willow flycatcher critical habitat. The Preferred Alternative will result in impacts to southwestern willow flycatcher critical habitat as follows: permanent direct impacts to 37.13 acres, temporary direct impacts to 10.93 acres, and indirect impacts to 56.36 acres.

Arroyo Toad and Critical Habitat

The Preferred Alternative will result in permanent direct impacts to up to four individual arroyo toads, temporary impacts to two individual arroyo toads, and indirect impacts to eight individual arroyo toads. Additionally, the project is located within designated arroyo toad Critical Habitat Unit 14. The Preferred Alternative will result in impacts to arroyo toad critical habitat as follows: permanent direct impacts to 77.98 acres, temporary direct impacts to 64.27 acres, and indirect impacts to 102.07 acres.

San Diego Ambrosia and Critical Habitat

The Preferred Alternative will result in less than 0.01 acre of permanent direct impacts to occupied ambrosia habitat. The Preferred Alternative will not result in any temporary direct impacts or indirect impacts to occupied ambrosia habitat. Additionally, the project is located in and adjacent to designated ambrosia Critical Habitat Unit 4, Subunits 4A and 4D. The Preferred Alternative will result in impacts to San Diego ambrosia critical

habitat as follows: 1.5 acres of permanent direct impacts, temporary direct impacts to 0.60 acre, and indirect impacts to 2.06 acres.

Findings:

Changes or alterations have been required in, or incorporated into, the project, that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Statement of Facts:

Coastal California Gnatcatcher and Critical Habitat

Caltrans will mitigate for impacts to the coastal California gnatcatcher and its critical habitat by preserving 90.79 acres of gnatcatcher critical habitat on the Groves and Tabata properties, which are located almost entirely within Unit 5 of designated gnatcatcher critical habitat. In addition, although it is currently highly disturbed and was not included within the critical habitat designation, Caltrans has proposed to conserve and restore the 162-acre Vessels property. This preservation will occur directly adjacent to gnatcatcher critical habitat along the San Luis Rey River, helping to maintain gnatcatcher dispersal through Unit 5. Further, Caltrans has agreed to restore all of the project's temporary impact areas with native species, with the exception of small areas adjacent to landscaped or developed areas where planting native species will provide little or no biological value. This will include extensive areas that are currently vegetated with non-native species, including the SR-76/I-15 interchange, which is located at a pinch point within the critical habitat linkage. The proposed conservation and restoration will help maintain the functions of Unit 5 to support core gnatcatcher populations and provide connectivity between gnatcatchers in San Diego and Riverside counties.

Additional mitigation measures for impacts to the coastal California gnatcatcher and their critical habitat are provided in the Final EIR and also provided in the BO prepared for the project.

Least Bell's Vireo and Critical Habitat

Caltrans will mitigate for impacts to the least Bell's vireo and its critical habitat through the creation of 95 acres of riparian vegetation and the restoration of 38.3 acres on the Tabata and Vessels properties, resulting in a net increase in riparian vegetation in the San Luis Rey River area. In addition, the conservation of 184.7 acres of least Bell's vireo critical habitat, including all restored and created riparian habitat, will help maintain the long-term viability of vireo critical habitat in the San Luis Rey River area and the ability of this critical habitat unit to support a core population of least Bell's vireo.

Additional mitigation measures for impacts to the least Bell's vireo and their critical habitat are provided in the Final EIR and in the BO prepared for the project.

Southwestern Willow Flycatcher and Critical Habitat

Caltrans will mitigate for impacts to the southwestern willow flycatcher and its critical habitat through the conservation of 102.1 acres of southwestern willow flycatcher critical habitat. Caltrans will mitigate for impacts through the creation of 95 acres of riparian vegetation and the restoration of 38.3 acres on the Tabata and Vessels properties. Some of the proposed riparian restoration and creation is within the critical habitat unit, and some is outside, but contiguous with, the critical habitat boundaries. All of the conservation, restoration, and creation on the Tabata and Vessels properties will contribute to the goals of maintaining a large population of southwestern willow flycatchers and providing population connectivity within the San Diego Management Unit of southwestern willow flycatcher critical habitat.

Southwestern willow flycatcher and least Bell's vireo require similar habitat. Therefore, mitigation measures described for least Bell's vireo will be applicable to the southwestern willow flycatcher as well.

Arroyo Toad and Critical Habitat

Caltrans will mitigate for impacts to arroyo toad by conserving and restoring a total of 220.27 acres of arroyo toad critical habitat on the Groves, Tabata, and Vessels properties, which are located within the same critical habitat unit that is being affected by the project. Proposed restoration on the Vessels property, in particular, is anticipated to restore aquatic habitat for breeding and non-breeding activities and upland habitat for foraging and dispersal. Although the Vessels property contains upland habitat, recent surveys have been negative for the arroyo toad, likely because the San Luis Rey River channel is deeply incised as it passes the Vessels property, and the property is dominated by non-native grassland. The proposed restoration is anticipated to restore the identified primary constituent elements for arroyo toad critical habitat to this property by recontouring the channel to restore hydrology to the property and increase accessibility to arroyo toads.

An arroyo toad translocation monitoring program will be developed and implemented. Additional details on the arroyo toad translocation monitoring program are provided in the BO prepared for the project.

San Diego Ambrosia and Critical Habitat

Caltrans will mitigate for impacts to San Diego ambrosia by conserving and restoring approximately 20.89 acres of ambrosia critical habitat, as well as salvage and translocation of the species within the direct impact area. Within this acreage, there is approximately 0.28 acre on the Groves property occupied by the species, within the same critical habitat unit that is being affected by the project. The project will result in the conservation of 20 percent of Unit 4, consisting of 80 percent of Subunit 4B. In addition, Caltrans has agreed to restore all of the project's temporary impact areas with native species, with the exception of small areas adjacent to landscaped or developed

areas where planting native species will provide little or no biological value. This restoration is anticipated to improve the function of this critical habitat unit.

ESA fencing will be installed around the known population of San Diego ambrosia immediately north of the project to avoid impacts during construction.

Prior to construction, all ambrosia within the direct impact area (approximately 2,633 ramets on less than 0.01 acre) will be salvaged and translocated to the Morrison mitigation property, which is near the salvage location. The translocation will be implemented by a biologist with a history of translocating sensitive plant species. The locations where the ambrosia ramets will be transplanted have been approved following field review by the Carlsbad office of the USFWS. The translocated ambrosia population will be monitored for a minimum of 5 years to document success or failure of the translocation effort.