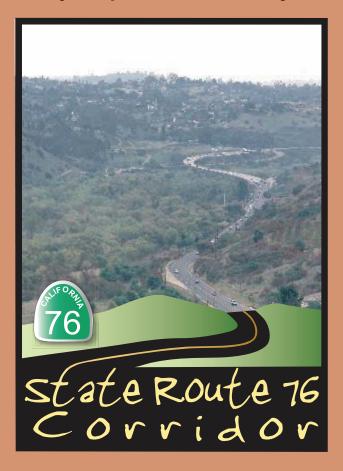
State Route 76

Melrose to South Mission Hwy Improvement Project



Final Environmental Impact Report/ Final Environmental Impact Statement Volume I

November 2008

Prepared by the State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.



FINAL ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL IMPACT STATEMENT STATE ROUTE 76 MELROSE TO SOUTH MISSION SAN DIEGO COUNTY, CALIFORNIA

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

November 2008

It should be noted that at a future date, FHWA may publish a notice in the Federal Register, pursuant to 23 USC §139(I), indicating that a final action has been taken on this program by Caltrans. If such notice is published, a lawsuit or other legal claim will be barred unless it is filed within 180 days after the date of publication of the notice (or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed). If no notice is published, then the lawsuit or claim can be filed as long as the periods of time provided by other federal laws that govern claims are met.

State Route 76 Melrose to South Mission Highway Improvement Project KP 12.1/21.1 (PM 7.5/13.1) San Diego County, California

FINAL ENVIRONMENTAL IMPACT REPORT/STATEMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code (Federal) 42 U.S.C. 4332 (2)(C)

THE STATE OF CALIFORNIA Department of Transportation

COOPERATING AGENCIES
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
U.S. Environmental Protection Agency

RESPONSIBLE AGENCIES
California Department of Fish and Game
California Water Resources Board - Region 9
California Transportation Commission
County of San Diego
City of Oceanside

Date of Approval

Pedro Orso-Delgado Director, District 11

California Department of Transportation

The following person may be contacted for additional information concerning this document

Kelly Finn Senior Environmental Planner Environmental Analysis Branch Chief California Department of Transportation 4050 Taylor Street San Diego, CA 92110 619-688-0229

Abstract: The proposed action would widen and realign State Route 76 in northern San Diego County from Melrose Drive in Oceanside to South Mission Road in Bonsall. The project proposes a four-lane conventional highway with right-of-way and grading to accommodate a possible future widening, if justified. The total length of the project is approximately 9.4 km (5.8 mi). Two build alternatives are assessed in this Final EIR/EIS: the Existing Alignment Alternative and the Southern Alignment Alternative. The Existing Alignment Alternative has been identified as the Preferred Alternative. Both alternatives are virtually identical between Melrose Drive and East Vista Way but diverge to opposite sides of the San Luis Rey River as they progress east of East Vista Way. Potential benefits include maintaining or improving the existing and future traffic operations in the SR-76 corridor, improving the safe and efficient local and regional movement of people and goods, and minimizing environmental and community impacts. Potential project impacts include: wetlands, threatened and endangered species and their critical habitat, sensitive plants and animals, floodplain, community character and cohesion, and land use.

General Information About This Document

For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Kelly Finn, Environmental Analysis Branch Chief, 4050 Taylor Street, San Diego, CA 92110; (619) 688-0229 Voice, or use the California Relay Service 1 (800) 735-2929 (TTY), 1(800) 735-2929 (Voice) or 711.

TABLE OF CONTENTS

Section		Page
SUMMARY		S-1
CHAPTER 1	– PURPOSE AND NEED FOR PROJECT	1-1
1.1	Introduction	1-1
1.2	Project Purpose	1-1
1.3	Project Need	1-2
1.4	Project Background	1-7
CHAPTER 2	2 – PROJECT ALTERNATIVES	2-1
2.1	Project Alternatives	2-1
2.2	Identification of the Preferred Alternative	2-10
2.3	Alternatives Considered but Eliminated from Further Discussion	2-11
2.4	Permits and Approvals Needed	2-14
CHAPTER 3	B – AFFECTED ENVIRONMENT; ENVIRONMENTAL	
CONSEQUE	ENCES; AND AVOIDANCE, MINIMIZATION, AND/OR	
MITIGATIO	N MEASURES	3-1
Hum	an Enviroment	
3.1	Land Use	3-2
3.2	Consistency with State, Regional, and Local Plans and Programs	3-9
3.3	Parks and Recreational Facilities	3-23
3.4	Growth	3-33
3.5	Farmlands	3-37
Com	munity Impacts	
3.6	Community Character and Cohesion	3-43
3.7	Relocations	3-49
3.8	Environmental Justice	3-55
3.9	Utilities/Emergency Services	3-61
3.10	Traffic & Transportation/Pedestrian and Bicycle Facilities	3-63
3.11	Visual/Aesthetics	3-81
3.12	Cultural Resources	3-123
Physi	<u>cal Enviroment</u>	
3.13	Hydrology and Floodplains	3-131
3.14	Water Quality and Storm Water Runoff	3-147
3.15	Geology and Soils	
3.16	Paleontology	
3.17	Hazardous Waste/Materials	3-165
3.18	Air Quality	
3.19	Noise	3-185

<u>Biolog</u>	gical Enviroment	
3.20	Natural Communities	3-205
3.21	Jurisdictional Wetlands and Waters	3-241
3.22	Plant Species	3-271
3.23	Animal Species	3-275
3.24	Threatened and Endangered Species	3-295
3.25	Invasive Species	3-351
3.26	Energy	3-355
3.27	Relationship Between Local Short-Term Uses of the Human	
	Environment and the Maintenance and Enhancement of Long-Term	
	Productivity	3-357
3.28	Irreversible and Irretrievable Commitments of Resources That Would	
	Be Involved in the Proposed Project	3-359
3.29	Cumulative Impacts	
CHAPTER 4	– CALIFORNIA ENVIRONMENTAL QUALITY ACT EVALUATION	4-1
4.1	Determining Significance Under CEQA	
4.2	Less Than Significant Effects of the Proposed Project	
4.3	Significant Effects Under CEQA	
4.4	Unavoidable Significant Environmental Effects	
4.5	Significant Irreversible Environmental Changes	
4.6	Climate Change	
4.7	Mitigation Measures for Significant Impacts Under CEQA	4-7
CHAPTER 5	– COMMENTS AND COORDINATION	5-1
5.1	Introduction	
5.2	Public Scoping Process	
5.3	SAFETEA-LU 6002 Public Involvement and Coordination Plan	
5.4	Additional Consultation and Coordination with Public Agencies	
5.5	Project Development Team Meetings	
CHAPTER 6	– LIST OF PREPARERS	6-1
CHAPTER 7	_ DISTRIBUTION LIST	7-1

		_			- ~	-~
Δ	$\mathbf{p}_{\mathbf{p}}$	ואוי	NI	1	(`	ES
$\overline{}$						/)

- A Resources Evaluated Relative to the Requirements of Section 4(f)
- B Title VI Policy Statement
- C Important Relocation Assistance Information
- D Environmental Commitment Record
- E Farmland Conversion Impact Rating Form
- F Section 404 Alternatives Analysis/LEDPA
- G Wetland Assessment
- H Biological Opinion
- I FHWA Air Quality Conformity Determination
- J Wetland Mitigation Plan
- K Public Comments on the Draft EIR/EIS with Responses
- L List of Acronyms

LIST OF FIGURES

<u>Figure</u>		Page
1.1-1	Project Location Map	1-10
1.1-2	Project Vicinity	1-11
2.1-1	Typical Cross Section	2-15
2.1-2a	Project Features Map – Existing (Preferred) Alternative	2-16
2.1-2b	Project Features Map – Existing (Preferred) Alternative	2-17
2.1-2c	Project Features Map – Existing (Preferred) Alternative	2-18
2.1-2d	Project Features Map – Existing (Preferred) Alternative	2-19
2.1-2e	Project Features Map – Existing (Preferred) Alternative	2-20
2.1-2f	Project Features Map – Existing (Preferred) Alternative	
2.1-2g	Project Features Map – Existing (Preferred) Alternative	
2.1-2h	Project Features Map – Existing (Preferred) Alternative	
2.1-3a	Project Features Map – Southern Alternative	
2.1-3b	Project Features Map – Southern Alternative	
2.1-3c	Project Features Map – Southern Alternative	
2.1-3d	Project Features Map – Southern Alternative	
2.1-3e	Project Features Map – Southern Alternative	
2.1-3f	Project Features Map – Southern Alternative	
2.1-3g	Project Features Map – Southern Alternative	
2.1-3h	Project Features Map – Southern Alternative	
3.1-1	Existing Land Use	
3.1-2	Planned Land Use	
3.3-1	Bonsall Model Airplane Airport	
3.3-2	Community Facilities and Services	
3.3-3	Existing and Planned Trails	
3.10-1	2005 Traffic Volumes	3-73

3.10-2	2011 Existing (Preferred) Alternative Traffic Volumes	3-74
3.10-3	2011 Southern Alternative Traffic Volumes	3-75
3.10-4	2030 Existing (Preferred) Alternative Traffic Volumes	3-76
3.10-5	2030 Southern Alternative Traffic Volumes	3-77
3.10-6	2011 No Build Alternative Traffic Volumes	3-78
3.10-7	2030 No Build Alternative Traffic Volumes	3-79
3.11-1	Key View Map	3-99
3.11-2	Key View 1 Existing Conditions	3-100
3.11-3	Key View 2 Existing Conditions	3-101
3.11-4	Key View 2a Existing Conditions	
3.11-4a	Key View 2a Proposed Existing (Preferred) and Southern	3-103
3.11-5	Key View 3 Existing Conditions	3-104
3.11-5a	Key View 3 Proposed Existing (Preferred) Alternative	3-105
3.11-5b	Key View 3 Proposed Southern Alternative	3-106
3.11-6	Key View 4 Existing Conditions	3-107
3.11-6a	Key View 4 Proposed Existing (Preferred) Alternative	3-108
3.11-6b	Key View 4 Proposed Southern Alternative	3-109
3.11-7	Key View 5 Existing Conditions	3-110
3.11-7a	Key View 5 Proposed Existing (Preferred) Alternative	
3.11-7b	Key View 5 Proposed Southern Alternative	
3.11-8	Key View 7 Existing Conditions	3-113
3.11-8a	Key View 7 Proposed Existing (Preferred) Alternative	
3.11-8b	Key View 7 Proposed Southern Alternative	3-115
3.11-9	Key View 8 Existing Conditions	3-116
3.11-9a	Key View 8 Proposed Existing (Preferred) Alternative	
3.11-9b	Key View 8 Proposed Southern Alternative	
3.11-10	Key View 6 Existing Conditions	
3.11-10a	Key View 6 Proposed Southern Alternative	3-120
3.11-11	Key View 6a Existing Conditions	3-121
3.13-1a	Floodplain Map with Existing Alignment and Southern Alignment	
	Alternatives	3-141
3.13-1b	Floodplain Map with Existing Alignment (Preferred) and Southern	
		3-142
3.13-1c	Floodplain Map with Existing Alignment (Preferred) and Southern	
	Alignment Alternatives	
3.13-2	Floodplain Encroachments	3-145
3.14-1	San Luis Rey Hydrologic Areas	3-153
3.19-1	Noise Receptors Sites and Soundwalls Existing and Southern Alignment	
	Alternatives	
3.19-2	Noise Receptors Sites Existing Alignment Alternative	
3.19-3	Noise Receptors Sites Existing Alignment Alternative	
3.19-4	Noise Receptors Sites Existing Alignment Alternative	
3.19-5	Noise Receptors Sites Southern Alignment Alternative	
3.19-6	Noise Receptors Sites Southern Alignment Alternative	3-201

3.19-7	Noise Receptors Sites Southern Alignment Alternative	3-202
3.19-8	Noise Receptors Sites Southern Alignment Alternative	
3.20-1a	Upland and Wetland Riparian Communities	
3.20-1b	Upland and Wetland Riparian Communities	3-232
3.20-2a	Impacted Vegetation Communities under the Existing (Preferred)	
	Alternative	3-233
3.20-2b	Impacted Vegetation Communities under the Existing (Preferred)	
	Alternative	3-234
3.20-3a	Impacted Vegetation Communities under the Southern Alternative	3-235
3.20-3b	Impacted Vegetation Communities under the Southern Alternative	
3.20-4	Wildlife Corridor Impacts	3-237
3.20-5	Mitigation Sites	3-238
3.20-6	Wild Animal Crossings and Fencing	3-239
3.21-1a	Jurisdictional Waters of the U.S. and State	3-261
3.21-1b	Jurisdictional Waters of the U.S. and State	3-262
3.21-2a	Existing (Preferred) Alternative - with Permanent and Temporary Impacts	
	Superimposed over Jurisdictional Waters	3-263
3.21-2b	Existing (Preferred) Alternative - with Permanent and Temporary Impacts	
	Superimposed over Jurisdictional Waters	3-264
3.21-3a	Southern Alternatives - with Permanent and Temporary Impacts	
	Superimposed over Jurisdictional Waters	3-265
3.21-3b	Southern Alternatives - with Permanent and Temporary Impacts	
	Superimposed over Jurisdictional Waters	3-266
3.21-4	Option B Mitigation Sites	3-267
3.21-5	Morrison Property Vegetation and Wetlands	3-269
3.21-6	Mitigation Proposed Acres	3-270
3.23-1a	Special Status Species Occurrences	3-283
3.23-1b	Special Status Species Occurrences	
3.23-2a	Impacted Special Status Species - Existing (Preferred) Alternative	
3.23-2b	Impacted Special Status Species - Existing (Preferred) Alternative	
3.23-3a	Impacted Special Status Species - Southern Alternative	3-291
3.23-3b	Impacted Special Status Species - Southern Alternative	
3.24-1a	Distribution of Threatened and Endangered Species	
3.24-1b	Distribution of Threatened and Endangered Species	
3.24-2a	Critical Habitat Map	
3.24-2b	Critical Habitat Map	3-323
3.24-3a	Impacts to Threatened and Endangered Species on the Existing (Preferred)	
	Alternative	3-325
3.24-3b	Impacts to Threatened and Endangered Species on the Existing (Preferred)	
	Alternative	
3.24-4a	Impacts to Threatened and Endangered Species on Southern Alternative	
3.24-4b	Impacts to Threatened and Endangered Species on Southern Alternative	
3.24-5	Noise Contour	
3.24-6a	Habitats within 60 Decibel Contour — Existing Alignment Alternative	3-334

3.24-6b	Habitats within 60 Decibel Contour — Existing Alignment Alternative	3-335
3.24-7a	Habitats within 62 Decibel Contour — Southern Alignment Alternative	3-336
3.24-7b	Habitats within 62 Decibel Contour — Southern Alignment Alternative	3-337
3.24-8a	Habitats within 62 Decibel Contour — Current Conditions	3-339
3.24-8b	Habitats within 62 Decibel Contour — Current Conditions	3-341
3.24-9a	Impacts to Critical Habitat — Existing Alignment (Preferred) Alternative	3-343
3.24-9b	Impacts to Critical Habitat — Existing Alignment (Preferred) Alternative	3-345
3.24-10a	Impacts to Critical Habitat — Southern Alignment Alternative	3-347
3.24-10b	Impacts to Critical Habitat — Southern Alignment Alternative	3-349
3.29-1a	SR-76 Conceptual Connections at South Mission Road	3-385
3.29-1b	SR-76 Conceptual Connections at South Mission Road	3-386
3.29-1c	SR-76 Conceptual Connections at South Mission Road	3-387
3.29-1d	SR-76 Conceptual Connections at South Mission Road	3-388
3.29-2	Resource Study Areas (RSA)	3-389
5.2-1	Notice of Intent	5-15
5.2-2	Notice of Preparation	5-17
5.2-3	NOI published in Federal Register	5-18
5.2-4	Response from Pechanga to NOP and NOI	5-19
5.4-1	County of San Diego Concurrence on 4(f) De Minimis Finding	5-27
5.4-2	Section 106 Letter to SHPO	5-31
5.4-3	NOAA Concurrence Letter	5-35
5.4-4	Section 106 Findings Letter to SHPO	5-38
5.4-5	USFWS Species List	5-39
5.4-6	Response from ACOE for Concurrence on Purpose and Need	5-41
5.4-7	Response from EPA for concurrence on Purpose and Need	5-43
5.4-8	Response from USFWS on Purpose and Need 11/05	5-46
5.4-9	Response from USFWS on Purpose and Need 12/05	5-47
5.4-10	Response from USFWS on Selection Criteria and Range of Alternatives	
5.4-11	Response from EPA on Selection Criteria	5-50
5.4-12	Response from EPA to Range of Alternatives	5-52
5.4-13	Response from ACOE to Selection Criteria and Range of Alternatives	5-54
5.4-14	Notice of Availability	5-56
5.4-15	SR-76 DEIR/DEIS in Federal Register	5-58
5.4-16	LEDPA Concurrence Letters	

LIST OF TABLES

Table		Page
S.6-1	Summary of Impacts for Alternatives	6
S.6-2	Recommended and Proposed Biological Mitigation Ratios	9
S.7-1	Permits and Approvals Needed	
2.4-1	Permits and Approvals Needed	2-14
3.1-1	Proposed Developments in Project Vicinity	3-3
3.2-1	Project Consistency with Plans	3-15
3.5-1	Potential Farmland Conversion by Alternative	
3.7-1a	Anticipated Displacements under the Existing Alignment Alternative	
3.7-1b	Anticipated Impact Types and Locations	3-50
3.7-2	Anticipated Displacements under the Southern Alignment Alternative	
3.8-1	Study Area and Regional Race and Ethnicity - 2000	
3.8-2	Census Block Race and Ethnicity Statistics - 2000	3-56
3.8-3	MHI and PCI for Study Area and Surrounding Region Study Area Bonsall,	
i	Fallbrook, Oceanside, San Diego County	
3.8-4	Housing Units and Occupancy Status in the Study Area and Region	3-58
3.10-1	Level of Service	
3.10-2	Existing ADT and AM/PM Peak Hour Volumes	
3.10-3	Intersection LOS for Existing Alignment Alternative	
3.10-4	Intersection LOS for Southern Alignment Alternative	3-66
3.10-5	Intersection LOS for No Build Alternative	
3.10-6	Accident Rates (June 2004-May 2007)	
3.10-7	Street Segment LOS and ADT for the Existing Alignment Alternative	
3.10-8	Street Segment LOS and ADT for the Southern Alignment Alternative	
3.11-1	Existing Alignment Alternative Key View Analysis	
3.11-2	Southern Alignment Alternative Key View Analysis	3-95
3.14-1	TMDLs and 303(d) Listed Waterbodies in Hydrologic Units 903.11 and	
	903.12	
3.18-1	Air Quality Designations for San Diego Air Basin	
3.18-2	Ambient Air Quality Summary – Escondido Monitoring Station	
3.18-3	CO Concentrations 2030 (1-Hour and 8-Hour Concentrations, ppm)	
3.19-1	Noise Abatement Criteria	
3.19-2	Noise Levels for Common Activities	
3.19-3	Sensitive Receptors and Noise Impact - Existing Alignment Alternative	
3.19-4	Sensitive Receptors and Noise Impact - Southern Alignment Alternative	
3.19-5	Noise Prediction with Barrier Heights	
3.20-1	Impacts to Upland Vegetation Communities	
3.20-2	Impacts to Riparian and Wetland Communities	
3.20-3	Impacts to Other Vegetation Types	3-218
3.20-4	Recommended Mitigation Ratios for Upland Vegetation	
3.20-5	Mitigation Proposal for Permanent Impacts to Upland Vegetation	3-226

3.21-1	Jurisdictional Waters of the U.S. and California within the Project Study	
	Area	3-242
3.21-2	Summary of ACOE and CDFG Jurisdictional Impacts for the Existing	
	Alignment Alternative	3-245
3.21-3	Summary of ACOE and CDFG Jurisdictional Impacts for the Southern	
	Alignment Alternative	3-245
3.21-4	Recommended Mitigation Ratios for Permanent Impacts to Wetlands and	
	Riparian Areas	3-250
3.21-5	Option A Mitigation Sites	3-252
3.21-6	Option A Mitigation Proposal for Permanent Impacts	3-253
3.21-7	Option B Mitigation Sites	3-255
3.21-8	Option B Mitigation Proposal for Permanent Impacts	3-256
3.23-1	Potential Impacts to Special-Status Animals	3-279
3.24-1	Impacts to Threatened and Endangered Species Populations	3-304
3.24-2	Indirect Effects to Threatened or Endangered Species Habitats - Existing	
	Alignment Alternative (hectares [acres])	3-306
3.24-3	Indirect Effects to Threatened or Endangered Species Habitats - Southern	
	Alignment Alternative (hectares [acres])	3-307
3.24-4	Occurrences of Threatened or Endangered Species within the Indirect	
	Effects Area, Existing and Southern Alternatives	
3.24-5	Option A Proposed Mitigation for Indirect Impacts	3-313
3.24-6	Option B Proposed Mitigation for Indirect Impacts	3-314
3.25-1	Invasive Species in the SR-76 Middle Project Area	3-352
3.29-1	Projects Considered in Cumulative Impact Analysis as of 09/28/07	3-363
4.6-1	Average Difference in Regional CO ₂ Emissions	4-7
5.2-1	Project Public Outreach	5-5
5.4-1	NEPA/404 Meetings	5-10

SUMMARY

Environmental review, consultation and any other action required in accordance with federal laws applicable to this project are being, or have been, carried out by the California Department of Transportation (Caltrans) under its assumption of responsibility pursuant to 23 USC 327.

The draft document has been revised based on input received during the public comment period (October 12, 2007 through November 26, 2007). These revisions are indicated by a line in the margin. Copies of comments received in response to the draft document are included in Appendix K.

S.1 OVERVIEW OF PROJECT AREA

The proposed project is located in northern San Diego County on State Route 76 (SR-76) from Melrose Drive to South Mission Road. Within the proposed project limits, SR-76 is a conventional highway with two lanes, nonstandard shoulders, and signalized at-grade intersections. The project area is generally composed of agricultural lands, equestrian facilities, estate residential homes, the San Luis Rey River floodplain, and open space. The western portion of the project is located within the City of Oceanside; the eastern portion is located within the unincorporated community of Bonsall. There are no other major actions proposed by other governmental agencies in the same geographic area.

S.2 PURPOSE AND NEED

The purpose of the project is to maintain or improve the existing and future traffic operations in the SR-76 corridor, between Melrose Drive and South Mission Road, in order to improve the safe and efficient local and regional movement of people and goods, while minimizing environmental and community impacts for the planning design year of 2030.

The objectives of this project are to:

- Maintain or improve future traffic levels of service in 2030 over the existing levels of service;
- Maintain or improve travel times within the corridor;
- Provide a facility that is compatible with future transit and other modal options;
- Provide consistency with the San Diego Regional 2030 Transportation Plan (RTP), updated in 2007 by the San Diego Association of Governments (SANDAG), where feasible and in compliance with federal and state regulations;
- Maintain the facility as an effective link in the intraregional and interregional movement of people and goods; and
- Protect and/or enhance the human and natural environment along the SR-76 corridor.

The project is needed in response to (1) increased population growth in the region; (2) increased intraregional, interregional, and corridor traffic demand; (3) the constraints of the existing circulation system, which are limiting the ability of the existing facility to operate efficiently; (4) the development of land within the project area; (5) the congested nature of the existing facility; and (6) the corridor's safety issues.

S.3 PROPOSED ACTION

The proposed project is located in northern San Diego County on SR-76 from Melrose Drive to South Mission Road. The proposed project covers a distance of approximately 9.4 kilometers (5.8 miles). The project would construct SR-76 as a four-lane facility with right-of-way and grading to accommodate a possible future widening, if justified. The project would require channelization lanes in some locations.

In the westbound and eastbound directions, there would be two lanes, each 3.6 meters (12 feet) wide. The westbound and eastbound lanes would be separated by 6.6 meters (22 feet), of which 3.0 meters (10 feet) in each direction would be paved inside shoulder. Separating the two directions of traffic would be a concrete barrier that is 0.6 meter (2 feet) wide. Each build alternative would construct 2.4-meter (8-foot) wide outside shoulders to provide for bicycles and pedestrians, while not precluding emergency parking.

In addition to the No Build Alternative, two build alternatives are proposed: the Existing Alignment Alternative and the Southern Alignment Alternative.

With the proposed Existing Alignment Alternative, the existing conventional highway would be expanded to four lanes, with right-of-way and grading to accommodate a possible future widening if justified. The total roadway length for this alternative is approximately 9.4 kilometers (5.8 miles), with a right-of-way requirement of approximately 53 hectares (131 acres). Between Melrose Drive and South Mission Road, the proposed alignment is primarily located along the existing roadway alignment but shifts north or south in specific locations to provide for more gradual curves or to accommodate widening where required. The existing Bonsall Creek Bridge and the Ostrich Farm Creek Bridge would be demolished and new bridges would be constructed. The San Luis Rey River Bridge was constructed in 1998. Since that time, seismic design standards for bridges have changed, necessitating evaluation of the bridge. At the time the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) document was prepared, detailed bridge studies had not been completed and there was a reasonable chance that the bridge would not meet current seismic standards. The existing San Luis Rey River structure was reviewed by the Caltrans Division of Structures to verify that the existing structural components and features are adequately designed when compared to the newer design requirements implemented subsequent to the Loma Prieta earthquake in 1989. Based on the more current design criteria, the existing structure was found to be structurally adequate and did not require replacing nor did it need any form of retrofitting or updating. The proposed project would retain the San Luis Rey River Bridge as the future westbound structure. A new bridge for eastbound traffic would be constructed. The estimated cost of construction for

the Existing Alignment Alternative is approximately \$244.2 million: construction (\$138 million), right-of-way (\$54.2 million), and support (\$52 million).

The Southern Alignment Alternative would widen and realign SR-76 from Melrose Drive to South Mission Road on an alignment south of the San Luis Rey River. As with the Existing Alignment Alternative, the facility would have four lanes, with right-of-way and grading to accommodate a possible future widening, if justified. The total roadway length for this alternative is approximately 8.2 kilometers (5.1 miles) with a right-of-way requirement of approximately 148 hectares (366 acres). The Southern Alignment Alternative would require new bridges at Little Gopher Canyon Creek, Moosa Canyon Creek, and the South Mission Road crossing of the San Luis Rey River. The estimated cost of construction for the Southern Alignment Alternative is approximately \$395 million: construction (\$164 million), right-of-way (\$169 million), and support (\$62 million).

S.4 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

After full consideration of the technical studies prepared, and based on public and resource agency input, the Existing Alignment Alternative has been identified as the Preferred Alternative. Overall, it would have fewer impacts to biological resources, the San Luis Rey River floodplain, and to the community than the Southern Alignment Alternative, and it presents a more cost-effective solution to the project purpose and need.

SR-76 is recognized in local planning documents on the existing alignment, or the Existing Alignment Alternative, and is therefore primarily consistent with land use planning. The Southern Alignment Alternative is inconsistent with local planning documents, as in some areas it adds an additional transportation facility not currently recognized on plans. Located south of the San Luis Rey River, the alignment would, in some places, replace Old River Road, an existing two-lane rural collector road.

The Southern Alignment Alternative would have substantial adverse impacts to the San Luis Rey Downs Golf Resort and would directly impact the clubhouse facilities. Though privately owned, the golf course is an important community and recreational focal point. This could displace the employees of the golf course and require the reconfiguration or relocation of the facility. The Existing Alignment Alternative would not impact the golf resort.

The number of relocations of homes and businesses is about the same with either alternative. However, the right-of-way requirements for the Southern Alignment Alternative are greater, 148 hectares (366 acres), when compared to 53 hectares (131 acres) for the Existing Alignment Alternative.

The Southern Alignment Alternative impacts approximately 23.31 hectares (57.61 acres) of the San Luis Rey River floodplain. It would likely increase the water surface elevation of the river up to 0.94 meter (3 feet) and up to 0.8 meter (2.62 feet) at Moosa Canyon Creek. The increased flooding risk would be considered high. It could also increase the potential for incompatible

floodplain development. For these reasons, it is considered a significant floodplain encroachment. The Existing Alignment Alternative would not cause a significant increase in the area of the floodplain boundary or water surface elevation. No increase in flooding would result from this alternative.

The Southern Alignment Alternative would have greater impacts to wetlands, riparian vegetation communities, and related species than the Existing Alignment Alternative. Impacts to waters of the U.S. are approximately 2.61 hectares (6.46 acres) with the Southern Alignment Alternative compared to 0.75 hectare (1.83 acres) with the Existing Alignment Alternative. Permanent impacts to waters of the State are approximately 11.1 hectares (27.45 acres) with the Southern Alignment Alternative, compared to 6.62 hectares (16.35 acres) with the Existing Alignment Alternative. The Existing Alignment Alternative would have greater impacts to arroyo toad locations, upland species, and related vegetation communities than the Southern Alignment Alternative.

The Southern Alignment Alternative would present a greater constraint to wildlife movement through the area than the Existing Alignment Alternative. Currently, Old River Road is a local rural road with low traffic volumes (4,000 Average Daily Traffic [ADT]). Locating the highway south of the river means a wider barrier with much higher traffic volumes (32,000 ADT). In addition, the existing SR-76 would remain in place and be used for local traffic, with volumes predicted to be 11,700 ADT. The Southern Alignment Alternative would cross the river at South Mission Road, which may further reduce the use of this important portion of a regional wildlife corridor. This new crossing, and the proximity of the alignment in the area of Little Gopher Canyon, would have edge effects, reducing the width of the corridor. Overall, implementation of the Southern Alignment Alternative would be expected to have a greater impact to regional wildlife movement than implementation of the Existing Alignment Alternative.

The Existing Alignment Alternative requires less earthwork than the Southern Alignment Alternative.

The Existing Alignment Alternative cost is estimated at \$244.2 million, while the cost of Southern Alignment Alternative is estimated at \$395 million.

Along the alignment of the Existing Alignment Alternative, the new roadway was placed to facilitate a comprehensive design. This alternative provides a safe design and a more economical construction cost, while balancing impacts to the sensitive environmental resources and the displacement of residences along the corridor.

For further details on impacts, please see Table S.6-1 and Chapter 3.

S.5 JOINT CEQA/NEPA DOCUMENT

The proposed project is a joint project by Caltrans and the Federal Highway Administration (FHWA) and is subject to state and federal review requirements. Project documentation,

therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans is the project proponent and the lead agency under CEQA.

FHWA's responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to Section 6005 of Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) codified in 23 USC §327(a)(2)(A). Effective July 1, 2007, FHWA has assigned, and Caltrans has assumed, all the U.S. Department of Transportation (USDOT) Secretary's responsibilities under NEPA. Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, it is quite often the case that a "lower level" document is prepared for NEPA. One of the most commonly seen joint document types is an EIR/EIS.

Following circulation of this Final Environmental Impact Report/Final Environmental Impact Statement (FEIR/FEIS), Caltrans will be required to take actions regarding the environmental document. Caltrans will determine whether to certify the FEIR/FEIS and issue Findings and a Statement of Overriding Considerations. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and a Record of Determination will be published for compliance with NEPA.

It should be noted that at a future date, FHWA may publish a notice in the Federal Register, pursuant to 23 USC §139(I), indicating that a final action has been taken on this program by Caltrans. If such notice is published, a lawsuit or other legal claim will be barred unless it is filed within 180 days after the date of publication of the notice (or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed). If no notice is published, then the lawsuit or claim can be filed as long as the periods of time provided by other federal laws that govern claims are met.

S.6 PROJECT IMPACTS

Table S.6-1 is a matrix that summarizes the project impacts by alternative. For detailed information regarding the impacts of each alternative, please see Chapter 3 of this FEIR/FEIS and the associated technical studies. Proposed mitigation ratios are identified in Table S.6-2.

Table S.6-1 Summary of Impacts for Alternatives

ALTERNATIVE/IMPACTS	Existing Alignment Alternative	Southern Alignment Alternative	No Build
LAND USE	Minor Impact	Substantial Impact with the potential removal of golf course	No Impact
SOCIOECONOMICS			
Homes Displaced	5	4	0
Businesses Displaced	9	2	0
Community character/cohesion	Minor loss of rural character	Potential removal of major community resource (golf course), major loss of rural character	No Impact
NOISE LEVELS			
(without abatement)			
Receptors			
1471 Saddle Way, Oceanside	67 dBA	67 dBA	No Impact
1474 Saddle Way, Oceanside	67 dBA	66 dBA	No Impact
1483 Chapparal Way, Oceanside	68 dBA	68 dBA	No Impact
5735 Jeffries Ranch Road, Oceanside	67 dBA	67 dBA	No Impact
29750 Mission Road, Bonsall	72 dBA	No Impact	No Impact
30626 Emerald Hill Road, Bonsall	68 dBA	No Impact	No Impact
O.H. Kruse Grain and Milling	No Impact	No Impact	79 dBA
Fireside Antiques Mall	No Impact	No Impact	71 dBA
5867 Via Montellano	No Impact	No Impact	68 dBA
Bonsall Village Center (R-49)	No Impact	No Impact	72 dBA
Bonsall Village Center (R-50)	No Impact	No Impact	74 dBA
5425 Mission Road, Bonsall	70 dBA	69 dBA	73 dBA
River Village Shopping Center, Bonsall	74 dBA	72 dBA	72 dBA
806 Tushak Ranch Road, Bonsall	No Impact	66 dBA	No Impact
Lot #18 Au Bon Climat Court, Bonsall	No Impact	68 dBA	No Impact
Lot #19 Au Bon Climat Court, Bonsall	No Impact	67 dBA	No Impact
30505 Old River Road, Bonsall	No Impact	69 dBA	No Impact
RECREATION			
Bonsall Model Airplane Site	Entire Site Impacted	No Impact	No Impact
Planned Park Site A2	No Impact	No Impact	No Impact
Planned Park Site A3	4.85-ha (12-ac) removed to include two soccer fields, great lawn, two ball fields, picnic area, interpretive garden, remnants not viable for park	No Impact	No Impact
Existing Trails (private land)	4291 linear feet	1675 linear feet	No Impact
Existing Trails (public land)	1064 linear feet	202 linear feet	No Impact
Planned Trails (private land)	5260 linear feet	7633 linear feet	No Impact

ALTERNATIVE/IMPACTS	Existing Alignment Alternative	Southern Alignment Alternative	No Build
Planned Trails (public land)	2078 linear feet	1858 linear feet	No Impact
San Luis Rey Downs Golf Resort	No Impact	12-ha (29.6-ac) removed	No Impact
VISUAL			
Character and Scale	Compromises	Compromises	No Impact
Quality	Substantially reduces	Substantially reduces	No Impact
Viewshed	Moderate to High Impact	Moderate to High Impact	No Impact
BIOLOGY			
ACOE Jurisdictional Waters Impacts Permanent	0.75 ha (1.83 ac)	2.61 ha (6.46 ac)	No Impact
CDFG Jurisdictional Waters Impacts Permanent	6.62 ha (16.35 ac)	11.1 ha (27.45 ac)	No Impact
Arroyo Toad (permanent and temporary, direct and indirect impacts)	4 populations	1 population	No Impact
Coastal California Gnatcatcher (permanent and temporary, direct and indirect impacts)	3 pairs	1 pair	1 pair, 1 individual
Least Bell's Vireo (permanent and temporary, direct and indirect impacts)	12 pairs, 12 individuals	7 pairs, 2 individuals	1 pair, 1 individual
Southwestern Willow Flycatcher (permanent and temporary, direct and indirect impacts)	1 migrant	2 individuals	1 migrant
Coastal California Gnatcatcher Critical Habitat (permanent and temporary impact acreages)	18.41 ha (45.5 ac)	14.68 ha (36.28 ac)	No Impact
Southwestern Willow Flycatcher Critical Habitat (permanent and temporary impact acreages)	13.27 ha (32.78 ac)	12.43 ha (30.72 ac)	No Impact
Least Bell's Vireo Critical Habitat (permanent and temporary impact acreages)	14.03 ha (34.69 ac)	15.64 ha (38.65 ac)	No Impact
San Diego Ambrosia (indirect impact only)	1 population	1 population	No Impact
AIR QUALITY	No Exceedances	No Exceedances	No Exceedances
FLOODPLAIN ENCROACHMENT	No significant floodplain encroachment	Significant floodplain encroachment	No significant floodplain encroachment
HISTORIC PROPERTIES	No Impact	No Impact	No Impact
GROWTH	Minor Influence	Moderate Influence	No Influence
FARMLANDS	21 ha (52 ac); NRCS Impact Rating 118.8	23 ha (57 ac); NRCS Impact Rating 112	0 ha (0 ac); NRCS Impact Rating N/A

ALTERNATIVE/IMPACTS	Existing Alignment Alternative	Southern Alignment Alternative	No Build
CUMULATIVE IMPACTS	Cumulatively considerable contribution to Riparian and Wetlands communities and wetlands prior to mitigation	Cumulatively considerable contribution to land use changes and community character and cohesion without mitigation. Cumulatively considerable contribution to Riparian and Wetlands Communities and Species Afforded Protection under the Federal Endangered Species Act and wetlands prior to mitigation; the mitigation offsets any significant biological impacts; therefore, there is no contribution to cumulative impacts. The significant floodplain encroachment would cumulatively contribute to significant floodplain impacts in the middle reaches of the San Luis Rey River.	
RIGHT-OF-WAY REQUIRED	53 ha (131 ac)	148 ha (366 ac)	None
COST IN MILLIONS roadway/structure/right-of-way	\$244.2 million	\$395 million	No Cost

Table S.6-2
Recommended and Proposed Biological Mitigation Ratios

Verstetien Community	NCMSCP/Oceanside MSCP	Duomosod Duoised Dedies
Vegetation Community	Mitigation Ratios	Proposed Project Ratios
Riparian Habitat and Wetlands	No net loss	No net loss
Southern Cottonwood Willow	2:1	3:1 (Option A); 5:1 (Option B)
Riparian Forest		
Disturbed Wetland/Giant Reed	1:1	1:1
Southern Coast Live Oak Riparian	2:1	3:1 (Option A); 5:1 (Option B)
Forest		
Southern Willow Scrub	2:1	3:1 (Option A); 5.1 (Option B)
Mulefat Scrub	2:1	3:1 (Option A); 5.1 (Option B)
Coastal and Valley Freshwater Marsh	2:1	3:1 (Option A); 5.1 (Option B)
Uplands		
Nonnative Grassland	0.5:1	0.5:1; 1:1 for toad
		aestivation* areas
Diegan Coastal Sage Scrub	1.5:1	2:1
Disturbed Diegan Coastal Sage Scrub	1.5:1	2:1
Coast Live Oak Woodland	2:1	3:1

^{*}Toad aestivation is a state of dormancy, similar to hibernation, which typically occurs during the summer months.

S.7 COORDINATION WITH PUBLIC AND OTHER AGENCIES

Public Coordination Process

Chapter 5 discusses the coordination process including information on public outreach, SAFETEA-LU 6002, consultation and coordination with public agencies, and project development team meetings. As discussed, public outreach included a Public Scoping Meeting (October 18, 2006) and the public meeting after release of the DEIR/EIS (November 14, 2007), as well as additional meetings and/or presentations to local Community Sponsor and Planning Groups, Homeowners Associations, Chambers of Commerce, City Council meetings, and local politician sponsored meetings. Additional coordination in accordance with SAFETEA-LU, the NEPA 404 Memorandum of Understanding (MOU) Integration Process, and other state and federal regulations was also conducted.

Changes Since the DEIR/DEIS

Since the DEIR/DEIS, there have been multiple changes to the project design. Changes to the project design since the DEIR/DEIS include the elimination of a new bridge across the San Luis Rey River, a redesigned access to Holly Lane to include a right-in/right-out turn, and a revision to Thoroughbred Lane to connect directly to the proposed Existing Alignment, eliminating the need for additional off-site improvements. The project description and features have been revised in Section 2.1.

These refinements to design have resulted in changes to many of the proposed impacts since the DEIR/DEIS. These changes are summarized below:

Existing Alignment Alternative

- Relocations: Anticipated relocations have increased to include five residential units and 9 commercial units, as described in Section 3.7.
- Riparian and Wetland Communities and Other Waters of the U.S. and State: Impacts to jurisdictional waters have decreased since the release of the DEIR/DEIS. These refined impacts are described in Section 3.21.
- Species Afforded Protection under the Federal Endangered Species Act: Impacts to affected populations of California gnatcatchers have decreased, while impacts to least Bell's vireo, arroyo toad, and southwestern willow flycatcher have increased. These impacts are discussed in more detail in Section 3.20 through 3.24.
- Critical Habitat: Impacts to critical habitat for California gnatcatcher, southwestern willow flycatcher, and least Bell's vireo have decreased since review of the DEIR/DEIS. Impacts to critical habitat are discussed in Section 3.24.
- Ambrosia: Indirect impacts now occur to one population of ambrosia under this alignment and are described in Section 3.24.2.
- Floodplain: Floodplain encroachments have decreased from six to five encroachments along the roadway. Hydrology and floodplains are discussed in Section 3.13.
- Right-of-way: The required amount of right-of-way has decreased from 66 hectares (163 acres) in the DEIR/DEIS to 53 hectares (131 acres) in the FEIR/FEIS. Right-of-way requirements are discussed in Section S.3.

Southern Alignment Alternative

- Riparian and Wetland Communities and Other Waters of the U.S. and State under the Southern Alignment alternative: Impacts have decreased slightly since the release of the DEIR/DEIS. These refined impacts are described in Section 3.21.
- Species Afforded Protection under the Federal Endangered Species Act: Impacts to affected populations of least Bell's vireo and southwestern willow flycatcher have increased. These impacts are discussed in more detail in Section 3.20 through 3.24.
- Critical Habitat: Impacts to critical habitat for California gnatcatcher, southwestern willow flycatcher, and least Bell's vireo have increased since review of the DEIR/DEIS. Impacts to critical habitat are discussed in Section 3.24.
- Ambrosia: Indirect impacts now occur to one population of ambrosia under this alignment, and are described in Section 3.24.2.

• Right-of-way: The required amount of right-of-way has decreased from 179 hectares (442 acres) in the DEIR/DEIS to 148 hectares (366 acres) in the FEIR/FEIS. Right-of-way requirements are discussed in Section S.3.

Permits and Approvals Needed

The permits and approvals listed in Table S.7-1 would be required. Caltrans would continue to work closely with all of the resource agencies to maintain communication and coordination throughout the project development process and receipt of the various permits.

Table S.7-1 Permits and Approvals Needed

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Section 7 Consultation for Threatened and	Biological
	Endangered Species	Opinion
		received 10/1/08
U.S. Army Corps of Engineers	Section 404 Permit for dredged and fill waters of the	Pending
	United States	
California Department of Fish and	1602 Streambed Alteration Agreement	Pending
Game		
California Water Resources Control	Section 401 Water Quality Certification	Pending
Board – Region 9		
County of San Diego	New Freeway Agreement to facilitate new	Pending
	intersections and the reconfiguration of existing	
	intersections	
City of Oceanside	Modified Highway Access Agreement	Pending

