11-SD-15-KP M17.2-M50.7
PM 10.7-31.8 (KP M18.3-50.7)
EA#s 064800, 064811, 064840, 064850, 080901,
080911, 080911, 080921, 080931, 080941,
0815xx, 0810xx

On Interstate 15, in the City of San Diego from 2.4 kilometers south of State Route 163 to 0.5 kilometer north of State Route 78 in the City of Escondido

PM 10.7-31.8 (KP M18.3-50.7)

ENVIRONMENTAL ASSESSMENT/ INITIAL STUDY

Submitted Pursuant to: (State) Division 13, Public Resources Code
(Federal) 42 USC 4332(2)(C)

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration, and
THE STATE OF CALIFORNIA
Department of Transportation

10/3/02
Date of Approval

Charles "Muggs" Stoll
Deputy District Director
District 11
Environmental Division
California Department of Transportation

10/4/02
Date of Approval

for Jeffrey W. Roth
Gary N. Hamby
Division Administrator
Federal Highway Administration

State of California
Department of Transportation

SCH Number: 2002101112
11-SD-15- PM 10.7-31.8
KP M17.2-M51.2

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (the Department) proposes to improve freeway capacity and transit opportunities on Interstate 15 (I-15) by enhancing both freeway and high occupancy vehicles (HOV) facilities. A strategy called Managed Lanes is being pursued to provide capacity for buses and carpools. In addition, the value pricing program would allow single occupancy vehicles (SOV) to utilize excess capacity on the lanes. The managed lanes would be constructed mostly within the existing freeway median, though some outside widening is required. Some new right-of-way would be required for temporary construction easements, grading and drainage easements, retaining wall footing easements, and soil-nail and tieback easements. There would be no acquisition of homes or businesses. On the four proposed managed lanes, a moveable median barrier would be utilized that would allow for more traffic lanes in the peak direction. Traffic would flow in both directions with a minimum of one lane. Fixed concrete barriers would separate the managed lanes from the main lanes with access openings at two to three mile intervals. Four direct access ramps are also proposed. The work is located on I-15, from 2.4 kilometers (1.49 miles) south of State Route 163 in the City of San Diego to 0.5 kilometers (0.31 mile) north of State Route 78 in the City of Escondido.

Determination

The Department has prepared an Initial Study for this project, and pending public review, will determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on land use, communities and neighborhoods, growth, employment, relocation and property acquisitions, air quality, historic and archaeological preservation, and hazardous waste.

In addition, the proposed project would have no significant effect on wildlife, floodplains, water quality, joint development, or parks and recreation.

The proposed project would have no significantly adverse effect on pedestrian and bicycle facilities, noise, wetlands and waters of the United States, threatened or endangered species, visual resources, or construction related impacts because the following mitigation measures would reduce potential effects to insignificance:

- To protect trail operations, construction equipment would mainly cross bike/pedestrian trails, at designated areas, in the early morning and late evening when there are fewer trail users.
- If equipment would be brought across open trails personnel and signs would warn users of the hazard.
- Temporary impacts to trails would be offset when structures are replaced with enhanced bicycle and pedestrian features including wider sidewalks and shoulders, lighting, and scored sidewalks.
- Wetlands and water areas would be avoided to the maximum extent practicable
- Environmentally Sensitive Areas (ESA) and Limited Use Areas (LUA) would be designated on project plans. Other minimization measures would be adopted through Section 7 consultation and through the Section 404 permit review.
- Direct impacts to coastal sage scrub (CSS) habitat and coastal California gnatcatchers would be mitigated through the purchase of lands containing CSS and gnatcatchers. Parcels consisting of 93.65 hectares (231.43 acres) have been purchased in the unincorporated community of Sunnyside in southeast San Diego County (adjacent to Proctor Valley Road).
- At impacted receptors, sound barriers would be constructed where reasonable, to achieve a minimum 5 dBA reduction. .
- Construction noise control measures would include the following:

    - Near sensitive receptors, night work would be confined to a maximum of five consecutive nights at any given location. Between consecutive periods of work, a minimum of two weeks will be given prior to initiating additional work.
    - Sound walls and berms will be constructed prior to opening lanes to traffic
    - Maintenance yards, batch plants, haul roads, and other construction-oriented operations would be located where least disruptive to the community.
    - Community informational meetings would be held.
    - No pile driving would occur weekdays between the hours of 7:00 p.m. and 7:00 a.m., on weekends, or on any State or Federal holidays.

- Portable noise screens would be used to provide shielding for generators or other similar portable construction equipment when work is close to noise-sensitive areas.

- To mitigate potential visual impacts:

  - Noise barriers shall consist of landscaped berms wherever possible.

  - Where the right-of-way is too narrow for only a berm, a berm/retaining wall would be used.

  - Where berms are entirely infeasible, sound walls would be vegetated on one or both sides where possible.

  - Where needed, retaining walls with aesthetic treatments would be used.

  - Where a safety barrier is required, a 0.6 meter (2 feet) wide or greater planting area would be provided where possible.

  - Sound walls would use architectural detailing to add visual interest and reduce the apparent height of the walls.

  - In areas where retaining walls must be placed near the traveled way, a 1.8 meter (6 foot) wide planting pocket would be provided where possible.

  - Retaining walls over 5 meters (16 feet) in height would be terraced and planted as appropriate.

  - Retaining walls would be placed mid slope, wherever possible, to provide a buffer area for landscape screening.

  - Retaining walls would generally follow the slope contours with a constant elevation at the top with room at the base for a landscape buffer.

  - Architectural features, textures and colors would be used on walls. These features include pilasters and caps to provide shadow lines. These features will provide relief from the monolithic appearance and will reduce the apparent scale of the walls. Features would be designed with the concurrence of the District Landscape Architect.

- Bridge design would include architectural features as developed in the corridor design themes developed by the District Landscape Architect. Lighting, sidewalks, bicycle lanes, and other urban amenities on local street portions of bridges shall be consistent with community values and goals.

- Landscaping would be consistent with the appearance of the adjacent community.

- Existing oleanders located in the median north of Citracado Parkway, that require removal, shall be replaced by new oleanders planted in a raised bed between the median barriers.

- To preserve desirable views and reduce the visual scale of the freeway facility, median barriers would be selected with the concurrence of the District Landscape Architect.

- Grading shall utilize techniques such as slope rounding and variable gradients, where possible.

- Construction related fugitive dust would be controlled through the use of best management practices (BMP) during construction and after construction is complete. These measures include proper handling of exposed soil, covering trucks when transfering material, wheel wash stations, and revegetating unused areas.

Pedro Orso-Delgado
District Director
District 11
California Department of Transportation

3/27/03
Date

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
For
Proposed I-15 Managed Lanes Project
In San Diego County

The Federal Highway Administration (FHWA) has determined that the proposed I-15 Managed Lanes project will have no significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment (EA) and incorporated technical reports, which have been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. These documents provide sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. The FHWA assumes responsibility for the accuracy, scope, and content of the attached EA and incorporated technical reports.

Jeffery S Lewis

For: Jeffrey. W. Kolb
Chief, District Operations - South

03/27/03

Date

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List of Abbreviated Terms

ADT	Average Daily Trips
AM	Anti-meridian (in the morning)
APE	Area of Potential Effect
BAT	Best Available Technology
BCT	Best Conventional Technology
BMP	Best Management Practices
BRTS	Bus Rapid Transit Service
BRTS	Bus Rapid Transit System
CAA	Clean Air Act
Caltrans	California Department of Transportation
CARB	California Air Resource Board
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CO	Carbon Monoxide
COZEEP	Construction Zone Enhancement Enforcement Program
CSS	Coastal Sage Scrub
DAR	Direct Access Ramp
dBA	A weighted Decibel
dBA_{leq}	
EO	Executive Order
ETC	Electronic Toll Collection
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FRIS	Final Relocation Impact Study
FSP	Freeway Service Patrol
Ft	foot/feet
Ha	Hectare
HAS	Hydrologic Sub Area
HOV	High Occupancy Vehicle
HQ	Headquarters – Sacramento
I-5	Interstate 5
I-15	Interstate 15
ICES	Intermodal Corridors of Economic Significance
ISA	Initial Site Assessment
JPA	Joint Powers Association
Km	Kilometer(s)
KP	Kilometer post
LOS	Level of Service
M	Meter(s)
MB	Moveable Barrier
MCAS	Marine Corps Air Station
MEP	Maximum Extent Practicable
Mi	Mile(s)
MIS	Major Investment Study
ML	Managed Lanes
MMRR	Mitigation Monitoring Reporting Record
MSCP	Multiple Species Conservation Program
MTDB	Metropolitan Transit Development Board
N/B	Northbound
NAC	Noise Abatement Criteria

NCP	National Oil and hazardous Substance Pollution Contingency Plan
NCTD	North County Transit District
NEPA	National Environmental Policy Act
Nox	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NRDC	Natural Resources Defense Council
OC	Overcrossing
PCC	Portland Cement Concrete
PM	Post meridian (after noon)
ROG	Reactive organic gases
RSTP	Regional Surface Transportation System
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
S/B	Southbound
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SHOPP	State Highway Operation and Protection Program
SIP	State Implementation Plan
SOV	Single Occupancy Vehicle
SR-163	State Route 163
SR-56	State Route 56
SR-78	State Route 78
SRA	Sub Regional Area
SWMP	Storm Water Management Plan
SWPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TEA-21	Transportation Efficiency Act, Section 21
TENS	Technical Noise Supplement Guidelines
TIP	Transportation Improvement Program
TMP	Transportation Management Plan
TMT	Traffic management Team
UC	Undercrossing
USACOE	United State Army Corp of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USMC	United States Marine Corps
VA	Value Analysis

Summary

The California Department of Transportation (the Department) and the Federal Highway Administration (FHWA) propose to improve freeway capacity and promote use of transit and carpools on Interstate 15 (I-15), in the cities of San Diego and Escondido, in San Diego County, California. The work would be located from 2.4 kilometers (1.5 miles) south of State Route 163 (SR-163) in San Diego to 0.5 kilometer (0.3 mile) north of State Route 78 (SR-78) in Escondido, a distance of 34.0 kilometers (21.1 miles).

Reliance on the I-15 corridor for fulfilling the daily transportation needs of both local and regional users is greater within the project corridor than on any other portion of the I-15 freeway in San Diego County. The resolve of agencies, communities, legislators, and business leaders is to work cooperatively to help expedite improvements to the I-15 freeway.

Purpose and Need

The proposed project is needed to expand and manage I-15 to better handle the current and future traffic needs between San Diego and Escondido, in San Diego County. The purpose of this project is consistent with the 2020 Regional Transportation Plan (RTP). The purpose of the project project is to reduce commute travel time as compared to existing travel time, accommodate a High-Speed Bus Rapid Transit System, Implement principles of "smart growth" land use strategy by providing transportation options, and support the goals of the District's high occupancy vehicle (HOV) plan and the RTP.

Proposed Alternatives

Constructing the Managed Lanes Project is the only build alternative proposed, however, final selection of this alternative would not be made until after the full evaluation of environmental impacts, and full consideration of public hearing comments. The final selection would be published in the Negative Declaration/Finding of No Significant Impact.

The Managed Lanes Project proposes outside widening of the existing freeway lanes on one or both sides to accommodate four “managed lanes” within the median. The lanes are considered managed since they allow the flexibility to alter lane configurations through the use of a moveable barrier, thus improving freeway capacity for HOV and transit users in the peak direction.

The managed lanes would be available to HOV, buses, and single occupancy vehicles (SOV).See Figure S-1 for a typical cross section of the proposed facility. The proposed project will be partially funded through the use of FHWA Congestion Management Air Quality (CMAQ) funds which are set aside for HOV and Bus projects. SOV traffic would be permitted on the managed lanes as a part of the Value Pricing program.

Some new right-of-way would be required for temporary construction easements, grading and drainage easements, retaining wall footing easements, and soil-nail and tieback easements. There would be no displacement of homes or businesses. Minor impacts would result from the use of several of these parcels. Mitigation for these impacts are included in the mitigation as described in the following summary section: Environmental impacts and measures to Minimize Harm.

On the four proposed managed lanes, traffic would flow in both directions. A moveable barrier system is proposed within the managed lanes so the four lanes can be oriented in three different configurations. The possible configurations are:

- One lane northbound and three lanes southbound.
- Two lanes northbound and two lanes southbound.
- Three lanes northbound and one lane southbound.

To accommodate the new lanes, many existing overcrossing structures in the I-15 corridor would require replacement.

The managed lanes would be separated from the general use freeway lanes by a concrete barrier with intermediate access areas available. This would increase driver comfort and would allow for a protected location for the many required hardware features. These features could safely be mounted on the concrete barrier.

Fixed concrete barriers would separate the managed lanes from the main lanes with access openings at three to five kilometer (two to three mile) intervals. In addition, to accommodate HOV and bus transit centers (proposed by others) located throughout the corridor, direct access ramps would connect from local streets directly into the managed lanes. Direct access ramps are proposed in the communities of Sabre Springs, and Rancho Bernardo. In addition, direct access ramps are proposed in the City of Escondido near North County Fair, and at Hale Avenue (see figures 2-12, 2-17, 2-22, and 2-27 for locations of the direct access ramps).

In addition to the Managed Lanes Project, the no build alternative is also being considered. The no build alternative assumes that no part of the proposed action would be constructed. Even though the Managed Lanes would not be built with this alternative, other operational improvements such as pavement rehabilitation, ramp meters, and changeable message signs would be made within the corridor under separate future project approvals.

Environmental Impacts and Measures to Minimize Harm

With the Managed Lanes Project, there would be minimal to no impact on land use, social and economic conditions, relocation and property acquisition, air quality, historic and archaeological preservation, joint development, wildlife, floodplains, water quality, and hazardous waste.

With the Managed Lane Project, the following environmental issues would be raised:

Pedestrian and Bike Facilities

At Lake Hodges, both temporary and permanent construction impacts would occur. Replacement of the bridge may result in temporary trail closures to allow equipment movement across the trail and during bridge demolition and reconstruction. A five day closure of this trail would be required during construction. Detours would be required during construction on the bike path located on the east side of I-15 between Erma Road and Scripps Ranch Boulevard. This bike path will remain open during construction. On SR-56 near the I-15 interchange, the existing bike path will be temporarily closed during construction, however bikes will be permitted to share the traffic lanes. At the Escondido Flood Control Channel Undercrossing, the bike and pedestrian path will be maintained during construction.

Sensitive Noise Receptors

Noise modeling showed that 204 of 384 modeled noise-sensitive receivers would approach or exceed the Noise Abatement Criteria as defined in the Caltrans Noise Protocol. Of these sites, eight locations are considered severely impacted and at several receptors abatement is not reasonable. Within the corridor six noise barriers are considered reasonable and feasible to construct.

Waters and Wetlands

Both permanent and temporary impacts would occur to wetlands and waters of the U.S. at the five jurisdictional locations in the I-15 corridor. The proposed project would result in approximately 0.16 hectare (1.04 acre) of permanent impacts to wetlands and 0.60 hectare (1.48 acres) of permanent impacts to USACOE jurisdictional wetlands, 0.54 hectare (1.3 acre) of permanent impacts to DFG jurisdictional wetlands, and 0.42 hectare (1.04 acres) of permanent impacts to waters of the United States. A total of 0.64 hectare (1.6 acres) of temporary impacts to USACOE jurisdictional wetlands, 2.1 hectares (5.1 acres) of temporary impacts to DFG jurisdictional areas, and 1.97 hectares (4.9 acres) of temporary impacts to waters of the United States. Since no individual permanent wetland impact exceed the threshold for an individual permit under Section 404 of the Clean Water Act, Nationwide Permits will be obtained for the proposed work.

Growth

The project is only one part of necessary infrastructure required to efficiently support planned and approved growth. The Managed Lanes Project is not expected to induce unplanned growth, as all areas within the corridor have adopted local plans.

Threatened and Endangered Species

A total of 17.48 hectares (43.2 acres) of coastal sage scrub (CSS) habitat and 15 territories (11 pair, 4 single) of coastal California gnatcatchers would be impacted. This would be a direct loss of habitat likely used by gnatcatchers for breeding, foraging, and shelter.

Visual

With the proposed project, the suburban and semi-rural character of the I-15 corridor would become noticeably more urban. Generally, this change would affect freeway users more than it would those who view the freeway from adjacent communities. Views from the freeway would be diminished in quality by the increase in size and scale of the freeway. In addition, views to the freeway would also be adversely affected at right-of-way edges and community entrances. Overall changes in character are considered low to moderately-high.

Construction Impacts

Noise produced by construction equipment on the proposed project would occur with varying intensities and duration during eight basic phases of construction. These construction phases would occur over an estimated 13 year period.

Because of the different phases of construction, no single location would experience a long-term period of construction noise.

During construction, it is proposed to keep the same number of freeway lanes open during heavy demand times. This would be accomplished through the use of temporary concrete barriers and reduced shoulder and/or lane widths. Traffic would be shifted towards the median so outside widening could be completed. Once the outside widening is completed, traffic would be shifted to the outside so construction within the median construction could occur.

Freeway lanes would be subject to closure during off peak times. Complete freeway closures would generally weekdays between 11:00 PM and 5:00 AM and weekends between 3:00 AM and 10:00 AM. Freeway detours would be required for nighttime bridge work and where ramps and bridges are closed.

With the No-Build Alternative, there would be no impacts to sensitive resources. However, runoff from the Lake Hodges Bridge would remain untreated and existing noise impacts to residents would be unabated.

Table S1: Summary of Impacts From Alternatives

Potential Impact		Managed Lanes Alternative with proposed measures to minimize harm	No Action Alternative
Land use	**Consistency with general plans**	Minor inconsistencies with city and community plans for sound wall and retaining wall heights	No Impact.
Pedestrian and bicycle facilities		Temporary closures of Lake Hodges bike trail will be required. Temporary detour of Mira Mesa bike path.	No impacts
Air quality		Air quality impacts of Carbon Monoxide remain below State and Federal air quality standards	Air quality impacts of Carbon Monoxide remain below State and Federal air quality standards.
Noise		Existing noise levels range from 49 to 82 dBA. After project levels range from 53 to 83 dBA. Approximately 4 homes with doubling of noise (10+ dBA). Temporary construction noise impacts will occur.	Many areas exceed the NAC due to existing conditions.
Water quality		Minimal impacts. Runoff from Lake Hodges bridge will be treated.	No change from existing.
Wetlands and waters of the U.S.		Totals for five drainages are: 0.16 hectare (0.4 acre) of permanent impacts to USACOE jurisdictional wetlands, 0.54 hectare (1.3 acre) of permanent impacts to DFG jurisdictional wetlands, and 0.42 hectare (1.04 acres) of permanent impacts to waters of the United States. A total of 0.64 hectare (1.6 acres) of temporary impacts to USACOE jurisdictional wetlands, 2.1 hectares (5.1 acres) of temporary impacts to DFG jurisdictional areas, and 1.97 hectares (4.9 acres) of temporary impacts to waters of the United States .	No impacts.
Wildlife		Temporary impacts to wildlife corridors during construction.	No impacts.
Threatened or endangered species		11 pair, 4 single coastal California gnatcatchers would be impacted.	No impacts.
Cultural resources		No impacts.	No impacts.
Hazardous waste sites		No hazardous waste sites found.	No impacts.
Visual		Changes in character due to introduction of walls and direct access ramps are low to moderately high.	No impacts.
Construction Impacts		Temporary construction impacts would occur to noise, traffic, and air quality.	Minor temporary construction impacts would occur to noise, traffic, and air quality due to planned operational projects.
Cumulative impacts		The proposed project would not substantially add to cumulative impacts as all impacts are mitigated.	The proposed project would not substantially add to cumulative impacts.
Growth inducement		Planned growth accommodated.	Planned growth not supported.

Mitigation for impacts can be found in Chapter 3 and in Appendix F: Mitigation Monitoring Reporting Record

Permits and Approvals

The following permits and approvals are required.

Table S2: Required Approvals

Agency	Approval Required
United States Fish and Wildlife Service	Consultation pursuant to Section 7 of the Endangered Species Act (completed)
United States Army Corp of Engineers	Nationwide Permit per Section 404 of the Clean Water Act
Regional Water Quality Control Board	Statewide NPDES permit per Section 402 of the Clean Water Act
Regional Water Quality Control Board	Water Quality Certification per Section 401 of the Clean Water Act
California Department of Fish and Game	1601 Streambed Alteration Agreement per Section 1601 of the California Fish and Game Code
City of San Diego	Freeway Agreement for DAR
City of Escondido	Freeway Agreement for DAR

Chapter 1 Purpose and Need

1.1 Introduction

The California Department of Transportation (the Department), the Metropolitan Transit Development Board (MTDB), and the San Diego Association of Governments (SANDAG) have worked together on various solutions needed to address existing and anticipated congestion issues on Interstate 15 (I-15). The proposed project is located 2.4 kilometers (1.5 miles) south of State Route 163 (SR-163) to 0.5 kilometer (0.31 mile) north of State Route 78 (SR-78), a distance 34.0 kilometers (21.1 miles). The project location and vicinity map, Figure 1-1, shows the limits of the proposed project.

The resolve of agencies, communities, legislators, and business leaders is to work cooperatively to help expedite improvements to the I-15 freeway.

The Managed Lanes Project proposes outside widening of the existing freeway lanes on one or both sides to accommodate four "managed lanes" within the median. . The lanes are considered managed since they allow the flexibility to alter lane configurations through the use of a moveable barrier, thus improving freeway capacity for HOV and transit users in the peak direction. These managed lanes would be available to HOV, buses, and single occupancy vehicles (SOV).

The proposed project is needed to expand I-15 to better handle the current and future traffic needs between San Diego and Escondido, in San Diego County.

Within this portion of I-15, motorists are subjected to lengthy freeway queues which on average add from 30 to 45 minutes to their daily roundtrip commute. The delay is in part due to the lack of existing parallel routes to the I-15 freeway. Interstate 5 (I-5) which parallels I-15 to the west is not a feasible alternate route to I-15 due to its distance from I-15. The distance between I-5 and I-15 as it extends to the north and ranges from 0 kilometers (0miles) south of Interstate 8 to 45 kilometers (28 miles) at the Orange/San Diego County line. The average distance between these freeways within the project corridor is 16 kilometers (10 miles)

The *I-15 Managed Lanes Project* is included in SANDAG's financially constrained 2020 Regional Transportation Plan, pages A-7,A-8, A-9, A-11, A76, A77, A82, A84, A85 and A86.

The project is in SANDAG's 2020 Regional Transportation Plan (RTP) (page 70, 75-78, 82,113,A-7 through A-9, A-11, A-12) which was fully-funded and found to be conforming by FHWA and FTA on April 13, 2000. This project is also included in the SANDAG Mobility 2030 RTP in appendix A on pages 175, 179, 180, 184, 185, 187, 192, 193, and 196. SANDAG is expected to adopt the plan on March 28, 2003. The proposed project is also included in SANDAG's adopted financially constrained 2002 Regional Transportation Improvement Program, pages *5, 14, 24, 27, 28, 113, 114, and 124*.

The I-15 Managed Lanes Project does not interfere with the timely implementation of Transportation Control Measures (TCMs) of the State Implementation Plan (SIP).

The purpose of the project is consistent with the goals and policies set forth in the 2020 RTP. The purpose of the proposed project is to:

- Reduce travel time.
- Provide enhanced transit in the corridor by accommodating a High-Speed Bus Rapid Transit System. This allows people living or working in and adjacent to the corridor an additional travel choice, which is one of SANDAG's smart growth principles. Smart growth is defined by SANDAG as, "…a compact, efficient, and environmentally sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities." One smart growth principle inludes, "designing transit systems to serve the highest residential and employment densities and to connect key activity centers…"
- Assist in Meeting the goals and commitments of the Department's System Management Plan and SANDAG's 2020 RTP.

1.2 Historical Background

I-15 was added to the State highway system in 1931 as State Route 395. It was added to the California Freeway and Expressway System in 1959 and the name was changed to Interstate 15. The portion extending from Interstate 8 to the Riverside County line was added to the interstate system in 1969.

The Lake Hodges Bridge was originally constructed as a four lane structure in 1969. The structure was widened to eight lanes in 1981. In 1985, improvements were completed at Via Rancho Parkway to manage traffic generated by construction at North County Fair shopping center.

In 1995, a detailed corridor study began to look at transit, freeway, and regional arterial improvements that might be required in the I-15 corridor. In 1998, the recommendation from this study included freeway improvements to I-15 and a High-Speed Bus Rapid Transit System, in the mid-term. Rail transit would be considered a long term solution. The study did not recommend any new corridors for transit or highways (arterials). Therefore, this project proposes to widen and modify the existing freeway and would be located primarily within the existing freeway right of way. The proposed project avoids many of the environmental impacts associated with new alignments. If the proposed project does not go forward, the pressure to construct a new freeway on a new alignment would likely increase as the traffic demand grows.

In February 1998, an I-15 Transportation Forum was held, sponsored by Jan Goldsmith, State Assembly. After this meeting, many community groups took action to endorse the Managed Lane Project.

In 1998, SANDAG received FHWA approval as well as federal funds to develop and implement a value pricing demonstration project on the existing I-15 HOV reversible lanes. The Department worked in cooperation with SANDAG and the Federal Highways Administration (FHWA) on this program. The program sells extra capacity to single occupancy vehicles (SOV) in order to maintain a level of service (LOS) of D or better on the reversible lanes. Currently, 20 to 25 percent of the traffic on the reversible lanes are SOVs.

In 2001 the governor signed State Assembly Bill 313 that changed the Value Pricing Program from a demonstration program to a permanent program. This bill also removed the sunset provision for the program. FHWA has approved value pricing for the I-15 corridor, however specifics to the criteria are still being developed.

1.3 Existing Facility

Interstate 15 extends from Interstate 5 in southern San Diego County to the Canadian Border.

Within the study area, I-15 is an eight to ten-lane freeway with auxiliary/added lanes at various locations. The main lanes are 3.6 meters (12 feet) wide and composed of Portland Cement Concrete (PCC) pavement. The shoulders are a minimum of 3.0 meters (10 feet) and composed of an Asphalt Concrete (AC) structural section.

The median varies but can be described in three segments (each approximately 11 kilometers [7 miles]). 1) From SR-163 to SR-56, the median includes the existing Reversible High Occupancy Vehicle (HOV) lane facility. This facility is comprised of two 3.6 meter PCC lanes used by vehicles and a 3.0 meter AC shoulder on each side. A concrete barrier separates the main lane inside shoulder from the Reversible HOV lane shoulder on each side. The minimum median width is about 21.3 meters. 2) From SR-56 to Duenda Road Overcrossing, the median is mostly unpaved. The northbound and southbound roadways often have independent profiles therby creating a median slope. The minimum median with is 21.3 meters (70 feet). 3) From Duenda Road Overcrossing to SR-78, the median width is about 14 meters (46 feet). Oleanders are planted in the median north of Del Lago Boulevard.

The barrier separated Reversible High Occupancy Vehicle (HOV) lane facility was constructed in the median of the freeway between SR-163 and SR-56 and was first opened for the afternoon commute northbound (NB) on the afternoon of October 20, 1988. These Reversible Lanes now carry about 16,000 ADT. The approximate hours of operation for these express lanes are 5:45 a.m. to 11:00 a.m. in the southbound direction and 12:00 p.m. to 7:00 p.m. in the northbound direction.

Ramp meters have been installed on all on-ramps in the study area, with the exception of the NB on ramp from Miramar Way.

1.4 Traffic Data

All traffic data used for the analysis of the project were based on the SANDAG 2020 and 2030 Traffic Forecasting Model. Demand for this vital north/south transportation corridor would grow as the economy expands and as the population increases. From 1999 to 2020, the region's population is projected to increase by 33 percent, growing by almost one million people. Over the same period, employment is projected to increase by 50 percent. Travel is expected to grow at a higher rate than either population or employment over this period.

The recent population increase and projected population increase and the resultant demand for additional housing, employment, and public facilities, has and would continue to put a tremendous burden on the existing transportation system. Over the last decade, average daily traffic (ADT) on the existing facility has increased an average of 58 percent from 185,000 to 292,000 in 1999. Year 2020 (No Build) traffic projections show 380,000 ADT, an increase of approximately 30 percent over 1999 traffic volumes due to planned future development. Currently there is a split with congestion only occurring in the peak direction. By 2020 traffic without the project would increase to the point that there is heavy congestion in both the peak and reverse peak directions.

A 2030 Regional Transportation Forecast model is being developed by SANDAG, however approval of this model is still pending. In an effort to satisfy the 20 year traffic horizon requirements, we have used the 2020 forecast model and 2030 traffic projections to extrapolate a 2025 traffic estimate. The 2025 traffic estimates show that from Mira Mesa Boulevard to SR-56 there would be 367,067 ADT which represents a 3.7 percent increase from the 2020 forecast model. From SR-56 to Lake Hodges the ADT would be 325,119, representing an 8.0 percent change from 2020 values. From Lake Hodges to SR-78 there would be a 9.0 percent increase with an ADT of 328,154. Although the 2025 projections and 2030 Regional Transportation Forecast model show higher volumes, the Department would not alter the scope of the proposed project because the Managed Lanes would still result in a travel time of less than the existing 51 minutes since they are separated from the main lanes. For this reason, the traffic analysis for the proposed project utilizes the existing 2020 Regional Transportation Forecast model. This model is still the approved traffic forecast for the region. Moreover, FHWA does not require that HOV/transit lane projects have a design year 20 years or more past opening day, unlike mainline capacity-increasing projects.

For the traffic study, the Caltrans Traffic Forecasting branch refined the forecast model in order to develop an operational simulation using the FRESYS program. This operational simulation program was used to predict future conditions that were used in the traffic analysis for this project. Figures 1-2 through 1-4 show existing traffic, 2020 year no build traffic, and the 2020 traffic with the proposed project. The Managed Lane project in year 2020, shows congestion on the main lanes, however the four Managed Lanes would be managed to provide a LOS between A and D, thus moving a high percent of the person-trips in the corridor at free-flow conditions.

Figure 1-5: 2020 Forecast (Smart Growth) PM Peak managed Lanes Alternative, shows where peak congestion would occur.

The traffic volumes that could be accomodated by the Managed Lanes project have been compared to the No Build. The Managed Lanes project projections assume that the BRTS would be implemented. A BRTS network is premised on having high-speed service; the analysis showed that free-flow transit travel speeds would not be attainable with the No-Build alternative due to projected travel demand that would have the main lanes and HOV lanes with congested conditions. For the No-Build alternative, the concept of Bus Rapid Transit would not be attainable.

For the No Build alternative, instead of the BRTS network a TSM bus network was modeled ncluding the 5 transit stations, as defined in Chapter 4, and reflects the congested traffic conditions transit would be traveling in. It represented an upgrade over existing services, mainly frequency enhancements to existing routes. The results of the modeling concluded that the TSM bus network would result in approximately 1,000 persons moved, during the PM peak hour, northbound at Via Rancho Parkway. This is in comparison to 2,400 persons moved during the PM peak hour, northbound at Via Rancho Parkway with the Managed Lanes Project.

The contrast can be seen in Figures 1-2A through 1-4B by noting how the No Build northbound traffic at Carroll Canyon would be 164,000 vehicles per day (156,000 main lanes, 8,000 HOV) with almost 16,000 trips in the PM peak hour (13,000 main lanes, 2600 HOV lanes). This would all occur on the six main lanes and two existing HOV lanes. The Managed Lanes Project would serve 183,000 northbound trips per day (146,000 main lanes, 37,000 managed lanes) with almost 13,000 trips during the PM peak hour on the main lanes and 4,000 trips on the managed lanes. The project serves approximately 27,000 more trips per day (183,000 minus 156,000).

In the PM peak hour the northbound main lanes would carry approximately 13,000 vehicles for both alterantives; however, the No Build traffic would be travelling at approximately 16-24 kilometer per hour (10-15 miles per hour) while the managed lanes traffic would experience free flow speeds. For the PM peak hour in the northbound direction, the managed lanes are serving 1,400 more vehicles (4,000 minus 2,600) and over 3,000 additional people-trips.

The existing Level of Service (LOS) during commute hours ranges from D to F on the main lanes. The total travel time through the corridor is 51 minutes. In the year 2020, the no-build alternative would result in a travel times of minutes for the same trip on the main lanes. In comparison, with the proposed project, the same trip in 2020 would be 41 minutes on the main lanes. This results in a 47 minute travel time savings compared to the nobuild alternative, and represents a 10 minute time savings from todays travel times. With the Managed Lane Alternative, the LOS on the main lanes would range between C and F, while the LOS on the Managed Lanes would range between A and D.

The total ADT and peak hour volumes increase with the Managed Lanes project compared to the No Build traffic. Traffic which was originally constrained by lane capacity would begin utilizing the freeway.

The project is effective in moving people because in addition to constructing the highway project it would accomodate a transit project (MTDB's BRTS as described in Chapter 4: Cummulative Impacts). It also allows for management of the traffic so that 50% of the people trips in the corridor can be made at high speeds during peak periods by year 2020. For example, the 2020 estimated people trips southbound during the AM peak hour on the Managed Lanes at Lake Hodges is as follows:

2020 SB Traffic in AM Peak @ Lake Hodges Bridge:

40 buses times 50 riders each	=	2,000 people trips on Managed Lanes
3350 carpools times 2.5 occupants/veh	=	8,375 " " " "
1000 solo drivers (on Managed Lanes)	=	1,000 " " " "
Total people trips on Managed Lanes	=	11,375 " " " "

For comparison, the total 2020 SB Traffic estimated people trips during the AM peak hour on the general use lanes at Lake Hodges are:

10,800 vehicles times 1.05 occupants/vehicle = 11,340.

A directional split is the difference in traffic demand between the two directions of a freeway. A 60/40 split means that of the total demand for that facility during the peak period, 60 percent of the demand is in the peak direction and 40 percent is traveling in the reverse peak direction. A 50/50 split means that there is no peak direction, but that demand is the same in both directions.

Traffic demand should be viewed over the entire peak period and not just the peak hour. If the entire volume over the peak period is added, the directional split demand is 55 percent to 60 percent in the peak direction (southbound in the morning, northbound in the evening) and only 40 percent to 45 percent in the reverse peak.

Another way to look at the directional split demand is by peak period HOV volumes assigned by the Regional Transportation Model. The 2020 directional split in peak hour HOV volumes is forecasted to be 70 percent in the peak direction and 30 percent in the reverse peak.

A model was run to compare the 2020 forecast with a 2020 forecast assuming that smart growth strategies are being used.The results show that a 10% overall increase for the I-15 traffic volumes, however the directional split remains strong at 55-60% in the peak direction.

With no continuous arterial routes parallel to I-15, even a minor incident that results in closure of the freeway lane(s) is a major impact to commuters and to businesses. Between the period of January 1, 1998 and December 31, 2000, there were 2,000 accidents reported on the main lanes and an additional 314 accidents on the on ramps and off ramps. Interstate 5 is parallel, but is very distant and is also congested during peak traffic hours. The lack of alternative routes is a concern that has been frequently expressed by a wide range of users and stakeholders.

Chapter 2 Alternatives

2.1 Alternative Development Process

In November 1998, the Metropolitan Transit Development Board (MTDB) issued a Major Investment Study (MIS) for the north Interstate 15 (I-15) corridor. This study was a joint effort by the San Diego Association of Governments (SANDAG), the North County Transit District (NCTD), the California Department of Transportation (The Department) and MTDB to identify, develop, and analyze alternatives that would address congestion problems. The public and community groups also participated. The MIS recommended HOV/Managed Lanes in the median of I-15 with a High Speed Bus Rapid Transit System (BRTS).

A value analysis study (VA) was conducted in June 1999 for the I-15 Corridor Managed Lane Project. The purpose of the VA was analyze potential alternatives that would address the serious congestion problems occurring in the I-15 corridor and to obtain consensus with stakeholders on a desired lane configuration. As a result of the meeting, 15 alternatives and design suggestions were presented as possible improvement plans for the corridor.

Through the MIS and VA process, alternatives were created that would help to reduce congestion within the corridor. These alternatives were discussed and subsequently eliminated or marked for further consideration in the Project Study Report (PSR) dated September 1998 and in the Project Report (PR) dated October 2001, based on their ability to meet the purpose and need for the project. A discussion of these alternatives can be found in Sections 2.2 and 2.3.

2.2 Alternatives Selected for Detailed Study

The Managed Lanes Alternative is the only build alternative. However, final selection of this alternative would not be made until after the full evaluation of environmental impacts and full consideration of public hearing comments. The final selection would be included in the Final Negative Declaration/Finding of No Significant Impact.

The Managed Lanes Alternative would meet the project objectives and the purpose and need as described in Section 1.1. It would meet the Department's commitments to provide opportunities for other modes of travel and to manage future congestion.

In addition to the Managed Lanes Alternative, the No Build and the Transportation System Management (TSM) Alternatives were analyzed. All traffic data used for the Alternative analysis is based on the SANDAG 2020 and 2030 Traffic Forecasting Model.Following is a discussion of these three alternatives that are still under consideration.

2.2.1 Managed Lanes Alternative

This alternative proposes to construct four Managed Lanes (ML) in the freeway median of I-15 from 2.4 kilometer (1.5 mile) south of SR-163 in the City of San Diego to 0.5 kilometers (0.3 miles) north of SR-78 in the City of Escondido. This is a total project length of 34.0 kilometers (21.1 miles).

Physical Features

Major project features are shown on Figures 2-1 through 2-28. These figures have an aerial photo background to allow easy orientation to the adjacent environment. Existing freeway lanes appear as white. The managed lane widening can be seen by noting the total widths of red (main lanes), yellow (shoulders), blue (managed lanes), and dark green (ramps). Grading limits of new slopes appear as small red dots. Following is a description of these physical features.

Widening/Right of Way

Through the project development process it was determined that in order to expedite the proposed project, to stay within the budget, and to minimize environmental impacts, the project would be constructed primarily within State right-of-way. This would avoid the potential for property acquisitions, relocations, and business disruptions throughout the corrridor. The proposed project requires outside widening of the existing freeway lanes on at least one side and sometimes both sides at various locations. A small amount of new right-of-way would be required for temporary construction easements, grading and drainage easements, retaining wall footing, and soil-nail and tieback (wall supports) easements. The proposed project extends outside of State right-of-way at a few locations, but no homes or businesses would be displaced. Table 2-1: Required Easements, shows the locations where easements would be required.

Table 2-1: Required Easments

Parcel #	Location	Temporary/ Permanent	Reason Required
32209	Bernardo Center Dr	Permanent	slope easement
32368	N. Rancho Bernardo Rd UC	Permanent	soil nail easement
32374-1	West Bernardo Dr	Permanent	berm easement
32374-2	West Bernardo Dr	Temporary	construction easement
32374-3	West Ber Dr/Green Val Crk S	Temporary	construction easement
32375	Lake Hodges	Temporary	construction easement
32224	Via Rancho Pkwy	Permanent	soil nail easement
32605-1	Del Lago/ Kit Carson Pk	Temporary	construction easement
32605-2	Beethoven Dr	Temporary	construction easement

All easement locations were studied as part of the project footprint and are included in the impact and mitigation discussions found in Chapter 3: Affected Environment, Environmental Consequences, and Measures to Minimize Harm.

Auxiliary/Added Lanes

The project also proposes auxiliary and/or added (auxiliary/added) lanes at various areas within the corridor. Auxiliary lanes are lanes that extend from one intersection to the next, while added lanes extend through intersections. These auxiliary /added lanes would be studied and constructed as part of the ML project. The ML project footprint includes all of the auxiliary /added lanes identified, however, funding for the lanes may be identified separately through State Highway Operation and Protection Program (SHOPP), Regional Surface Transportation System (RSTP), Transportation Improvement Program (TIP), or other funding sources. Locations of the auxiliary/added lanes can be seen on Figures 1-4a and 1-4b entitled 3+1 Managed Lanes traffic flow. Each of the lanes listed in this section are included in the 2002 and 2020 RTPs.

Auxiliary/added lanes would be constructed at the following locations:

Northbound

- Added lane from the Miramar Way off ramp to the Miramar Way On Ramp
- Auxiliary lane from Miramar Way on ramp to the Miramar Road/Pomerado Road off ramp
- Added lane from the Carroll Canyon Road off ramp to the Mira Mesa Boulevard loop on ramp
- Auxiliary lane from Mira Mesa Boulevard to Mercy Road/Scripps Poway parkway off ramp
- Auxiliary lane from Scripps Poway Parkway/Mercy Road on ramp to Rancho Penasquitos Boulevard/Poway Road off ramp
- Added lane from Rancho Penasquitos Boulevard/Poway Road off ramp to SR-56 off ramp
- Auxiliary lane from SR-56 on ramp to Carmel Mountain Road off ramp
- Added lane from Carmel Mountain Road off ramp to just north of the Carmel Mountain Road on ramp
- Auxiliary lane from Camino del Norte on ramp to Bernardo Center Drive off ramp
- Added lane from Bernardo Center Drive off ramp to the Bernardo Center Drive on ramp
- Added lane from the Rancho Bernardo Road loop on ramp to Via Rancho Parkway off ramp
- Added lane from Ninth Avenue off ramp to Ninth Avenue on ramp
- Added lane from Ninth Avenue on ramp to Valley Parkway on ramp

Southbound

- Added lane from north of Valley Parkway loop on ramp to Citracado Parkway off ramp
- Added lane from Via Rancho Parkway on ramp to the Duenda Road Overcrossing
- Added lane from Carmel Mountain Road off ramp to Carmel Mountain Road on ramp
- Auxiliary lane from Carmel Mountain Road on ramp to the westbound SR-56 transition
- Auxiliary lane from the SR-56 on ramp to Rancho Penasquitos Boulevard/Poway Road off ramp
- Auxiliary lane from Rancho Penasquitos Boulevard/Poway Road on ramp to Mercy Road/Scripps Poway Parkway off ramp
- Added lane from Mira Mesa Boulevard off ramp to the Mira Mesa Boulevard loop on ramp
- Auxiliary lane from Mira Mesa Boulevard loop on ramp to Mira Mesa Boulevard on ramp
- Auxiliary lane from Mira Mesa Boulevard on ramp to the Carroll Canyon Road off ramp
- Added lane from Carroll Canyon Road off ramp to the Carroll Canyon Road on ramp
- Auxiliary lane from Carroll Canyon Road on ramp to Miramar Road/Pomerado Road off ramp
- Auxiliary lane from Miramar Road/Pomerado Road off ramp to Miramar Road/Pomerado Road loop on ramp
- Auxiliary lane from Miramar Road/Pomerado loop on ramp to Miramar Way off ramp

Cross Section

The cross-section (See Figures 2-29 and 2-30) for the ML would include standard portland cement concrete (PCC) lanes and PCC shoulders for all widening and new construction. Standards for new construction on freeways is 3.6 meters (12 feet) for lanes and 3.0 meters (10 feet) for shoulders. There would be some exceptions to using PCC lanes and shoulders in order to match existing lanes. The ML would be separated from the general use freeway lanes by a type 60 series median concrete barrier. This would aid in the ability to manage the lanes, increase driver comfort by separating the lanes from the main lane traffic, and allow a protected location for the many required hardware features (video cameras, possible future electronic toll readers, changeable message signs, etc.) which would be mounted safely on the concrete barrier. A standard lane width of 4.2 meters (14.0 feet) is used to allow for half of the 0.6 meter (2.0 foot) width of the moveable concrete barrier. This allows for a 3.9 meter (13.0 feet) lane width adjacent to the moveable barrier.

Slopes

The proposed project would require that extensive grading occur in order to accommodate the widening. Major cut or fill slopes can be found in Appendix H. Major cut or fill slopes are defined as slopes that are greater than 4.6 meters (15 feet) in height and 183 meters (600 feet) or greater in length.

Non-Standard Features

There are some locations where non-standard geometric features, such as reduced lane and shoulder widths, would be needed. These features would be used to avoid purchase of right-of-way, to avoid replacing structures or existing main lanes, to avoid major realignments of the freeway, to reduce disruption to surrounding communities, to avoid home or business displacement, to maintain acceptable level of service during construction, and to reduce project cost. A summary of the non-standard features is shown in Appendix C and further discussion occurs in the Nonstandard mandatory and Advisory Design Features Section found in this chapter.

The Advisory Design Exception Fact Sheet for these locations was approved by the Department on June 12, 2002. The Mandatory Design Exception Fact Sheet was approved by Headquarters on June 11, 2002. Additionally, the Fact Sheet and new revised access points were reviewed and considered acceptable by the Federal Highway Administration (FHWA) on October 2, 2002. FHWA concurred with the acceptability of removing Hillery DAR on February 18,2003.

Barriers

A moveable barrier system is proposed so the four lanes can be oriented in three different configurations based on traffic needs. The configurations are:

- One lane northbound and three lanes southbound
- Two lanes northbound and two lanes southbound
- Three lanes northbound and one lane southbound

It is estimated that by the year 2010, a three southbound and one northbound configuration would be required in the morning peak period and a three northbound and one southbound configuration would be needed in the afternoon peak period.

The moveable barrier would be placed from 0.6 kilometer (0.4 mile) south of SR-163 to Citracado Parkway, a distance of 28.1 kilometers (17.5 miles).

From Citracado Parkway to Hale Avenue the four lanes would be permanently oriented as two northbound and two southbound lanes with a fixed concrete barrier in the median and no fixed barrier separating the lanes from the main freeway lanes. From Hale Avenue to SR-78 only one HOV lane in each direction is proposed as the demand drops off at SR-78.

At the southern terminus, in the southbound direction, two lanes in the median would be separated by fixed barrier for a distance of about 340 meters (1115.5 feet). These lanes would then transition to one southbound lane that would be carried an additional 300 meters (984.2 feet). This lane would then merge into the number one southbound main lane with a standard lane drop just south of the southbound exit to SR-52 as demand reduces at SR-52.

Two barrier transfer machines (BTM) are needed for standard operations; however, it is proposed to purchase three BTM machines to allow for long-term maintenance without losing service. At the south end of the project, the BTM would be stored and maintained at the Automated Highway Systems South Control Yard (See figure 2-2).

A new overcrossing structure would be required south of “H” Avenue for the MB machines so they can move from the median of I-15 to the west side of I-15 (See figure 2-2).

The BTM machines would then travel along the southbound I-15 shoulder towards SR-163. There is an existing maintenance dirt road along SR-163 that leads to the South Control Yard. This road would be paved to allow for movement of the BTM machines. At the north end of the project, at Citracado Parkway, the BTM machines would be stored in an uncovered area within the existing median just south of the existing structures (See figure 2-24). This location is out of view of the traveling public and allows the BTM machines to access Citracado Parkway, if needed.

Structures

Many existing overcrossing structures in the I-15 corridor would need to be replaced as the Managed Lane Project has no provision for a structure column in the median. Since many of these structures are at interchanges that have exceeded traffic capacity at the ramp intersections, this project proposes to replace the structure with a wider structure to improve the traffic capacity to meet 2020 demand. Locations of the structures can be seen on Figures 1-4a and 1-4b entitled 3+1 Managed Lanes traffic flow. The following table, Table 2-2: Bridge Summary, lists all existing overcrossing structures within the project limits and summarizes the work that would occur at each structure.

Table 2-2: Bridge Summary

NAME	REPLACE/ REMAIN
H Avenue OC	Remain
SR 163/I-15 separation	Remain
SR 163/I-15 Reversible lanes connectors	Remain
Ammo Road OC	Remain
Miramar Way OC	Remain
Pomerado Rd/ Miramar Rd OC	Replace
Carroll Canyon Road OC	Replace
Rancho Peñasquitos Blvd/ Poway Rd	Replace
SR-56/ I-15 Separation OC	Replace
Carmel Mountain Road OC	Replace
Duenda Road OC	Replace
Southbound I-15 at Bernardo Center Drive	Replace
Pomerado Road/(Highland Valley Rd)	Replace
Lake Hodges Bridge	Replace
Via Rancho Parkway OC	Replace
North County Fair/ (Del Lago Blvd)	Replace

The earlier concept for the overcrossing structures was to modify them rather than replace them. Modifying the structures would have required not only changes to bridge structures themselves, but would have also required the profile of the existing reversible lanes and new managed lanes to be lowered. While modifying the bridge structures would cause less disruption during construction, replacing the structure could ultimately better meet 2020 traffic demand since it would allow construction of wider bridges.

Undercrossing structures would be widened usually on both the inside and outside. The Bernardo Center Drive southbound undercrossing structure is currently experiencing some settlement at the abutments. The ML project would replace the southbound structure with a wider structure to accommodate the larger cross-section. The Department's Engineering Service Center has currently recommended replacing this bridge as widening would not be feasible with the current abutment settlement problems; thus, this structure would be replaced in the future under a separate project even if the No-build Alternative is selected.

Noise Barriers/ Retaining Walls

Noise barriers are proposed for five locations along the corridor as described in Section 3.7. Retaining walls would be utilized in numerous locations throughout the corridor to reduce property acquisition impacts, to stabilize slopes, to minimize biological impacts, and to accommodate engineering structures. Locations of retaining walls and noise barriers can be found on the project features maps, Figures 2-1 through 2-28. .

Ramp Realignments

Ramp realignments would be required at several locations to accommodate additional widening on these ramps and to accommodate widening of the main lanes. Widening would be required at the following ramps:

- Miramar Way southbound on and off ramps
- Miramar Road/Pomerado Road northbound and southbound on and off ramps
- Carroll Canyon Road northbound and southbound on and off ramps
- Mira Mesa Boulevard northbound and southbound on and off ramps
- Scripps Poway Parkway/Mercy Road southbound on and off ramps

- Poway Road northbound and southbound on and off ramps
- 15/56 Express lane transition northbound off ramp and southbound on ramp
- Route 56/Ted Williams Parkway northbound and southbound on and off ramps
- Carmel Mountain Road northbound and southbound on and off ramps
- Camino del Norte northbound and southbound on and off ramps
- Bernardo Center Drive northbound and southbound on and off ramps
- Rancho Bernardo northbound and southbound on and off ramps
- Highland Valley Road northbound and southbound on and off ramps
- Via Rancho Parkway northbound and southbound on and off ramps
- Citracado Parkway northbound and southbound on and off ramps
- Ninth Avenue northbound and southbound on and off ramps
- Valley parkway northbound and southbound on and off ramps
- 15/78 Separation northbound on ramp and southbound on ramp

Utility Relocations

Utility relocations would be required at several locations. The only utility relocations that would extend outside of State right-of-way are located at Green Valley Creek Bridge. The 12 kV power lines that run under Green Valley Bridge would be removed and would be temporarily rerouted under the structure. This relocation would be necessary to protect workers from contacting the lines while widening the bridge. In addition, a 100 millimeter (4 inch) gas line would have to be rerouted under the bridge due to new piers and construction grading. Permanent relocations would be required for the following utilities

- 400 millimeter (16 inch)Gas Line at Camino del Norte Undercrossing
- Telephone and television lines at Bernardo Center Drive

- Gas line at Rancho Bernardo Drive Undercrossing
- 400 millimeter (16 inch) gas line north of Carmel Mountain Road overcrossing

Other minor utility relocations would be necessary within State right-of-way and would not create any additional environmental impacts. These relocations include the temporary relocation of existing underground electric and telephone lines at the Carmel Mountain Road overcrossing. Additional temporary utility relocations would be required at Ninth Avenue undercrossing for existing gas, electric, television, sewer, and water lines.

Drainage Extensions

Due to the extensive outside widening that would occur with the Managed Lanes Project most of the existing drainage culverts would need to be extended, replaced, or lined depending on their condition. The majority of these structures are small culverts ranging from 458 to 915 millimeters (18 to 36 inches) that drain water off of the freeway lanes. Impacts to all major drainages are described in Section 3.9, Wetlands and Waters of the United States.

Signs and Signals

Additional signs and signals would be required to ensure that motorists can easily use the proposed managed lanes. These would include informational signs such as changeable message signs (CMS), signs informing the user of upcoming access points, and ramp meters. In addition new signals would be located at the southbound ramp at Highland Valley, at the Del Lago DAR, and at Hale Avenue DAR/Simpson Way.

Value Pricing Technologies

Additional equipment would be required for the implementation of the Value Pricing Program. The technology to be used is Electronic Toll Collection (ETC) equipment, which would include overhead support structures and antennas to read transponders, variable message signs to display the tolls, loop detectors to measure traffic volume and speed, and closed circuit cameras (CCTV) to view traffic on the facility and to help determine violation rates.

Operational Features

Operational features are those features which assist in the efficient operation of the facility without increasing capacity. Following is a description of these features.

Access

Two types of access into and out of the ML would be incorporated. The first type would be called intermediate access points (IAP). The IAP are access points that are at-grade and adjacent to the freeway main lanes. To exit the ML facility using the IAP, traffic would enter a dedicated weaving lane of 305 to 610 meters (100 to 2000 feet) in length, depending on traffic volumes. Traffic would then weave from this lane into the fast lane on the freeway main lanes (see Figures 2-29 and Figure 2-30). Traffic entering the ML would weave into the weaving lane from the fast lane on the freeway main lane and then weave into the ML. There are seven northbound and six southbound IAPs planned. They would be constructed at the following locations:

- Northbound between Mirmar Way and Miramar Road
- Northbound between Miramar Road and Carroll Canyon
- Northbound near Mira Mesa Boulevard
- Northbound between SR-56 and Carmel Mountain Road
- Northbound at Camino del Norte
- Northbound at Green Valley Creek Bridge
- Northbound between Citracado Parkway and Ninth Avenue
- Southbound between Miramar Road and Carroll Canyon Road
- Southbound between Mira Mesa Boulevard and Scripps Poway Parkway
- Southbound between Scripps Poway Parkway and Poway Road
- Southbound between Carmel Mountain Road and Camino del Norte
- Southbound at Rancho Bernardo Road
- Southbound between Citracado Parkway and Ninth Avenue.

The other type of access is a Direct Access Ramp (DAR) into the ML from a grade separated interchange. Figures 2-32 and 2-33 show an example of what the DAR structures would look like. The DAR shown is the Rancho Bernardo DAR and the Rancho Bernardo Transit Station that is proposed by MTDB. It would be typical of other DARs with the exception that the Hale Ave and Del Lago DARs would be developed from existing city streets. Also, it differs from the Hale Avenue DAR which would be below the freeway grade. The proposed DARs have been located to enhance HOV and bus access. The DARs would encourage carpool usage and would accommodate the Bus Rapid Transit System proposed by MTDB. Busses would be allowed to utilize the managed lanes speeding up commute times while reducing the number of vehicles utilizing the I-15 mixed use lanes. The DAR would also encourage carpooling by offering easy access into the managed lanes as an incentive for carpooling. The four proposed DARs are located at the following locations:

- Sabre Springs DAR (in Sabre Springs) Figure 2-12
- Rancho Bernardo DAR (in Rancho Bernardo) Figure 2-17
- Del Lago DAR (near North County Fair, Escondido) Figure 2-22
- Hale Avenue DAR (near SR-78, Escondido) Figure 2-27

The proposed project would construct direct access ramps to and from the managed lanes to Hale Avenue. Ramps would only be constructed to the south of Hale Avenue (on ramp to southbound managed lanes, and an off ramp from northbound managed lanes) since the managed lanes end just north of this location. This would be the only location where the direct access ramps are below the freeway grade as Hale Avenue crosses under I-15. The existing Escondido Transit Station operated by the NCTD would be served by these ramps.

The proposed DAR ramps are shown in green on the project features maps (see figures 2-7, 2-12, 2-17, 2-22, and 2-27). In addition to work within the existing freeway right-of-way, access roads would include road construction and right-of-way to connect to local streets or to transit stations. These additions are also show in green on the project feature maps and are described below.

- Sabre Springs DAR :
  The connection for this DAR would extend from the existing freeway right-of-way for about a distance of 160 meters (525 feet) to the existing park and ride lot. At this location, a planned transit center is proposed by MTDB and would have separate environmental review.

- Rancho Bernardo DAR:
  Other than the DAR no additional work would occur here. The transit center would be constructed by MTDB with separate environmental review.

- Del Lago DAR:
  This proposed ramp would connect directly to Del Lago Boulevard. No road work is proposed beyond the freeway right-of-way. However, the existing Park-and-Ride lot is proposed for expansion (see Figure 2-22). The expansion of the Park-and-Ride lot is proposed by MTDB and would require separate environmental review.

- Hale Avenue DAR :
  No Managed Lanes construction would extend beyond the freeway right-of-way because the proposed ramps would connect to Hale Avenue. The Escondido Transit Center is an exisiting facility located at the intersection of Valley Parkway and Quince Street which is located slightly off the project features maps (figure 2-27). Local streets may be improved by others at a later time for better access to the center. These improvements would require separate environmental review.

Subsequent to the Draft Circulation the DAR proposed at Hillery Drive has been removed from consideration as part of the I-15 Managed Lanes Project. Public comments stated a strong desire from both the Mira Mesa and Scripps Ranch communities to provide access to the DAR from the east side, as well as the west side. The proposed Hillery Drive DAR could not easily be modified to accommodate this request at the proposed location. Several alternate sites are possible and require extensive studies and community involvement to reach consensus. In addition, community-wide traffic concerns, including increased traffic on residential streets, make this DAR unique. In addition, previously unidentified concerns were raised regarding the potential for additional indirect/proximity biological impacts, as well as noise and visual impact created by connection to Hillery Drive. For these reasons this DAR was removed from the proposed project. Omission of this access would not impair the function of the project.

Ingress and egress to the managed lanes would still be provided via the intermediate access points planned throughout the length of the project corridor.

The DARs would be compatible with transit centers that are proposed at or near these locations. The transit centers are discussed further in the cumulative impacts section of this report (See Chapter 4).

Enforcement / Emergency Vehicles

For the majority of the project length, a continuous 3.0 meter (10 foot) shoulder width would be provided that can be used for enforcement by the California Highway Patrol (CHP).

In addition, at the DAR overcrossings, a two-vehicle CHP enforcement team could be set up, with one officer on the overcrossing and another officer on the ramp ready to pursue violators. Enforcement is proposed to be completed by the California Highway Patrol (CHP) through visual observation. Electronic tools, such as a hand-held Personal Digital Assistant that would recive a signal from the Electronic Toll Collection Device, would be investigated to assist the CHP officers. All proposed DARs include enforcement areas for CHP vehicles. Opportunity for automated enforcement is being studied by SANDAG through the Value Pricing Program and recommendations would be made for appropriate automated enforcement technologies.

CHP officers and emergency vehicles would be able to easily access the ML or the main lanes at the numerous access points. In addition, CHP vehicles would be able to utilize the DARs to quickly change direction of travel.

Nonstandard Mandatory and Advisory Design Features

Design exceptions would be needed in order to avoid rebuilding main freeway lanes, avoid replacing some structures, reduce right-of-way purchase, reduce disruption to the surrounding communities, maintain an acceptable level of service during construction, and reduce project costs. At numerous locations, design exceptions are required due to right-of-way constraints. In order to avoid high costs and extensive timelines associated with property displacement, it was determined that the project would be designed to fit in the existing right-of-way, thus, necessitating the use of design exceptions. All of the nonstandard design exceptions are discussed below and are shown with further details in Appendix C: Summary of Nonstandard Design Features.

Following are the major design exceptions that would be required on the ML Project. Specific details and descriptions for each of the required design exceptions follows this general list.

- Shoulder Width Reductions
- Sight Distance Reductions
- Interchange Spacing
- Horizontal Clearance
- Superelevation Exceptions (Pitch of the road)
- Vertical Clearance Exceptions
- Ramp Departure Angles
- Converging Dimensions for Entrance Ramps
- Vertical Alignment
- Median Width
- Two Lane Exit Ramp Standards (number of lanes required on ramps)
- Temporary Vertical Clearance (Railroad)
- Auxiliary Lanes

Shoulder width reductions would be required from the standard widths, which currently range from 1.2-3.0 meters (4.0-10.0 feet). Shoulder width reductions would be required due to right-of-way constraints. The locations where right-of-way constraints would require nonstandard shoulder widths are:

- Between Sabre Springs DAR and 15/56 Separation on the northbound inside mainline
- Carmel Mountain Road northbound and southbound inside mainline
- Duenda Road overcrossing on the northbound and southbound inside mainline
- West Bernardo Drive overcrossing on the northbound and southbound inside mainline
- Via Rancho Parkway on the northbound and southbound inside mainline and on the southbound managed lanes
- Del Lago overcrossing on the southbound inside mainline and on the northbound and southbound managed lanes
- Citracado Parkway managed lanes

At numerous other locations geometry of the planned improvements would require nonstandard shoulder widths. These locations are:

- Sabre Springs DAR on the northbound inside mainline

- Between Sabre Springs DAR and 15/56 Separation on the southbound inside mainline

At other locations, constraints such as existing bridge columns, would require nonstandard shoulder widths to be used. These locations are:

- Most southern northbound entrance northbound inside mainline
- Route 163/15 connection on the southbound inside mainline
- Between Mira Mesa Boulevard and Poway Road on the northbound inside main lane

At other locations, constraints due to structure cost would require nonstandard shoulder widths to be used. These locations are:

- At the H Avenue overcrossing on the right managed lanes
- Route 163/15 connection on the southbound inside mainline
- Camino del Norte on the northbound managed lanes
- Lake Hodges Bridge on the southbound inside mainline and managed lanes

Reduced shoulder widths would be required on several ramps due to right-of-way constraints. The ramp locations are:

- Miramar Road overcrossing on the southbound loop on ramp
- Sabre Springs DAR and 15/56 separation on the northbound loop on ramp
- Del Lago Boulevard northbound off ramp, northbound off ramp DAR, southbound on ramp, and northbound off ramp
- Ninth Avenue southbound on ramp

Reduced shoulder widths would be required on several ramps due to sign structures and value pricing gantries. The ramp locations are:

- Managed lanes at grade access exit between Mira Mesa Boulevard and Mercy Road on the southbound mainline and managed lanes
- Between Mercy Road and Poway Road on the northbound and southbound mainline and managed lanes
- Managed lanes at grade access exit between Mercy Road and Poway Road on the southbound mainline and managed lanes

- Between Poway Road and 15/56 on the southbound mainline and managed lanes
- Managed lanes at grade access exit at Camino del Norte on the northbound mainline and managed lanes
- Managed lanes at grade access exit at Rancho Bernardo Road on the northbound mainline and managed lanes
- Managed lanes at grade access exit at Green Valley Creek on the northbound mainline and managed lanes

Design exceptions for sight distance, or the continuous length of freeway ahead visible to the driver, would be required in numerous areas due to existing conditions. These locations are:

- Near the 163/15 merge
- North end of the existing reversible lanes
- Duenda Road
- Sabre Springs DAR overcrossing

Interchange spacing design exceptions would be required at numerous areas. Interchange spacing consists of the distance between interchanges where ramp placement and merge areas are located. The majority of these exceptions are required due to already existing conditions. Exceptions to interchange spacing would be required at the following locations:

- Between SR-163/I-15 interchange and Miramar Way
- Miramar Road to Carroll Canyon Road
- Mercy Road to Rancho Penasquito/Poway Road
- Rancho Penasquito/Poway Road to SR-56/I-15
- SR-56/I-15 interchange to Carmel Mountain Road
- Bernardo Center Drive to Rancho Bernardo Road
- Via Rancho Parkway Centre City Parkway
- Ninth Avenue to Valley Parkway
- Valley Parkway to SR-78

Interchange spacing design exceptions would be required at several weave lane locations. The majority of these exceptions are required due to existing conditions.

Exceptions to interchange spacing (weave lanes) would be required at the following locations:

- Southbound Miramar Way on ramp to southbound SR-163/I-15 off ramp
- Northbound Miramar Way on ramp to Northbound Miramar off ramp
- Northbound Miramar Road on ramp to northbound Carroll Canyon Road off ramp
- Southbound Carroll Canyon Road on ramp to southbound Miramar Road off ramp
- Southbound SR-56/I-15 on ramp to southbound Rancho Penasquito/Poway Road off ramp
- Northbound SR-56/I-15 on ramp to northbound Carmel Mountain Road off ramp
- Southbound Carmel Mountain Road on ramp to southbound SR-56/I-15 off ramp
- Northbound Bernardo Center Drive to northbound Rancho Bernardo Road off ramp
- Southbound Centre City Parkway on ramp to southbound Via Rancho Parkway off ramp
- Northbound Ninth Avenue on ramp to northbound Valley Parkway off ramp
- Southbound Valley Parkway on ramp to southbound Ninth Avenue off ramp
- Northbound Valley Parkway on ramp to northbound SR-78 off ramp
- Southbound SR-78 on ramp to southbound Valley Parkway off ramp

Design exceptions for horizontal clearance to fixed objects, or the distance to a fixed object, would be required in numerous areas due to right-of-way constraints, structure costs, or due to existing conditions. These locations are:

- Northbound Entrance south of H Avenue on the northbound mainline
- H Avenue overcrossing right Managed Lanes
- SR-163/I-15 interchange overcrossing southbound mainline and managed lanes
- Sabre Springs DAR and 15/56 Separation on the northbound inside mainline
- Carmel Mountain Road northbound and southbound inside mainline
- Camino del Norte on the northbound managed lanes
- Duenda Road overcrossing on the northbound and southbound inside mainline
- Highland Valley Road/West Bernardo Drive overcrossing on the northbound and southbound inside mainline
- Lake Hodges Bridge on the southbound inside mainline and managed lanes

- Via Rancho Parkway on the northbound and southbound inside mainline and on the southbound managed lanes
- Del Lago overcrossing on the southbound inside mainline and on the northbound and southbound managed lanes
- Del Lago Boulevard DAR northbound and southbound on and off ramps
- Citracado Parkway managed lanes
- Ninth Avenue southbound on ramp

Superelevation exceptions, or exceptions to the pitch of the roadway, would be required due right-of-way constraints. These locations are:

- Miramar Road/Pomerado Road northbound off ramp
- Poway Road northbound off ramp
- Sabre Springs northbound managed lanes off ramp and DAR
- Carmel Mountain Road off ramp
- Rancho Bernardo Road off ramp
- Hale Avenue

Temporary design exceptions for vertical clearance, or the distance from the roadway to overhead structures, would be required in numerous areas to avoid lowering roadways during construction. These locations are:

- Mira Mesa Boulevard
- Felicita Avenue
- Citracado Parkway
- West Washington Avenue OH

Design exceptions for ramp departure angles, or the angle in which the ramp enters or exits the freeway, would be required in numerous areas due to right-of-way or design constraints. These locations are:

- Miramar Way northbound off ramp
- Carroll Canyon Road northbound and southbound off ramps
- Poway Road southbound off ramp
- Sabre Springs DAR northbound off ramp and southbound managed lane DAR
- SR-56/I-15 separation southbound off ramp

- Camino del Norte northbound and southbound off ramps
- Rancho Bernardo northbound and southbound managed lanes DAR
- Rancho Bernardo Road southbound off ramp
- Highland Valley Road/West Bernardo southbound off ramp
- Via Rancho Parkway southbound off ramp
- Citracado Parkway southbound off ramp
- Del Lago northbound and southbound managed lanes DAR

Design exceptions are required for converging dimensions at on ramps at several locations. Converging dimensions refer to standards that are set in the Department's design manual for off-sets, lengths, and angles of an onramp merging into the main lanes. The locations where these exceptions would be required are:

- Near SR-163/I-15 merge at the northbound on ramp extending from 163 to I-15
- Miramar Way northbound on ramps
- Mira Mesa Boulevard northbound loop on ramps
- Sabre Springs Temporary slip ramp
- Rancho Bernardo northbound and southbound DAR
- Ranch Bernardo Road northbound on ramp
- Centre City Parkway southbound on ramp
- Del Lago Boulevard northbound and southbound DAR
- Citracado Parkway southbound on ramp
- Ninth Avenue southbound on ramp

Exceptions for vertical alignment to reduce the minimum length of the vertical curve and to reduce sight distance and the resulting design speed would be required at various locations on both the northbound and southbound main lines. In addition an exception would be required on the Sabre Springs DAR southbound off ramp and slip ramp.

Exceptions to the minimum median width, distance between northbound and southbound lanes, would be required in the northern section due to right-of-way constraints . In addition, an exception would be required for the Sabre Springs DAR southbound off ramp and slip ramp.

Exceptions to the two lane exit ramp standard, or the number of lanes required on each exit ramp, would be required due to right-of-way and design constraints. These locations are:

- Reversible HOV lanes southbound exit to SR-163
- Miramar Way northbound exit
- Mira Mesa Boulevard northbound and southbound off ramps
- Carmel Mountain Road southbound exit

Exceptions to the minimum length required for auxiliary lanes would be required at the auxiliary lane proposed in the northbound direction extending from Miramar Road to Carroll Canyon road due to right-of-way constraints.

Management Strategies for Excess Capacity

The Managed Lanes Project would provide a high quality level of service to HOVs, buses, and managed SOVs through the Value Pricing Program. Value pricing is the ability to manage extra capacity by allowing single occupant vehicles (SOV) to pay to use the lanes when extra capacity exists.

LOS is a traffic measurement that measures the operating conditions that a motorist would experience while traveling on a particular facility in terms of speed, travel time, freedom to maneuver, comfort, and safety. LOS is determined for each facility based on the number of lanes and traffic volume (number of vehicles per hour or day) and other factors. LOS designations range from “A”, the highest quality of service with little or no restrictions on speed or maneuverability to “F”, stop and go conditions with considerable delays. LOS definitions can generally be categorized as shown in Figure 2-31. Current legislation for this project allows for excess capacity to be sold on the HOV lanes as long as a level of service (LOS) D or better is maintained on the Managed Lanes.

With the Value Pricing Program, the managed lanes would be monitored to ensure that none of the three user groups experience less than Level of Service D (Approx. – 1600 - 1800 vehicles per hour/ lane) in year 2020. Currently, the existing reversible lanes are managed with this same criteria and at peak times contain approximately 1000 to 1150 vehicles per hour/ lane. The Managed Lanes will be 'managed' to maximize usage while ensuring a minimum level of service (LOS) D.

For example, though buses and carpools (2+ persons/vehicle) are expected to have free access at all times, there will be excess capacity beyond LOS D--especially during non-peak hours--for many years. This excess capacity may be made available to SOVs via Value Pricing. At such time as the demand of buses + carpools + SOVs exceeds the capacity for LOS D on the Managed Lanes, SOV access will be denied. Beyond that, if the demand of buses + carpools exceeds LOS D capacity, then limiting carpools to 3+ persons/vehicle during that time or other such strategies may be implemented.

The Managed Lanes will maximize person-trips in the corridor by providing for transit and carpools and by maximizing managed lane use by selling excess capacity through the value pricing program. These two strategies are explained below.

Provide for transit and carpools

The Managed Lanes will operate as traditional HOV lanes, or designated freeway lanes to which buses and carpools will have free, preferred access at all times.

Maximize Managed Lane use by selling excess capacity to SOVs (Value Pricing)

Many traditional HOV lanes have been strongly criticized when underused. This criticism is most severe when the general purpose (GP) lanes are 'full' (LOS F) and the HOV lanes are perceived as 'empty' (LOS A or B). Value Pricing addresses this by selling any excess HOV lane capacity to SOVs. (Excess capacity is that unused by HOVs up to LOS D.) SOVs will only be allowed on to the Managed Lanes until LOS D is reached. This provides a secondary benefit to the GP lanes by transferring some of its traffic to the Managed Lanes. Should HOV traffic alone reach LOS D, all SOV traffic will be denied access.

SANDAG has recently secured FHWA funds for a new Value Pricing proposal under Transportation Equity Act for the 21st Century (TEA-21). This program, entitled the San Diego I-15 Value Pricing Program, is currently evaluating the feasibility of a pricing project that would utilize the excess capacity of the I-15 Managed Lane facility. Based upon the success of the current program, SANDAG fully intends to implement and expand the Value Pricing Program upon the opening of each segment of the project.

The San Diego I-15 Value Pricing Program proposal differs from the current I-15 pricing project in San Diego County in that the 32 kilometer (20-mile) managed lane facility will have DARs and intermediate access points that serve both directions during peak and non-peak periods. Because the managed lanes can be accessed from several locations, the program requires consideration of different pricing strategies such as incorporating dynamic pricing with distance traveled. The current pricing project does not include a distance variable in the pricing system.

Another difference between the San Diego I-15 Value Pricing Program and the current I-15 pricing project is that the new program would include pricing traffic in the peak and reverse commute directions, unlike the existing two-lane reversible facility that serves only the peak commute direction. This provides an opportunity to learn about how pricing effects usage of a facility in the reverse commute direction that typically does not have the same level of congestion.

Also, the managed lane facility will be open 24 hours per day. The existing facility is currently closed from 7:00 p.m. to 5:45 a.m. and from 11:00 a.m. to 12 noon.

Finally, the San Diego I-15 Value Pricing Program will study the feasibility of allowing SOVs to use the DAR. Priority will be given to buses and HOVs on the DARs, but if determined feasible, SOVs may have access to the ramps as capacity allows. If SOV traffic is restricted during peak hours, the DAR will be signed for HOV traffic only and enforcement of violations will be by the California Highway Patrol (CHP). SOV traffic volumes will be managed through adjustments in the price to use the facility, including the DARs.

The technology that would be used to collect fees is Electronic Toll Collection (ETC) equipment, which would include overhead gantries and antennas to read transponders, variable message signs to display the tolls, loop or laser detectors to measure traffic volume and speed, and cameras to view traffic on the facility and to help determine violation rates.

If the Value Pricing program is not implemented, non-pricing management strategies would also be investigated as part of the Managed Lane Project. Non-pricing strategies could include allowing other vehicles, such as light service trucks, light delivery trucks, taxis, electric vehicles or other certified high-mileage vehicles to use the managed lanes without a fee.

Either management strategy would require State legislation and FHWA approval to authorize non-HOV type vehicles in the managed lanes. This legislation would describe the specifics and establish a minimum traffic level of service for the managed lanes.

2.2.2 No Build Alternative

The no build alternative assumed that no part of the proposed action would be constructed. Even though the managed lanes would not be built with this alternative, other operational improvements currently proposed would be made within the corridor. These operational improvements and other related projects by themselves would not reduce travel times in the design year of 2020. Improvements include auxiliary/added lanes extending northbound and southbound near Mira Mesa Boulevard, Ted Williams Boulevard, and Citracado Parkway. These additional projects are discussed in more detail in the cumulative impact section located in Chapter 4. With the no build alternative southbound AM peak delays would range from five minutes near Miramar Road to 60 minutes near Lake Hodges Bridge.

In the northbound PM peak delays would range from 56 minutes at Mira Mesa Boulevard to four minutes near the Lake Hodges Bridge. With this alternative there would not be a reduction in commuter travel times given the projected 2020 traffic volumes; thus, the purpose and need would not be met by the no build alternative.

With the current LOS at D (40 mph) or worse during the peak periods travel time, it takes approximately 50-60 minutes to drive the entire 32 kilometer (20 mile) corridor. This duration would increase to well over 80-90 minutes for the 2020 No Build alternative. In addition, as demand on the interstate increases more traffic would be forced to use surrounding arterials or the peak traffic period would expand since the trip times would increase. Figure 2-34:“No Build” Peak Period, shows how the peak period would expand as traffic increases.

With this alternative main freeway lane congestion would continue to worsen, resulting in even more extensive queues. In the southbound direction, I-15 would have a morning queue extending from the Lake Hodges Bridge to beyond SR-78.

Eastbound SR-78 approaching I-15 would also have an extensive queue. In the northbound direction, I-15 would have an afternoon queue extending to SR-94. Northbound SR-163 approaching the I-15 junction would have a queue extending to downtown San Diego.

Queues of this length are difficult to estimate and traffic would seek other alternatives, where possible. However, as discussed in Chapter 1, the only other north-south freeway between downtown San Diego and the northern portion of San Diego County is I-5. Figure 2-31 shows the 1999 and 2020 traffic LOS for the No Build Alternative.

A BRTS network is premised on having high-speed service; the analysis showed that free-flow transit travel speeds would not be attainable with the No-Build alternative due to projected travel demand that would have the main lanes and HOV lanes with congested conditions. For the No-Build alternative, the concept of Bus Rapid Transit would not be attainable.

Instead of the BRTS network, a TSM bus network was modeled ncluding the 5 transit stations, as defined in Chapter 4, and reflects the congested traffic conditions transit would be traveling in. It represented an upgrade over existing services, mainly frequency enhancements to existing routes. The results of the modeling concluded that the TSM bus network would result in approximately 1,000 persons moved, during the PM peak hour, northbound at Via Rancho Parkway. This is in comparison to 2,400 persons moved during the PM peak hour, northbound at Via Rancho Parkway with the Managed Lanes Project.

This alternative does not reduce commute travel time as compared to existing commute travel time and therefore does not meet the purpose and need. With this alternative the current travel time of 51 minutes for the corridor would be increased to 88 minutes in 2020. In addition, this alternative would not address public concern for worsening congestion, lengthening freeway queues, and unacceptable delays. Overall, it would ignore efforts of agencies, local governments, and others working cooperatively to develop a plan to correct growing transportation problems in the corridor. However, the impacts associated with the Managed Lanes Project would not occur under the no build alternative. It would not assist in meeting the goals of the 2020 RTP or the District System Management Plan.

2.2.3 Transportation System Management Alternative

Transportation System Management (TSM) element is an approach to solving transportation problems by improving the efficiency of the existing system. System capacity can be increased by encouraging greater ridesharing, designating HOV lanes, and by adjusting ramp meter timing.

The Department promotes TSM programs; however, many of the improvements that are typically associated with the TSM alternative already exist within the corridor such as ramp metering and the HOV lanes. Any additional improvements would only result in temporary reductions in congestion and would not accommodate additional demand that will exist in 2020.

2.3 Alternatives Considered and Eliminated

Several alternatives were dropped early in the planning process since they did not meet the purpose and need for the project.

For all of the alternatives dropped from consideration, the environmental impacts would have been similar to those presented in Chapter 3 for the proposed project. The differences in impacts would be a minor reduction in impacted coastal sage scrub (CSS), wetlands, trails, and visual impacts based on the number of lanes constructed and the presence or absence of the direct access ramps (DAR).

Direct access ramps are described in Section 2.2.1 under the Operational Features heading. Following is a brief discussion of those alternatives dropped from consideration.

Three Managed Lanes (2+1) Configuration

This alternative proposed three managed lanes in the median. It would have utilized a movable barrier to adjust the lane configurations. Two lanes would be permitted in the peak direction and one lane in the reverse-peak direction. A 3+0 configuration would have been available to handle emergencies or special events. Finally, it would be inadequate, as measured by commute travel time, to handle traffic volumes in the southern section of the proposed project before 2015 and for the middle section of the proposed project by the year 2020.

This alternative does not reduce commute travel time as compared to existing commute travel time and therefore does not meet the purpose and need. With this alternative the current travel time of 51 minutes for the corridor would be increased to 56 minutes in 2020.

1+1 HOV Configuration with Reversible Lanes

This variation proposed to add two lanes, one in each direction between SR-56 and SR-78, and would keep only the existing reversible lanes south of SR-56 in operation. It did not include direct access ramps because one HOV lane in each direction would be expected to be over capacity. Traffic analysis showed that excessive congestion, as measured by commute travel time, would develop in both the northbound and southbound directions during peak commute times. The HOV lanes would become congested by the year 2006 and the buses would not be able to function as a rapid system.

This alternative does not reduce commute travel time as compared to existing commute travel time and therefore does not meet the purpose and need. With this alternative the current travel time of 51 minutes for the corridor would be increased to 75 minutes in 2020.

Extend existing Reversible Lanes

This alternative would have extended the existing two reversible lanes in the median from SR-56 to SR-78. Access to the facility would be restricted to selected interchanges that would have direct access ramps (DAR) in and out of the facility. It would provide some of the same traffic improvements as the 2+2 HOV Alternative (discussed in this Chapter) and the Three Managed Lane 2+1 configuration in the peak direction. However, there would be no improvements in the reverse peak direction.

This alternative does not reduce commute travel time as compared to existing commute travel time and therefore does not meet the purpose and need. With this alternative the current travel time of 51 minutes for the corridor would be increased to 56 minutes in 2020.

Because alternatives to drive alone trips, such as HOV, can not be accommodated, the proposed project objectives and the purpose and need for the project would not be met. In addition, this alternative would have precluded some areas in the corridor from using the facility based on the few selected access interchanges.

2+2 HOV Alternative

This alternative proposed four HOV lanes, two in each direction from SR-163 to SR-78. The HOV lanes would be accessible from the median at locations spaced approximately 3.2 km to 4.8 km (2-3 miles) apart. It proposed to convert the existing reversible express lanes that extend from SR-163 to SR-56 to two HOV lanes.

South of Miramar Road/ Pomerado Road overcrossing the existing median is extra wide. This allows for the use of the existing reversible lanes for the two southbound HOV lanes. The northbound HOV lanes could be placed in the median with less outside widening than the proposed project.

North of Miramar Road/ Pomerado Road Overcrossing the existing reversible lanes would be used as northbound HOV lanes to avoid right-of-way impacts. Because the southbound HOV lanes would then be placed entirely left of the existing reversible lanes, widening on the southbound side is sometimes greater than the Managed Lane Alternative (discussed in Section 2.2.1). However, the amount of northbound widening is reduced substantially.

By the year 2020, during the AM peak traffic period, bottlenecks would occur at Miramar Road, Mira Mesa Boulevard, SR-56, Lake Hodges, and around Via Rancho Parkway. Congestion, as measured by commute travel time, would extend from Miramar Road to Deer Springs Road with speeds in the corridor ranging from 10 to 30 miles per hour. In the PM peak, bottlenecks would occur at Miramar Road, Mira Mesa Road, Rancho Peñasquitos Boulevard, SR-56 and at Lake Hodges. Congestion would extend from University Avenue, near downtown San Diego, to Lake Hodges with average speeds ranging from 11 to 32 miles per hour.

This alternative does not reduce commute travel time as compared to existing commute travel time and therefore does not meet the purpose and need. With this alternative the current travel time of 51 minutes for the corridor would be increased to 56 minutes in 2020.

Therefore, the 2+2 HOV Alternative does not meet the purpose and need for the I-15 corridor and the region.

GENERAL PURPOSE (MIXED FLOW) LANES ALTERNATIVE

This alternative would add one, two or three general purpose (mixed flow) lanes in each direction. One variation in this alternative also converted the existing reversible lanes to general purpose lanes. This alternative would not construct the direct access ramps for use by HOV. Although this alternative (the three-lane variation) would provide some short-term congestion relief, congestion would return before 2015.

This alternative does not reduce commute travel time as compared to existing commute travel time and therefore does not meet the purpose and need.

The alternative does not meet the Purpose and Need for the proposed project in the following ways:

- It does not compliment “smart growth” land use strategies since it does not enhance connections between residential, employment centers, or other places of importance.
- It does not assist in meeting commitments of the District's HOV Plan or 2020 RTP

For the reasons stated above, this alternative was rejected from further consideration.

Chapter 3 Affected Environment, Environmental Consequences, and Measures to Minimize Harm

3.1 Land Use

Land uses throughout the corridor vary greatly due to the length of the project. Following is a discussion of the land uses that occur within the corridor.

3.1.1 Affected Environment

For this section land uses were described for each community located within the corridor. The study area consisted of a total of 108,761 hectares (268,753 acres). The location of each community is shown in Figure 3-1.

City of San Diego

According to the San Diego General Plan, as updated and reprinted in June of 1989. The planning area consists of approximately 1,942 square kilometers (750 square miles), located between the City of Escondido in the north and the Mexican Border in the south, and between the foothills to the east, and the Pacific Ocean to the west.

The land use for the City of San Diego, as defined in the 1989 General Plan shows that 29 percent is vacant, 28 percent of the land is used as public areas, 23 percent is residential, 11 percent is agricultural, 2 percent is semi-public lands, 3 percent is commercial, and 4 percent is industrial. The planned land uses for the city showed that by the year 2000, 43,778 hectares (108,178 acres) of the available 82,409 hectares (203,638 acres) would be developed with residential, 26,890 hectares (66,447 acres) would be nonresidential, 2,812 hectares (6,950 acres) would be designated as freeway, and 38,631 hectares (95,460 acres) would remain vacant. The population estimate for the year 2002 as provided by SANDAG is 1,223,400 people.

The City of San Diego is currently working on updating its general plan. At this time the only portion that has been updated is the Strategic Framework Element. If additional elements are completed prior to the finalization of this document, information will be updated to reflect available data. The complete general plan update is not anticipated for approximately five years.

Scripps Miramar Ranch

Scripps Miramar Ranch is located on the north central part of metropolitan San Diego. The planning area contains approximately 1,766 hectares (4365 acres) of land.

The planned land use for the community includes 192 hectares (475 acres) of very low density residential, 364 hectares (901 acres) of low residential, 40 hectares (99 acres) of low medium residential, 22 hectares (55 acres) of medium residential, and 11 hectares (29 acres) of high medium residential. In addition, there are 20 hectares (51 acres) for commercial facilities, 273 to 289 hectares (675 to 715 acres) for parks, recreation, and open space, 157 hectares (390 acres) for industrial use, 147 hectares (365 acres) for reservoir and adjoining property, 330 to 339 hectares (817 to 840 acres) for schools and other institutional uses, 0.40 hectare (1 acre) for a fire station, and 189 hectares (467 acres) for streets and other public rights-of-way. The population estimate for the year 2000 as provided by SANDAG is 21,610 individuals.

Scripps Miramar Ranch residents presently rely on commercial facilities in Mira Mesa and other communities for many of their shopping needs. However, as the community's population increases with further development, market demand will encourage the development of additional commercial facilities.

Mira Mesa

The Mira Mesa community is approximately 4,249 hectares (10,500 acres) in area. It is located in the north central portion of the City of San Diego, 25.7 kilometers (16 miles) north of downtown San Diego, between the I-805 and I-15 corridors.

In 1993, Mira Mesa was home to approximately 62,500 people residing in 20,400 dwelling units. At this time approximately 60 percent of the community had been built and only 12 percent of the undeveloped property did not have approvals for development. At build-out, which is estimated to occur after the year 2010, Mira Mesa is expected to house 82,600 people in 28,300 dwelling units, an increase of about 32 percent over the 1993 population. The population estimate for the year 2002 as provided by SANDAG is 73,828 people.

Nearly 38 percent of the community is planned for residential development at densities ranging from a maximum of four units per gross acre on Lopez Ridge, which is located above the Los Peñasquitos Canyon preserve, to a maximum of 43 units per acre near Mira Mesa boulevard and I-15.

Most of the areas that remain to be developed with residential uses are constrained by steep slopes; therefore, the physical form of new development and how well it fits in sensitive slope areas will continue to be a key community issue.

Approximately 26 percent of the land area is planned for industrial and commercial office development, with another four percent planned for retail uses. Approximately 18 percent of the community is proposed as open space, primarily in the five major canyons that traverse the community (Los Peñasquitos, Lopez, Carroll, Rattlesnake, and Soledad).

As one of the major employment centers in the San Diego region, Mira Mesa will provide jobs for approximately 61,000 people at build-out. The industrial and commercial land use element of the community plan recommends preserving designated large lots for industrial, employment generating uses, and restricting retail development to existing commercial centers.

Miramar Ranch North

The Miramar Ranch North community is located in the north central part of the San Diego metropolitan area, predominantly within the northeast limits of the City of San Diego. It lies approximately 26 kilometers (16 miles) north of the San Diego central business district and 21 kilometers (13 miles) south of the City of Escondido.

The Miramar Ranch North Planning Area encompasses approximately 742 hectare (1,835 acres), including Cypress Canyon which runs east-west through the property. Approximately 254 hectares (628 acres), or 34.2 percent, of the development acreage is allocated to residential development. The other major land use is industrial/business park, which constitutes about 24 hectares (60 acres), or 3.3 percent of the development acreage. The remaining buildable property is devoted to uses such as commercial, recreation, community institutional facilities, and roadways. In addition, there are 385 hectares (953 acres), or 51.9 percent, for parks, recreational areas, and non-building areas. The population estimate for the year 2002 as provided by SANDAG is 9,587 individuals.

Sabre Springs

Sabre Springs is located in the north inland section of the San Diego metropolitan area, within the northeast limits of the City of San Diego. The community lies on the eastern side of I-15, about 27 kilometers (17 miles) north of the San Diego Central business district and 19 kilometers (12 miles) south of the City of Escondido.

The planning area encompasses approximately 612 hectares (1,514 acres), of which about 47 percent is developable. Poway Road bisects the community into northern and southern areas of about 322 and 290 hectares (796 and 718 acres) respectively.

Approximately 196 hectares (485 acres), or 68 percent, of the developable acreage is allocated to residential development. Industrial park and commercial uses constitute 15 percent of the usable acreage.

The topography operates as both a constraint and asset in planning the community. About 37 percent of the planning area consists of slopes in excess of 25 percent. Most of these areas are difficult to develop and can be preserved as open space, acting as visual and physical buffers to adjacent communities and as preserve areas for biological resources.

A total of 4,108 dwelling units are proposed in the community. Forty-seven percent are in single-family, and 53 percent are multi-family units. This would constitute approximately 4.8 percent of the total 84,582 dwelling units planned to be developed by 2000. The population estimate for the year 2002 as provided by SANDAG is 9,130 people.

Rancho Peñasquitos

The Rancho Peñasquitos community is located in the northeastern portion of the City of San Diego. Rancho Peñasquitos lies 27 kilometers (17 miles) north of downtown San Diego and eight miles south of the City of Escondido.

It encompasses approximately 2,630 hectares (6,500 acres) and had a January 1991 population of 42,500 people residing in 14,242 dwelling units. At full build-out Rancho Peñasquitos is expected to have a population of 46,000 to 50,000 people residing in approximately 15,800 dwellings. Current population estimates for the year 2002 as provided by SANDAG are 48,580 individuals.

The community is topographically diverse and is physically characterized by numerous canyons, hillsides, and ridges. Black Mountain, rising to an elevation over 1500 feet, is located in the northern portion of the community. In contrast, the Los Peñasquitos Canyon preserve, which marks the southern boundary of the community, has an elevation of less than 61 meters (200 feet). As a result of this topographic relief, most of the residential subdivisions have been developed with curvilinear streets and cul-de-sacs. Development has occurred, for the most part, on the ridges with canyons left as open space.

Approximately 51 percent of the land area in Rancho Peñasquitos is recommended for residential use. Of that acreage, 76 percent is single-family and 24 percent is multifamily. Two percent of the land area is designated for commercial uses while parks and designated open space areas comprise 34 percent of the community.

In addition, the community plan designates an undeveloped 4.1 hectares (10.23 acres) parcel for industrial use as a recreational vehicle and mini-storage site.

By 1991, the community was approximately 85 percent built-out and had development approvals for about 90 percent of the land area designated for residential use. Most of the remaining development in Rancho Peñasquitos will be single-family homes and a limited amount of commercial development.

Carmel Mountain Ranch

The community of Carmel Mountain Ranch comprises 602 hectares (1489 acres) located within the City of San Diego. It lies in the north-eastern area of the city and has been known by the name Rancho Carmel as well as Carmel Mountain East.

Of the 602 hectare (1,489 acres) comprising the Carmel Mountain Ranch Community, approximately 8.1 percent is for roads, 12.1 percent industrial, 8.9 percent commercial, 5.6 percent community facilities, 42.0 percent residential, and 23.3 percent parks and recreation.

Residential land use is further divided into 60 percent low-medium density, 26 percent medium density, 12 percent low density, and 2 percent mobile homes. The community plan indicates that the 4,997 residential units are estimated to generate a population of approximately 12,000 persons. The population estimate for the year 2002 as provided by SANDAG is 12,435 people.

A community theme has been developed for Carmel Mountain Ranch to establish a distinctive identity for this new community along the I-15 corridor. The theme incorporates the extensive use of boulders, stone material, topographic relief and landscaping throughout the community to create an attractive image that integrates the existing character of the site with the planned urban development. Additionally, the theme helps provide a sense of community for Carmel Mountain Ranch.

Rancho Bernardo

Rancho Bernardo is the northernmost residential community within the City of San Diego. The community is centered on I-15 just south of Lake Hodges and the San Pasqual Valley and encompasses approximately 2634 hectares (6511 acres).

In 1988, approximately 1,845 hectares(4,560 acres), or 70 percent of the entire plan area, have been developed with a mix of recreational, residential, commercial and industrial uses.

Residential uses in 1988 consisted of about 987 hectares (2,437 acres) consisting of 13,854 dwellings. Approximately 7,975 of these dwellings are single-family homes with the remainder in multi-family residential developments.

The community plan recommends that the community be built out containing 45.2 percent residential, 23.7 percent recreation and open space, 16.3 percent transportation related, 9.4 percent industrial , 3.2 percent commercial, , 6 percent schools, and 0.6 percent institutional.

Escondido

The City of Escondido lies approximately 6.66 kilometers (30 miles) north of the City of San Diego along I-15. The city occupies approximately 8,811 hectare (21,774 acres), including 405 hectares (1,002 acres) of industrially zoned lands and 81 hectare (200 acres) of undeveloped land in Quail Hills. Quail Hills is located east of Country Club Drive and west of the city's Auto Park. The City's sphere of influence encompasses 17,845 hectares (44,098 acres). The population estimate for the year 2002 as provided by SANDAG is 133,559 people.. It attracts an additional 270,000 visitors each year to its California Center for the Arts. The city's economic base is comprised largely of small businesses, many of which are family-owned.

Escondido contained 44,986 housing units in 1999: 47 percent single family detached, 32 percent multifamily 5+ units, 9 percent mobile homes, 6 percent single family attached, and 6 percent multifamily 2-4 units.

Currently, the city's development patterns include higher density development within the downtown region and lower density development outside the downtown region.

Poway

The developed areas of Poway comprise 50 percent of the City's total land area. Of this, 63 percent is residential. Single-family homes comprise 80 percent of the dwelling units in the city while multiple-family developments comprise 16 percent, and mobile homes four percent.

As a foothill community, Poway contains large areas of steep hillsides and deep canyons, much of which is unbuildable. Regions of major environmental value cover much of the southern, eastern, and northern parts of the city and the vicinity of Twin Peaks/Boulder Mountain.

To protect these resources, and in recognition of this topography, over 1,052 hectare (2,600 acres) is designated as open space/resource management. An additional 3,561 hectare (8,800 acres) is developed with large lots under rural residential land use categories. Other land uses in Poway include public uses (1.2 percent) and commercial/industrial areas (2.1 percent). The population estimate for the year 2002 as provided by SANDAG is 48,044 people.

3.1.2 Impacts

The proposed project is not anticipated to remove or modify any land uses within the project corridor. Due to current development trends within the corridor, many of the presently undeveloped surounding areas are either not developable or are currently planned for development. This project seeks to accommodate existing traffic and the additional demand that is already planned and approved within the I-15 corridor. Several easements, both temporary and permanent, will be required to construct the project. No property acquisitions would be required,however, in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the Department will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaces as a result of the acquisition of real property for public use.

The project still remains consistent with the general plans although some of the noise walls proposed as part of the project will be higher than the standard wall heights specified for use on private property according to the communities and cities building codes.

3.1.3 Measures to Minimize Harm

The proposed project is consistent with planned land uses; thus, no additional measures are needed.

3.2 Social and Economic

The Socioeconomic Technical Study Report dated May 29, 2001, describes the existing socioeconomic environment and the impacts of the proposed action. The topics investigated include growth, community and neighborhoods, employment, and environmental justice.

In determining the study area boundaries, investigation was made into the availability of data at the Major Statistical Area (MSA), Sub Regional Area (SRA), county, city, and local levels. Ultimately, the study boundaries were defined by SRAs since data at that level was the most detailed and the most readily available.

The boundaries were defined by choosing all of the SRAs falling within or adjacent to the I-15 corridor. Though this is a fairly large area, it is appropriate given that a large portion of the County relies on I-15 due to a lack of other nearby north/south routes.

The area selected for study roughly extends from I-8 in the City of San Diego to SR 78 in the city of Escondido. The SRAs chosen for study include Kearny Mesa (SRA 10), Elliot-Navajo (SRA 17), Santee (SRA 35), Miramar (SRA 16), Del Mar-Mira Mesa (SRA 13), Poway (SRA 15), North San Diego (SRA 14), Escondido (SRA 50), and San Marcos (SRA 51). The location of these areas are shown Figure 3-2: Sub Regional Area.

3.2.1 Growth

The FHWA Technical Advisory ("Guidance for Preparing and Processing Environmental and Section 4(f) Documents," T6640.8A, October 30, 1987), addresses the treatment of growth inducing impacts, stating:

> "The secondary [impacts] of any substantial, foreseeable, induced development should be presented for each alternative, including adverse effects on existing communities. Where possible, the distinction between planned and unplanned growth should be identified."

According to the California Code of Regulations (CEQA Guidelines) Section 15126.2(d) of CEQA, the environmental document must:

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

Affected Environment

As Table 3-1 shows, vacant land along the corridor is drastically decreasing. The amount of unplanned growth and land use changes that could occur along the corridor will be limited due to a lack of available developable land.

Table 3-1: Vacant Developable Land

Subregion Name	1995 Acreage	1999 Acreage	2020 Acreage
Kearny Mesa (SRA 10)	964	675	50
Del Mar-Mira Mesa (SRA 13)	4994	3382	97
North San Diego (SRA 14)	5174	3423	1686
Poway (SRA 15)	6647	4744	817
Miramar (SRA 16)	7	7	0
Elliott-Navajo (SRA 17)	3813	3656	1999
Santee (SRA 35)	2081	1785	223
Escondido (SRA 50)	21629	20066	5517
San Marcos (SRA 51)	4212	3144	183

Information taken from 2020 Cities/County Forecast Profiles & 2020 Region wide forecast & time series by SANDAG

One indicator that a project is growth accommodating is that the project is in conformance with general plans, area growth management plans, and community plans. Currently, the City of San Diego is in the process of updating the strategic framework element of its general plan.

The strategic framework element represents the City's approach for shaping how the city will grow while attempting to preserve natural resources and amenities.

After working with residents, planning groups and partnering agencies, such as SANDAG, the City released a Draft Environmental Impact Report (DEIR) in January 2002 for its new strategic framework element: *The City of Villages Growth Strategy—Strategic Framework Element*. This new growth strategy would replace the existing 1990 guidelines for future development. According to the DEIR, "Since less than ten percent of the City's 331 square miles is currently vacant or available for development, the 1990 guidelines are now obsolete." The City of Villages Growth Strategy calls for extensive redevelopment and infill with mixed use villages of higher density attached homes and commercial and/or employment centers.

The City of Villages Plan includes five village types: the regional center, subregional districts, urban village centers, neighborhood village centers, and transit corridors. One goal of the City of Villages Strategy is to reduce auto dependence by improving transit service, walkability, and bicycle facilities.

Impacts

Although the City of San Diego's new strategic framework follows the philosophy of smart growth or enhancement of connections between residential, employment centers, or other places of importance --the DEIR does indicate that, since new development would be approved under the new framework, the framework would have growth inducing impacts.

Included in the City's analysis of the transportation impacts caused by the new framework is the need for operational improvements along the I-5 and I-15 corridors. Not only did the document identify an exisiting need for such improvements, the DEIR also recognized that the new framework and implementing documents could ultimately generate an additional 180,000 to 240,000 trips within the San Diego region.

In conclusion, given the fact that so little developable land remains in the City of San Diego and that most of the now vacant developable land has already been approved for development, the proposed Managed Lanes Project is not expected to induce unplanned growth. The proposed project would, however, accommodate the existing and planned growth as set forth in the applicable general plans.

Measures to Minimize Harm

Although no growth inducing impacts were identified by the Socioeconomic Technical Study, the primary responsibility for mitigating growth impacts lies with the local jurisdictions, the Department will continue to coordinate with local agencies on development issues.

3.2.2 Community and Neighborhood

Community impact assessment is a process to determine if a proposed project will impact a community and its quality of life. Following is a discussion of the communities and neighborhoods that exist in the I-15 corridor.

Affected Environment

There are many defined communities within the corridor. Within each community exists numerous neighborhoods each having distinctive characteristics that set them apart from others. Many of the areas have a strong sense of community identity and independence. To protect the community identity, each community has its own planning board, which reviews new developments according to the particular standards of the community plan. The communities considered within the City of San Diego are Scripps Miramar Ranch, Mira Mesa, Miramar Ranch North, Sabre Springs, Rancho Peñasquitos, Carmel Mountain Ranch, and Rancho Bernardo. In addition to these areas, the northern portion of the project corridor also includes the City of Escondido. For further information on these communities refer to Sections 3.1.1.

Impacts

Since the proposed project is expanding the existing transportation facility, disruptions to lifestyles, neighborhood character, or neighborhood stability would be minimal. With the exception of the City of Escondido, the established communities were developed around the existing transportation corridor. The proposed project would not add to or disrupt any of the existing communities along the corridor. This includes, disruptions to public utilities, police, fire, emergency and any other public service that is located within the community. The proposed project would be a substantial benefit to services needing freewayaccess. No relocations of homes or businesses would occur.

There would be temporary impacts to traffic and noise during construction. These impacts and proposed measures to minimize harm are discussed further in Section 3.17: Construction Impacts.

Measures to Minimize Harm

Since the proposed project would not disrupt any established community, no additional measures are needed.

3.2.3 Employment

The addition or reduction of employment opportunities created by a project can often influence an area's growth rate and economy. Following is a discussion of the employment impacts expected with the proposed project.

Affected Environment

Employment in San Diego experienced a drastic drop between 1990 and 1993. At this time, most of the county's employment was in defense related industry. With a reduction in military spending, the jobs began to shift from the defense industry to the wholesale trade, retail trade, services, and manufacturing sectors. This shift began in 1993 and is expected to continue through the year 2020. Although defense-related jobs have been lost, the region is expected to add 542,800 civilian jobs by 2020, representing a 50% increase in the civilian workforce. The top three employment clusters in 1995, and expected in 2020, are business services, visitor industry services, and medical services. Of the top 15 employment clusters in the county all, with the exception of environmental technology, are expected to continue to grow through the year 2020. (*SANDAG "Info: A Million More People in the Region By 2020", May-June 1999 No. 3.*)

Table 3-2: Changes in Employment, shows past employment trends and future forecasts through the year 2020.

Table 3-2: Changes in Employment

Subregion Name	1990 Employment	1995 Employment	2005 Employment	2020 Employment
Kearny Mesa (SRA 10)	142,474	133,103	152,279	165,446
Del Mar-Mira Mesa (SRA 13)	67,019	77,313	107,970	121,912
North San Diego (SRA 14)	25,694	35,001	51,505	58,986
Poway (SRA 15)	20,749	22,265	44,123	53,214
Miramar (SRA 16)	9,404	6,272	5,685	5,704
Elliott-Navajo (SRA 17)	24,146	21,316	25,457	26,084
Santee (SRA 35)	15,437	14,537	19,557	22,836
Escondido (SRA 50)	50,067	49,881	63,518	70,969
San Marcos (SRA 51)	28,402	30,165	55,638	67,535

Information taken from 2020 Cities/County Forecast Profiles produced by SANDAG

Impacts

In addition to serving a large number of daily commuters and the movement of goods, development of the freeway would result in the addition of numerous jobs. During construction approximately 150 full-time construction workers, plus 35 individuals from the Department's staff, would be required to complete the construction. In addition, subcontractors may also be hired. Ten to fifteen individuals from the Department would be required to operate and maintain the managed lane facility.

Measures to Minimize Harm

Since only beneficial employment impacts are expected with the proposed project, no additional measures are needed.

3.2.4 Environmental Justice

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994, requires federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health and environment of minority and low-income populations to the greatest extent practicable and permitted by law.

Affected Environment

In a study conducted in 1996, two areas were identified containing low income and minority residents within the I-15 corridor. These areas are located in southern Escondido and in Rancho Peñasquitos.Since that study, SANDAG's Demographic and Economic Mapping System has been updated and does not show any low income and minority populations adjacent to the corridor. The definition of low income is a population whose median household income is at or below the Department of Health and Human Service poverty guidelines. The poverty level is defined by standards set by the Department of Health and Human Services (HHS). For the year 2003, the HHS definition of low income is $18,400 for a family of four. Table 3-3: City and County Ethnic Composition, shows the ethnic composition within the project cooridor.

Table 3-3: City and County Ethnic Composition

Area	White	African American	American Indian	Asian	Pacific Islander	Hispanic	Other
San Diego County	1,871,839 (66.5%)	161,480 (5.7%)	24,337 (0.9%)	249,802 (8.9%)	13,561 (0.5%)	750,965 (26.7%)	360,847 (4.7%)
City of San Diego	736,207 (60.2%)	96,216 (7.9%)	7,543 (0.6%)	166,968 (13.6%)	5,853 (0.5%)	310,752 (25.4%)	151,532 (12.4%)
City of Escondido	90,578 (67.8%)	3,009 (2.3%)	1,646 (1.2%)	5,957 (4.5%)	311 (0.2%)	51,693 (38.7%)	25,636 (19.2%)

Information taken from 2000 Census data as provided by SANDAG

The following table, Table 3-4, summarizes income levels within the Cities of San Diego and Escondido, and within the County.

Table 3-4: City and County Income Levels

Area	Median Household Income	Per Capita Income	Household Income 1999						
			Less than $10,000	$10,000 - $14,999	$15,000 - $24,999	$25,000 - $34,999	$35,000 - $49,999	$50,000 - $74,999	More than $75,000
San Diego County	$47,067	$22,926	71,577 (7.2%)	52,859 (5.3%)	117,642 (11.8%)	122,297 (12.3%)	159,617 (16.0 %)	200,299 (20.1%)	271,201 (27.2%)
City of San Diego	$45,733	$23,609	37,637 (8.3%)	25,745 (5.7%)	54,563 (12.1%)	54,499 (12.1%)	70,654 (15.7%)	87,022 (19.3%)	121,006 (26.8%)
City of Escondido	$42,567	$18,241	2,982 (6.8%)	2,530 (5.8%)	6,147 (14.0%)	6,224 (14.2%)	7,300 (16.6%)	8,901 (20.3%)	9,786 (22.4%)

Information taken from 2000 Census data as provided by SANDAG

Impacts

The proposed Managed Lane Project would have adverse noise and visual impacts as described in Sections 3.7 and 3.16. However, these impacts occur throughout the project corridor and would not disproportionately impact any areas of low-income and minority populations.

As discussed in Chapter 2, the project would include features designed to improve the efficiency of local transit services, such as direct access ramps (DARs) from transit centers. These added features along with the additional managed lanes would have a substantial beneficial impact to bus service through the project corridor. Since many bus users are members of low-income or minority populations, the impact to members of low-income and/or minority populations would be beneficial.

As discussed in Chapter 2, the proposed Managed Lane Project would include the San Diego I-15 Value Pricing Program. Under this program, the excess capacity that would be available in the managed lanes would be sold to SOV, thus allowing them to utilize the lanes. Because the Value Pricing Program would entail the implementation of tolls to SOV users, this proposed program was carefully assessed for potential environmental justice impacts.

In June 1996, a survey was conducted to gather public opinion on the Value Pricing Program. This study showed that there was a strong diversity of opinions in the public with an equal split between those who favored and those who opposed value pricing.

In March 1997, public outreach was completed to study value pricing for the existing HOV lanes. In this outreach effort, approximately 3,000 mailers were sent to a neighborhood located in Southern Escondido and another 1,600 mailers were sent to a neighborhood along Carmel Mountain Road in Rancho Peñasquitos. These neighborhoods were selected because they had low income residents, a high percentage of minorities, and a high levels of HOV users. Approximately 99 people responded to the mailers, representing a 2% rate of return.

In addition, three public meetings were advertised in the regional and local papers. Mailers advertising public meetings were sent to two targeted neighborhoods. The meetings were held at three local schools in Escondido, Rancho Peñasquitos, and San Marcos. The attendance at these meetings was extremely low. Only one person attended the Escondido meeting; no one came to the meeting at Palomar College, and six people attended the meeting in Rancho Peñasquitos. Comments from the mailers and from the public meetings were split evenly between those in favor and those opposed the current FasTrack Program on the existing reversible lanes that extend from SR-163 to SR-56.

In November of 2001, additional public outreach was conducted to determine whether views and opinions of value pricing had changed since the studies conducted in June 1996. This study solicited the views of I-15 users through four different methods. The first method utilized 3 focus groups, each consisting of 14 individuals. The second method was stakeholder interviews during which 25 key individuals were identified and interviewed for their opinions and concerns regarding the existing HOV lanes.

Next, intercept surveys of 50 carpoolers and 50 transit riders were administered by the outreach team at park-and-ride lots and transit interface points along the corridor. Finally, a detailed telephone survey of 800 peak period corridor users was conducted.

Though these studies did not specifically target low income and minority groups, but rather randomly selected users, the number of low income and minority users interviewed was higher than in the study conducted in 1997.

Of the respondents in the Intercept surveys, 22 percent of the respondents made less than $50,000 per year, and 20 percent of the respondents were minorities. During the survey 8 percent of the respondents refused to give ethnicity and an additional 18 percent refused to give income data

From the stakeholder interviews, there was agreement that the issue of environmental justice must be taken seriously, and should be further investigated and evaluated. In addition, respondents agreed that the public perception of fairness and equity needed to be addressed.

In the intercept surveys, the majority of respondents in both transit and carpool groups believed the lanes provided encouragement for people to carpool and saw this as an additional benefit to the lanes.

In the focus groups, the majority of people based their approval of the Value Pricing Program on the fact that it provides options for all people regardless of income or ethnicity because the solo drivers help support transit and carpool alternatives.

Finally, in the telephone surveys, few respondents associated a lack of fairness or equity with the value pricing program. They considered the extension of the value pricing program to be fair to both the users of the HOV lanes and the main lanes. Approximately two-thirds of all the respondents approved of the existing value pricing program. No identifiable pattern of opinions and attitudes based on ethnicity or income was found.

Nine percent of the respondents believed that the cost of the toll represented a significant barrier to public use of the value pricing program; however, this sentiment was not isolated to low income or minority populations and was spread through all segments of the population surveyed.

Both negative and positive sentiments were equally distributed throughout all income levels and ethnic groups.

Based on the above discussion, the proposed Managed Lane Project, with the inclusion of the value pricing program, would not cause disproportionately high and adverse effects on any minority or low-income populations as discussed in E.O. 12898 regarding environmental justice.

3.3 Joint Development

Joint development as discussed here is the cooperation between a public agency, such as the Department, and a private for-profit organization in the attempt to provide a mutually beneficial improvement to the transportation network. Following is a discussion of the joint development opportunities that are being undertaken in conjunction with the proposed project.

3.3.1 Affected Environment

Currently several sites located within the communities adjacent to I-15 are under development and will contribute to improvements along I-15. The developments of Rancho Encantada, 4S Ranch, Pacific Highlands, and Black Mountain Ranch all have proposed improvements or monetary contributions that are directed at improving I-15 and the local arterials surrounding I-15.

The majority of the improvements from these developments will be on the local arterials; however, some improvements could include I-15 onramps and offramps. No funding is specifically set aside or required by local agencies for other improvements on I-15 from these or any other private source other than from the 4S Ranch and Black Mountain Ranch developments.

As part of the mitigation for traffic impacts caused by the 4S Ranch Development, the developer will contribute to improvements at the Bernardo Center Drive/I-15 interchange and at the Camino del Norte/I-15 interchange.

All improvements described in this section are considered operational and would be performed regardless of the Managed Lanes Project.

3.3.2 Impacts

As part of the mitigation for these developments, improvements to local streets and potentially portions of the I-15 facility adjacent to the local streets would be made, thus, offsetting traffic impacts created by the developments themselves.

Other impacts created by these developments have undergone separate local environmental approval. For additional information regarding the impacts of these developments see Chapter 4: Cumulative Impacts.

3.3.3 Measures to Minimize Harm

Additional measures to minimize harm created by these developments are the responsibility of the local jurisdictions and would be addressed during their land use planning and environmental processes.

3.4 Parks and Recreation

Section 4(f) of the Department of Transportation Act of 1966, codified in Federal law at 49 U.S.C. Section 303, declares that "[I]t is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that "[t]he secretary [of Transportation] may approve a transportation program or project…requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, rufuge, or site) only if-

1) there is no prudent and feasible alternative to using that land; and

2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use."

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by section 4(f).

The purpose of this discussion is to address section 4(f) requirements relative to parks, recreational facilities, wildlife refuges, and historical properties in the project vicinity. As indicated below, the project would not result in a section 4(f) use of any park, recreational facility, wildlife refuge, or historical resource. The discussion of each resource either documents why the resource is not protected by the provisions of section 4(f) or, if it is protected by section 4(f), why none of the alternatives under consideration cause a section 4(f) use. A section 4(f) use is determined as permanently incorporating land into the project, temporarily occupying land that is adverse to the preservationist purpose of section 4(f), or by constructively using land from the resource.

Two major recreational areas, Kit Carson Park and San Dieguito River Valley Regional Open Space Park , are located adjacent to I-15. The following is a discussion of the potential impacts that will occur at each of these locations. These locations are shown on the project features maps located on Figures 2-22 and 2-23.

3.4.1 Affected Environment

Parks

Kit Carson Park is a 115 hectare (285 acre) park which the City of Escondido acquired from the City of San Diego in 1967. Of the total 115 hectares (285 acres), approximately 40.5 hectares (100 acres) are developed with gardens, ponds, an amphitheater, and numerous other recreational facilities. The remaining 75 hectares (185 acres) is undeveloped and includes walking/hiking trails and a mitigation site for coastal sage scrub. The area immediately adjacent to I-15 includes a landscaped slope and a disturbed area of coastal sage scrub with no active or passive uses.

A portion of the San Dieguito River Valley Reional Open Space Park is located within the I-15 corridor. The planning area for the San Dieguito River Park is located in central San Diego County, at the northern edge of the City of San Diego. The western end begins at the ocean at Del Mar, approximately 24 km (15 miles) west of I-15. The planning area follows the course of the San Dieguito River to its source at Ironside Spring on Volcan Mountain just north of Julian, approximately 64 km (40_miles) east of I-15.

The planning area crosses through or is adjacent to six local jurisidictions. It includes the Del Mar Fairgrounds, Lake Hodges, San Pasqual Valley Agricultural Preserve, the San Diego Wild Animal Park and Lake Sutherland.

The park is owned and managed by the Joint Powers Authority (JPA), which is comprised of six different governmental agencies. They are the County of San Diego and the cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach.

Several park resources are located adjacent to I-15 including Lake Hodges, the North Shore Lake Hodges Trail, and the Sikes Adobe point of historical interest.

Lake Hodges is located between Escondido and Rancho Bernardo and is owned by the City of San Diego Water Utilities Department. The lake is within the San Dieguito River Park, which includes an extensive network of open space extending along the San Dieguito River from the ocean at Del Mar to the river's source at Ironside Spring on Volcan Mountain, just north of Julian. Lake Hodges offers a variety of recreational uses, including fishing, boating, sailing, and board sailing. The lake is currently closed to recreational use due to low water levels.

A description of The North shore Lake Hodges Trail can be found below in the trails section.

Sikes Adobe is located approximately 152 meters (500 feet) east of I-15 on the north shore of Lake Hodges, near the beginning of the North Shore Lake Hodges Trail. Built by the Sikes family in approximately 1872, it represents California's early farming and ranching days. The San Dieguito River Park has hired a team of historians to research the structure's historical significance, to provide recommendations for its restoration and its interpretation to the public, and to prepare construction documents for the restoration. The State Budget for FY 2000/01 included $350,000 at the request of Assemblywoman Charlene Zettel to restore the Sikes Adobe Farmhouse. After restoration, San Dieguito River Park will offer tours so that park visitors can imagine what life was like for our early settlers. The San Dieguito River Park is seeking funding for a Visitor's Center and Park Offices that would be located adjacent to the restored Sikes Adobe Farmhouse.

Trails

Within the open space at Lake Hodges, numerous trails exist east and west of I-15. At I-15, the North Shore Trail, a trail 2.4 meter (8 foot) wide passes beneath the freeway. This trail consists of a concrete Class I bike path with an adjacent 1.2 meter (4 foot) wide dirt hiking/equestrian trail. The trail extends along the east side of the freeway from the parking lot located at the end of Sunset Drive to the bridge (see Figure 2-21). Once the trail arrives at the lake it cuts into the Department's right of way (see Figure 2-21).

Two new recreational trails are being proposed within the project corridor by other agencies as separate projects. One is under Los Peñasquitos Creek Bridge (see Figure 2-10) and another is just west of the I-15 Lake Hodges Bridge (see Figure 2-21). The Los Penasquitos Creek trail proposed by the City of San Diego would consist of an 2.4 meter (eight foot) wide trail surfaced with decomposed granite. The trail would be part of the proposed trans-county trail system with this segment extending from I-15 to Black Mountain, approximately 8 kilometers (5 miles) to the southwest.

Partial funding for the Lake Hodges bike path has been secured through the use of Transportation Enhancement Act (TEA) funds, and the JPA is the lead agency on developing this project. Currently, bicycles are allowed on the shoulder of the I-15 Lake Hodges Bridge. This new trail would include a separate bridge, for trail users only, across Lake Hodges to the west of the I-15 Lake Hodges Bridge.

Both the Los Peñasquitos Creek trail and Lake Hodges trails are being reviewed by the Department's design engineers to minimize disturbances to these new bike paths in the event they are constructed prior to the proposed project.

3.4.2 Impacts

Park

In accordance with CFR 771.135(p)(7) no use of parkland would occur since all impacts at Lake Hodges and at Kit Carson Park would be of a shorter duration than the time needed for construction of the project, would not change ownership of the park resources, would not result in any temporary or permanent adverse change to the activities, features, or attributes which are important to the purposes or function of the park resources, and use of the parks would include only a minor amount of land.

The existing northeast bridge abutment at the North County Fair/Del Lago falls within Kit Carson park. The proposed project would not require permanent acquisition of any portion of Kit Carson Park but would require only a temporary construction easement within the park for grading the new bridge abutment. The temporary construction easement would be required for approximately one year during the six year life of the middle segment. Grading activities would not extend past the current bridge approach fill. The provisions of section 4(f) would not be triggered since grading impacts to Kit Carson Park would be temporary in nature and would not be substantial since they will not impair the function, features or attributes of this unused portion of the park. At a meeting with the City of Escondido held on April 2, 2002, impacts to the park were discussed. City Staff present at this meeting agreed that the temporary use of this portion of park would not deter park activities. The City of Escondido has provided a letter of concurrence on the above points.

A small area to the northwest of the Lake Hodges Bridge is proposed to be used as an equipment staging area during bridge construction. The proposed project would not require permanent acquisition of any portion of the Park but would require only a temporary construction easement for access and equipment storage. The temporary construction easement would be required for approximately three years during the six year life of the middle segment. This area is adjacent to the North Shore Trail as it exits the freeway right of way and consists of unused open space that is off limits to trail users. The City of San Diego has provided a letter of concurrence on the above points.

Caltrans' Architectural Historians, Headquarters Environmental Analysis Division, has concluded that the Sikes Adobe, location of the new headquarters building, will not be directly or indirectly affected by the proposed project There will be no appreciable visual or audible changes to the current setting of the Sikes Adobe for the following reasons:

- All proposed construction will be contained within the existing I-15 right of way (r/w).
- The Sikes Adobe is a considerable distance from the r/w (500 feet at its closest point) and is located outside the Area of Potential Effect (APE).
- Structures (a 2-3 story, 600 foot long self storage facility and a water reclamation plant) and dense stands of vegetation intervene between the adobe and the project.

- No substantial change in noise level (0.8 decibel increase) will occur as a result of the project.

A noise analysis study was carried out on December 19, 2002 by a DepartmentNoise Specialist. A field measurement was made during the PM peak noise hour and the measurement showed that the Sikes Adobe is currently not impacted (64.9 dBA). The 2002 traffic noise model prepared for this project was run using coordinates obtained from GIS mapping, since the receptor was beyond the limits of the microstation topo. The result was 65.7 dBA for the year 2020; thus would not be impacted. Since this receptor is a considerable distance from the main lane traffic it is very likely that the model may be over predicting, as it does not consider atmospheric attenuation. In addition, the noise measurement was taken on the front side of the building (front yard) ,whereas in normal practice noise measurements are taken in the backyard and are usually significantly lower.

Trails

Impacts to the trail beneath the Lake Hodges Bridge is located within State right-of-way and is considered a secondary use of the property. A condition of the encroachment permit dated October 13, 1994 states that, "Permittee will vacate the State Right of way, should such right of way become needed for highway purposes;" thus, further showing that the trail is not the primary use of the property. Bridge construction at Lake Hodges would be spread overlt in temporary disruptions to trail users and would result in approximately five days of complete closures during the three years of construction. In accordance with 23 CFR 771.135(p)(7) no use of parkland would occur.

During the proposed replacement of the I-15 bridge at Lake Hodges, the trail leading up to the undercrossing would be utilized as an access point for construction equipment and personnel.

With the replacement of the Lake Hodges Bridge the minimum vertical clearance would be maintained at the current clearance of 3.6 meters (12 feet), thus would not create permanent impacts for lake or trail users.

Coordination with the the JPA and City of Escondido Parks and Recreation Department is ongoing. Initial coordination with JPA regarding the potential trail impacts took place on March 16, 2002. A follow-up meeting was held on March 26, 2002 to address concerns regarding the change in vertical clearance on the Lake Hodges trail.

It was determined from these meetings that JPA had concerns regarding the lowering of the bridge and requested a minimum clearance of 3.35 meters (11 feet). In addition JPA expressed concern regarding tunnel effects and lack of light due to the additional structures covering the trail. The replacement bridge will allow the current 3.6 meter (12 foot) clearance to be maintained.

3.4.3 Measures to Minimize Harm

Parks

Within 60 days of the completion of the abutment work at Kit Carson Park, the park will be returned to the same condition as was found prior to grading. All vegetation that would be removed during construction would be restored in kind. This would include a three year plant establishment period. All mitigation at the park would occur prior to the completion of the Managed Lanes Project.

Trails

The Department would make every effort to minimize the temporary construction impacts to the trail at Lake Hodges. Bridge. Construction would take approximately 24 months, but minimal closures would be required for demolition of the existing bridge and during construction of the new bridge. In the event that a full closure of the trail is required for work over the trail, coordination with JPA would occur to ensure that trail users are notified prior to the closure.

To minimize interference with trail operations, major construction equipment accessing the lake bed would be permitted to cross the trail only in the early morning and late evening when there is less traffic on the trail. In addition, the trail would remain open on weekends, holidays, and for special events.

In the event that smaller equipment would need to be brought across the trail during open hours, construction personnel and appropriate signage would be located at either end of the trail to inform users.

Lighting would be installed under the bridge to help eliminate tunnel effects and to improve safety underneath the proposed structure.

3.5 Pedestrian and Bicycle Facilities

Construction of transportation facilities, especially construction of new facilities, can act as both a physical and psychological barrier to pedestrians and bicyclists. Where freeways cross paths and trails, access may be restricted or severed all together. Pedestrians and cyclists may perceive this barrier even though trail access is maintained. The facilities discussed below are commuter bicycle facilities located within the state right-of-way. Since these facilities are designed for commuter use Section 4(f) is not triggered.

3.5.1 Affected Environment

Besides the Lake Hodges bike path discussed in the previous section, a bike path connecting Mira Mesa and Poway may also be affected by the project. This bike path is located on the eastside of I-15 extending from Erma Road (accessible from Mira Mesa Boulevard) to Scripps Ranch Boulevard and continuing to Poway Road/Rancho Penasquitos Boulevard on the north end. This bike path is a Class I bike path, meaning the trail has a completely separate right-of-way for the exclusive use of non-motorized travel.

A second bike path exists along westbound SR-56. This bike path extends from Black Mountain Road to I-15 and varies from a path with shared right-of-way designated by signs to a completely separate right-of-way for the exclusive use of non-motorized travel.

A third bike path is located at the Escondido Flood Control Channel undercrossing. This path is a bike, pedestrian, and maintenance access road on the south side of the channel.

Currently at the Lake Hodges Bridge bike traffic is permitted to use the freeway shoulder since no other alternative exists to cross the lake. The northbound bike traffic is barrier separated from the main lanes.

3.5.2 Impacts

The Mira Mesa bike path could experience temporary construction related impacts including noise; however, it would remain open during construction. On the southern end of this path where there is little separation between the trail and the travel lanes, a detour would be required during construction that shifts the trail slightly to the east.

During construction the current trail width of 3.6 meters (12 feet) would be maintained.

The bike path located along SR-56 will be relocated due to the widening of SR-56. Widening would begin at the 15/56 overcrossing and would extend 400 meters (1,312 feet) to the west. This expansion would require that the bike path be realigned. The new bike path would be constructed prior to the closure of the existing path thus reducing the time that closures would be necessary. A temporary closure would still be required in order to connect the new path to the existing.

During replacement of the lake Hodges Bridge, bicycle traffic will not be permitted to use the facility provided that another alternative to crossing Lake Hodges exists. It is anticipated that at the time of construction there will be an additional route across the lake. See Chapter 4:Cumulative Impacts for a discussion of the new bike bridge that JPA is proposing across Lake Hodges.

No impacts are anticipated to the bike path located at the Escondido Flood Control Channel undercrossing.

3.5.3 Measures to Minimize Harm

To minimize interference with the Mira Mesa bike path operations, construction equipment would be permitted to only cross the trail, at designated areas, in the early morning and late evening when there is minimal traffic on the trail. Currently the trail hours are dusk to dawn, however this is anticipated to change once the San Dieguito River Parks' proposed bike/pedestrian bridge is constructed across the lake.

In the event that equipment needs to be brought across the trail during daylight hours, construction personnel and appropriate signage would be located at either end of the trail to inform users.

Because many of the overcrossing structures would be replaced as part of the proposed project, opportunities would exist to upgrade these structures to provide for enhanced bicycle and pedestrian features.

Some of the features that would be provided include:

- Lighting
- Wider sidewalks [1.8m-2.4 m (6.0 –8.0 feet) wide]

- Full standard shoulder widths [1.2m-2.4 m (4.0 –8.0 feet) wide]
- Standard Class 1, 2, or 3 bike facilities as appropriate

3.6 Air Quality

In March 2001, an Air Quality Study Report was prepared for the proposed Managed Lanes project. This report describes the air pollutants associated with motor vehicle exhaust, determines applicable air quality standards and regulations, examines the existing air quality conditions in the study area, and identifies and quantifies the possible air quality impacts that could result from the proposed improvements. Following is a discussion of impacts associated with the proposed project.

Air Quality is regulated through both the State and federal Clean Air Acts. The California Clean Air Act, established in 1988, provides a framework for air quality planning and other actions to meet the health-based State Ambient Air Quality Standards. (California Air Resource Board, 2002.)

The Federal Clean Air Act is the federal law passed in 1970 and last amended in 1990 which forms the basis for the national air pollution control effort. Basic elements of the act include national ambient air quality standards for major air pollutants, hazardous air pollutants standards, State implementation plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

3.6.1 Affected Environment

The portion of the I-15 corridor under study is located in the San Diego Air Basin (SDAB). When an air basin does not meet the air quality standard for a particular pollutant, the area is designated as a “non-attainment” area for that pollutant.

Alternately, the “attainment” designation is used for any area that meets air quality standards for a particular pollutant. Table 3-5 shows a brief summary of the attainment status of the different pollutants within the San Diego Air Basin.

Progress has been made in the SDAB in attaining federal and State air quality standards. Federal and State standards have been met for lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide (CO).

Federal standards are currently being met for inhalable particulate labeled as PM_{10}. SDAB's status as an attainment area for particulate matter may change if the federal standard changes from regulating particulate matter at the 10 micron size to including particulate matter at the 2.5 micron size. Monitoring began for the new $PM_{2.5}$ standard in January 1999; however, at this time according to the San Diego Air Pollution Control District's (SDAPCD) 2001 Annual Report, a minimum of three years of data are needed to determine attainment status. The attainment status of San Diego County is to be designated in 2003, pending the outcome of the review in 2002. State standards for PM_{10} have not been met. Currently, SDAB is classified as a "serious" ozone non-attainment area under both the State and federal Clean Air Acts.

Table 3-5: Attainment Status

Pollutant	Attainment Status	
	State	Federal
Carbon Monoxide	Maintenance	Maintenance
Lead	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Ozone	Serious Non-Attainment	Serious Non-Attainment
PM10	Non-Attainment	Attainment
PM2.5	Unclassified	Unclassified
Visibility	Unclassified	No Standard
Sulfur Dioxide	Attainment	Attainment
Hydrogen Sulfide	Unclassified	No Standard
Sulfates	Attainment	No Standard

The SDAB's non-attainment classification for ozone is based on the one-hour standard set forth by the regulatory agencies. This standard establishes the minimum State and federal control requirements and the federal attainment deadlines for the San Diego Region.

The current federal one-hour standard for ozone may soon be altered to include an eight hour standard. Even if this occurs, no change in the ozone classification for SDAB is anticipated.

3.6.2 Impacts

Regional air quality impacts were evaluated relative to the Regional Transportation Improvement Program (RTIP) which is a component of the Regional Air Quality Strategic/State Implementation Plan (RAQS/SIP).

The SANDAG 2020 Regional Transportation Plan was found to conform by SANDAG Board on February 25, 2000, and FHWA and FTA adopted the air quality conformity finding on April 13, 2000. In addition to the original conformity runs included in the 2020 RTP, SANDAG ran new emissions analyses based on the year 2023 Revenue Constrained plan included in the 2020 RTP for scenarios with and without value pricing. The model runs created for these analyses incorporated a network reflecting all of the project's latest updated features in November 2002. The results of these analyses confirmed that both scenarios were below the applicable emissions budgets. The 2020 RTP was not formally amended to reflect value pricing or the most updated network features due to the impending approval of a new 2030 RTP, which will also include these same network updates.

The project is also included in SANDAG's financially constrained 2000 Regional Transportation Improvement Program, pages 5, 24, 57, and 99. The SANDAG 2001 Regional Transportation Improvement Program was found to conform by FHWA and FTA on October 6, 2000. The proposed project is also included in SANDAG's adopted financially constrained 2002 Regional Transportation Improvement Program, pages 5, 14, 24, 27, 28, 113, 114, and 124. Federal action on the 2002 RTIP is expected in early October 2002. The design concept and scope of the proposed project is consistent with the project description in the 2020 RTP, 2001 RTIP and 2002 RTIP and the assumptions in SANDAG's regional emissions analysis. The assumptions used for the I-15 Managed Lanes project-level analysis are consistent with those used in the regional emissions analysis. Project design concept and scope are also consistent with the project description in the above RTP and FTIP.

The Air Quality Study dated March 2001, includes evaluations of project-related ozone, particulate matter, and carbon monoxide, which are constituents that can impact sensitive and representative receptors at locations such as hospitals, senior citizen housing, and schools located in and around the project area.

Meeting air quality conformity standards, according to the budgets contained within the SIP, means that there will be no significant exceedances of vehicular emissions, which include reactive organic gases (ROG) and nitrogen oxides (NOx). These compounds are precursors to regional smog (ozone) formation. A separate regional ozone air quality analysis is not performed because the analyses in the RTP and TIP reports had demonstrated that the region's ozone air quality would benefit from, or at least not be negatively impacted by, the proposed project. The proposed project is not anticipated to measurably worsen regional ozone levels.

At the regional scale, this project is included in the approved RTP and Transportation Improvement Program (TIP). Regional PM_{10} SIP budget compliance was accounted for during the RTP and TIP conformity determinations.

Projects are only subject to hot spot analysis for PM_{10} if they are located in a federal PM_{10} non-attainment or maintenance area (federal standards), for purposes of Transportation Conformity. Currently, the San Diego Air Basin is classified as a Federal PM_{10} attainment area under the federal Clean Air Act (CAA); therefore a PM_{10} Hot Spot Analysis is not required.

Carbon monoxide levels that would result from motor vehicles on roadways along the project alignment were analyzed for the existing traffic year 1999 and the project's design year 2020. The study analysis methodology used the Transportation Project-Level Carbon Monoxide Protocol Screening Procedure that has been designed to estimate 8-hour carbon monoxide (CO) concentrations. The results from the analysis were used to compare the proposed project with the existing conditions. Fifteen sensitive receptor sites were chosen within the project limits. Typical sensitive receptor locations include hospitals, senior citizen housing, and schools. The representative sensitive receptors for the proposed project include senior citizen housing and schools located adjacent to I-15.

The estimated CO concentrations with the proposed project range between approximately 12.2 to 14.3 ppm for 1-hour CO levels. These concentrations are within the acceptable CO standards of 20 ppm for the State 1-hour standard and 35 ppm for the federal 1-hour standard. For the 8-hour CO levels, the estimated CO concentrations with the proposed project range between 7.3 to 8.6 ppm. These concentrations are below the State and federal standard of 9 ppm for the 8-hour CO levels.

Three intersections within the project area were further analyzed to determine if the proposed project would have adverse air quality impacts due to CO concentrations. These sites included Pomerado Road/Miramar Road, Mira Mesa Boulevard, and Rancho Bernardo Road. According to results of this analysis, implementation of the proposed project would not adversely impact existing CO concentrations at representative sensitive receptors within these intersections. Therefore, the proposed project would not violate any State or federal CO standards.

3.6.3 Measures to Minimize Harm

As discussed above, the proposed project would not cause any adverse air quality impacts; therefore, no additional measures are necessary.

3.7 Noise

A noise study report, *I-15 Managed Lanes Project Noise Study Report*, was prepared for the project in June 2000. This study was required to satisfy the Department's Traffic Noise Analysis Protocol (1998), which is based upon FHWA noise regulations, Title 23 Code of Federal Regulations Part 772 (23 CFR 772). A discussion of the potential noise related issues associated with the proposed project is below.

3.7.1 Affected Environment

During the noise study two sets of 10-minute noise measurements were taken at 244 different locations throughout the corridor. These sites were placed at selected sensitive receptors adjacent to I-15. Sensitive receptors within the corridor included residences, schools, commercial buildings, churches, and parks. Long-term measurements of up to 72-hour duration were made at 11 sites concurrently with the short-term measurements. In addition, data from traffic counts, meteorological measurements, and traffic speed surveys were gathered.

In the noise study, the corridor was broken into analysis segments that were delineated by intersections of I-15 with major roadways. The segments discussed are easily definable points to help facilitate descriptions of the study area. The analysis segments begin at the southern end of the project study area and progress northward. Following is a description of receptor locations and land uses in each segment.

- **Segment 1: Miramar Road / Pomerado Road (southern crossing) to Carroll Canyon Road (Approximate Length = 1.2 km [0.75 mile])**

  Receptor Sites: 103, 102, 101, 100, 105c, 105b (See Figure 2-6 and 2-7)

  Receptors 100 through 103, 105C and 105B are located on the west side of I-15 adjacent to Carroll Canyon Road and consist of the Creekside Apartments and the Maya Apartments complexes.

Noise-sensitive land uses within Segment 1 consist of multi-family residential units. Some residential units are located above the freeway elevation, while others are at or below the freeway elevation. Other land uses within Segment 1 include commercial and light industrial developments on the east and west sides of the I-15. Besides traffic noise, the area also experiences frequent aircraft (rotary and fixed-wing) noise from Marine Corps Air Station (MCAS) Miramar, which is located to the south of the segment. Operations from MCAS Miramar generally occur during the mid-to late-morning, afternoon, and early evening hours.

- **Segment 2: Carroll Canyon Road to Mira Mesa Boulevard (Approximate Length = 1.5 km [0.93 mile])**

  Receptor Sites: 105, 105A, 1105, 104, 104A, 1303-1, 303, 1303-2, 302, 1302-2, 1302-1, 301/301R, 1301, 300/300R (See Figure 2-6 and 2-7)

Receptor Sites: 105, 105A, 1105, 104, 104A, 1303-1, 303, 1303-2, 302, 1302-2, 1302-1, 301/301R, 1301, 300/300R (See Figure 2-6 and 2-7)

Receptors 105, 105A, 1105, 104 and 104A are located on the west side of I-15 just north of Carroll Canyon Road and consist of the Camelot Mesa Townhomes complex. Receptors 300 through 303, 1303-1, 1303-2, 1302-1, 1302-2, 1301 are located on the west side of I-15 north of Carroll Canyon Road and consist of the Mira Woods Apartment complex.

Noise-sensitive land uses within Segment 2 consist of multi-family residential units. The residential units are below the freeway elevation. Other land uses within Segment 2 include commercial and retail developments on the east and west sides of I-15. Besides traffic noise, the area also experiences frequent aircraft (rotary and fixed-wing) noise from Marine Corps Air Station (MCAS) Miramar, which is located to the south of the segment. Operations from MCAS Miramar generally occur during the mid-to late-morning, afternoon, and early evening hours.

- **Segment 3: Mira Mesa Boulevard to Scripps Poway Parkway / Mercy Road (Approximate Length = 2.3 km [1.4 mile])**

  Receptor Sites: 106, 3, 107, 108, 1002, 2A, 2, 1109, 109, 1110, 1112, 112A, 112, 113, 114A, 114, 115A, 116, 110, 1A, 1, 111, 117, 3A, 118 (See Figure 2-8)

Receptors 107 through 110, 2, 3, 1002, 2A, 1109, and 1110 are located on the east side of I-15 just north of Mira Mesa Boulevard and are located in the Scripps Westview Townhomes complex.

Receptors 3 and 106 are located on the east side of I-15 just north of Mira Mesa Boulevard and are located in an un-named aprtmetn complex. Receptors 1112, 112, 112A, 113, 114, 114A, 115A and 116 are located on the west side of I-15 just north Mira Mesa Boulevard and consist of single-family residential units.

Receptors 1A, 1, 111, 117, 3A, and 118 are located on the east side of I-15 and consist of the Scripps Townhomes complex.

Noise-sensitive land uses within Segment 3 consist of multi-family residential buildings on the east side of I-15, and single-family residential dwellings on the west side. The multi-family residences on the east side of I-15 vary in elevation from elevated above the freeway to level with the freeway grade. The single-family residences on the west side of I-15 are well below the elevation of the freeway. These residences benefit from topographical shielding provided by the freeway's edge-of-shoulder.

Other land uses within Segment 3 include commercial and retail development, and open space. Noise sources in the area other than I-15 include aircraft from MCAS Miramar.

- **Segment 4: Scripps Poway Parkway / Mercy Road to Poway Road / Rancho Penasquitos Boulevard (Approximate Length = 1.3 km [0.80 mile])**

Receptor Sites: 306, 305, 307, 304, 304A, 304B, 119, 120A/B, 120, 121, 1122-2, 1122-1, 122A/AR, 123A, 124A, 125/125R, 1125-2 (See Figure 2-9 and 2-10)

Receptors 304 through 307 are located on the west side of I-15 just north of Scripps Poway Parkway/Mercy Road and consist of the Canyon Hills Apartment complex. In June 2000 when the noise study was being conducted, receptors 304A and 304B consisted of the Allegra single family residences. Receptors 119 through 121 and 120A/B are located in the Suerte Apartment complex. Receptors 1122-2, 1122-1, 122A/AR, 123A, 124A, 125/125R, and 1125-2 are located on the west side of I-15 just north of the Los Penasquitos Canyon Bridge up on the hillside and consist of single family residences.

Noise-sensitive land uses within Segment 4 consist of recreational areas (Los Penasquitos Canyon Preserve) and both multi-family and single-family residential units along the west side of I-15. The multi-family residences near the southern portion of Segment 4 are all below the grade of the freeway. The single-family residences near the northern portion of Segment 4 are above the freeway grade and generally have a direct view of I-15. Some of these homes have only elevated decks (there are no "rear yards", per se).

The eastern boundary of Los Peñasquitos Canyon Preserve abuts I-15, and lies in the middle of Segment 4, between the multi-family and the single-family residential areas. Other land uses within Segment 4 include commercial and retail development, and open space. Noise sources in the area other than I-15 include aircraft (primarily rotary-wing) associated with MCAS Miramar.

- **Segment 5: Poway Road / Rancho Penasquitos Boulevard to SR-56 / Ted Williams Parkway (Approximate Length = 2.1 km [1.30 mile])**

  Receptor Sites: 126, 127A, 128, 129, 130, 5, 131 (See Figure 2-11 and 2-12)

  Receptors 126, 127A, and 128 are located on the west side of I-15 just north of Rancho Penasquitos Boulevard at the top of the hillside overlooking the freeway and consist of single-family residential units. Receptors 129 through 131, and 5 consist of the Terra Vista Townhomes complex that are located on top of the hillside on the west side of I-15 overlooking the access ramps for the express lanes.

  Noise-sensitive land uses within Segment 5 consist of multi-family residential buildings along the east side of I-15, and multi-family and single-family residential dwellings along the west side of I-15. All of the residential land uses within Segment 5 are located well above the freeway, and are generally set back from the freeway. Other land uses within Segment 5 include light industrial, commercial and open space. Noise sources in the area other than I-15 include aircraft (primarily rotary-wing) from MCAS Miramar flying overhead.

- **Segment 6: SR-56 / Ted Williams Parkway to Carmel Mountain Road (Approximate Length = 1.7 km [1.05 mile])**

  Receptor Sites: 309, 308, 1312, 312, 311, 1310, 310, 1132, 132, 6, 1133-1, 133, 1133-2, 138B, 138A, 134, 1134, 1135-1, 135, 8, 1135-2, 136, 1136, 137, 1137, 7, 1138-1, 138, 1138-2, 139ALT, 139, 1139, 1140-1, 140, 1140-2, 141, 1141, 316, 315, 1314, 314, 313, 1142, 142A, 143A, 1143, 144, 1144, 145, 1145, 9, 146 (See Figure 2-12 and 2-13)

  Receptors 309 and 308 are located within the southwestern quadrant of the intersection of SR-56 and I-15 and consist of a vacant lot. These areas were measured to obtain general information regarding current and future noise levels throughout the corridor. Receptors 1312, 312, 311, 1310, 310,1132, 132, 6, 1133-1, 133, and 1133-2 are located on the west side of I-15 just north of SR-56 overlooking the SR-56/I-15 transition and consist of single-family residential units. Receptors 138B and 138A are located on the east side below I-15 at the Carmel Mountain Ranch Community Park just north of SR-56.

Receptors 134 through 137, 313 through 316, 1134, 1135-1, 8, 1135-2, 1136, 1137, 7, and 1314 are located on the west side of I-15 just south of Carmel Mountain Road and consist of the Leisure Village complex. Receptors 138 through 141, 1138-1, 1138-2, 1139, 1140-1, 1140-2, and 1141 are located on the east side of I-15 just south of Carmel Mountain Road and consist of the Cambridge complex.

Receptors 1142, 142A, 143A, 144, 1143, 1144, 145, 1145, and 9 are located on the east side of I-15 just south of Carmel Mountain Road and consist of the Waterfield Laurels single family residential complex. Receptor 146 is located on the east side of I-15 just south of Carmel Mountain Road and consists of a restaurant and commercial space. Receptor 146 would not be considered a sensitive receptor.

Noise-sensitive land uses within Segment 6 consist of public recreational facilities (Carmel Mountain Ranch Community Park and Country Club on the east side of I-15), a hotel on the east side of I-15, multi-family and single-family residential dwellings along the east side of I-15, and multi-family residences along the west side of I-15. Along the east side of I-15, receivers are generally below freeway grade.

Along the west side of I-15, receivers vary from below freeway grade at the south end of Segment 6, to above and then below freeway grade progressing northward. Other land uses within Segment 6 include retail development, located on the west side of I-15, at the north end of Segment 6. Noise sources in the area other than I-15 include aircraft (primarily rotary-wing) occasionally flying overhead from MCAS Miramar.

- **Segment 7: Carmel Mountain Road to Camino del Norte (Approximate Length = 2.2 km [1.36 mile])**

  Receptor Sites: GC-1, GC-2, GC-3, GC-4, GC-5, 147, 148, 149, 150, 151, 1151, 152, 13, 153A, 12, 154, 155 (See Figure 2-14 and 2-15)

  Receptors GC-1 through GC-5 are located on the west side of I-15 just north of Carmel Mountain Road at the privately owned Carmel Highland Doubletree Golf and Tennis Resort. Receptors 147 through 151, and 1151 are located on the west side of I-15 between Carmel Mountain Road and Camino del Norte and consist of an unnamed single family residential complex. Receptors 152 through 155, 12, and 13 are located on the west side of I-15 just south of Camino del Norte and consist of an unnamed single family residential complex.

  Noise-sensitive land uses within Segment 7 consist of private recreational facilities (Golf and Tennis Resort), and multi-family and single-family residential dwellings along the west side of I-15.

Source-receptor geometry varies from receivers located above freeway grade to below freeway grade. Other land uses within Segment 7 include retail, commercial and light industrial developments. Noise sources in the area other than I-15 include aircraft (primarily rotary-wing) occasionally flying overhead from MCAS Miramar.

- **Segment 8: Camino del Norte to Bernardo Center Drive (southern crossing) (Approximate Length = 1.7 km [1.06 mile]))**

  Receptor Sites: 156, 157, 1158, 158, 159, 160, 161, 165A, 1165, 1162, 162, 163, 164, 1176, 176, 166, 1166, 167, 168, 1168, 169, 170, 171, 1171, 1172-1, 18, 172A, 1172-2, 173, 1173, 174A, 17, 175, 177, 178, 1790, 179, 179C, 180, 1180, 181, 1181-1, 1181-2, 318, 1318, 317, 1019-1, 19, 1019-2,1019-3, 1019-4 (See Figure 2-15 through 2-17)

  Receptors 156 and 157 are located on the west side of I-15 just south of Camino del Norte and consist of The Villas Apartment complex. Receptors 158 through 161, 165A through 175, 1158, 1165, 1166, 1168, 1171, 1172-1, 18, 1172-2, 1173, and 17 are located on the west side of I-15 between Camino del Norte and Bernardo Center Drive on the hillsides overlooking the freeway and consist of the High Country West single family residential Complex. Receptors 162 through 164 and 1162 are located on the east side of I-15 just north of Camino del Norte and consist of the RV Bernardo Vistas single family residential Complex. Receptors 176 through 181, 1019-1 through 1019-4, 1176, 179D, 179C, 1180, 1181-1, 1181-2, 318, 1318, 317, and 19 are located on the east side of I-15 just south of Bernardo Center Drive on the hillsides overlooking the freeway and consist of the Woodcrest Heights, Tierra del Sol, Palazzo Bernardo Villa Venusto, and Villa Ladera Vistas single family residential complexes.

  Noise-sensitive land uses within Segment 8 consist of single-family residential dwellings along the east and west sides of I-15. Most of the residences are above freeway grade within Segment 8, with the exception of the southernmost residences on the west side of I-15, which are below grade. Other land uses within Segment 8 include recreational (Bernardo Heights Country Club, on the east side of I-15 and below freeway grade), commercial and open space uses. Noise in the area other than I-15 includes occasional aircraft noise (primarily rotary-wing) associated with MCAS Miramar.

- **Segment 9: Rancho Bernardo Road to Bernardo Center Drive (northern crossing) / Duenda Road (Approximate Length = 1.1 km [0.68 mile])**

  Receptor Sites: 182, 183, 1183, 22, 184, 23, 1023, 185, 24, 1186, 186, 187, 188A, 20, 189, 1189, 21, 1021, 190, 1190, 191, 25 (See Figure 2-18 and 2-19)

  Receptor 182 is located on the west side of I-15 just north of Rancho Bernardo Road and consists of the Elephant Bar. Receptor 182 would not be considered a sensitive receptor.

  Receptors 183 through 186, 22 through 24, 1183, 1186, and 191 are located on the west side of I-15 just south of Bernardo Center Drive/Duenda Road and consist of the Villaggio apartment complex, the Casa Bernardo townhouses, and the Westwood III Townhouses. Receptors 188A, 187, and 20 are located on the east of I-15 just north of Rancho Bernardo Road and consists of the Racquet Club apartment complex. Receptors 189, 1189, 21, 1021, 190, 1190, and 25 are located on the east side of I-15 just south of Bernardo Center Drive/Duenda Road and consist of the Playmore Condominium complex.

  Noise-sensitive land uses within Segment 9 consist of multi-family residential dwellings along the east and west sides of I-15. The residences on the east side of I-15 are above freeway grade, while the residences on the west side are below-grade. Other land uses within Segment 9 include retail and commercial development. Noise sources other than I-15 include aircraft (primarily rotary-wing) occasionally flying overhead from MCAS Miramar.

- **Segment 10: Bernardo Center Drive (northern crossing) / Duenda Road to Green Valley Creek Bridge (Approximate Length = 1.3 km [0.80 mile])**

  Receptor Sites: 1192, 192, 1027-1, 27, 1027-2, 1193-1, 193, 1193-2, 194, 1195-1, 195, 1195-2, 11320, 320, 1320, 26, 1026-1, 1026-2, 319, 1319, 1197, 197, 30, 198, 322, 1029-1, 1029-2, 29, 323 (See Figure 2-19 through 2-20)

  Receptors 1192 and 192 are located on the west side of I-15 just north of Bernardo Center Drive/Duenda Road and consists of the Rancho Bernardo Baptist Church.

  Receptors 193 through 198, 1027-1, 27, 1027-2, 1193-1, 1193-2, 1195-1, 1195-2, 1197, and 30 are located on the west side of I-15 just north of Bernardo Center Drive/Duenda Road and consist of unnamed single family residential complexes. Receptors 11320, 320, 1320, 26,1026-1,1026-2, 319, 1319, 1029-1, 1029-2, and 29 are located on the east of I-15 just north Bernardo Center Drive/Duenda Road and consists of the Bernardo Point Condominiums and Eastview single family residential complexes.

Receptors 322 and 323 are located on both sides of the freeway below the Green Valley Bridge.

Noise-sensitive land uses within Segment 10 consist of condominiums and single-family residential units along the east side of I-15. Along the west side of I-15, there are single-family land uses and a church. The residences on the east side of I-15 are above freeway grade, while the residences on the west side are below-grade. The church on the west side of I-15 is slightly above freeway grade. At the Green Valley Creek Bridge, there is a city owned vacant parcel that is not open to the public, located on the east and west side of I-15. The parcel is below freeway grade.

Noise sources other than I-15 include aircraft (primarily rotary-wing) occasionally flying overhead from MCAS Miramar.

- **Segment 11: Green Valley Creek Bridge to Bernardo Drive / Pomerado Road (northern crossing) (Approximate Length = 1.4 km [0.86 mile])**

  Receptor Sites: 321, 324A, 1324, 324, 1031A-1, 1031A-2, 199, 1199, 200, 31, 1031-1, 1031-2, 1031-3, 31A, 1031A-3, 1031B, 31B, 201, 202, 203, 325, 1325-1, 325A, 1325-2, 328 (See Figure 2-20 and 2-21)

  Receptors 321, 324A, 1324, and 324 are located on the west side of I-15, north of the Green Valley Bridge, and consist of the Rancho Bernardo Community park. Receptors 201 through 203, 1031A-1 through 1031A-3, 31A, 1031B, 31B are located on the west side of I-15 just south of Bernardo Drive/Pomerado Road and consist of the Casa de la Campanas complex. Receptor 328 is located on the west side of I-15 along the shoulder just south of the Lake Hodges Bridge.

  Receptors 199, 1199, 200, 31, 1031-1 through 1031-3, 325, 1325-1, 325A, 1325-2 are located on the east side of I-15 just south of Bernardo Drive/Pomerado Road and consist of the Morado Condominiums and Chaumiere Townhomes.

  Noise-sensitive land uses within Segment 11 consist of multi-family residential dwellings along the east side of I-15. Along the west side of I-15, there are recreational (Rancho Bernardo Community Park) and multi-family land uses (a retirement community). The residences on the east and west sides of I-15 are above freeway grade, while the recreational land uses on the west side are below-grade and separated from I-15 by Bernardo Drive. Other land uses within Segment 11 include undeveloped lands.

  Noise sources other than I-15 include aircraft (primarily rotary-wing) occasionally flying overhead from MCAS Miramar.

- **Segment 12: Bernardo Drive / Pomerado Road to Via Rancho Parkway (Approximate Length = 1.5 km [0.93 mile])**

  Receptor Sites: 1327-3, 1327-2, 1327-1, 327, 1204-1, 204, 1204-2, 1205, 205, 326, 206C, 1206, 206, 206B, 206A (See Figure 2-21 and 2-22)

  Receptors 1327-1 through 1327-3, 327, 326, 206C, 206B, 206A are located on both the east and west side of I-15 along the North Shore Bike Trail that goes through the San Dieguito River Valley Regional Open Space Park surrounding Lake Hodges.

  Receptors 204 though 206, 1204-1, 1204-2, 1205, and 1206 are located on the west side of I-15 just north of the Lake Hodges Bridge on the hillsides overlooking the freeway and consist of Lomas Serenas single family residential complex.

  Noise-sensitive land uses within Segment 12 consist of single-family residential dwellings on the west side of I-15. The San Dieguito River Valley Regional Open Space Park is located along the south and north sides of Lake Hodges on the east and west sides of I-15 and contains trails for hikers, equestrians and bicyclists. The residences on the west side of I-15 are well above freeway grade and set back from the freeway, while the recreational land uses on the east and west sides are below the grade of I-15. Noise sources other than I-15 include aircraft (primarily rotary-wing) occasionally flying overhead from MCAS Miramar.

- **Segment 13: Del Lago Boulevard to Centre City Parkway (Approximate Length = 0.8 km [0.50 mile])**

  Receptor Sites: 329, 330, 331, 1333, 333, 332, 207, 334, 1208, 208, 32, 1032, 1335-1, 209, 1209, 210, 335, 1335-2 (See Figure 2-22 and 2-23)

  Receptors 329 through 333, and 1333 are located on the west side of I-15 just north of Del Lago Boulevard and consist of property approved for the Bernardo Santa Fe single family residential complexes. Receptors 207, 209, 1209, and 210 are located on the west side of I-15 just south of Centre City Parkway and consist of Single family residences and a multi-family residential complex. Receptors 334 is located in the portion of Kit Carson Park located next to I-15. Receptors 1208, 208, 32, 1032, 1335-1, 335, and 1335-2 are located on the east side of I-15 and consist of single family residential units.

  Noise-sensitive land uses within Segment 13 consist of single-family residential on the east and west sides of I-15. The residences on the east side of I-15 are below freeway grade, while those on the west side are above freeway grade. Other land uses within Segment 13 includes vacant land.

- **Segment 14: Centre City Parkway to Felicita Avenue (Approximate Length = 2.3 km [1.43 mile])**

  Receptor Sites: 211, 1211, 213, 212, 1214, 214, 33, 215, 1215, 216, 1216, 36A, 217A, 1218, 218A, 219, 1336, 336, 220, 1221, 221, 222, 1222, 223, 224 (See Figure 2-23 and 2-24)

  Receptors 211, 1211, 215, 1215, 216, 1216, 36A, 217A, 1218, 218A, 219, and 224 are located on the west side of I-15 between Centre City Parkway and Felicita Avenue and consist of Single family residences.

  Receptors 213, 212, 1214, 214, 33, 1336, 336, 220, 1221, 221, 222, 1222, and 223 are located on the east side of I-15 between Centre City Parkway and Felicita Avenue and consist of single-family residences.

  Noise-sensitive land uses within Segment 14 consist of single-family residential on the east and west sides of I-15. Receivers in this area are located both below-grade and above-grade on both sides of I-15.

- **Segment 15: Felicita Avenue to 9th Avenue (Approximate Length = 1.9 km [1.18 mile])**

  Receptor Sites: 1225A-1, 225A, 1125A-2, 39A, 1039, 39, 226, 1231, 227, 227A, 1227-1, 228, 1228-1, 1228-2, 229, 38, 1038, 230, 1230, 232, 231, 337, 338, 1338, 339, 1339, 340, 1233, 233A, 234, 37, 235, 1235, 341, 1341, 1041-2, 1041-1, 41A, 5008, 340A, 340B, 1340, 1342-1, 342B, 342A, 1342-2, 1343, 343, 1236, 236, 237, 1238, 238, 238A, 344, 5016, 1042-2, 1042-1, 42, 1042-3 (See Figure 2-25 and 2-26)

  Receptors 1225A-1, 225A, 1125A-2, 39A, 1039, 39, 226, 1231, 232, 231, 337, 338, 1338, 1236, 236, 237, 1238, 238, 238A, and 344 are located on the west side of I-15 between Felicita Avenue and Ninth Avenue and consist of single-family residences. At the time of the study the area represented by receptors 339, 1339, 340, 340A, 340B, 1340, 1342-1, 342B, 342A, 1342-2, 1343, and 343 were under construction. This area currently consists of single-family residences. Receptors 227, 227A, 1227-1, 228, 1228-1, 1228-2, 38, 1038, 230, 1230, 1233, 233A, 234, 37, 235, 1235, 341, 1341, 1041-2, 1041-1, 41A, 5008, 5016, 1042-2, 1042-1, 42, and 1042-3 are located on the east side of I-15 between Centre City Parkway and Felicita Avenue and consist of single- family residences. Receptors 229 is located in the parking lot of the Bethel Baptist Church on the east side of I-15 between Centre City Parkway and Felicita Avenue.

Noise-sensitive land uses within Segment 15 consist of single-family residential on the east and west sides of I-15. Receivers in this area are located both below-grade and above-grade on both sides of I-15. Other land uses within Segment 15 include retail and commercial development.

3.7.2 Impacts

Traffic noise impacts are defined by the Department's Traffic Noise Analysis Protocol to occur when there is a substantial increase (12 dBA) in noise with the project or when the predicted noise levels from the project approach (1 dBA) or exceed the Noise Abatement Criteria (NAC).

Any location that has an after project noise level of 75 dBA or greater is considered severely impacted. The NAC is a FHWA criteria for noise assessment studies assigned to both exterior and interior activities based on various land uses. Figure 3-24 shows each of the sensitive land use types, the FHWA Noise Abatement Criteria, and the category each land use falls within. Traffic Noise Analysis Protocol (October 1998) defines approaching the NAC as being within 1 dBA. For category B land uses, such as residences, this means that the predicted noise level approaches the NAC if the predicted noise level is 66 dBA.

Existing noise levels are measured using sound meters at sensitive receptors. The noise levels are measured using a Larson-Davis 820 or a Metrosonics db-308 Community Noise Analyzer, which are calibrated before and after field measurements. Relative accuracy was confirmed by comparing noise level readings from both meters when used at the same time and location. The future peak traffic noise levels are predicted using the Department's Sound 32 computer model. Inputs into the traffic model include roadway geometry, receptor locations, and traffic data. The models include traffic volumes that would produce the highest peak hour noise levels. From the measurements gathered in the field, noise levels at other sites having similar topography to those measured were predicted using the Sound 32 model. In total, 374 receptors were modeled. The existing noise levels are compared to future predicted noise levels to determine if the project will have noise impacts. If a sensitive receptor will be impacted by noise, then noise abatement must be considered for that location. This includes modeling sound barrier locations, lengths, and heights.

The modeling showed that 204 of 384 noise-sensitive receivers would approach or exceeded the NAC and were thus impacted.

Following is a discussion of noise impacts associated with the proposed project.

- **Segment 1: Miramar Road / Pomerado Road (southern crossing) to Carroll Canyon Road**

  As presented in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 3 decibels above existing noise levels, which range from 65 to 69 dBA L_{eq}. Future noise levels without noise abatement would range from 67 to 72 dBA L_{eq} at the representative noise-sensitive modeled receptors. All of the 6 modeled receptors within segment 1 would approach or exceed the NAC.

- **Segment 2: Carroll Canyon Road to Mira Mesa Boulevard**

  As Table 3-6 shows, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 1 to 5 decibels above existing noise levels, which range from 64 to 74 dBA L_{eq}. Future noise levels without noise abatement would range from 68 to 78 dBA L_{eq} at the representative modeled receptors. Twelve of the 14 modeled receptors would approach or exceed the NAC.

- **Segment 3: Mira Mesa Boulevard to Scripps Poway Parkway / Mercy Road**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 2 decibels above existing noise levels, which range from 53 to 82 dBA L_{eq}.

  Future noise levels without noise abatement would range from 59 to 83 dBA L_{eq} at the representative modeled receptors. Of the 25 modeled receptors, 6 would approach or exceed 67 dBA L_{eq}. The noise levels at the 8 noise-sensitive receptors on the west side of I-15 within Segment 3 would be below the NAC. On the east side of I-15, 6 of the modeled receptors would approach or exceed the NAC. At this location there were receptors that have no outdoor areas of frequent human use that would benefit from a reduced noise level. At these locations interior measurements were taken. For these receptors that are affected by the traffic noise, the interior criterion of 52 dBA L_{eq} is applicable. Based upon the modeled future peak-noise-hour levels at these receptors, the 24-hour interior noise levels would likely range from 45 to 55 dBA, which would exceed the interior NAC of 52 dBA as established for Category E. Thus, the project would have a noise impact at these receptors.

  Within the same area, several noise measurements were conducted inside the enclosed patio areas that are shielded from I-15 by the residential structures. The noise levels for these patio areas ranged from 62 to 64 dBA L_{eq}, as shown in Table 2-1B. Based upon the long-term noise measurements, existing peak-noise-hour levels would be approximately 1 decibel higher, 63 to 65 dBA L_{eq}. Based upon a typical increase in future noise levels in this area of 1 decibel, future peak-noise-hour levels in the patio areas would be approximately 64 to 66 dBA L_{eq}. Those receptors at 66 dBA would be considered impacted.

- **Segment 4: Scripps Poway Parkway / Mercy Road to Poway Road / Rancho Penasquitos Boulevard**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 1 to 3 decibels above existing noise levels, which range from 54 to 73 dBA L_{eq}. Future noise levels without noise abatement would range from 58 to 76 dBA L_{eq} at the representative modeled receptors. Of the 18 modeled receptors, 12 would approach or exceed the NAC. At receptor 124A, there is a predicted noise level (76 dBA L_{eq}) that is defined in the Noise Protocol as a "severe traffic noise impact," thus, qualifying it for other forms of abatement as discussed in section 3.7.3: Noise Abatement.

- **Segment 5: Poway Road / Rancho Penasquitos Boulevard to SR-56 / Ted Williams Parkway**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 2 decibels above existing noise levels, which range from 57 to 63 dBA L_{eq}. Future noise levels without noise abatement would range from 59 to 65 dBA L_{eq} at the representative modeled receptors. Of the 9 modeled receptors, 1 would approach the NAC. The noise level at Receptor 5 is expected to be 66 dBA L_{eq} during the peak-noise-hour.

- **Segment 6: SR-56 / Ted Williams Parkway to Carmel Mountain Road**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 2 to 10 decibels above existing noise levels, which range from 57 to 73 dBA L_{eq}. Future noise levels without noise abatement would range from 61 to 77 dBA L_{eq} at the representative modeled receptors. Of the 50 modeled receptors, 36 would approach or exceed the NAC. Receptor 313 is a commercial site that since the time of the noise measurements has been developed with a supermarket that does not have an exterior use other than for parking and is, therefore, not a noise-sensitive land use. Receptor 132 is also not a noise-sensitive location; it is at the fence line of a residential area, but it does not represent an area of frequent human use and is, therefore, not considered a sensitive receptor. Receptors 1133-2, 1134, 1135-2, and 136 would be considered severely impacted since the receptors would exceed 75 dBA qualifying them for other forms of abatement as discussed in Section 3.7.3: Noise Abatement.

- **Segment 7: Carmel Mountain Road to Camino del Norte**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 1 to 8 decibels above existing noise levels, which range from 51 to 71 dBA L_{eq}. Future noise levels without noise abatement would range from 53 to 73 dBA L_{eq} at the representative modeled receptors. Of the 19 modeled receptors, 9 would approach or exceed the NAC.

- **Segment 8: Camino del Norte to Bernardo Center Drive (southern crossing)**

  As presented in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 3 decibels above existing noise levels, which range from 53 to 72 dBA L_{eq}. Future noise levels without noise abatement would range from 58 to 74 dBA L_{eq} at the representative modeled receptors. Of the 49 modeled receptors, 39 would approach or exceed the NAC.

- **Segment 9: Rancho Bernardo Road to Bernardo Center Drive (northern crossing) / Duenda Road**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 2 decibels above existing noise levels, which range from 59 to 72 dBA L_{eq}. Future noise levels without noise abatement would range from 64 to 74 dBA L_{eq} at the representative modeled receptors. Of the 22 modeled receptors, 12 would approach or exceed the NAC.

- **Segment 10: Bernardo Center Drive (northern crossing) / Duenda Road to Green Valley Creek Bridge**

  As listed in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 3 decibels above existing noise levels, which range from 54 to 76 dBA L_{eq}. Future noise levels without noise abatement would range from 58 to 78 dBA L_{eq} at the representative modeled receptors. Of the 29 modeled receptors, 12 would approach or exceed the NAC.

  Receptors 192, 320, 26 and 319 are areas where measurements were taken in parking structures or at the end of cul-de-sacs. These areas are not representative of noise-sensitive land uses, and thus are not considered as sites approaching or exceeding the NAC. Receptor 1192 is located at a church. The area immediately between the church and I-15 is a parking lot. As shown in Table 3-6, the predicted future exterior noise level at receptor 1192 is 67 dBA L_{eq}. Because no noise-sensitive exterior uses take place at this location, the relevant NAC is 52 dBA L_{eq} interior (Activity Category E). Typical modern construction assemblies for buildings provide a minimum of 20 dBA (usually 22 to 24 dBA) of outdoor/indoor noise attenuation with doors and windows closed. Based on this 20 dBA noise attenuation, the interior noise level in the church would be about 47 dBA L_{eq}, which is below the NAC for Activity Category E.

- **Segment 11: Green Valley Creek Bridge to Bernardo Drive / Pomerado Road (northern crossing)**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 4 decibels above existing noise levels, which range from 60 to 77 dBA L_{eq}.

Future noise levels without abatement would range from 63 to 79 dBA L_{eq} at the representative receptors. Of the 24 modeled receptors, 16 would approach or exceed the NAC. Receptors 1031A-1,31A, 31B, and 201 would be considered severely impacted since the noise level exceeds 75 dBA qualifying them for other forms of abatement as discussed in Section 3.7.3: Noise Abatement.

- **Segment 12: Bernardo Drive / Pomerado Road to Via Rancho Parkway**

  As provided in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 2 decibels above existing noise levels, which range from 57 to 72 dBA L_{eq}. Future noise levels without noise abatement would range from 61 to 72 dBA L_{eq} at the representative modeled receptors. Of the 16 modeled receptors, 10 would approach or exceed the NAC.

- **Segment 13: Del Lago Boulevard to Centre City Parkway**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 3 decibels above existing noise levels, which range from 47 to 77 dBA L_{eq}. Future noise levels without noise abatement would range from 51 to 79 dBA L_{eq} at the representative modeled receptors. Of the 18 modeled receptors, 5 would approach or exceed the NAC. Receptor 210 would be severely impacted qualifying it for other forms of abatement as discussed in Section 3.7.3: Noise Abatement. Receptor 333 was measured for information about the project area's general noise environment and is not representative of a noise-sensitive land use. Thus, this site is not considered a sensitive receptor. Receptor 1333 is a better representative of noise-sensitive use in this area.

- **Segment 14: Centre City Parkway to Felicita Avenue**

  As presented in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 3 decibels above existing noise levels which range from 53 to 72 dBA L_{eq}. Future noise levels without noise abatement would range from 56 to 75 dBA L_{eq} at the representative modeled receptors. Of the 25 modeled receptors, 12 would approach or exceed the NAC. Receptor 223 would be considered severely impacted since without abatement it would be at 75 dBA qualifying it for other forms of abatement as discussed in Section 3.7.3: Noise Abatement.

- **Segment 15: Felicita Avenue to 9th Avenue**

  As shown in Table 3-6, unabated future peak-noise-hour levels at noise-sensitive land uses are predicted to increase 0 to 5 decibels above existing noise levels which range from 52 to 77 dBA L_{eq}. Future noise levels without noise abatement would range from 55 to 81 dBA L_{eq} at the representative modeled receptors.

Of the 60 modeled receptors, 50 would approach or exceed the NAC. Receptors 230, 235, 341, and 1341 would be severely impacted. Receptors 236 and 42 are not considered noise-sensitive land uses, and thus not subject to the NAC.

3.7.3 Noise Abatement

According to the Department's *Traffic Noise Analysis Protocol* (October 1998), noise abatement measures must be found to be both reasonable and feasible before they can be included as project features. Feasibility is based on acoustical considerations. To be feasible, the proposed abatement measure must reduce the predicted noise level at least 5 dBA. Feasibility may also be affected by physical constraints such as topography, driveways, ramps, cross streets, other noise sources in the area, and safety considerations. Whether a noise abatement measure is considered reasonable is based on a variety of factors including: cost of abatement, noise abatement benefits, community acceptance, and other social, economic, environmental, legal, and technological factors. Because some proposed noise abatement measures are determined not to be reasonable and feasible the increased noise levels in some areas will not be attenuated. Under FHWA guidance, the Department is responsible for the costs of any reasonable and feasible noise barriers at the time of freeway construction. The Department is not responsible for noise abatement for potential future receptors, unless the development is planned, designed, and programmed as of the approval date of the final environmental document.

Abatement measures for second story impacts are not normally considered reasonable or feasible. Barrier heights would require substantial increases in height to break the line of sight for second stories. In addition, increased noise barrier heights would create added visual impacts in areas that have views. Abatement measures are generally not proposed in areas that do not have existing sensitive land uses, or at sites that are generally shielded by other receptors. Shielded sites normally would have an approximate 10 dBA reduction in the predicted future noise levels.

The "Reasonable/Feasible Analysis of Noise Abatement for Proposed Interstate 15 Managed Lanes Project In San Diego County (Reasonable/Feasible Analysis)", dated September l, 2002, analyzed each abatement measure from the Noise Study Report by calculating a specific cost for each measure. This cost was then compared to the reasonable cost allowance, which is calculated based on a formula set forth in the Department's Noise Protocol (October 1998).

In the time between the Reasonable/Feasible Analysis and the Noise Report, the base allowance set forth in the protocol for each noise abatement measure was increased by $2000: the analysis discussed here used the increased base allowance. If the total construction costs for a proposed barrier is equal to or less than the calculated reasonable cost allowance, then the proposed barrier is deemed to be a reasonable cost expenditure.

Costs included in determining the total construction costs for an abatement measure include construction and maintenance easements, required removal or relocation of any existing features or utilities, required foundation work, and any supporting structures such as retaining walls that are necessary solely for construction of the barrier.

Noise abatement was considered for all impacted sensitive receivers. For those receptors that were identified as being severely impacted, other abatement would be considered to help abate the impact. Along the project corridor there are eight barrier locations that are predicted to experience noise levels of 75 dBA or more which would categorize their noise impacts as severe. At three of these locations, barriers are being recommended to address the severe traffic noise impacts. At the remaining five locations, where it is not possible to reduce predicted noise levels below 75 dBA with a noise barrier or the feasible barrier is not reasonable, the following abatement measures would be considered: construction of the unreasonable wall, installation of double-paned windows, acoustic wall insulation and/or air conditioning. Abatement measures to address the severe noise impacts will need to be approved by FHWA on a case-by-case basis in accordance with the Protocol.

Proposed abatement is based on preliminary designs. If during final project design the conditions change substantially, the abatement may be changed or not provided so long as there is no major change in impact conclusions. A final decision on barrier specifics will be made based on the final design noise analysis and based on community acceptance. Following is a discussion of the noise barriers considered in the “Reasonable/Feasible Analysis of Noise Abatement for Proposed Interstate 15 Managed Lanes Project In San Diego County (Reasonable/Feasible Analysis).”

In addition, Table 3-6: Noise Impacts, shows effective noise wall heights and locations as determined by the Noise Study Report. Noise abatement locations are shown on the project feature maps, Figure 2-1 through 2-28, as white lines with overlapping white diamonds.

- **Segment 1: Miramar Road / Pomerado Road (southern crossing) to Carroll Canyon Road**

  The Noise Study Report recommended a 4.88 meter (16 foot) wall. This barrier was recommended on the southbound (west) side of I-15 extending from Carroll Canyon Road south for approximately 400 meters (1312 feet). It was discovered that the proposed wall would cut off a main driveway along Carroll Canyon Road.

  It was determined in the Reasonable/Feasible Analysis that most receptors could achieve the 5 dBA reduction with a lower wall. Due to these conditions, a 3.05 meter (10 foot) wall on top of a 1.83 meter (6 foot) berm was recommended to extend for a shorter distance. This barrier would begin 400 meters (1312 feet) south of Carroll Canyon Road extending to the north 100 meters (328 feet). This newly proposed barrier would benefit eight residences and would cost $388,000, which includes the cost of the wall itself and the cost of a retaining wall required to support the barrier.

  This wall is considered not reasonable based on the protocol allowance of $189,000. However, the barrier would be constructed since all of the residences receive a 2-5 dBA noise level reduction by this lower wall. The wall would be constructed with State only funds.

- **Segment 2: Carroll Canyon Road to Mira Mesa Boulevard**

  The Noise Study Report recommended a 2.44 meter (8 foot) to 4.88 meter (16 foot) wall that varied between the edge of shoulder and the right-of-way line. This barrier was recommended to be placed on the southbound (west) side of I-15 and extends from Carroll Canyon Road north for 740 meters (2460 feet).

  It was determined in the Reasonable/Feasible Analysis that all but two receptors (1105, 105A) could achieve the 5 dBA reduction with a lower wall. Because of this, the Reasonable/Feasible Analysis recommended that a 2.44 meter (8 foot) to 3.05 meter (10 foot) wall be built. This barrier would benefit 30 residences and would cost $512,000 including construction costs. This cost was found to be reasonable and the proposed barrier would be constructed as part of the project.

- **Segment 3: Mira Mesa Boulevard to Scripps Poway Parkway / Mercy Road**

  The Noise Study Report for this project considered walls at three locations. In order to expedite any proposed construction of these walls and to potentially abate the existing high noise levels, these walls were analyzed as part of the I-15 Added/Auxiliary Lanes Project, which is currently under construction. The reasonable and feasible analysis for these barriers was included in the *Reasonable/Feasible Analysis of Noise Abatement for Proposed Interstate 15 Added/Auxiliary Lanes and Improvements Located Between Miramar Road and Mercy Road in San Diego County,* dated March 29, 2002.

As part of this analysis, it was determined that one of the proposed barriers was reasonable. The barrier is a 3.66 meter (12 foot) wall that would begin approximately 500 meters (1640 feet) north of Mira Mesa Boulevard and would extend to the north approximately 350 meters (1148 feet).

The barrier would be located along the northbound (east) side of I-15 and would benefit 10 residences. The barrier cost of $269,000 includes all associated construction costs. This barrier is reasonable since it is equal to the Protocol allowance of $269,000. It will be constructed as part of the I-15 Auxiliary/Added Lanes Project that received separate NEPA/CEQA approval in March 2002.

- **Segment 4: Scripps Poway Parkway / Mercy Road to Poway Road / Rancho Penasquitos Boulevard**

  Within this segment, the Noise Study Report considered two barriers in two different locations. Following is a description of each of these walls.

  The first wall is a 3.05 to 4.27 meter (10 to 14 foot) high wall that would begin approximately 100 meters (328 feet) south of Scripps Poway Parkway/Mercy Road on the southbound (west) side of I-15 and would extend north over the Mercy Road overcrossing for a distance of approximately 1000 meters (3280 feet). The barrier cost of $962,000 includes all associated construction costs. Receptors 305 and 306 do not constitute areas of frequent human use as they are garages. Based on this analysis, the number of benefited residents for this wall is 46. This wall was found to be reasonable and feasible and would be constructed as part of the proposed project.

  The second barrier is a 3.05 meter (10 foot) high wall that would be located approximately 400 meters (1312 feet) south of Poway Road/Rancho Penasquitos and extending to the intersection. The wall would be located at the property line and extending onto private property. The proposed barrier would benefit 17 residences at a cost of $762,000. The wall is not considered reasonable since it exceeds the Protocol allowance of $561,000. The proposed barrier would not be constructed as part of the project. If the required easement is donated to the State this barrier becomes reasonable to construct.

  For the severely impacted residences represented by receptor 124A, other forms of abatement would be investigated for each property during the design phase of the project.

- **Segment 5: Poway Road / Rancho Penasquitos Boulevard to SR-56 / Ted Williams Parkway**

  A 4.27 meter (14 foot) high wall was identified in the Noise Study Report and Reasonable/Feasible Analysis. It would be located on the southbound (west) side of I-15, approximately 600 meters (1968 feet) south of the SR-56/Ted Williams Parkway and would extend north approximately 150 meters (490 feet).

The barrier cost of $174,000 includes the cost of a needed maintenance easement and the cost of removing an existing 2.44 meter (8 foot) sound wall. This barrier would benefit four residences.

This barrier is not reasonable since it exceeds the protocol allowance of $124,000. If the easement were donated to the State, the wall would still exceed the cost allowance. The proposed barrier would not be constructed as part of the project.

- **Segment 6: SR-56 / Ted Williams Parkway to Carmel Mountain Road**

  The Noise Study Report considered four different wall locations. In order to expedite any proposed construction of these walls and to potentially abate the existing noise levels, these walls were analyzed as part of the I-15 Added/Auxiliary Lanes Project, which is currently under construction. The reasonable and feasible analysis for these barriers was included in the *Reasonable/Feasible Study of Noise Abatement for Proposed Interstate 15 Added/Auxiliary Lanes and Improvements at The State Route 56 Interchange in San Diego County, April 2001*.

  As part of this analysis, it was determined that one of the proposed barriers was reasonable. The barrier is a 2.44 meter (8 foot) to 4.27 meter (14 foot) berm with a Type 1 retaining wall located on the southbound (west) side of I-15 that would begin approximately 400 meters (1312 feet) north of SR-56 and would extend to the north approximately 1000 meters (3280 feet). The barrier cost of $1,750,000 includes all associated construction costs. This barrier will benefit 22 residences. This barrier is reasonable since it falls below the Protocol allowance of $2,072,000. It will be constructed as part of the I-15 Auxiliary/Added Lanes Project.

- **Segment 7: Carmel Mountain Road to Camino del Norte**

  The Noise Study Report and Reasonable Feasible Analysis considered two different barrier locations within this segment.

  The first barrier is a 4.27 meter (14 foot) wall located on the southbound (west) side of I-15 approximately 600 meters (1968 feet) south of Camino del Norte. The wall would be located along the property lines of the residences and would be approximately 300 meters (984 feet) in length. The proposed wall would benefit 15 residences and would cost $650,000. Since it exceeds the Protocol allowance of $495,000, this wall is not included in the proposed project.

  The second barrier is a 4.27 meter (14 foot) high wall that would be located on the southbound (west) side of I-15 beginning approximately 300 meters (984 feet) north of Carmel Mountain Road and ending approximately 600 meters (1968 feet) south of Camino del Norte. The receptors GC1 through GC5 are located on a privately owned golf course.

Golf course use is transient in nature and would not subject any user to a long duration of noise exposure. Therefore, noise abatement is not considered at this location.

However, a 2.44 meter (8 foot) berm/wall combination is proposed at this location as a project feature that would replace the existing berm that would be taken out during construction. This proposed berm/wall combination will be constructed to dispose of surplus material from the excavation on the project.

- **Segment 8: Camino del Norte to Bernardo Center Drive (southern crossing)**

  Within this segment, the Noise Study Report and Reasonable/Feasible Analysis considered barriers at seven locations. Following is a description of each of these barriers.

  The first barrier is a 4.27 meter (14 foot) wall that would be located on the southbound (west) side of I-15 beginning at Camino del Norte and extending to the north approximately 500 meters (1640 feet) along the edge of shoulder and property line. The proposed barrier would benefit 24 residences and would cost $959,000. This wall is not considered reasonable since it exceeds the Protocol allowance of $456,000. This barrier would not be constructed as part of the project.

  The second barrier is a 3.05 meter (10 foot) wall that would be located on the southbound (west) side of I-15 beginning approximately 350 meters (1148 feet) north of Camino del Norte and would extend approximately 1000 meters (3280 feet) to the north along the property line of the residences overlooking the freeway. The proposed barrier would benefit 43 residences and would cost $1,574,000. The wall is not considered reasonable since it exceeds the Protocol allowance of $989,000. The cost of this barrier is based on the wall, the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) sound wall. This barrier would not be constructed as part of the project. However, if the easement were donated to the State, the wall would become reasonable to construct.

  The third barrier is a 3.66 meter (12 foot) wall that would be located on the northbound (east) side of I-15 that extends from approximately 150 meters (492 feet) north of Camino del Norte to approximately 100 meters (328 feet) to the north along the property line of the residences overlooking the freeway. The proposed barrier would benefit six residences and would cost $310,000. The wall is not considered reasonable since it exceeds the Protocol allowance of $150,000. The cost of this barrier is based on the wall itself, the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) sound wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier would not be constructed as part of the project.

The fourth barrier is a 3.05 meter (10 foot) to 3.66 meter (12 foot) wall located on the northbound (east) side of I-15 that would begin approximately 400 meters (1312 feet) north of Camino del Norte and would extend north approximately 500 meters (1640 feet) along the property line of the residences overlooking the freeway. The proposed barrier would benefit 17 residences and would cost $779,000. The wall is not considered reasonable since it exceeds the Protocol allowance of $391,000. The cost of this barrier is based on the wall itself, the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) sound wall. Even if the easement were donated to the State the wall would still exceed the cost allowance. This barrier would not be constructed as part of the project.

The fifth barrier is a 3.05 meter (10 foot) high wall that would be located on the northbound (east) side of I-15 that would begin approximately 700 meters (2296 feet) south of Bernardo Center Drive and would extend north approximately 300 meters (984 feet) along the property line of the residences overlooking the freeway. The proposed barrier would benefit 16 residences and would cost $343,000. The wall is considered reasonable since it is below the Protocol allowance of $400,000. The cost of this barrier includes the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) sound wall. This barrier would be constructed as part of the project.

The sixth barrier is a 4.27 meter (14 foot) to 4.88 meter (16 foot) wall that would be located on the northbound (east) side of I-15 that would begin approximately 550 meters (1804 feet) south of Bernardo Center Drive and would extend north approximately 200 meters (656 feet) along the property line of the residences overlooking the freeway. The proposed barrier would benefit 15 residences and would cost $400,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $345,000. The cost of this barrier includes the cost of a maintenance easement, the cost to remove an existing 1.83 meter (6 foot) sound wall, and the cost of removing an existing 0.65 meter (2 foot) retaining wall. The retaining wall would have to be removed since it would not support the proposed wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier would not be constructed as part of the project.

The seventh barrier is a 3.66 meter (12 foot) wall that would be located on the northbound (east) side of I-15 that would begin approximately 350 meters (1148 feet) south of Bernardo Center Drive and would extend to the north approximately 300 meters (984 feet) along the property line of the residences overlooking the freeway. The proposed barrier would benefit nine residences and would cost $487,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $189,000. The cost of this barrier includes the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) sound wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier would not be constructed as part of the project.

- **Segment 9: Rancho Bernardo Road to Bernardo Center Drive (northern crossing) / Duenda Road**

  The proposed barrier is a wall whose height would vary between 3.05 meters (10 feet) and 4.27 meters (14 feet) located on the northbound (east) side of I-15 along the property line of the residences overlooking the freeway. The wall would begin approximately 300 meters (984 feet) north of Rancho Bernardo Road and would extend to Bernardo Center Drive/Duenda Road. The proposed barrier would benefit 32 residences and would cost $853,000. The wall is considered not reasonable since it exceeds the protocol allowance of $736,000. The cost of this barrier is based on the wall itself, the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) sound wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

- **Segment 10: Bernardo Center Drive (northern crossing) / Duenda Road to Green Valley Creek Bridge**

  The Noise Study Report and Reasonable Feasible Analysis considered two different barrier locations within this segment.

  The first barrier is a 4.27 meter (14 foot) high wall located on the southbound (west) side of I-15 that would begin approximately 100 meters (328 feet) north of Bernardo Center Drive/Duenda Road and would extend north approximately 300 meters (984 feet) along the right of way .

  The proposed barrier would benefit three residences and would cost $309,000; thus, it is considered not reasonable since it exceeds the Protocol allowance of $87,000. This barrier will not be constructed as part of the project.

  The second barrier varies from 4.27 meters (14 feet) to 4.88 meters (16 feet) in height located on the northbound (east) side of I-15, that would begin at Bernardo Center Drive/Duenda Road and would extend north approximately 550 meters (1804 feet) along the property line of residences overlooking the freeway. The proposed barrier would benefit 25 residences and would cost $830,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $525,000. The cost of this barrier is based on the wall itself, the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) sound wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This Barrier will not be constructed as part of the project.

- **Segment 11: Green Valley Creek Bridge to Bernardo Drive / Pomerado Road (northern crossing)**

  The Noise Study Report and Reasonable Feasible Analysis considered three different barrier locations within this segment. Following is a description of each of these barriers.

The first is a wall with a height that would vary between 3.05 meter (10 foot) and 4.27 meters (14 feet) in height and would be located on the southbound (west) side of I-15 along the property line of the residences overlooking the freeway. The wall would begin approximately 300 meters (984 feet) south of Bernardo Drive and extends south approximately 300 meters (984 feet). The proposed barrier would benefit 14 residences and would cost $505,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $322,000.

The cost of this barrier is based on the wall itself, the cost of a maintenance easement, and the cost to remove an existing 1.22 meter (4 foot) wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

For the severely impacted residences represented by receptors 1031A-1, 1031A-2, 31A and 201, other forms of abatement would be investigated for each property during the design phase. Abatement measures for these receptors will be contingent upon approval by FHWA.

The second is a wall with a height that would vary between 3.66 meters (12 foot) and 4.27 meters (14 foot) in height and would be located on the northbound (east) side of I-15 along the property line of residences overlooking the freeway. The wall would begin approximately at Pomerado Road/Bernardo Drive and would extend south approximately 1000 meters (3280 feet). The proposed barrier would benefit 32 residences and would cost $1,207,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $608,000. The cost of this barrier is based on the wall itself, the cost of a maintenance easement, and the cost to remove an existing 1.83 meter (6 foot) wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

The third barrier is a 4.88 meter (16 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately 400 meters (1312 feet) south of Bernardo Drive and would extend south approximately 800 meters (2624 feet). The proposed barrier would benefit 12 residences and would cost $854,000 and is considered not reasonable since it exceeds the protocol allowance of $252,000. This barrier will not be constructed as part of the project.

- **Segment 12: Bernardo Drive / Pomerado Road to Via Rancho Parkway**

  The Noise Study Report and Reasonable Feasible Analysis considered three different barrier locations within this segment. Following is a description of each of these barriers.

The first wall would vary in height from 3.05 meters (10 feet) to 4.27 meters (14 feet) and would be located on the northbound (east) side of I-15. The wall would begin at the northbound side of the Lake Hodges Bridge and would extend north approximately 700 meters (2296 feet).

This area is not considered an area of frequent human use that would benefit from a reduced noise level; therefore, this barrier will not be constructed as part of the project.

The second barrier is a 4.88 meter (16 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin at the northbound side of the Lake Hodges Bridge and would extend north approximately 250 meters (820 feet). However, this is not considered an area of frequent human use that would benefit from a reduced noise level. Therefore, this barrier will not be constructed as part of the project.

The third barrier is a 3.05 meter (10 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately 300 meters (984 feet) north of the Lake Hodges Bridge and would extend north approximately 50 meters (150 feet). The wall is located along the property line of the residence overlooking the freeway.

The wall would benefit one residence and would cost $49,000; thus, it is considered not reasonable since it exceeds the Protocol allowance of $21,000. The cost of this barrier is based on the wall itself and the cost of a maintenance easement. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

- **Segment 13: Del Lago Boulevard to Centre City Parkway**

  The Noise Study Report and Reasonable Feasible Analysis considered two different barrier locations within this segment. Following is a description of each of these barriers.

  The first barrier is a 4.88 meter (16 foot) wall that would be located on the northbound (east) side of I-15. The wall would begin approximately 100 meters (328 feet) north of Del Lago Boulevard and would extend north approximately 200 meters (656 feet) along the edge of shoulder. The proposed barrier would benefit two residences and would cost $244,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $42,000. This barrier will not be constructed as part of the project.

  The second barrier is a 4.88 meter (16 foot) wall that would be located on the southbound (west) side of I-15. The wall would begin just south of Centre City Parkway and would extend to the south approximately 100 meters (328 feet). The proposed barrier would benefit one residence and would cost $78,000.

The wall is considered not reasonable since it exceeds the Protocol allowance of $25,000. This barrier will not be constructed as part of the project. For the severely impacted residences represented by receptor 210, other forms of abatement would be investigated for each property during the design phase. Abatement measures for these receptors will be contingent upon approval by FHWA

- **Segment 14: Centre City Parkway to Felicita Avenue**

  The Noise Study Report and Reasonable Feasible Analysis considered eight different barrier locations within this segment. Following is a description of each of these barriers.

  The first barrier is a 3.66 meter (12 foot) high wall that would be located on the southbound (west) side of I-15 along the edge of shoulder. The wall would begin approximately at Centre City Parkway and would extend to the north approximately 200 meters (656 feet). The proposed barrier would benefit two residences and would cost $188,000. This wall is considered not reasonable since it exceeds the Protocol allowance of $46,000. This barrier will not be constructed as part of the project.

  The second barrier is a 4.88 meter (16 foot) high wall that would be located on the northbound (east) side of I-15. The wall would begin approximately 250 meters (820 feet) north of Centre City Parkway and would extend to the north approximately 50 meters (164 feet) along the right of way.

  The proposed barrier would benefit one residence and would cost $73,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $19,000. This barrier will not be constructed as part of the project.

  The third barrier is a 4.27 meter (14 foot) high wall that would be located on the northbound (east) side of I-15. The wall would begin approximately 600 meters (1968 feet) north of Centre City Parkway and would extend to the north approximately 50 meters (164 feet) along the right of way. The proposed barrier would benefit one residence and would cost $85,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $19,000. This barrier will not be constructed as part of the project.

  The fourth barrier is a 3.66 meter (12 foot) high wall that would be located on the northbound (east) side of I-15. The wall would begin approximately 650 meters (2132 feet) north of Centre City Parkway and would extend to the north approximately 50 meters (164 feet) along the property line of residences adjacent to the freeway. The proposed barrier would benefit one residence and would cost $77,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $22,000. The cost of this barrier is based on the wall itself and the cost of a maintenance easement. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

The fifth barrier is a 4.88 meter (16 foot) high wall that would be located on the northbound (east) side of I-15. The wall would begin approximately 400 meters (1312 feet) south of Citracado Parkway and would extend south approximately 150 meters (492 feet) along the right of way. The proposed barrier would benefit two residences and would cost $202,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $74,000. This barrier will not be constructed as part of the project.

For the severely impacted residences represented by receptor 223, other forms of abatement would be investigated for each property during the design phase. Abatement measures for these receptors will be contingent upon approval by FHWA

The sixth barrier is a 3.05 meter (10 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately 400 meters (1312 feet) north of Centre City Parkway and would extend north approximately 50 meters (164 feet) along the property line of the residences adjacent to the freeway. The proposed barrier would benefit one residence and would cost $53,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $21,000. The cost of this barrier is based on the wall itself and the cost of a maintenance easement. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

The seventh barrier is a 4.27 meter (14 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately 700 meters (2296 feet) north of Centre City Parkway and would extend north approximately 50 meters (164 feet) along the property line of residences adjacent to the freeway. The proposed barrier would benefit one residence and would cost $106,000.

The wall is considered not reasonable since it exceeds the Protocol allowance of $29,000. The cost of this barrier is based on the wall itself and the cost of a maintenance easement. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

The eighth barrier is a 3.05 meter (10 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately 500 meters (1640 feet) north of Centre City Parkway and would extend north approximately 50 meters (164 feet) along the property line of residences adjacent to the freeway. The proposed barrier would benefit one residence and would cost $46,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $33,000. The cost of this barrier is based on the wall itself and the cost of a maintenance easement. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

- **Segment 15: Felicita Avenue to 9th Avenue**

  The Noise Study Report and Reasonable Feasible Analysis considered eight different barrier locations within this segment. Following is a description of each of these barriers.

  The first barrier is a 4.88 meter (16 foot) high wall that would be located on the northbound (east) side of I-15. The wall would begin approximately at Citracado Parkway and would extend to the north approximately 400 meters (1312 feet) along the edge of shoulder.

  The proposed barrier would benefit 11 residences and would cost $415,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $363,000. This barrier will not be constructed as part of the project.

  The second wall height would vary from 4.27 meters (14 feet) to 4.88 meters (16 feet) and would be located on the northbound (east) side of I-15. The wall would begin approximately 550 meters (1804 feet) north of Citracado Parkway and would extend to the north approximately 550 meters (1804 feet) along the right of way. The proposed barrier would benefit six residences and would cost $649,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $210,000. This barrier will not be constructed as part of the project. For the severely impacted residences represented by receptor 230, 235, 341, and 1341, other abatement measures would be investigated for each property during the design phase. Abatement measures for these receptors will be contingent upon approval by FHWA

  The third wall height would vary from 3.05 meters (10 feet) to 3.66 meters (12 feet) and would be located on the northbound (east) side of I-15. The wall would begin approximately 1100 meters (3608 feet) north of Citracado Parkway and would extend to the north approximately 200 meters (656 feet) along the property line of residences adjacent to the freeway. The proposed barrier would benefit nine residences and would cost $376,000. The third wall is considered not reasonable since it exceeds the Protocol allowance of $225,000. The cost of this barrier is based on the wall itself, the cost of a maintenance easement, and the cost to remove an existing 2.44 meter (8 foot) wall. Even if the easement were donated to the State, the wall would still exceed the cost allowance. This barrier will not be constructed as part of the project.

  The fourth wall height would vary from 1.83 meters (6 feet) to 4.27 meters (14 feet) and would be located on the northbound (east) side of I-15. The wall would begin approximately 550 meters (1804 feet) south of Ninth Avenue and would extend north approximately 250 meters (820 feet) along the right of way. The proposed barrier would benefit one residence and would cost $152,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $31,000. This barrier will not be constructed as part of the project.

The fifth wall height would vary from 4.27 meters (14 feet) to 4.88 meters (16 feet) and would be located on the southbound (west) side of I-15. The wall would begin approximately at Citracado Parkway and would extend to the north approximately 450 meters (1476 feet) along the right of way and edge of shoulder. The proposed barrier would benefit six residences and would cost $537,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $210,000. This barrier will not be constructed as part of the project.

The sixth barrier is a 4.27 meter (14 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately at Ninth Avenue and would extend to the south approximately 300 meters (984 feet) along the edge of shoulder. The proposed barrier would benefit 10 residence and would cost $598,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $330,000. This barrier will not be constructed as part of the project.

The seventh barrier is a 4.27 meter (14 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately 1600 meters (5249 feet) north of Citracado Parkway and would extend north approximately 100 meters (328 feet) along the right of way. The proposed barrier would benefit 12 residences and would cost $490,000 and is considered not reasonable since it exceeds the Protocol allowance of $324,000. The cost of this barrier is based on the wall itself and the cost to remove an existing concrete channel that is 520 meter (1700 foot) in length. This channel would conflict with the construction of the sound wall. This barrier will not be constructed as part of the project.

The eighth barrier is a 3.66 meter (12 foot) high wall that would be located on the southbound (west) side of I-15. The wall would begin approximately 500 meters (1640 feet) south of Ninth Avenue and would extend to the north approximately 100 meters (328 feet) along the right of way. The proposed barrier would benefit three residences and would cost $110,000. The wall is considered not reasonable since it exceeds the Protocol allowance of $57,000. This barrier will not be constructed as part of the project.Table 3-6: Noise Impacts

Seg. #	Site ID	Site Address		# of Homes	Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
1	103	9795	Mesa Springs Way	4	68	70	69	68	**68**	67	66	65	R/W	y
1	102	9755	Mesa Springs Way	4	65	68	66	65	**65**	65	64	63	R/W	y
1	101	9729	Mesa Springs Way	2	66	73	66	67	**68**	67	65	64	R/W	y
1	100	9715	Mesa Springs Way	2	71	76	70	70	**71**	70	69	68	R/W	y
1	105C	10191	Maya Linda Rd	6	69	72	69	69	**70**	69	68	67	R/W	y
1	105B	10101	Maya Linda Rd	6	71	71	70	68	**69**	68	67	65	R/W	y
2	105	10216	Maya Linda Rd	6	69	71	70	68	**67**	66	64	64	R/W	y
2	105A	10240	Maya Linda Rd	5	64	68	67	66	**66**	65	64	63	R/W	y
2	1105	10264	Maya Linda Rd	5	70*	71	71	70	**69**	68	67	67	R/W	y
2	104	10280	Maya Linda Rd	8	74	78	74	**72**	71	69	68	68	E/S	y
2	104A	10280	Maya Linda Rd	1	72	75	72	**71**	70	69	68	67	E/S	y
2	1303-1	10320	Maya Linda Rd	8	66*	71	67	**66**	65	64	63	63	E/S	y
2	303	10340B	Maya Linda Rd.	2	65	73	69	**67**	66	65	64	63	E/S	y
2	1303-2	10360	Maya Linda Rd	0	68*	72	68	**67**	65	64	63	63	E/S	y
2	302	10380C	Maya Linda Rd.	2	65	72	68	**66**	65	64	63	63	E/S	y
2	1302-1	10420	Maya Linda Rd	2	70*	74	70	**69**	67	66	65	64	E/S	y
2	1302-2	10440	Maya Linda Rd	2	69*	73	69	**68**	66	65	64	63	E/S	y
2	301/ 301R	10460	Maya Linda Rd.	3	70	74	71	**69**	68	67	66	65	E/S	y
2	1301	10480	Maya Linda Rd	0	70*	74	71	**69**	68	67	66	65	E/S	y
2	300/300 R	9889	Erma Road	2	69	75	72	**70**	69	68	67	66	E/S	y
3	1112	11297	Spitfire Rd.	3	60*	60	**	**	**	**	**	**	**	**
3	112	11331	Spitfire Rd.	4	56	60	**	**	**	**	**	**	**	**
3	112A	11310	Spitfire Rd.	4	60	64	**	**	**	**	**	**	**	**
3	113	11341	Spitfire Rd.	3	60	63	**	**	**	**	**	**	**	**
3	114	11365	Spitfire Rd.	4	58	63	**	**	**	**	**	**	**	**

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

Seg. #	Site ID	Site Address			Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
3	114A	11390	Spitfire Rd.	5	58	62	**	**	**	**	**	**	**	**
3	115A	11397	Spitfire Rd.	3	61	65	**	**	**	**	**	**	**	**
3	116	11445	Spitfire Rd.	3	53	59	**	**	**	**	**	**	**	**
3	106	9868	Erma Drive	4	68	71	70	70	69	68	67	**66**	R/W	n
3	3	9848	Scripps Westview Way	4	75	75	73	72	71	70	69	**68**	R/W	n
3	107	9899	Erma Way	6	50(i)	50	**	**	**	**	**	**	**	**
3	108	9895	Scripps Westview Way	6	49(i)	50	**	**	**	**	**	**	**	**
3	1002	9889	Scripps Westview Way	4	57(i)	58	57	56	55	**53**	52	51	E/S	y
3	2A	9889	Scripps Westview Way	2	53(i)	54	54	52	51	**49**	48	47	E/S	y
3	2	9889	Scripps Westview Way		56(i)		56	54	52	**51**	50	49	E/S	y
3	1109	9906	Scripps Westview Way	5	54(i)	55	55	53	51	**50**	49	48	E/S	y
3	109	9906	Scripps Westview Way	4	54(i)	55	54	53	51	**50**	48	47	E/S	y
3	1110	9916	Scripps Westview Way	6	55(i)	55	55	53	52	51	**50**	49	R/W	n
3	110	9926	Scripps Westview Way	3	51(i)	52	51	50	50	48	**47**	46	R/W	n
3	1A	10070	Scripps Vista Way	0	70	72	71	70	69	68	**67**	66	R/W	n
3	1	10070	Scripps Vista Way	0	65	65	64	64	64	64	**63**	63	R/W	n
3	111	10050	Scripps Vista Way	7	67	67	67	67	66	66	**65**	64	R/W	n
3	117	10020	Scripps Vista Way	5	66	70	70	68	67	66	**65**	64	R/W	n
3	3A	9899	Scripps Westview Way	12	68	72	71	70	68	**67**	66	65	R/W	n
3	118	9990	Scripps Vista Way	8	59	63	61	59	59	**58**	58	57	R/W	n
4	306	9860	Mercy Road	2	65	68	66	66	65	64	**63**	62	E/S	n
4	305	9854	Mercy Road	2	65	69	67	67	65	64	**63**	62	E/S	n
4	304	9848	Mercy Road	3	63	66	64	64	63	62	**61**	60	E/S	n
4	304A	9933	Kika Ct.	3	55	61	60	59	58	57	**57**	56	E/S	n
4	307	9842	Mercy Road	3	61	58	57	56	55	54	**53**	52	E/S	n

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

(i) Interior Measurement

Seg. #	Site ID	Site Address			Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
4	304B	9905	Kika Ct.	4	57	63	62	61	60	59	**58**	58	E/S	n
4	119	9980	Kika Ct.	4	61	65	64	63	62	61	**61**	60	E/S	n
4	120	9946	Kika Ct.	4	65	66	66	65	64	63	**62**	62	E/S	n
4	120A	9946	Kika Street	4	59	65	64	63	62	61	**60**	60	E/S	n
4	120B	9946	Kika Street	4	61	67	66	65	64	63	**62**	61	E/S	n
4	121	9952	Kika Ct.	4	65	69	68	66	65	65	**64**	63	E/S	n
4	1122-2	9741	Paseo Montril	2	61*	62	**	**	**	**	**	**	**	**
4	1122-1	9749	Paseo Montril	2	64*	66	63	**61**	59	58	57	56	P/L	n
4	122A/AR	9765	Paseo Montril	3	67	70	67	**64**	62	60	59	58	P/L	n
4	123A	9811	Paseo Montril	4	67	70	67	**65**	63	61	59	58	P/L	n
4	124A	9829	Paseo Montril	5	73	76	76	76	**76**	76	76	76	P/L	n
4	125/125R	9829	Paseo Montril	4	66	68	67	65	**62**	61	60	59	P/L	n
4	1125-2	9841	Paseo Montril	3	65*	66	64	63	**61**	61	60	59	P/L	n
5	126	10273	Via del Sud	3	61	63	**	**	**	**	**	**	**	**
5	127A	10289	Ave. Grande	5	60	65	**	**	**	**	**	**	**	**
5	128	13035	Via del Sud	4	63	65	**	**	**	**	**	**	**	**
5	129	10329	Azuaga St.	4	57	61	**	**	**	**	**	**	**	**
5	130	10341	Azuaga St.	4	59	61	**	**	**	**	**	**	**	**
5	5	10365	Azuaga St.	4	65	66	66	65	63	62	**60**	59	P/L	n
5	131	10377	Azuaga St.	4	63	65	**	**	**	**	**	**	**	**
5	308	SR56 O/R	Vacant Propert	0	60	61	**	**	**	**	**	**	**	**
5	309	SR56 O/R	Vacant Propert	0	57	60	**	**	**	**	**	**	**	**
6	1312		Caminito Sulmona	3	57*	63	**	**	**	**	**	**	**	**
6	312	10514	Caminto Sulmona	2	57	62	**	**	**	**	**	**	**	**
6	311	13859	Via Rimini	4	63	68	Not Feasible							**

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

Seg. #	Site ID	Site Address		# of Homes	Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
6	1310	13883	Via Rimini	3	66*	68	68	67	66	64	63	62	P/L	n
6	310	13899	Via Rimini	4	62	68	68	68	66	65	64	63	P/L	n
6	1132	14022	Caminito Almonte	2	72*	74	72	71	**69**	68	67	66	P/L	n
6	132	14020	Caminito Almonte	0	73	77	**	**	**	**	**	**	**	n
6	6	11093	Via San Marco	4	70	70	70	69	66	**65**	63	62	P/L	n
6	1133-1	11094	Via San Marco	3	69*	71	71	69	67	**65**	63	62	P/L	n
6	133	14187	Conluito Quevedo	2	68	72	72	70	68	**67**	65	64	P/L	n
6	1133-2	14203	Caminito Quevedo	2	70*	75	75	75	71	**67**	65	63	P/L	n
6	134	10794	Carmel Mountain Rd	8	66	73	73	72	71	70	68	67	E/S-P/L	y
6	1134	14065	Carmel Mountain Rd	8	65*	75	75	74	72	71	69	68	E/S-P/L	y
6	1135-1	10473	Carmel Mountain Rd	8	64*	74	74	73	71	70	69	67	E/S-P/L	y
6	135	14091	Carmel Mountain Rd	10	64	74	74	73	72	70	69	68	E/S-P/L	y
6	8	14119	Carmel Mountain Rd	10	63	69	68	68	68	68	67	66	E/S-P/L	y
6	1135-2	14135	Carmel Mountain Rd	8	67*	76	75	74	73	72	71	69	E/S-P/L	y
6	136	14132	Carmel Mountain Rd	10	65	75	75	74	73	72	71	70	E/S-P/L	y
6	1136	14227	Carmel Mountain Rd	10	66*	74	74	73	72	70	69	68	E/S-P/L	y
6	137	14226	Carmel Mountain Rd	4	65	74	74	73	71	70	69	67	E/S-P/L	y
6	1137	14335	Carmel Mountain Rd	4	65*	74	74	72	70	69	68	67	E/S-P/L	y
6	7	14339	Carmel Mountain Rd	2	62	71	71	69	68	67	66	66	E/S-P/L	y
6	316	14363	Carmel Mountain Rd.	7	60	67	67	67	67	66	65	64	E/S-P/L	y
6	315	11077	Carmel Mountain Rd.	4	66	73	72	72	71	70	68	67	E/S-P/L	y
6	1314	11093	Carmel Mountain Rd	2	67*	73	73	72	71	70	68	67	E/S-P/L	y
6	314	11097	Carmel Mountain Rd.	2	62	69	68	68	67	66	65	64	E/S-P/L	y
6	313	14340	Penasquitos Dr.	0	67		**	**	**	**	**	**	**	**
6	138B	j to 10282	Rancho Carmel Dr	0	62	66	66	65	64	63	62	**61**	E/S	n

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

Seg. #	Site ID	Site Address		# of Homes	Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
6	138A	j to 10282	Rancho Carmel Dr	0	62	66	65	64	63	62	61	**60**	E/S	n
6	1138-1	10278	Rancho Carmel Dr	3	65*	66	66	65	64	63	62	**61**	E/S	n
6	138	10282	Rancho Carmel Dr	3	63	67	66	66	64	63	62	**62**	E/S	n
6	1138-2	10296	Rancho Carmel Dr	4	65*	67	66	66	64	64	63	**62**	E/S	n
6	139	10320	Rancho Carmel Dr	2	58	67	66	66	65	64	63	**62**	E/S	n
6	139Alt	10314	Rancho Carmel Dr	2	63	67	66	66	65	64	63	**62**	E/S	n
6	1139	1525	Tanglewood	5	65*	67	67	66	65	64	63	**62**	E/S	n
6	1140-1	10326	Rancho Carmel Dr	6	62*	64	64	63	62	61	60	**59**	E/S	n
6	140	10326	Rancho Carmel Dr	4	60	65	64	63	62	61	60	**60**	E/S	n
6	1140-2		Rancho Carmel Dr	6	62*	64	64	63	62	61	60	**60**	E/S	n
6	141	10388	Rancho Carmel Dr	4	57	62	62	61	61	60	59	**58**	E/S	n
6	1141		Rancho Carmel Dr	4	58*	61	61	61	60	60	59	**58**	E/S	n
6	1142	1525	Tanglewood	2	61*	64	64	64	64	63	63	62	E/S	n
6	142A	14042	Chicarita Creek	2	59	66	66	66	65	65	64	63	E/S	n
6	143A	14076	Chicarita Creek	3	61	69	69	69	68	67	66	65	E/S	n
6	1143	14114	Chicarita Creek	2	62*	67	67	67	67	66	65	64	E/S	n
6	144	14136	Chicarita Creek	4	62	66	66	66	66	66	66	65	E/S	n
6	1144	14174	Chicarita Creek	4	63*	65	**	**	**	**	**	**	**	**
6	145	14192	Chicarita Creek	4	61	65	**	**	**	**	**	**	**	**
6	1145	14222	Chicarita Creek	4	61*	63	**	**	**	**	**	**	**	**
6	9	14228	Woodbrush Rd	0	58	64	**	**	**	**	**	**	**	**
6	146	14234	Chicarita Creek	-	63	68	**	**	**	**	**	**	**	**
7	GC-1	14555	Penasquitos Dr	0	71*	72	**	**	**	**	**	**	**	**
7	GC-2	14555	Penasquitos Dr	0	70*	70	**	**	**	**	**	**	**	**
7	GC-3	14555	Penasquitos Dr	0	70*	68	**	**	**	**	**	**	**	**

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

Seg. #	Site ID	Site Address		# of Homes	Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
7	GC-4	14555	Penasquitos Dr	0	67*	63	**	**	**	**	**	**	**	**
7	GC-5	14555	Penasquitos Dr	0	71*	65	**	**	**	**	**	**	**	**
7	147	15025	Andorra Way	3	57	62	**	**	**	**	**	**	**	**
7	148	15081	Andorra Way	6	61	64	**	**	**	**	**	**	**	**
7	149	15205	Andorra Way	7	63	63	**	**	**	**	**	**	**	**
7	150	15255	Andorra Way	5	72	72	70	67	65	63	**62**	61	P/L	n
7	151	15305	Andorra Way	3	67	70	69	68	67	66	**64**	63	P/L	n
7	1151		Andorra Way	5	66*	67	67	66	64	63	**62**	61	P/L	n
7	152	15304	Paseo Ajanta	2	56	60	**	**	**	**	**	**	**	**
7	13	15314	Paseo Ajanta	0	52	58	**	**	**	**	**	**	**	**
7	153A	15346	Paseo Ajanta	3	57	63	**	**	**	**	**	**	**	**
7	154	15404	Paseo Ajanta	4	51	61	**	**	**	**	**	**	**	**
7	12	11397	Paseo Albacete	0	52	61	**	**	**	**	**	**	**	**
7	155	15494	Paseo Ajanta	6	47	53	**	**	**	**	**	**	**	**
7	156	11253	Corte Montanoso	2	57	63	**	**	**	**	**	**	**	**
7	157	11267	Corte Montanoso	2	61*	64	**	**	**	**	**	**	**	**
8	1158		Lofty Trail Ct..	3	65*	66	65	64	63	62	**61**	60	E/S	n
8	158	15508	Lofty Trail Ct.	3	64	66	65	64	63	62	**61**	60	E/S	n
8	159	15717	Lofty Trail Ct.	3	60	64	63	62	61	60	**59**	58	E/S	n
8	160	15765	Lofty Trail Dr.	4	63	65	64	63	63	62	61	**60**	E/S	n
8	161	15813	Lofty Trail Dr.	6	65	66	65	65	64	63	62	**61**	E/S	n
8	165A	15853	Lofty Trail Dr.	5	67	71	70	68	68	**66**	65	64	E/S	n
8	1165		Lofty Trail Dr.	3		69	69	68	**67**	66	66	65	P/L	n
8	166	11515	Windy Summit	2	68	70	68	66	**64**	62	61	60	P/L	n
8	1166		Windy Summit	2		71	69	66	**64**	63	62	61	P/L	n

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

Seg. #	Site ID	Site Address		# of Homes	Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
8	167	15945	Lofty Trail Dr.	3	66	69	67	64	**62**	60	59	58	P/L	n
8	168	15993	Lofty Trail Dr.	5	66	70	68	66	**64**	63	61	60	P/L	n
8	1168	16029	Lofty Trail Dr.	3	70*	70	68	65	**64**	62	61	60	P/L	n
8	169	16401	Lofty Trail Dr.	3	65	68	66	64	**62**	61	60	59	P/L	n
8	170	11525	Eaglesview	3	71	70	66	64	**62**	61	60	59	P/L	n
8	171	10525	Earthstar Ct.	3	70	71	69	67	**66**	65	65	65	P/L	n
8	1171	10512	Earthstar Ct.	2	71*	72	70	69	**67**	66	66	65	P/L	n
8	1172-1	16165	Lofty Trail Dr.	3	60*	62	60	59	**58**	58	58	57	P/L	n
8	18	16133	Lofty Trail Dr.	0	54	59	58	57	**57**	56	56	56	P/L	n
8	172A	16149	Lofty Trail Dr.	3	68	70	66	63	**61**	59	58	57	P/L	n
8	1172-2	16165	Lofty Trail Dr.	3	68*	70	66	63	**60**	58	57	57	P/L	n
8	173	16181	Lofty Trail Dr.	3	61	66	63	61	**59**	58	57	56	P/L	n
8	1173	11488	Turtleback	2	64*	66	66	64	**61**	59	57	57	P/L	n
8	174A	11476	Turtleback	3	61	68	67	65	**63**	61	59	58	P/L	n
8	17	11464	Turtleback	0	53	58	58	57	**56**	56	55	55	P/L	n
8	175	11452	Turtleback	3	60	65	65	64	**60**	58	56	55	P/L	n
8	1162	11563	Avenida Sivrita	1	66*	67	67	65	64	**62**	61	60	P/L	n
8	162	11551	Avenida Sivrita	2	64	69	69	67	65	**63**	62	60	P/L	n
8	163	11550	Avenida Sivrita	2	67	72	72	70	68	**65**	64	62	P/L	n
8	164	11570	Avenida Sivrita	1	62	68	68	66	65	**63**	62	61	P/L	n
8	1176		El Paracho	2	67*	68	66	63	**61**	59	58	58	P/L	n
8	176	11698	El Paracho	2	70	72	71	68	**66**	63	62	61	P/L	n
8	177	11722	Calle Vivienda	4	69	72	69	67	**65**	64	63	62	P/L	n
8	178	11740	Calle Vivienda	3	66	70	68	66	**64**	63	62	61	P/L	n
8	179D	11762	Vivienda	2	69	71	71	71	**71**	69	68	66	P/L	n

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Seg. #	Site ID	Site Address		# of Homes	Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
8	179	11762	Calle Vivienda	1	63	64	64	64	**64**	63	62	61	P/L	n
8	179C	11762	Vivienda	1	60	64	64	63	**63**	62	61	61	P/L	n
8	180	11658	Corte Giera	3	65	68	67	65	64	**63**	63	62	P/L	n
8	1180	11650	Corte Giera	3	70*	71	69	67	65	**63**	62	61	P/L	n
8	181	11705	Delas Missiones	3	67	71	70	65	**62**	60	58	58	P/L	y
8	1181-1	16042	Caminito Tomas	10	66*	67	65	63	**61**	60	58	57	P/L	y
8	1181-2	16082	Caminito Tomas	3	68*	69	68	64	**62**	60	58	57	P/L	y
8	318	16146	Avenida Venusto	1	69	72	72	70	68	66	**64**	63	P/L	n
8	1318	16150	Avenida Venusto	7	72*	74	74	73	72	71	**69**	67	P/L	n
8	317	16156	Avenida Venusto	7	69	73	73	73	73	71	69	**66**	P/L	n
8	1019-1	11705	Corte Sosegada	1	66*	67	67	65	63	**61**	59	58	P/L	n
8	19	11706	Corte Sosegada	0	60	61	61	60	59	**59**	58	58	P/L	n
8	1019-2	11706	Corte Sosegada	1	64*	66	66	64	62	**60**	58	56	P/L	n
8	1019-3	11705	Corte Templanza	1	65*	66	66	65	62	**61**	59	58	P/L	n
8	1019-4		Corte Templanza	6	63*	64	64	62	60	**58**	57	56	P/L	n
9	182	17051	W Bernardo Drive	0	59	64	**	**	**	**	**	**	**	**
9	183	17412	Caminito Canasto	4	61	66	**	**	**	**	**	**	**	**
9	1183	17131	W Bernardo Drive	4	65*	65	**	**	**	**	**	**	**	**
9	22	17133	W Bernardo Drive	4	64	65	**	**	**	**	**	**	**	**
9	184	17147	Caminito Canasto	3	62	65	**	**	**	**	**	**	**	**
9	23	17343	Caminito Canasto	4	63	64	**	**	**	**	**	**	**	**
9	1023	17353	Caminito Canasto	5	64*	65	**	**	**	**	**	**	**	**
9	185	17373	Jocatal	4	64	67	**	**	**	**	**	**	**	**
9	24	17443	Caminito Canasto	4	62	66	**	**	**	**	**	**	**	**
9	1186	17453	Caminito Canasto	2	63*	65	**	**	**	**	**	**	**	**

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9	186	17495	Valladares	4	61	65	**	**	**	**	**	**	**	**
9	191	17523	Caminito Cansto	2	59	64	**	**	**	**	**	**	**	**
9	187	11819	Bernardo Terrace	11	69	72	71	70	69	67	66	65	R/W	n
9	188A	11819	Bernardo Terrace	6	63	64	64	63	62	61	61	60	R/W	n
9	20	11816	Bernardo Terrace	10	68	71	70	69	68	67	65	64	R/W	n
9	189	17426	Ashburton	4	71	74	73	71	70	68	67	66	R/W	n
9	1189	17438	Ashburton	2	72*	73	73	71	69	68	67	66	R/W	n
9	21	17466	Ashburton	2	70	70	70	67	65	64	63	63	R/W	n
9	1021	17466	Ashburton	2	71*	73	72	70	68	67	65	64	R/W	n
9	190	17498	Ashburton	2	70	74	73	69	67	65	64	63	R/W	n
9	1190	17548	Ashburton	7	70*	71	71	68	66	65	63	62	R/W	n
9	25	17625	Fairlie	5	67	71	70	67	65	64	63	62	R/W	n
10	1192	11616	Duenda Rd	0	66*	67	**	**	**	**	**	**	**	**
10	192	11616	Duenda Rd	0	76	78	**	**	**	**	**	**	**	**
10	1027-1	17616	Valladares	2	65*	66	65	64	63	62	**61**	61	R/W	n
10	27	17616	Valladares	0	63	66	65	64	63	62	**61**	60	R/W	n
10	1027-2	17605	Valladares	2	66*	68	67	66	65	64	**63**	62	R/W	n
10	1193-1	11681	Jocatal	1	60*	61	**	**	**	**	**	**	**	**
10	193	11686	Jocatal	1	58	62	**	**	**	**	**	**	**	**
10	1193-2	11696	Agreste Pl.	3	59*	61	**	**	**	**	**	**	**	**
10	194	17957	Almendro Ln.	3	57	61	**	**	**	**	**	**	**	**
10	1195-1	18037	Valladares	2	59*	62	**	**	**	**	**	**	**	**
10	195	18057	Valladares	2	57	62	**	**	**	**	**	**	**	**
10	1195-2	18107	Valladares	5	61*	63	**	**	**	**	**	**	**	**
10	1197	18157	Valladares	2	60*	62	**	**	**	**	**	**	**	**

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10	197	18177	Valladares	2	59	63	**	**	**	**	**	**	**	**
10	30	18198	Valladares	2	61	65	**	**	**	**	**	**	**	**
10	198	11646	Andanza	3	54	58	**	**	**	**	**	**	**	**
10	322		Bernardo Street	0	63	61	**	**	**	**	**	**	**	**
10	11320		Ashburton	3	67*	67	67	66	65	64	63	**62**	P/L	n
10	320	11825	Caminito Ronaldo Bldg.	4	67	70	70	68	66	64	63	**62**	P/L	n
10	1320	11840	Caminito Pinero	4	68*	68	68	67	66	64	63	**62**	P/L	n
10	26	17785	Caminito Pinero Bldg. 14	0	67	70	70	67	65	62	61	**60**	P/L	n
10	1026-1	17885	Caminito Pinero	4	65*	66	66	65	64	63	62	**61**	P/L	n
10	1026-2	17925	Caminito Pinero	3	65*	66	66	65	64	63	62	**61**	P/L	n
10	319	17975	Caminito Pinero Bldg. 24	3	66	70	70	69	67	65	**64**	62	P/L	n
10	1319	17985	Caminito Pinero	2	65*	67	67	66	65	65	**64**	63	P/L	n
10	1029-1	11956	Voisin Court	1	68*	69	**	**	**	**	**	**	**	**
10	1029-2	11954	Corte Tezcuco	1	68*	69	**	**	**	**	**	**	**	**
10	29	S. Curb	Chretien / Escala	1	68	70	**	**	**	**	**	**	**	**
10	323		Escala Dr.	0	61	63	**	**	**	**	**	**	**	**
11	321	18500	W. Bernardo Dr	0	62	65	64	63	62	62	61	**60**	R/W	n
11	324A	18800	Bernardo Ave.	0	62	66	65	64	63	62	61	**60**	R/W	n
11	1324	18800	Bernardo Ave.	0	64*	65	65	64	63	61	61	**60**	R/W	n
11	324	18800	Bernardo Ave.	0	62	66	66	64	63	62	61	**60**	R/W	n
11	1031A-1	18655	W. Bernardo Ave.	1	76*	77	77	76	74	**72**	70	69	P/L	n
11	1031A-2	18655	W. Bernardo Ave.	4	74*	75	74	73	72	71	**70**	69	P/L	n
11	31A	18755	W. Bernardo Ave.	2	75	76	75	75	74	73	72	**71**	P/L	n
11	1031A-3	18755	W. Bernardo Ave.	1	70*	70	70	69	69	**68**	67	67	P/L	n
11	31B	18755	W. Bernardo Ave.	0	79	78	**	**	**	**	**	**	**	**

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11	1031B	18755	W. Bernardo Ave.	0	73*	74	72	71	70	**69**	68	68	P/L	n
11	201	18655	W. Bernardo Dr.	1	77	79	78	76	**74**	71	69	67	P/L	n
11	202	18655	W. Bernardo Dr.	2	62	66	65	64	**61**	60	58	58	P/L	n
11	203	18655	W. Bernardo Dr.	3	60	63	63	62	60	58	57	56	P/L	n
11	199	18614	Caminito Pasadero	3	64	67	66	64	63	**62**	61	60	P/L	n
11	1199	18630	Caminito Cantilena	3	63*	65	65	64	63	**62**	61	61	P/L	n
11	200	18656	Caminito Cantilena	4	67	70	70	69	67	66	**65**	65	P/L	n
11	1200	1525	Tanglewood		67*	69	69	68	67	66	**66**	65	P/L	n
11	31	8692	Caminito Cantilena	0	64	68	68	67	65	64	**62**	61	P/L	n
11	1031-1	18736	Caminito Cantilena	2	66*	67	67	67	65	63	**62**	61	P/L	n
11	1031-2	18752	Caminito Cantilena	2	63*	65	65	64	63	61	**60**	59	P/L	n
11	1031-3	18764	Caminito Cantilena	2	62*	64	64	63	62	61	**61**	60	P/L	n
11	325	18826	Caminito Cantilena	2	63	69	69	68	65	64	**62**	61	P/L	n
11	1325-1	18840	Caminito Cantilena	7	65*	66	66	66	64	63	**62**	61	P/L	n
11	325A	18880	Caminito Cantilena #64	7	65	66	66	65	63	62	**61**	60	P/L	n
11	1325-2	18880	Caminito Cantilena #47	0	65*	66	66	65	62	**60**	59	58	P/L	n
12	328	None	open-space	0	68	72	**	**	**	**	**	**	**	**
12	327	None	open-space	0	70	70	**	**	**	**	**	**	**	**
12	1327-1	None	open-space	0	72*	72	**	**	**	**	**	**	**	**
12	1327-2	None	open-space	0	69*	71	**	**	**	**	**	**	**	**
12	1327-3	None	open-space	1	67*	68	**	**	**	**	**	**	**	**
12	1204-1	3640	Vista de la Canada	1	60*	61	**	**	**	**	**	**	**	**
12	204	3630	Vista de la Canada	1	72	72	70	68	**67**	65	63	61	P/L	n
12	1204-2	3610	Avenida Amarosa	1	62*	64	**	**	**	**	**	**	**	**
12	205	3538	Avenida Amarosa	2	60	63	**	**	**	**	**	**	**	**

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12	1205	3542	Avenida Amarosa	2	59*	61	**	**	**	**	**	**	**	**
12	1206	3530	Avenida Amarosa	1	63*	64	**	**	**	**	**	**	**	**
12	206	3526	Avenida Amarosa	1	58	62	**	**	**	**	**	**	**	**
12	326	None	open-space	0	68	72	**	**	**	**	**	**	**	**
12	206B	None	open-space	0	69	70	**	**	**	**	**	**	**	**
12	206A	None	open-space	0	69	71	**	**	**	**	**	**	**	**
12	206C	None	open-space	0	68*	69	**	**	**	**	**	**	**	**
13	329	3278	Via Ribera	2	57	61	**	**	**	**	**	**	**	**
13	330	3248	Via Ribera	1	62	64	**	**	**	**	**	**	**	**
13	331	3218	Via Ribera	1	60	59	**	**	**	**	**	**	**	**
13	1333	3218	Via Ribera	2	65*	66	Not Feasible							**
13	333	106	Camino Bailen	1	63	67	Not Feasible							**
13	332	140	Camino Bailen	2	47	51	**	**	**	**	**	**	**	**
13	207	232	Silver Creek	2	50	55	**	**	**	**	**	**	**	**
13	209	226	Clarence	1	61	66	Not Feasible							**
13	1209	226	Clarence	1	66*	67	Not Feasible							**
13	210	3018	South Center City Pkwy.	1	77	79	79	78	76	76	75	**74**		n
13	334	3165	El Ku Ave.	0	64	65	**	**	**	**	**	**	**	n
13	1208	3127	El Ku Ave.	1	63*	66	65	64	63	62	61	**61**	E/S	n
13	208	3137	El Ku Ave.	1	60	65	64	63	62	62	61	**61**	E/S	n
13	32	3115	El Ku Ave.	2	61	64	**	**	**	**	**	**	**	**
13	1032	3105	El Ku Ave.	2	62*	64	**	**	**	**	**	**	**	**
13	1335-1	3039	El Ku Ave.	1	63*	63	**	**	**	**	**	**	**	**
13	335	3014	El Ku Ave.	1	66	64	**	**	**	**	**	**	**	**
13	1335-2	3014	El Ku Ave.	1	62*	63	**	**	**	**	**	**	**	**

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14	211	302	Woodland Hills Dr.	1	66	68	67	65	62	**60**	59	57	P/L	n
14	1211	2456	Alexander Dr.	1	71*	71	70	68	65	**63**	61	60	P/L	n
14	215	2448	Alexander Dr.	1	60	64	**	**	**	**	**	**	**	**
14	1215	2418	Alexander Dr.	1	67*	67	67	66	64	63	**62**	60	P/L	n
14	216	2413	Alexander Dr.	1	53	56	**	**	**	**	**	**	**	**
14	1216	2411	Alexander Dr.	1	58*	58	**	**	**	**	**	**	**	**
14	36A	2407	Alexander Dr.	1	61	64	**	**	**	**	**	**	**	**
14	217A		Miller Ave.	1	61	65	**	**	**	**	**	**	**	**
14	218A	2315	Miller Ave.	1	64	68	Not Feasible							**
14	1218	2315	Miller Ave.	1	64*	64	**	**	**	**	**	**	**	**
14	219	2324	Miller Ave.	1	59	62	**	**	**	**	**	**	**	**
14	224	800	Monticello Drive	0	55	59	**	**	**	**	**	**	**	**
14	213	2865	South Center City Pkwy.	1	67	70	68	66	65	**64**	63	62	E/S	n
14	212	2851	South Center City Pkwy.	1	63	68	66	65	64	**63**	62	61	E/S	n
14	1214	2789	South Center City Pkwy.	1	66*	66	65	65	64	63	62	**61**	R/W	n
14	214	2777	South Center City Pkwy.	1	55	58	**	**	**	**	**	**	**	**
14	33	491	Lost Oak Lane	1	55	58	**	**	**	**	**	**	**	**
14	1336	535	Lost Oak Ln.	1	60*	60	**	**	**	**	**	**	**	**
14	336	571	Lost Oak Ln.	1	68*	69	69	68	66	65	**64**	63	R/W	n
14	220	594	Lost Oak Ln.	1	73	74	73	71	70	**69**	68	67	P/L	n
14	1221	401	Rancho La Mirada Ln.	1	66*	66	Not Feasible							**
14	221	2242	Alexander Dr.	1	60	65	**	**	**	**	**	**	**	**
14	222	2205	Alexander Dr.	1	66	65	**	**	**	**	**	**	**	**
14	1222	2183	Alexander Dr.	1	67*	68	67	66	66	65	64	**63**	R/W	n
14	223	2187	Alexander Dr.	1	72	75	74	73	72	70	69	**68**	R/W	n

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15	1225A-1	964	Gamble Lane	1	66*	68	67	66	65	64	63	**62**	E/S	n
15	225A	964	Gamble Lane	1	64	70	68	67	66	65	64	**63**	E/S	n
15	1225A-2	964	Gamble Lane	1	67*	70	68	67	66	65	64	**63**	E/S	n
15	39A		Gamble Lane	1	57	62	62	62	61	60	59	**58**	E/S	n
15	1039		Gamble Lane	1	64*	66	66	65	64	63	62	**61**	E/S	n
15	39		Gamble Lane	1	60	65	63	63	62	61	60	**59**	E/S	n
15	226		Gamble Lane	1	66	71	69	68	67	66	**65**	64	R/W	n
15	1231	2064	Bernardo Ave.	1	67*	70	68	67	66	65	**64**	63	R/W	n
15	231	2064	Bernardo Ave.	1	67	71	69	69	68	67	**66**	65	R/W	n
15	232		Bernardo Ave.	1	64	68	Not Feasible							**
15	337		Bernardo Ave.	0	67	72	**	**	**	**	**	**	**	**
15	338		Bernardo Ave.	0	69	72	**	**	**	**	**	**	**	**
15	1338		Bernardo Ave.	0	71*	73	**	**	**	**	**	**	**	**
15	339	1546	Knoll Park Glen Ave.	3	70	74	74	72	69	67	**66**	65	R/W	n
15	1339		Bernardo Ave.	4	69*	70	70	69	69	68	**67**	66	R/W	n
15	340		Bernardo Ave.	1	68	74	71	69	67	66	**64**	63	R/W	n
15	340A	1476	Knoll Glenn Park	1	68	72	70	70	68	67	**66**	65	R/W	n
15	340B	dj. to 1476	Knoll Glenn Park	2	71	72	71	70	69	68	**67**	65	R/W	n
15	1340	1525	Bernardo Ave.	2	62*	63	**	**	**	**	**	**	**	n
15	1342-1	1327	Bernardo Ave.	2	62*	63	**	**	**	**	**	**	**	**
15	342B	1295	Ridgegrove	2	52	55	**	**	**	**	**	**	**	**
15	342A	1303	Bernardo Ave.	3	62	65	**	**	**	**	**	**	**	**
15	1342-2	1284	Ridgegrove Lane	1	62*	63	**	**	**	**	**	**	**	**
15	1343	1273	Bernardo Ave.	3	64*	65	**	**	**	**	**	**	**	**
15	343	1225	Bernardo Ave.	4	60	66	64	64	62	**61**	60	59	R/W	n

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15	236	1464	W. 11'th Ave. (at R/W)	0	74	78	**	**	**	**	**	**	**	**
15	1236	1464	W. 11'th Ave.	1	70*	72	Not Feasible							**
15	237	1564	Tanglewood	1	71	74	74	73	72	70	**69**	68	E/S	n
15	1238		Tanglewood	1	69*	71	70	69	67	66	**65**	64	E/S	n
15	238	1561	Tanglewood	1	63	69	68	67	65	63	**62**	61	E/S	n
15	238A	1561	Tanglewood	2	61	68	67	66	65	64	**62**	61	E/S	n
15	344	1525	Tanglewood	2	63	68	67	66	65	65	**64**	63	E/S	n
15	227	809	Palm Terrace	3	64	70	68	66	65	64	63	**62**	E/S	n
15	227A	809	Palm Terrace		66	70	69	69	68	67	66	**65**	E/S	n
15	1227-1	9946	Kika Street	2	67*	69	68	68	67	66	65	**64**	E/S	n
15	228	825	Palm Terrace	1	65	69	66	65	64	64	63	**63**	E/S	n
15	1228-1	2130	Felicita Rd.	1	69*	71	69	68	66	66	65	**64**	E/S	n
15	1228-2	2111	Felicita Rd.	1	69*	69	67	67	66	66	65	**64**	E/S	n
15	229	2000	Felicita Rd.	0	62	66	Not Feasible							**
15	38	2025	Felicita Ave.	2	62	67	Not Feasible							**
15	1038		Felicita	1	70*	72	Not Feasible							**
15	230	2035	Felicita Rd.	1	72	79	77	77	76	75	**74**	73	R/W	n
15	1230		Rohn Read	1	69*	72	71	71	70	70	**69**	68	R/W	n
15	1233	1996	Rohn Read	1	67*	70	69	69	68	67	66	**65**	R/W	n
15	233A	1994	Bernardo Ave.	1	71	74	74	72	71	70	69	**68**	R/W	n
15	234	1992	Bernardo Ave.	1	69	71	71	70	70	69	68	**67**	R/W	n
15	37	1971	Bernardo Ave.	2	66	71	71	70	69	69	68	**67**	R/W	n
15	235	1975	Bernardo Ave.	1	73	76	75	73	72	71	70	**69**	R/W	n
15	1235	1971	Bernardo Ave.	1	72*	74	73	73	72	71	70	**69**	R/W	n
15	341	1967	Bernardo Ave.	1	77	81	80	79	77	76	75	**73**	R/W	n

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

Seg. #	Site ID	Site Address		# of Homes	Existing Level	Predicted Level	6'	8'	10'	12'	14'	16'	Location	Build
15	1341	1967	Bernardo Ave.	1	75*	77	77	76	76	75	74	**74**	R/W	n
15	1041-2	1931	Morton Glen	4	64*	67	67	65	63	**61**	60	59	P/L	n
15	1041-1	1927	Morton Glen	3	68*	70	70	68	**65**	64	62	61	P/L	n
15	41A	1923	Morton Glen	3	69	70	70	66	**64**	62	60	59	P/L	n
15	5016	1240	Pinecrest Dr.	2	66*	67	**	**	**	**	**	**	**	**
15	5008		11th Ave	1	67*	68	**	**	**	**	**	**	**	**
15	1042-2		11th Ave	2	69*	70	**	**	**	**	**	**	**	**
15	1042-1		11th Ave	1	69*	70	70	69	66	**65**	64	63	R/W	n
15	42	1325	11'th Ave.	0	75	78	**72**	69	66	64	62	61	R/W	n
15	1042-3	1430	W. 11'th Ave.	1	69*	70	70	69	68	66	**65**	64	R/W	n

* Modeled location

** Site was not representative of a noise-sensitive land use or did not qualify for abatement

3.8 Water Quality

In March 2001, a report entitled Water Quality Report: Interstate 15 from I-163 to SR-78 was prepared for the proposed project. The water quality report was completed to assist in addressing impacts to water quality. Following is a discussion of the impacts associated with the proposed project.

3.8.1 Affected Environment

Several ephemeral and perennial surface waters can be found in the project area. Ephemeral streams are streams that contain water for only a portion of the year, while perennial streams contain water all year. The waters within the corridor include San Clemente Canyon Creek, Rose Canyon Creek, Miramar Reservoir, Carroll Canyon Creek, Second San Diego Aqueduct, Los Peñasquitos Canyon Creek, Lake Hodges, and several unnamed creeks.

There were several watersheds that did not contain identified surface water bodies including the Mission San Diego Hydrologic Sub Area (HAS), Green HAS, and Felicita HAS. In addition, numerous groundwater bodies are located within the project area. Watersheds within the corridor are shown in Figure 3-4.

The existing and potential beneficial uses that exist at these locations include uses as municipal and domestic water supply (MUN), agricultural water supply (AGR), water for industrial processes that primarily depend on water(PROC), industrial service supply for industries that do no depend primarily on water(IND), recreational activities involving contact with water (REC1), recreational activities involving no water contact (REC2), warm freshwater aquatic habitat (WARM), cold freshwater aquatic habitat (COLD), wildlife habitat (WILD), supporting rare, threatened and endangered species (RARE), and hydropower generation (POW). Table 3-7 shows the beneficial uses at each of the waterbodies within the project corridor.

Table 3-7: Beneficial Uses of Waters

Waterbody	Beneficial Use										
	MUN	AGR	IND	PROC	REC1	REC2	WARM	COLD	WILD	RARE	POW
San Clemente Canyon Creek			○		●	●	●	●	●	●	
Rose Canyon Creek			○		●	●	●	●	●		
Carroll Canyon Creek		●	●		○	●	●	●	●	●	
Los Penasquitos Canyon Creek		●			●	●	●	●	●		
Lake Hodges	●	●	●	●	●	●	●	●	●	●	●
Miramar Reservoir HAS*	●	●	●								
Poway HAS	●	●	○								
Miramar HAS			○								
Hodges HAS	●	●	●								

★ Located upstream of proposed project, included only for completeness
○ Potential beneficial use
● Beneficial use

3.8.2 Impacts

The proposed project will affect a variety of related water quality effects within the area. All impacts will be mitigated accordingly. The project includes both permanent and temporary Best Management Practices (BMPs) so the project will not impact the water quality.

New construction may have an effect on downstream channel stability through changes in the rate and volume of runoff, the sediment load due to changes in the land surface, and other hydraulic changes from stream encroachments, crossings or realignment. The peak flow rate, runoff velocities, and erosive characteristics of the soil in the area will be assessed with regards to downstream watercourses to determine potential impacts.

During construction suspended solids, either organic or inorganic, have been identified as a possible chemical and related water quality effect of the project. This is due to a large amount of disturbance that will occur during the construction phase.

Pursuant to Section 402 of the Clean Water Act, operators of the municipal stormwater conveyance systems are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for those systems.

During freeway operations, The Department's Standard Specifications and the terms and conditions of the NPDES permit will be implemented for pollutant controls. These typically include the following:

- Reduction of direct discharges
- Use of vegetated drainages
- Catch basin installation and maintenance
- Proper vegetation maintenance
- Design of drainage patterns to include proper retention, detention, and infiltration of runoff.

3.8.3 Measures to Minimize Harm

Best Management Practices (BMPs) must be considered for this project as required under the Storm Water Management Plan (SWMP). BMPs being considered include biofiltration strips/swales, infiltration basins, detention devices, traction sand traps, and dry weather flow diversions.

The potential sites for infiltration basins or detention devices include the southbound shoulder at I-15 and SR163, at Pomerado Road in the northbound gore area, and at Valley Parkway in the southbound loop ramp. All BMPs will be in compliance with requirements determined by the NPDES permit with the State Water Resources Control Board (SWRCB) and the Consent Decree (U.S. District Court for Southern District of CA, Case No. 90-0037-EIG) between the Department, Environmental Protection Agency (USEPA), National Resources Defense Council (NRDC) and the San Diego Baykeepers.

During a preliminary review of the project area, the use of vegetated swales was found to be feasible. The preliminary swale designs include a 75 meter (246 foot) swale on the northbound outside shoulder at Peñasquitos Creek, a 120 meter (394 foot) swale on the southbound outside shoulder at Peñasquitos Creek, a 120 meter (394 foot) swale on the southbound outside shoulder at San Clemente Creek, a 130 meter (426 foot) swale on the northbound outside shoulder at Lake Hodges, and a 190 meter (623 foot) swale on the southbound outside shoulder at the San Clemente Creek.

Where an increase in paved surfaces leads to an increase in either total or peak runoff discharges, a thorough evaluation will be performed to determine if any impacts will result.

If increased runoff will cause an increased potential for downstream impacts in the channels, the Department will consider the following control measures:

- Modifications to channel lining materials including vegetation, geotextile mats, rock and rip rap
- Energy dissipation devices at culvert outlets
- Incorporate retention or detention facilities to reduce peak discharge.
- Soil stabilizers on disturbed areas to reduce sediment loads
- Perimeter control practices to protect undisturbed areas from offsite runoff and to prevent sediment damage to areas below the project

During construction there will be the potential for more than 2.0 hectares (5 acres) of soil disturbance at one time. The standard construction practice of limiting soil disturbance to 2.0 hectares (5 acres) is a Department defined limit in order to minimize the potential for water quality impacts. The implementation of BMPs during construction will address both stormwater and non-storm water discharges. The temporary control measures will be consistent with the BMPs and control practices required under the State of California NPDES General Permit for storm water discharges associated with construction activity, and will be used to achieve compliance with the requirements of the permit.

To remove spill containment and prevention control measures must be implemented in accordance with the SWMP. For the proposed project, all runoff from Lake Hodges Bridge will be conveyed to a treatment device prior to discharging, therefore, no direct runoff will be discharged into Lake Hodges without treatment. The elimination of direct runoff into Lake Hodges is considered a project benefit since this lake is a valuable resource within the region for recreation, wildlife habitat, and as a drinking water reservoir. The following control measures are being considered at the Lake Hodges Bridge:

- Drainage inlet inserts: designed to trap and adsorbed sediments, oil and grease
- Continuous deflection separators: designed to capture sediment and debris

- Biofiltration systems: could be used in combination with the above devices to filter out and trap pollutants prior to discharging
- Ground solid removal devices: designed to trap debris

Other measures would be adopted during the Regional Water Quality Control Board's Section 401 permit process.

3.9 Wetlands and Waters of the United States

As part of the biological studies conducted for the proposed project, all of the wetlands throughout the corridor were delineated and compiled in the Natural Environmental Study and Mitigation Recommendations for Managed Lanes/HOV and Auxiliary/Added Lanes Project Date September 13, 2000. Following is a discussion of the impacts identified for the proposed project.

Potential areas of jurisdiction were identified by reviewing the project plans for creeks, drainages and low areas and by observation of vegetation type in the field. Wetland delineations were performed at selected areas (mainly Lake Hodges, Green Valley Creek, Chicarita Creek, and Los Penasquitos Creek) using the methodology described in the U.S. Army Corps of Engineers (USACOE) Wetland Delineation Manual (USACOE 1986). The USACOE regulates wetlands and defines them as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in the saturated soil conditions." The USACOE also regulates waters of the U.S. as defined in the Regulatory Programs of the ACOE; Final Rule (Federal Regulation 1986). Waters of the U.S. (waters) include natural drainages up to the limit of the ordinary high water mark, which is defined as "line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area."

The California Department of Fish and Game (DFG) also regulates wetlands. DFG jurisdiction includes all USACOE jurisdictional wetlands and is defined as an area which utilizes hydric soils, saturation or inundation, and vegetation criteria, and requires the presence of at least one of these criteria (rather than all three) in order to classify it as a wetland. The following discussion, though described differently from what was in the draft report, does not contain any additional impacts to wetlands/waters beyond what was previously identified.

3.9.1 Affected Environment

The major wetland areas along the corridor, are from north to south: Lake Hodges, Green Valley Creek, Chicarita Creek, Los Peñasquitos Creek, Carroll Canyon and San Clemente Creek at Miramar Marine Corp Air Station (MCAS). The first five areas support emergent marsh and southern willow scrub in generally good condition with some non-native vegetation present. Specifically, Lake Hodges, Green Valley Creek, Chicarita Creek, Carroll Canyon and Los Penasquitos Creek support southern willow scrub/mulefat scrub. This community consists of dense, broadleafed, winter-deciduous riparian thickets dominated by willow with scattered emergent cottonwoods and western sycamore, including mulefat. Impacts to this habitat type are regulated by the USACOE, DFG and Regional Water Quality Control Board. In addition, portions of Chicarita Creek and Los Penasquitos Creek also support southern coast live oak riparian forest. This community is a moderately dense woodland dominated by a single evergreen tree, the coast live oak. This habitat develops in riparian areas along creeks and streams on fine-textured alluvial soils. Associated species include western sycamore and elderberry, along with willows and mulefat. Both habitats described above are declining in San Diego County, support a number of rare species, and also function as a wildlife movement corridor.

Vernal pools, some supporting rare plants and animals, occur in the segment where the southbound right-of-way passes through Miramar MCAS. These areas were created in 1983 to offset impacts due to earlier I-15 construction (Scheidlinger 1985, 1988). In, addition to vernal pools created as mitigation, naturally occurring vernal pools exist in this region. Escondido Creek, which intersects the I-15 near the SR-78 junction, is contained in a concrete trapezoidal channel that does not support wetlands in the area of the corridor. There are several other small, unnamed drainages along the corridor such as a creek in San Clemente Canyon on Miramar MCAS, and a stream just north of Carroll Canyon Road that goes underground west of I-15.

3.9.2 Impacts

Both permanent and temporary impacts will occur at the five jurisdictional locations in the I-15 Corridor. Following is a discussion of the impacts that are anticipated at each of the locations. In addition, Table 3-8 summarizes impacts to USACOE and DFG jurisdictional wetlands and waters of the United States (waters).

Construction activities from Camino del Norte to Via Rancho Parkway would result in permanent impacts of 0.36 hectare (0.88 acre) of waters of the U.S. and DFG jurisdictional wetlands at Lake Hodges. Temporary impacts associated with construction including access and staging will total 1.42 hectares (3.52 acres) of waters of the U.S. and DFG jurisdictional wetlands. Access may total up to 0.15 hectare (0.37 acre) in three areas. All impacts will occur to open water/reservoir. At the time of the original biological surveys, Lake Hodges was under water and had been classified as open water/reservoir. In the past two years, conditions have changed and currently Lake Hodges is dry adjacent to the bridge and supports southern willow scrub. The San Diego County Water Authority (SDCWA) is proposing to construct the Lake Hodges Inlet/Outlet project as an element of its Emergency Water Storage Project (ESP). Water levels at Lake Hodges will be maintained year round at 311 feet mean sea level (msl) by filling or withdrawing water through the proposed inlet/outlet. Maintaining the water at this elevation will inundate all riparian vegetation that currently exists within the lakebed. Construction of the Inlet/Outlet project is planned for 2004/2005, prior to construction of this phase of the Managed Lanes project. In addition, incidental temporary impacts may occur due to geotechnical drilling required for preliminary design work and would be mitigated with the guidance of the regulatory and resource agencies.

At Green Valley Creek permanent impacts of 0.12 hectare (0.30 acre) of USACOE and DFG jurisdictional wetlands consisting of southern willow scrub/mulefat scrub; and 0.008 hectares (0.02 acre) of waters of the U.S.; and temporary impacts of about 0.36 hectare (0.89 acre) of USACOE/DFG jurisdictional wetlands and 0.27 hectare (0.66 acre) of waters of the U.S.are anticipated from construction of the Auxiliary/Added Lane from Camino del Norte to Via Rancho Parkway. Incidental temporary impacts may occur due to geotechnical drilling required for preliminary design work and would be mitigated with the guidance of the regulatory and resource agencies.

Los Peñasquitos Creek will have permanent impacts of less than 0.04 hectare (0.1 acre) of USACOE/DFG wetlands and waters of the U.S., consisting of southern willow scrub and emergent wetland. Impacts are due to the construction of the Auxiliary/Added Lane from Poway Road to Mercy Road.

The extension of SR-56 due to the Managed Lanes Project will impact 0.15 hectare (0.0375 acre) of waters of the U.S. and DFG jurisdictional wetlands. These permanent impacts will occur southwest of the I-15 and SR-56 overcrossing and in the southwest quadrant of I-15 and SR 56. These areas consist mostly of emergent wetlands.

There would be no direct or indirect impacts to vernal pools at MCAS Miramar. Temporary USACOE/DFG wetlands and waters impacts of less than 0.08 hectare (0.2 acre) will occur during construction at San Clemente Canyon. These impacts are caused by the two proposed drainage easements. No impacts will occur at Escondido Creek, Chicarita Creek and Caroll Canyon.

Table 3-8: Wetlands and Waters of the United States

	Lake Hodges	Green Valley Creek	Los Penasquitos Creek	I-15/SR 56	San Clemente Canyon
Temporary USACOE wetland impacts (hectares/acres)	0/0	0.36/0.89	0.20/0.50	0/0	0.08/0.2
Permanent USACOE wetland impacts (hectares/acres)	0/0	0.12/0.30	0.04/0.10	0/0	0/0
Temporary DFG wetland impacts (hectares/acres)	1.42/3.52	0.36/0.89	0.20/0.50	0/0	0.08/0.2
Permanent DFG wetland impacts (hectares/acres)	0.36/0.88	0.12/0.30	0.04/0.10	0.015/0.0375	0/0
Temporary Waters Impacts (hectares/acres)	1.42/3.52	0.27/0.66	0.20/0.50	0/0	0.08/0.2
Permanent Waters Impacts (hectares/acres)	0.36/0.88	0.008/0.02	0.04/0.10	0.015/0.0375	0/0

3.9.3 Measures to Minimize Harm

Through project planning, vernal pools and their watersheds were identified and avoided. Any indirect impacts from construction including noise, light, vibration and exhaust will be avoided by the Department's Best Management Practices (BMP's) included in Section 3.17 of this document.

All impacts to wetland/waters areas identified were avoided to the maximum extent practicable. Environmentally Sensitive Areas (to be avoided) and Limited Use Areas (to be only used temporarily for specific purposes) would be designated on design plans to prohibit work from extending into sensitive areas. These areas will be monitored by the project biologist and temporarily fenced during construction. Avoidance and minimization for the proposed project include:

- using retaining walls to minimize encroachment into wetlands
- ensuring disposal sites for excess dirt would be located in non-sensitive areas
- creating a bridge for the barrier transfer machine south of H Avenue to avoid impacts to vernal pools that exist at the top of the slope
- construction of two new bridges over Lake Hodges and Green Valley Creek instead of the original proposal to widen/retrofit the existing bridges which would impact a larger area near the columns underneath the bridges; and
- designating all sensitive resources not directly impacted by the project as ESAs to avoid further impacts during construction
- Temporarily fencing all ESAs during construction;
- on-site biological monitor during construction.

In addition to minimization measures adopted during Consultation with USFWS pursuant to Section 7 of the Endangered Species Act, other measures would be adopted through the Section 404 Nationwide Permit process conducted by the Army Corps of Engineers, through the Section 1601 Streambed Alteration Agreement from the California Department of Fish and Game, and through the Water Quality Certification from the California Regional Water Quality Control Board.

All impacts to wetland within Caltrans right of way and within the City's MHPA will be consistent with the mitigation ratios referenced in the City's Biology Guidelines for wetland habitats. Impacts to wetlands will be mitigated through offsite creation and restoration. Caltrans proposes that temporary impacts be mitigated at a ratio of 1:1 and permanent impacts at a ratio of 3:1.

All impacts to wetlands within the Department's right of way and within the City's MHPA will be consistent with the mitigation ratios referenced in the City's Biology Guidelines for wetland habitats. No properties to fully mitigate the project's wetland impacts were identified immediately adjacent to the I-15 corridor. Caltrans, however, is currently discussing with the City of San Diego to determine the feasibility of doing wetland creation/restoration/enhancement work at Los Penasquitos Creek within the Los Penasquitos Canyon Preserve. This mitigation site is located approximately one mile west of Black Mountain Road within the north portion of the City of San Diego. It is also downstream of the I-15 crossing where project impacts to Los Penasquitos Creek would occur.

The proposed mitigation site is divided between the City of San Diego and County of San Diego property. The site for creation is situated within an approximate 14-acre assemblage of abandoned sewage treatment ponds that were constructed several decades ago to serve what is now the City of Poway. The mitigation site also includes a total of 0.875 acre of restoration areas (exotic species removal and follow-up native planting and seeding) within Los Penasquitos Creek floodplain adjacent to (south and southwest of) the abandoned sewage treatment ponds.

All mitigation will be coordinated with the resource agencies. A conceptual mitigation plan will be developed in coordination with the USACOE, DFG and the U.S. Fish and Wildlife Service, which require approval prior to the onset of construction.

3.10 Invasive Species

3.10.1 Affected Environment

On February 3, 1999, President Clinton signed Executive Order 13112 requiring Federal agency action to combat the introduction or spread of invasive plant species in the United States. Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the state's noxious weed list (January 6, 1999) to define the invasive plants that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

The District Biologists have surveyed upland and drainage areas within the I-15 Managed Lanes corridor. Ruderal areas, a disturbance-related habitat type, was found in the upland areas. Ruderal areas have been significantly altered by agriculture, construction, or other land-clearing activities. These areas are dominated by non-native annuals (Russian thistle, sweet fennel, fountain grass and castor bean) and perennial broadleafed species (artichoke thistle and eucalyptus, and pepper trees) typically found in vacant lots, roadside right-of-ways, construction staging areas and abandoned agricultural fields. No plants found on the Federal Noxious Weed Regulations (7 CFR 360) list were observed in the the upland areas. Artichoke thistle is listed by the California Department of Food and Agriculture, as updated 2001, as "noxious weed species – B list." Other noxious weeds found on the California Exotic Pest Plant Council Exotic Pest Plants of Greatest Ecological Concern in California (October 1999) were detected and are also listed in the Table 3-9.

Table 3-9: Invasive Species in upland areas

Species	PM/KP	Size of Cluster (Ft^2/M^2)
fountain grass	31.1/50.0	20 / 2
fountain grass	30.9/49.7	20 / 2
fountain grass	30.2/48.6	20 / 2
fountain grass	30.0-29.9/48.2-48.1	158400 / 14715
fountain grass	29.5/47.5	200 / 19
fountain grass	29.4/47.3	200 / 19
fountain grass	28.6/46.0	200 / 19
fountain grass	27.9-28.0/44.9-45.0	10560 / 981
pampas grass	27/43.4	200 / 19
Tamarisk	26.1/42.0	200 / 19
fountain grass	25.6/41.2	200 / 19
fountain grass	24.5/39.4	400 / 37
fountain grass	23.5/37.8	400 / 37
fountain grass	23.4-23.2/37.6-37.3	31680 / 2943
fountain grass	23.7-23.8/38.1-38.3	5280 / 490
fountain grass	23.7-23.5/38.1-37.8	31680 / 2943
artichoke thistle*	23.2/37.3	200 / 19
fountain grass	22.7-22.2/36.5-35.7	52800 / 4905
artichoke thistle*	22/35.4	200 / 19
artichoke thistle*, fountain grass	21.8/35.0	2000 / 186
fountain grass, pampas, artichoke thistle*	20.6-22.0/33.1-35.4	10000 / 929
fountain grass	20/32.2	10000 / 929
artichoke thistle*	18.9/30.4	2000 / 186
fountain grass	18.4/29.6	5000 / 464
fountain grass	17.6-17.3/28.3-27.8	20000 / 1858
fountain grass	17-17.2/27.3-27.7	5000 / 464
fountain grass	15.3-15.6/24.6-25.1	31680 / 2943
fountain grass	14.3/23.0	200 / 18.58
fountain grass	14/22.5	500 / 46
fountain grass	13.6/21.8	200 / 19

*Listed by the California Department of Food and Agriculture, as updated 2001, as "noxious weed species – B list."

All other plants are listed by California Exotic Pest Plant Council as "most invasive wildland pest plant - widespread."

Table 3-10 shows a listing of specific invasive species at the four drainages crossed by the I-15 Managed Lanes corridor. No plants found on the Federal Noxious Weed Regulations (7 CFR 360) list were observed within the drainages.

Noxious weeds found on the State of California, Department of Food and Agriculture Noxious Weeds (06 January 1999) and the California Exotic Pest Plant Council Exotic Pest Plants of Greatest Ecological Concern in California (October 1999) were detected and are listed in the table. The iceplant in the Green Valley Creek area is the result of illegal dumping of what was probably someone's yard waste. Perennial peppergrass found at Lake Hodges is an aggressive perennial that can quickly displace native vegetation and wildlife. There is approximately 0.10 hectare (0.25) acre of perennial peppergrass with the other invasive species occurring in small discrete stands.

Table 3-10: Invasive Species at Drainages

Invasive Species (Botanical Name)	DRAINAGE			
	San Clemente Canyon	Los Penasquitos Creek	Green Valley Creek	Lake Hodges
iceplant[1] (*Carpobrotus edulis*)			0.04 hectare/ 0.10 acre	
Eucalyptus[1] (*Eucalyptus* sp.)		2 trees		
Perennial peppergrass[1,2,4] (*Lepidium latifolium*)				0.10 hectare/ 0.25 acre /
tree tobacco[3] (*Nicotiana glauca*)			4 plants	30 plants
castor bean[2] (*Ricinus communis*)	5 plants			5 plants
Brazilian peppertree[2] (*Schinus terebinthifolius*)			2 trees	
tamarisk[1] (*Tamarix* sp.)				0.04 hectare/ 0.10 acre

[1] Listed by California Exotic Pest Plant Council as "most invasive wildland pest plant - widespread."

[2] Listed by California Exotic Pest Plant Council as "wildland pest plant of lesser invasiveness."

[3] Listed by California Exotic Pest Plant Council as "need more information."

[4] Listed by the California Department of Food and Agriculture as "noxious weed species – B list."

3.10.2 Impacts

Invasive species may be introduced or spread in the I-15 Managed Lanes Corridor during soil disturbance activities (clearing/grubbing and grading), be present on construction equipment brought onsite or taken offsite, and inadvertently included in seed mixes or in the soil of container stock. Minimization measures and eradication strategies are summarized in the following section

3.10.3 Measures to Minimize Harm

The limits of construction adjacent Environmentally Sensitive Areas will be clearly marked with temporary fencing prior to any construction activities. These areas will be avoided by all personnel involved in any construction activity with the exception of invasive species eradication and seed application.

Before entering or leaving the site, equipment will be inspected for evidence of invasive species and/or seeds. Should any plants and/or seeds be detected, equipment will be washed to ensure no invasive species and/or seeds will be brought into or removed from the site.

An erosion control seed mix (native when adjacent sensitive areas) will be applied after grading has been completed The seed vendor will furnish certification that the seed has been tested for purity by a certified seed laboratory.

All plants used in the landscaping and mitigation areas will comply with Federal, State and County laws requiring inspection for infestations. The vendor will provide certification of inspection from the County of San Diego Agriculture. The plants will also be inspected by the Project Landscape Inspector before accepting delivery.

The District Biologist will write an invasive species management plan. The maintenance of the mitigation sites along the I-15 Managed Lanes corridor will be under the supervision of the District Biologist. The Environmental Maintenance Liaison will develop a training program for maintenance personnel to identify and eradicate the invasive species in the landscaped areas of the I-15 Managed Lanes corridor.

The invasive species will be eradicated by mowing, hand removal or application of a herbicide. A licensed Pest Control Advisor will recommend the appropriate herbicide for the site. The sites will be monitored and resprouts will be spot treated.

The District will also coordinate efforts at eradicating perennial peppergrass at Lake Hodges with the Watershed Resources Management, County of San Diego Agriculture (WRM). The WRM (pers. comm. Bill Winans and Bob Isley) began an eradication program at the eastern edge of Lake Hodges approximately two years ago and is currently working under a grant from the San Dieguito River Valley Park to eradicate the perennial peppergrass within this watershed.

The only non-chemical control of perennial pepperweed is long-term flooding (no biological control agents have been developed). Other strategies must be considered, since Lake Hodges is dependent upon rainfall/urban runoff and parts of the lakebed will go dry during drought years. Integrated pest control management recommended by the WRM consists of mowing followed by herbicide application to resprouting shoots. The initial application of herbicide would be followed by monitoring and spot treatment of any additional resprouting plants. The herbicide would be recommended by a licensed Pest Control Advisor for use in riparian/wetland areas and would be applied under the Advisor's direction. Cost of control of perennial pepperweed is estimated to be about $10,000.00/acre/year.

3.11 Wildlife

Wildlife corridors can be affected in numerous ways from the expansion of freeway facilities. Impacts to wildlife corridors can be created through changes to migration patterns, reduction of habitat, and through the introduction of new species into the area. Following is a discussion of anticipated impacts that are likely to occur with the proposed project.

3.11.1 Affected Environment

Corridors function as habitat for a variety of organisms, including birds and mammals. Within the project area there are five wildlife corridors. Both the San Dieguito River (Lake Hodges) and Los Peñasquitos Creek are considered important wildlife corridors. Locations of these areas are shown on Figures 3-5 and 3-6. The City of San Diego's Multiple Species Conservation Program (MSCP) identifies these areas as Biological Core and Linkage Areas and each is identified in regional conservation plans as either preserved or areas targeted for conservation. The MSCP is a habitat conservation planning program designed to preserve a network of habitat and openspace within southwestern San Diego County.

Los Peñasquitos Creek, in particular, has frequent mule deer (*Odocoileus hemionus*) use as evidenced by numerous sightings and commonly observed scat and tracks. Green Valley is likely a secondary corridor since it is shorter and ends just upstream of I-15 at the Rancho Bernardo Inn Golf Course. Chicarita Creek, a willow riparian and oak riparian woodland, would be an additional secondary corridor, trending more or less north south in the I-15/SR-56 area, from north of Los Peñasquitos Creek, before ending near Carmel Mountain Road. The Integrated Natural Resources Management Plan for MCAS Miramar identifies San Clemente Canyon, which passes under I-15, as a regional wildlife corridor (U.S. Marine Corps 2000).

The MSCP establishes and manages a connected regional system of open space preserves to protect the habitats of listed and sensitive plant species in San Diego County. The MSCP is a cooperative effort between 12 jurisdictions, and the city's Subarea Plan was adopted in March 1997. It became affective on July 17, 1997 after signing of the Implementing Agreement. Caltrans is not a signatory to that agreement. The city's MSCP Subarea Plan identifies five Multi-Habitat Planning Areas (MHPAs). The MHPAs are core biological resource areas and corridors that have been targeted for conservation. The proposed Managed Lanes project will cross the City of San Diego's MHPA boundary in three main locations: Los Penasquitos Canyon (Figure 2-10), Green Valley Creek Bridge (Figures 2-19 and 2-20) and Lake Hodges (Figures 2-20 and 2-21).

The MHCP is a comprehensive, multiple jurisdictional planning program designed to develop an ecosystem preserve in northwestern San Diego County. Implementation of the regional preserve system is intended to protect viable populations of key sensitive plant and animal species and their habitats, while accommodating continued economic development and quality of life for residents of the north county region. The MHCP is one of several large multiple jurisdictional habitat planning efforts (like the MSCP) in San Diego County, each of which constitutes a subregional plan under the State of California's Natural Community Conservation Planning (NCCP) Act of 1991.

The current MHCP study area encompasses about 186 square miles (118,852 acres), comprising seven incorporated cities in northwestern San Diego County (Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach and Vista). These jurisdictions will implement their respective portions of the MHCP plan through city wide "subarea" plans, which describe the specific implementing mechanism each city will institute for the MHCP.

The subarea plans will contribute collectively to the conservation of biological communities and species in the MHCP area. In turn, the MHCP plan, in concert with other subregional plans, will contribute to continued ecosystem viability in southern coastal California.

The proposed I-15 Managed Lanes project encroaches into MHPA areas outside of Caltrans right of way at Lake Hodges, Green Valley Creek and Los Penasquitos Creek as mentioned above. Encroachment into all three MHPA areas is for proposed access underneath the bridges for construction. All impacts to MHPA areas would be temporary and specifically construction related.

3.11.2 Impacts

Direct impacts include habitat displacement from project grading or bridge construction. Impacts are considered indirect when the project's construction has the potential to alter or otherwise influence sensitive biological resources due to increased dust, noise, lighting, invasive species or human activity. Regional effects are also considered indirect impacts.

All impacts to wildlife corridors within the I-15 Managed Lanes corridor will be temporary and construction related. Temporary impacts to wildlife corridors at Lake Hodges, Green Valley Creek, Los Penasquitos Creek, Chicarita Creek and San Clemente Canyon are likely to occur. The proposed measures as described in Section 3.11.3 would facilitate movement and habitat use by animals such as mule deer, bobcat, mountain lion, and gray fox during construction. In addition, these measures would be consistent with the City's MSCP Land Use Agency Guidelines for those areas near the MHPA.

A wildlife corridor will be added to the bridge design for Lake Hodges on both the south and north sides of the bridge. Currently, wildlife can move freely underneath the Lake Hodges Bridge because the lake is not full, or use the existing riding/hiking trail on the north side of the bridge. The San Diego County Water Authority (SDCWA) is proposing to construct the Lake Hodges Inlet/Outlet project as an element of its Emergency Water Storage Project (ESP). Water levels at Lake Hodges will be maintained year round at 311 feet mean sea level (msl) by filling or withdrawing water through the proposed inlet/outlet. Maintaining the water at this elevation will inundate all riparian vegetation that currently exists within the lakebed. Once the lakebed is full (proposed construction 2004/2005), wildlife will be restricted to use the riding/hiking trail only.

Caltrans is proposing the design of an additional passageway that wildlife could use on the south side of the bridge. Preliminary designs depict a 3-meter bench cut into the slope extending east from the existing nursery, underneath the bridge abutment, west to West Bernardo Road.

The Lake Hodges North Shore Riding/Hiking Trail on the north side of the Lake Hodges Bridge will remain after the proposed Managed Lanes are constructed. This wildlife corridor along with the additional passageway proposed on the south side of the Lake Hodges Bridge will allow wildlife to move freely under I-15 and will improve the functionality of the passage for wildlife once Lake Hodges is full and maintained at the mean spillway elevation (311 feet msl).

Lighting that currently exists underneath the Lake Hodges Bridge consists of low, foot level lights that are directed at the riding and hiking trail. Any future design would be consistent to what currently exists underneath the bridge. In addition, lights will be proposed to run on timers, which would shut them off at a predetermined time, eliminating any potential indirect impacts to wildlife movement underneath the bridge.

3.11.3 Measures to Minimize Harm

Though impacts are only temporary, the following measures would be needed at all of the above bridge locations to ensure that these wildlife corridors remain viable during construction activities. These measures include:

- In consultation with the District Biologist, construct bridge falsework with spaces large enough to allow passage of mule deer and other mammals
- Leave no open trenches if work is not actively being performed in the immediate area
- Shield lighting to minimize disruptions outside immediate work area
- Have biological monitor on site during active construction activities to monitor corridors as determined necessary by the district biologist.

Though impacts are only temporary, the following measures would be needed to be consistent with the City's MSCP Land Use Agency Guidelines for all wildlife corridors and those areas near the MHPA.

These measures include:

- A wildlife corridor will be added to the bridge design for Lake Hodges on the south side of the bridge to facilitate continued passage.

- During construction, all bridge falsework will be constructed with spaces large enough to allow passage of mule deer and other mammals.

- All wildlife corridors will be appropriately fenced to direct wildlife to appropriate corridor crossings and provide added protection of certain sensitive species or habitats.

- No open trenches will be left if work is not actively being performed in the immediate area.

- All lighting will be shielded to minimize disruptions outside the immediate work area.

- Any permanent lighting will be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low-sodium or similar lighting. Any future design would be consistent to what currently exists underneath the bridge. In addition, lights are proposed to run on timers that would shut off at a predetermined time to eliminate any potential impacts to wildlife movement underneath the bridge.

- Have biological monitor on site during active construction activities to monitor corridors as determined necessary by the district biologist.

- No invasive non-native plant species shall be introduced into areas adjacent to the MHPA. Excessively noisy activities, such as pile driving adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species.

In addition the following measure will be followed:

- If construction (including grading) occurs during raptor breeding season (typically February 15 - August 31, although breeding can begin as early as January), a qualified biologist will conduct a pre-construction survey of the project site and surrounding habitat to determine whether there are active raptor nests within that area. If an active nest is observed, a buffer will established between construction activities and the nest so that nesting activities are not interrupted. The buffer will be a minimum of 500 feet and will remain in effect as long as construction is occurring and until the nest is no longer active.

3.12 Floodplain

Executive Order 11988 on floodplain management directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 CFR 650 Subpart A.

The 100-year floodplain is defined as "the area subject to flooding by the flood or tide having a one percent change of being exceeded in any given year." An encroachment is defined as "an action within the limits of the 100-year floodplain."

There are five different floodplains within the project boundaries. They are:

- Carroll Canyon Creek
- Los Peñasquitos Creek
- Chicarita Creek
- Green Valley Creek
- Lake Hodges

The Carroll Canyon drainage basin is located east of I-15, and flows from east to west. The creek originates in the northwest section of the United States Marine Corps (USMC) Air Station Miramar, south of Scripps Miramar Ranch, in the City of San Diego. The drainage basin for this creek is approximately 2.13 square kilometers (0.82 square mile). The upstream portion of the creek is enclosed in a pipe system, which goes below USMC Air Station Miramar and the surrounding housing development.

The Flood Insurance Study for the County of San Diego, written by the Federal Emergency Management Agency in 1981, states that the base flood (100-year) for Carroll Canyon Creek is 189.72 cubic meters per second (cms) (6,700 cubic feet per second).

The Los Peñasquitos drainage basin flows westerly and is located east of I-15. According to the comprehensive plan for Flood Control and Drainage, the basin for this creek encompasses approximately 241 square kilometers (93 square miles). Of this area, 80.3 square kilometers (31 square miles) are upstream of I-15 in the Poway Valley.

There are seven tributaries to the Los Peñasquitos Creek: Poway Creek, Pomerado Creek, Los Peñasquitos Creek, Beeler Creek, Cypress Canyon Creek, Chicarita Creek, and Rattlesnake Creek. According to Federal Emergency Management Agency (FEMA) the base flood (100-year) is 436 cms (15,397 cfs).

The Chicarita Creek drainage basin flows southerly and I-15 is located within the watershed. The basin is approximately 10.45 square kilometers (4 square miles) in size. Of this area, 7.02 square kilometers (2.7 square miles) is upstream of the intersection of Ted Williams Parkway and I-15. FEMA flood insurance mapping has not been established for the Chicarita Creek floodplain.

The Green Valley drainage basin is located to the north of the Poway Creek system and includes Poway Creek, Rattlesnake Creek and Beeler Creek just east of the Rancho Bernardo Community. Green Valley Creek originates in low rolling hills east of Espola Road near the Poway Reservoir and flows northwest in a natural channel to Martincoit Road. The Flood Insurance Study, conducted in 1985, states that the base flood (100-year) for Green Valley Creek is approximately 76.5 cms (2,700 cfs).

Lake Hodges has two lateral encroachments through I-15 between West Bernardo Drive and Via Rancho Parkway. The drainage basin studied here is approximately 303 square kilometers (117 square miles). This lake serves as a reservoir in the lower basin of the San Dieguito River Basin. The base flood (100-year) for Lake Hodges is approximately 1642.4 cms (58,000 cfs) within the limits of the floodplain assessment as furnished by the Department of Water Resources Bulletin No. 112 entitled “San Diego County Flood Hazard Investigation.”

Floodplain evaluations were done for each creek location and are on file in the Department’s District office.

3.12.1 Risks Associated with Implementation of the Proposed Project

The proposed project would encroach upon the floodplains of Los Peñasquitos Creek, Green Valley Creek, and Lake Hodges. No work would be required within the 100 year floodplain at Carroll Canyon Creek or Chicarita Creek.

The proposed encroachment at Los Peñasquitos Creek follows the existing alignment and occurs at the same location and is essentially the same in character and magnitude as now exists. The encroachment will consist of the addition of six new columns within the floodplain. Elevations range from 91.44 meters (300 feet) above sea level below the Los Peñasquitos bridge at the flow line, west of I-15, to 822 meters (2697 feet) on the peak of Iron Mountain in the hills to the northeast of I-15. The proposed 0.0036 hectare (0.0089 acre) encroachment into Los Peñasquitos Creek is relatively small when compared to the development that already exists in the watershed.

At Green Valley Creek, I-15 encroaches laterally into the floodplain. The proposed expansion of I-15 follows the existing alignment and the encroachment occurs at the same location and is essentially the same in character and magnitude as now exists. The proposed expansion consisting of one additional bridge column and retrofitted footings will encroach 0.065 hectare (0.16 acre) into the floodplain over what is currently existing. Upstream of I-15, there has been extensive subdivision development throughout the watershed of Green Valley Creek.

The drainage area for this creek is approximately 11.4 square kilometers (4.4 square miles), and mainly consists of rural residential development with elevations ranging from 103.6 meters (340 feet) above sea level at the outlet of the valley to 822.9 meters (2,700 feet) in the hills to the northwest.

The proposed encroachment into Green Valley Creek is relatively small when compared to the development that already exists in the watershed, and it should not effect the current characteristics of the floodplain. Within the areas adjacent to Green Valley Bridge, development does not exist.

I-15 currently encroaches laterally in the floodplain at Lake Hodges. Encroachment into a floodplain, such as this structure does, normally reduces the flood carrying capacity, increases flood heights and velocities, and increases flood hazards beyond the encroachment area. However, the proposed expansion of I-15 follows the existing alignment and the encroachment occurs at the same location and is essentially the same in character and magnitude as now exists. The proposed project would encroach 0.23 hectare (0.58 acre) into the floodplain over what is currently existing.

This value does not include the removal of the existing columns which would reduce the existing encroachment into the floodplain by 0.04 hectare (0.11 acre). Upstream of I-15, there has been subdivision development throughout the watershed of Lake Hodges.

3.12.2 Impacts on Natural and Beneficial Floodplain Values

Direct physical effects of the project on the above mentioned floodplains will be limited to temporary construction impacts and the permanent, but not substantial, effects of the placement of supporting piers in the floodway.

Upon completion of all bridge work, heights of the existing bridges will not be altered; thus, would not create any additional barriers to biological resources in the area. Some additional shading may occur below the structures with the widening, however, shading is not anticipated to affect sensitive resources.

The majority of the bridges are at an elevation where light is not restricted; thus, shading created by the proposed expansion would not impact biological resources.

Impacts to visual resources associated with widening of the bridges are minimal due to the number of viewers of the structures. Lake Hodges is the most prominent structure within the corridor since it serves as part of the San Dieguito Regional Park open space network that serves as a barrier between the cities of Escondido and Rancho Bernardo. Since all of the bridge expansions are located within State right-of-way and no permanent acquisitions are required, no impacts to open space are anticipated.

Minor temporary impacts to recreational use of areas located underneath the bridges are anticipated during construction. At Lake Hodges the bridge would have a permanent maximum reduction in vertical clearance of 0.30 meter (1.0 foot) resulting in a minimum clearance of 3.35 meters (11.00 feet). An additional temporary loss of vertical clearance due to falsework for the bridge would also occur resulting in a temporary vertical clearance of approximately 2.5 meters (8 feet 4 inches) for a period of approximately 24 months.

3.12.3 Measures Proposed to Restore and Preserve the Natural and Beneficial Floodplain Values Impacted by the Proposed Project

The design of the river crossings will result in only minimal effects on the floodplain. In order to minimize floodplain impacts the following measures would be utilized:

- Limiting the area affected by construction to minimum necessary, using barriers or fences to protect sensitive areas
- Employing BMPs to control erosion and runoff
- Designating and restricting access to Environmentally Sensitive Areas (ESA)
- Structure design shall be enhanced with architectural features and be consistent with corridor design themes developed by the District Landscape Architect

3.12.4 Support of Incompatible Floodplain Development

The proposed project would not support incompatible development. No new access and no direct access to the affected floodplains would be provided by the proposed project. Access to the facility would be controlled, and the freeway would cross the floodplains on structures above the floodplain elevation.

The only points of authorized egress from the freeway will be at interchanges with existing or future streets.

3.12.5 Evaluation of Practicability of Alternatives to Floodplain Encroachment

The proposed project lies within the corridor reserved for I-15 based on the Route adoption in 1969. Subsequent to that adoption, land adjacent to the corridor has been intensely developed. As discussed in Chapter 2, the proposed project is the only build alternative that would meet the purpose and need. The proposed project would not create any significant encroachment and would create few additional impacts to the FEMA designated 100-year floodplains beyond what currently exist.

3.13 Threatened and Endangered Species

The Endangered Species Act of 1973 establishes guidelines for the preservation and protection of species that are threatened or endangered. In addition, the California Endangered Species Act (CESA) (Fish & Game Code §§ 2050) generally mirrors the Federal Endangered Species Act in its goals and guidelines.

During biological studies, a list of sensitive species potentially occurring in the I-15 corridor was originally obtained from the United States Fish and Wildlife Service (USFWS) in 1998 and was updated in 2000 and 2002 (see Figure 3-7). A file review was conducted of past Department biological studies within the areas of the proposed project. In addition, a search of the California Natural Diversity Database (CNDDB 2000) for the project area and a review of plants listed by the California Native Plant Society (CNPS) as rare and/or declining was conducted. Many species identified did not have suitable habitat present and were not further reviewed. Field studies were conducted from March 1999 through July 2001 in accordance with the latest protocol guidance (Fish and Wildlife Service 1007; 2000a). Focused studies were conducted for threatened and endangered species including the arroyo toad *(Bufo micoscaphus califonicus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and Quino checkerspot butterfly (*Euphydrus editha quino*, Quino) habitat. In addition, sensitive plant species listed as rare, endangered and/or threatened by the USFWS were assessed for their potential along the I-15 corridor.

3.13.1 Affected Environment

I-15 bisects an important east-west strip of coastal sage scrub (CSS) that is found within the study area. This linear stretch of CSS lies within the Multiple Species Conservation Program's (MSCP) Multiple Habitat Planning Area and represents one of the largest continuous blocks of CSS in the region. This large patch of habitat CSS serves as a major east-west corridor for wildlife, and the area includes many gnatcatcher populations.

The MSCP is a cooperative effort by the City of San Diego and 11 other jurisdictions and several special districts in southwest San Diego County to prepare and implement a regional habitat conservation plan/natural communities conservation plan. The goal of the MSCP is to conserve and manage a connected, regional system of preserves, which would protect the habitats of endangered, threatened and other sensitive species of plants and animals in San Diego County.

The MSCP is implemented through subarea plans of participating jurisdictions and implementing agreements between the jurisdictions, the U.S. Fish and Wildlife Service (Service), and the California Department of Fish and Game (DFG). The proposed conservation goals, guidelines, and habitat areas will be adopted through amendments to the general and community plans and land use and zoning regulations.

The city's MSCP Subarea Plan identifies five Multi-Habitat Planning Areas (MHPAs). The MHPAs are core biological resource areas and corridors that have been targeted for conservation.

The project feature maps, Figure 2-1 through 2-28, show biological resources located within the study area boundaries. Mapped resources include areas both inside and outside of the State right-of-way. Biological resources outside of the State right-of-way would only be directly impacted at areas where easements are required. In addition, temporary indirect impacts could occur from noise during construction.

The mapping shows locations of chaparral and CSS (green and yellow patterned areas), Orcutt's brodiaea (blue patterned area), riparian woodland (black and white patterned areas), California gnatcatcher (yellow circle), least Bell's vireo (blue circle), southwestern willow flycatcher (pink circle), rufous-crowned sparrow (red circle), orange throated whiptail lizard (orange circle), San Diego ambrosia (red patterned areas), Orcutt's brodiaea (blue patterned areas), California adolphia (blue patterned areas), Robinson's peppergrass (red patterned areas), dot-seed plantain (pink patterned areas), San Diego sagewort (orange patterned areas), and San Diego barrel cactus (purple patterned areas).

3.13.2 Impacts

Focused surveys conducted during 1999, 2000, and 2001 for the endangered least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) detected neither species within the project footprint. However, both species were observed adjacent to the project, on the northwest and southwest sides of Lake Hodges. A patch of dot-seed plantain *(Plantago erecta)*, a larval host plant for the endangered Quino checkerspot butterfly (*Euphydrus editha quino*, Quino), was observed just outside of grading limits on the southbound side of I-15, south of State Route 56, in addition to other locations adjacent to the project limits. No Quino checkerspot butterflies were observed during protocol surveys. The other remaining species on the USFWS Species List including arroyo toad *(Bufo micoscaphus califonicus*), bald eagle (*Haliaeetus leucocephalus*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and Riverside fairy shrimp (*Streptocephalus woottoni*) were not identified in the project impact area.

A total of 13 Federal and/or State listed plant species were reviewed for presence in the I-15 Corridor as suggested by the USFWS. These species include: San Diego thorn mint (*Acanthomintha ilicifolia*), San Diego ambrosia (*Ambrosia pumila*), Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), Encinitas baccharis (*Baccharis vanessae*), thread-leaved brodiaea (*Brodiaea filifolia*), Orcutt's spineflower (*Chorizanthe orcuttiana*), salt marsh bird's-beak (*Cordylanthus maritimus* spp. *maritimus*), San Diego button celery (*Eryngium aristulatum* var. *parishii*), Mexican flannelbush (*Fremontodendron mexicanum*), willowy monardella (*Monardella linoides* ssp. *viminea*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and San Diego mesa mint (*Pogogyne abramsii*).

A population of San Diego ambrosia was located on the west side of I-15, south of Via Rancho Parkway, just north of Lake Hodges. This population was found outside of the project limits; therefore, will not be impacted by the proposed I-15 Managed Lanes Project. All efforts will be made to avoid this area during construction. None of the remaining plants listed above occur within the project limits; thus none would be impacted by the Managed Lanes Project.

In addition, a total of 12 species of plants listed as sensitive by the CNPS were reviewed for presence in the I-15 Corridor. Five of these species would be impacted by the Managed Lanes Project. These include, approximately six individual California adolphia plants just south of Mira Mesa Boulevard; up to 50 San Diego sagewort plants underneath and adjacent to Los Penasquitos Creek; two San Diego barrel cactus located at a proposed drainage easement associated with the Mercy Road to SR 56 proposed auxiliary lane; approximately 50 to 100 individuals of Robinson's peppergrass on the west side of I-15, north of Los Penasquitos Creek; approximately 30 Orcutt's brodiaea located just south of Miramar Way on the southbound side of I-15.

Measures will be taken to avoid and minimize impacts to these plants to the extent practicable during construction. These measures would include transplantation, re-seeding,and/or off-site mitigation in coordination with the appropriate resource agencies.

Formal consultation with the USFWS pursuant to Section 7 of the Endangered Species Act of 1973, as amended, was initiated on November 3, 2000.

Discussions consisted of impacts that the construction of this project may have on the federally-listed California gnatcatcher (*Polioptila californica californica*), as well as critical habitat for the gnatcatcher. A total of 30 individual areas consisting of 17.48 hectares (43.2 acres) of CSS habitat and15 territories (11 pairs, 4 single) of coastal California gnatcatchers would be impacted. This would be a direct loss of habitat likely used by gnatcatchers for breeding, foraging, and sheltering in these areas.

The USFWS issued its Biological Opinion on May 8, 2001 for three of the Operational Improvement Projects associated with the Managed Lanes Project and concluded that the proposed project is not likely to jeopardize the continued existence of the coastal California gnatcatcher (*Polioptila californica californica*). FHWA reinitiated formal consultation with the USFWS on adverse impacts to the coastal California gnatcatcher to include the I-15 proposed Managed Lanes project in the proposed action in December of 2002. The USFWS then amended its Biological Opinion on January 16, 2003 and again concluded that the proposed project is not likely to jeopardize the continued existence of the species. The updated Biological Opinion can be found in Appendix B. The Biological Opinion has further details on the affected environment, impacts, and measures to minimize harm. The majority of these details are repeated in this section for convenience.

The majority of impacts to sensitive habitats and sensitive species from project grading and bridge construction occur within Caltrans right of way. Because Caltrans is not a signatory to the Implementing Agreement for the MSCP, all areas that fall within the right of way are not bound to those guidelines. However, because our project lies within the MSCP, is adjacent to designated MHPA areas, and encroaches into three specific MHPA areas (Lake Hodges, Green Valley Creek and Rancho Penasquitos Creek), all efforts will be made for the proposed I-15 Managed Lanes Project to remain consistent with the City's MSCP Land Use Agency Guidelines.

Caltrans is also not a signatory to the MHCP; therefore, incidental “take” has been authorized by the USFWS and CDFG under Section 7 of the Endangered Species Act and Section 2081 of the California Endangered Species Act. The portion of the I-15 Managed Lanes project that falls within the MHCP, falls within the City of Escondido Subarea Plan. Caltrans, San Diego Gas & Electric and other agencies that administer property or easements within the area encompassed by this subarea plan are responsible for their own permit needs and are not covered by the plan (Draft Escondido Subarea Plan, June 2001).

Therefore, Caltrans is exempt from the City's Interim 4d process. However, Caltrans will make every effort to minimize impacts to sensitive habitats and species that fall within the MHCP. All mitigation for impacts to sensitive resources will be consistent with MHCP mitigation guidelines.

3.13.3 Measures to Minimize Harm

Avoidance and minimization of impacts to threatened and endangered species will be accomplished through the following measures:

- Establishment of environmentally sensitive areas (ESA) to avoid impacts to sensitive species that occur adjacent to the project footprint. All ESA's will be temporarily fenced during construction.

- All clearing and grubbing will occur outside the gnatcatcher breeding season of approximately February 15 to August 31. In addition, prior to construction activities, a qualified biologist will survey the preserved habitat areas adjacent to the project site to determine if any gnatcatcher nests are within a distance potentially affected by noise from these activities. If no nesting gnatcatchers are located, no additional measures will be necessary to mitigate indirect impacts. However, if nesting gnatcatchers are observed, no activity will occur without noise attenuation (e.g. noise barriers) to ensure that noise levels do not impact the gnatcatcher.

- All clearing and grubbing will occur outside the vireo and southwestern willow flycatcher season of approximately (March 15 through September 30). All pile driving occurring during construction will be conducted outside of the vireo and flycatcher breeding season. In addition, prior to construction activities, a qualified biologist will survey the preserved habitat areas adjacent to the project site to determine if any vireo or flycatcher nests are within a distance potentially affected by noise from these activities. If no nesting birds are located, no additional measures will be necessary to mitigate indirect impacts. However, if nesting vireos/flycatchers are observed, no activity will occur without temporary noise attenuation (e.g. noise barriers) to ensure that noise levels do not impact the gnatcatcher.

- Protocol level surveys for the flycatcher and vireo will be conducted in spring of 2003, and the spring of each following year that Lake Hodges Bridge construction continues.

- When night work occurs lighting will be shielded and directed away from habitat.
- Prior to the commencement of grading or clearing, mitigation measures will be reviewed and approved by the appropriate resource agencies, including the Service, DFG and USACOE.
- A biological monitor will be present as determined necessary by the district biologist, during construction and to oversee mitigation activities to ensure that conservation measures required are performed in compliance with mitigation documents.
- All graded areas adjacent to open space and/or native habitat areas, used for access and/or staging during construction will be reseeded with a native seed mix recommended by the Department's District Biologist.
- Before construction begins a storm water prevention plan (SWPP) shall be developed and implemented to minimize erosion.

To offset impacts from the Managed Lanes Project to gnatcatchers, a total of 97.8 acres of coastal sage scrub (CSS) (at a 2:1 ratio) and fourteen (14) gnatcatcher territories will be encumbered on both the Walsh property at Lake Hodges and at Bonita Meadows. To satisfy this requirement, the remaining 46.1 acres of CSS at the Walsh property and 51.7 acres of CSS at Bonita Meadows will be used. In addition, a total of fourteen (14) gnatcatcher territories, ten (10) pairs and four (4) single gnatcatchers, will be used for mitigation from the two properties. Figures 3-6 and 3-8 show the location of both the Walsh property at Lake Hodges and Bonita Meadows Mitigation Sites.

The Walsh Propery is comprised of three parcels of land near Lake Hodges, and contains a total of 81 acres of CSS and 12 gnatcatcher territories. Although this parcel is outside of the City's boundaries, it is immediately adjacent to the San Dieguito River Valley Park's recently acquired Bernardo Mountain parcel and the City's MHPA surrounding Lake Hodges. The second site, Bonita Meadows, is located in southeast San Diego and consists of 200 acres of preserved land with 72.51 acres of CSS (51.7 acres used for Managed Lanes Project) and eight gnatcatcher territories. Bonita Meadows is located within the County of San Diego and the MSCP limits, and the eastern portion of the property falls within the MHPA, specifically, the County of San Diego, Pre-approved Mitigation Area (PAMA).

All impacts to sensitive habitats and sensitive species within Caltrans right of way and the City's MHPA, will be mitigated for consistency with the City of San Diego's Final MSCP Plan and Biology Guidelines (provided by the City of San Diego). Mitigation for impacts to coastal sage scrub (CSS) and the federally threatened coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher) were mitigated through the purchase of land at two separate mitigation sites. All mitigation for impacts to CSS and the gnatcatcher were developed in coordination with the Service as outlined in the Biological Opinion dated January 16, 2003. The Biological Opinion is included in this document as Appendix B.

Mitigation for impacts to CSS was required at a 2:1 ratio, which is consistent with the City's Biology Guidelines for impacts to upland habitats (Tier II) both within the City's MHPA and outside the MHPA.

Bonita Meadows was purchased by Caltrans with state only funds under the terms and conditions of the non-jeopardy Biological Opinion to offset cumulative impacts to CSS and the gnatcatcher. Bonita Meadows and its natural resources were identified as "at risk" to development. This parcel of land was purchased based on discussions with Federal Highways, the United States Fish and Wildlife Service (Service), and California Department of Fish and Game (DFG). Bonita Meadows is located within the County of San Diego and the MSCP limits, and the eastern portion of the property falls within the MHPA, specifically, the County of San Diego, Pre-approved Mitigation Area (PAMA). The California Department of Fish and Game and the County of San Diego were subsequently identified to manage the property. Caltrans prefers to transfer the site to DFG with the County being the second option. The property would be transferred with an endowment to maintain and preserve it in perpetuity.

Bonita Meadows serves as mitigation for cumulative impacts to CSS and the gnatcatcher, but only mitigates for a portion of the impacts caused by the proposed project. The remaining mitigation for CSS and the gnatcatcher was compensated for by the purchase of three parcels near Lake Hodges, referred to as the Walsh Property. The Walsh Property contains a total of 81 acres of CSS, supporting nine pairs plus three individuals of gnatcatchers for a total of 12 territories. In addition, cactus wren (*Campylorhynchus brunneicapillus*) were observed within the cholla-dominated CSS of the Walsh Property.

Although this parcel is outside of the City's boundaries, it is immediately adjacent to the San Dieguito River Valley Park's recently acquired Bernardo Mountain parcel and the City's MHPA conserved area that surrounds Lake Hodges. The Walsh property is currently in the process of being transferred with an endowment to the San Dieguito River Valley Park, so that they can manage this parcel of land in perpetuity.

3.14 Cultural Resources

Prior to the implementation of field studies, the National Register of Historic Places (1979 to present), California Register Listings in the quarterly minutes of the State Historical Resources Commision (1995 to present), California Inventory of Historic Resources (1976), California Points of Historical Interest (1992), California Historical Landmarks (1990), and the South Coastal Information Center were consulted to identify previously recorded cultural resources located within the project's area of potential effects (APE). Archaeological and historic architectural studies were conducted for this undertaking.

The results of these studies were presented in a *Historic Property Survey Report* (HPSR) dated July 13, 2001. The HPSR was submitted to the Federal Highway Administration (FHWA) which transmitted the document to the State Historic Preservation Officer (SHPO) for review and concurrence. SHPO concurred on January 11, 2001, that no historic properties are present within the APE established for this undertaking, and that this project has complied with its Section 106 requirements, in accordance with the National Preservation Act (as amended), its promulgating regulations in 36 CFR 800.4(d)(1).

Following is a discussion of the impacts that the proposed project will have on cultural resources within the APE.

3.14.1 Affected Environment

Two bridges within the APE, Green Valley Creek Bridge (57-0039R) and Old Peñasquitos Creek Bridge (57-0106S) are over fifty years old (both constructed in 1949). Although Green Valley Creek Bridge had been listed on the Historic Bridge Inventory as ineligible, it was reevaluated for this project and was again found to be ineligible for the National Register of Historic Places.

The previously unevaluated Old Peñasquitos Creek Bridge retains a fair degree of integrity (with alterations limited to resurfacing, to railing and curbs, re-paving the deck with cement, and the addition of a sewer pipe along the east side). Construction of two modern bridges spanning Peñasquitos Creek immediately adjacent to 57-0106S has highly compromised the integrity of this bridge's setting.

The bridge does not represent a great feat of engineering or design, nor does it represent the work of a master; it is also not associated with any significant event or prominent person in State or local history. The style of construction is considered to be better exemplified by another local bridge (57C-361, Black Canyon Road Bridge). Based on these factors, Old Peñasquitos Creek Bridge is not eligible for National Register listing.

In addition to the two bridges addressed above, one structure older than fifty years old is located within the APE and was evaluated for this project. It is a single-family residence constructed in 1948 in an agricultural region in what was historically the outskirts of the town of Escondido. The structure retains sufficient integrity to warrant formal evaluation; however, nothing in the historical record indicates that the house was a significant property during the period of post-war expansion (1950s and 1960s) that followed its construction. Nor did the historical record point to any other important events or individuals that were associated with the property. Architecturally, the house is also undistinguished. Therefore, this structure does not meet the criteria for listing on the National Register.

A total of 288 post-1950 structures are located within the APE. All are suburban housing developments that date from the 1970s through the 1990s. None appear to be eligible for the National Register. All are situated adjacent to proposed noise barrier locations that would be outside the existing right of way. Since these structures were all constructed after 1970 and are not eligible for the National Register they would not be considered of historical or architectual importance.

3.14.2 Impacts

No cultural, historical, or archaeological resources were identified within the survey limits during the time of the study; thus, no impacts are anticipated.

3.14.3 Measures to Minimize Harm

Since no impacts are anticipated, no additional measures would be needed.

3.15 Paleontological resources

A paleontological study conducted for this undertaking identified the presence of geologic formations with potential to contain significant fossil resources. Further discussion of study results follows.

3.15.1 Affected Environment

Two geologic formations with potential for significant paleontological resources – the Friars Formation and the Linda Vista Formation – are located within and adjacent to the project corridor.

The Friars Formation is middle Eocene in age (about 46 million years) and has a high probability of producing important vertebrate fossils, especially terrestrial mammals, such as primates, artiodactyls, insectivores, opossums, rodents, and perissodactyls; also reported from this formation are marine microfossils, macroinvertebrates, and botanical fossils.

The Linda Vista formation represents a marine and/or non-marine terrace deposit of early to late Pleistocene age (0.5-1.5 Ma). It has a moderate probability of producing marine invertebrates, such as clams, barnacles, scallops, and sand dollars; it may also produce vertebrates, such as sharks and baleen whales.

3.15.2 Impacts

Direct impacts to paleontological resources occur when earchwork activities, such as mass grading operations, cut into the geological deposits within which fossils are buried. Impacts to potential paleontological resources within the project limits are anticipated.

3.15.3 Measures to Minimize Harm

Impacts to paleontological resources will be minimized through construction monitoring, fossil recovery, laboratory analysis, report preparation and curation as defined under NEPA (National Environmental Policy Act) and CEQA (California Environmental Quality Act), Section 15023, Appendix G [j].

In addition, a qualified paleontologist should be present at the pre-construction meeting and should be present on-site during the original cutting of previously undisturbed deposits of high sensitivity formations.

When fossils are discovered, the paleontological monitor should recover them which may include temporarily directing, diverting, or halting grading activities. Fossil remains collected during the monitoring and salvage portion of the program should be cleaned, repaired, sorted, and cataloged.

A final summary report should be completed that outlines the results of the program. This report should include discussions of the monitoring methods used, stratigraphic section(s) explosed, fossils collected, and significance of recovered fossils.

3.16 Hazardous Waste Sites

In accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Part 300, Title 40, CFR, an Initial Site Assessment (ISA) was completed for this area previous to this project. The ISA was finalized in May 1998. An additional lead investigation was performed in August of 2001 based on the ISA. Following is a discussion of the potential for hazardous waste sites to be located within the corridor.

3.16.1 Affected Environment

Based on the Initial Site Assessment performed, it was determined that the primary hazardous waste issue for the proposed project was aerially deposited lead.

Though the lead investigation encompassed the entire cooridor, the study focused on an approximately 9.7 kilometer (6 mile) stretch of the I-15 corridor from the Miramar Way Overcrossing to Ted Williams Parkway interchange. These limits were determined based on historic average daily use. This stretch of roadway had the highest averages for traffic volume prior to 1984.

3.16.2 Impacts

As part of the study, samples were taken every 100 meters (328 feet) from the outside northbound and southbound freeway shoulders. Sampling was confined to the upper two feet of the soil and within one meter of the outside shoulder. This study determined that the lead concentrations in the vicinity of the project are not hazardous. Encountering other hazardous wastes are not anticipated for this project.

The proposed project would not violate any published federal, State, or local standards pertaining to hazardous waste, solid waste or litter control. The proposed project would not involve a substantial risk of an explosion or the release of hazardous substances in the event of an accident or otherwise adversely affect overall public safety.

3.16.3 Measures to Minimize Harm

If hazardous waste is discovered during construction, the resident engineer will take appropriate actions, which may include but not be limited to halting work in the area of concern, flagging the area, and notifying the Department's District Hazardous Waste Coordinator. The coordinator will then likewise take appropriate actions which may include but not be limited to the following:

- If the substance is unknown and immediate identification is required, call a hazardous materials (HAZMAT) team from San Diego County.
- If immediate identification is not required, contact a certified laboratory to sample and identify the hazardous waste.
- Follow established procedures for clean-up

3.17 Visual

A study, Visual Impact Assessment I-15 Managed Lanes, dated February 2002, was undertaken to assess the visual impact of the proposed project, recommend appropriate measures to minimize harm, and address cumulative visual effects.

Visual impacts are determined by analyzing the degree of change in visual resources and viewer response to those resources. Following is a discussion of the findings of the visual impact analysis.

3.17.1 Affected Environment

The regional landscape of central San Diego County is characterized by expansive mesas, broad open canyons, and rolling hills. With the exception of the Miramar Naval Air Station in the southern portion of the project, the land has been subject to suburban development over the past 25 years. Despite the trend towards urbanization in the I-15 corridor, the natural character of the landscape has been partially preserved due to the presence of open space tracts that remain within the freeway viewshed.

Usually, this open space occurs in areas that are less prone to development such as mountain and canyon slopes.

Lake Hodges is perhaps the most important natural feature within the project. It is not only a unique feature in an arid landscape, it is also part of the San Dieguito Regional Park open space system which serves as a natural buffer between the cities of Escondido and Poway.

In addition to natural open space, there are several distinctive constructed landscape features including the mature eucalyptus groves of Scripps Ranch, two large parks and three golf courses near Carmel Highlands and Rancho Bernardo, and freeway landscaping throughout much of the corridor.

The presence of development is mitigated to a large extent by the suburban nature of adjacent land uses. Considering the large population served by the I-15 corridor, there is a surprisingly small amount of commercial strip development and associated signage that is characteristic of other freeways in the region. Most commercial areas and business parks along the corridor such as those at Carroll Canyon Road, Rancho Bernardo Road, and Via Rancho Parkway are heavily landscaped, sited away from the edge of the freeway, and minimally signed.

3.17.2 Impacts

Because it is not feasible to analyze all the views in which the proposed project would create, a number of key viewpoints were selected that would most clearly display the visual effects of the project. These areas are called key views.

The key views also represent the primary viewer groups that would potentially be affected by the project.

For this project the following eight key views were selected. A description of the impacts at each keyview follows.

- Key view #1 looks south from the parking lot of the apartment complex located adjacent to the southbound exit ramp at the Carroll Canyon Road interchange
- Key view #2 is in a low-lying area located west of the freeway on Maya Linda Road.
- Key view #3 is at Erma Road south of Scripps Westview Way interchange Looking at I-15 Northbound, just north of Mira Mesa Boulevard interchange

- Key view #4 is on northbound I-15 north of Mira Mesa Boulevard
- Key view #4a located between Mercy Road and Penasquitos Canyon Bridge looking south
- Key view #5 is adjacent to the southbound lanes between Ted Williams Parkway an Carmel Mountain Road overcrossing
- Key view #6 looks at southbound I-15 near Duenda Drive overcrossing in Rancho Bernardo
- Key view #7 is at Center City Parkway looking south towards the Del Lago Avenue overcrossing
- Key view #8 is on northbound I-15 near Citracado Parkway

Key view #1 shows a proposed 3 meter (10 foot) high wall, located along the easterly portions of a residential complex near the Carroll Canyon interchange. The proposed wall would block views from the apartment complex to the east and focus views on the parking lot itself. The wall would create an undesirable sense of enclosure and would likely create undesirable light and air access effects. The proposed wall would likely be viewed as a negative change to the community since it would conflict with local values and goals as expressed in community design guidelines.

The City of San Diego building code prohibits construction of free standing solid walls of over 3 meters (10 feet) in height adjacent to multifamily residential parking lots such as this. Although the Department is not subject to local building codes every attempt is made to be consistent. Viewer response is expected to be moderately high. Viewer sensitivity is expected to be moderately high, and the resulting visual impact would be moderately high. See Figure 3-10 for before and after photos of the proposed features.

Key view #2 shows a retaining wall at Maya Linda Road that would vary from 3 to 10 meters (9.8 to 32 feet) high with a 2.4 meter (7.9 foot) high soundwall located at the top. Figure 3-11 shows a location where the retaining wall is 10 meters (32 foot) high. The proposed wall would decrease the intactness and unity of the viewshed and the proposed retaining wall would become an intrusive visual element as viewed from the local street. Adverse visual quality of the viewshed would be high changing its character from suburban to urban. The level of change to the visual character of the viewshed would be high and it is anticipated that the wall would be perceived as negative.

The primary viewer of the wall would be the residents of the adjacent residential complex. It is likely that sensitivity to this change may be moderate to high because the proposed wall would conflict with local values and goals as expressed in community design guidelines. Since Maya Linda Road is a cul de sac, the number of non-residents viewing the high side of the wall would be low. Changes to visual quality and character would by highly adverse, viewer response would be moderately high, and the overall adverse visual impact would be moderately high.

Key view #3 shows freeway widening combined with a 1 to 3 meter (3.2 to 9.8 foot) high retaining wall with a 2.4 meter (7.9 foot) high noise wall on top of it. The walls would block undesirable views of the freeway for residents and local street users, while preserving distant views. The suburban character of the community would be improved by removing views of the freeway, but adversely impacted by the presence of a wall which is urban in scale and conflicts with nearby residential architecture.The adverse impact to visual quality would be moderate and there would be a low level of change in visual character. Overall viewer response to visual changes is expected to be moderate to high since it conflict with local values and goals as expressed in community design guidelines. Overall adverse impact would be moderate. See Figure 3-12 for before and after photos of the proposed features.

Key view #4, shows a 2.4 meter (7.8 foot) high noise wall located at the top of a 1.2 meter (4 foot) high slope.

The introduction of a soundwall at the edge of the freeway would adversely change the visual character in this portion of the viewshed and would interrupt the experience of driving through a suburban landscape. It would emphasize views of traffic and diminish the positive qualities of remaining distant views. This change in visual character is likely to be perceived to be adverse by the community since the overall wall height conflicts with local values and goals as expressed in community design guidelines.

Overall viewer response is expected to be high and the overall adverse impact would be moderately high. See Figure 3-13 for before and after photos of the proposed features.

Key view #4a, shows a proposed freeway widening and a 4.3 meter (14.1 foot) noise barrier and concrete safety barrier. The wall would become a prominent visual feature, block desirable views from the road, and change the existing visual character of the freeway. The close proximity of the wall to freeway viewers would create a sense of enclosure and emphasize close proximity views of freeway traffic. The wall would result in a loss of visual intactness because its long, unbroken vertical surface would appear as singular unharmonious form in the landscape. Visual unity would also be reduced because the wall would sever the spatial relationship between the freeway and the surrounding landforms. The adverse change in visual quality would be moderately high. The introduction of a sound wall to the edge of the freeway would adversely change the visual character in this portion of the viewshed. Its presence would block expansive long range open space views, emphasize views of traffic, and diminish the positive qualities of remaining distant views. This change in visual character is likely to be perceived to be adverse by the community. The views would be of short duration. Sensitivity to this change in the visual environment is likely to be moderate to high because the proposed wall would conflict with local values and goals as expressed in community design guidelines. Overall viewer response is expected to be high and the overall adverse impact would be moderately high. See Figure 3-13a for before and after photos of the proposed features.

Key view #5 shows freeway widening in combination with shifting the existing earthen berm. In order to place the berm within the existing right-of-way, a retaining wall 1.8 to 2.4 meters (6 to 7.9 feet) in height will be located along the existing right-of-way line. The relocated berm and proposed wall would preserve the essential character of the existing view, however would contrast with natural features and lower the unity and intactness of the viewshed. The change to visual character, visual quality would all be low. See Figure 3-14 for before and after photos of the proposed features.

Key view #6 shows freeway widening in conjunction with replacing the existing berm in the median with a retaining wall near Duenda Road in Rancho Bernardo. Since this type of change to the visual environment occurs on a majority of the project, hundreds of thousands of people per day would have a moderate duration exposure to the changes. Hundreds of adjacent residents would be exposed to the freeway due to the loss of landscape screening. Viewer sensitivity to the visual changes are expected to be moderate for freeway travelers and high for nearby residents. Intactness and unity would decrease moderately due to increased pavement, loss of the vegetated median slope, and loss of existing mature freeway landscaping.

Viewer response to the change would be moderate. The resulting adverse impact would be moderate. See Figure 3-15 for before and after photos of the proposed features.

Key view #7 shows a direct access ramp structure that is proposed to replace the Del Lago Avenue overcrossing. The median would be widened and the median planting would be removed. The main lanes of the freeway would be widened to the outside requiring adjacent slopes to be graded and a retaining wall to be constructed. Intactness and unity would be decreased to a low level because of the contrast between the large built forms of the freeway and the surrounding landscape. Vividness would also be decreased to a moderate level because the large scale of the freeway would detract from the distant views. Hundreds of thousands of people per day would have a short duration exposure to the proposed changes. Viewer sensitivity to the visual change is expected to be moderate for freeway travelers and nearby residents. Changes to the visual character would probably be considered by local viewers to be adverse. Viewer response to visual changes is expected to be moderate. The resulting adverse impact would be moderately high. See Figure 3-16 for before and after photos of the proposed features.

Key view #8 shows removal of median planting and the landscaped berm in conjunction with a raised planter between relocated median barriers and a landscaped slope. Intactness and unity are moderately high due to the complementary relationship between the freeway and the surrounding landscape. The existing median planting reduces the scale of the facility by half by obscuring views of oncoming traffic. The landscaped berm contributes to the unity and intactness of the view. The vividness of the viewshed is low due to the lack of memorable visual features in the landscape. Visual quality would moderately decrease because of the widening and temporary loss of freeway landscaping.Visual intactness and unity would both decrease as a result of the paved surfaces gaining dominance in the viewshed.

Adjacent homes would be buffered by existing landscaping that exists on their properties. The I-15 corridor in this area has been designated by the City of Escondido as a scenic corridor, so viewer sensitivity to the visual change is likely to be high for area residents and freeway travelers. The adverse change to visual quality would be moderate, change to visual character for local residents would likely be considered adverse, and viewer response levels are expected to be high. The resulting adverse impact would be moderate. See Figure 3-17 for before and after photos of the proposed features.

Conclusion

The adverse visual effects of the project are that the suburban and semi-rural character of the I-15 corridor would become noticeably more urban. Generally, this change would affect freeway users more than it would those who view the freeway from adjacent communities.

Views from the freeway would be diminished in quality by the increase in size and scale of the freeway and its walls, structures, and appurtenances. Because the right-of-way footprint would remain essentially the same as it is now, the new built forms would be even more apparent.

The effect of this change would be magnified because the large numbers and sizes of vertical walls that are proposed in the median, at structures, and at the edges of the freeway would be highly visible.

Views to the freeway would also be adversely affected at right-of-way edges and community entrances. The right-of-way boundaries between the freeway and the communities would remain the same.

The existing landscaped buffers would, however, be reduced in size, and in some cases be fully or partially replaced with retaining walls and/or noise barriers. The most extreme example of this type of change is the proposed retaining wall/noise wall at Maya Linda Road (Key View #2). At community entry points, freeway interchange landscaping would be reduced and structures would be enlarged. The increased scale of the roadway and structures would adversely affect pedestrian views at freeway crossings. The new interchanges may no longer be consistent with the visual goals of some communities in the corridor due to wall heights.

3.17.3 Measures to Minimize Harm

The Department and the FHWA mandate that a qualitative/aesthetic approach should be taken to mitigate for visual quality loss in the project area. This approach addresses the actual cumulative loss of visual quality that will occur in the project viewshed when the project is implemented. It also identifies visual measures that can aid in gaining public acceptance of the project.

Visual measures to address adverse project impacts addressed in the key view assessments and summarized in the previous section will consist of adhering to the following design requirements in cooperation with the District 11 Landscape Architect. The requirements are arranged by project feature and include design options in order of effectiveness. All visual measures to minimize harm will be designed and implemented under the guidance and concurrence of the the Department's Landscape Architect.

Landscaped Sound berms (Figure 3-18)

Noise barriers would consist of landscaped berms wherever possible. Landscaped berms are preferred for noise barriers.

Sound berm with retaining wall (Figure 3-19)

In areas where the right-of-way is too narrow to accommodate a berm, a retaining wall may be used to avoid constructing a sound wall on top of the berm. This will also result in a barrier with a lower profile than a noise berm/wall combination due to the berm's sound attenuation qualities.

Sound berm with sound wall (Figure 3-19)

This barrier configuration is preferable in situations where a tall retaining wall at the toe of slope would create a visual impact to an adjacent property. To be effective, this option should incorporate a berm with a 1:2 slope on the freeway side of that is 1.2 meters (4 feet) high (minimum). This size berm should preclude the need of a safety barrier to protect the noise wall and allow enough space to provide screening shrubs in front of the wall.

Sound berm with landscape buffers (Figure 3-19)

In cases where berms are entirely unfeasible, sound walls should incorporate planting on both sides. In some cases, retaining walls may be needed to provide the required planting space on the freeway side of the wall.

Sound wall planting pockets (Figure 3-20)

Where right-of-way is too narrow to employ the configurations listed above, a safety barrier is required to be placed in front of the wall. A minimum 0.6 meter (2 feet.) wide planting area should be provided between the back of the barrier and the face of wall. Placing the sound wall on top of the barrier should be avoided where possible.

Transparent sound walls (Figure 3-20)

In situations where noise receptors are located above the elevation of the freeway, noise walls located at the top of slope near the right-of-way line or on private property shall be used if feasible and reasonable. Locating walls at higher elevations nearer the receptors substantially reduces the height of walls to achieve "line of sight" noise reductions. In cases such as those depicted in Key View 5, where the walls would block views from residences, transparent panels should be used to preserve those views.

Architectural Detailing

Noise walls will be designed to be visually compatible with the surrounding community. Architectural detailing such as pilasters, wall caps, interesting block patterns, and offset wall layouts will be used to add visual interest, reduce the apparent height of the walls, and to meet community design goals.

Retaining walls

Retaining wall/Barrier planting pockets ***(Figure 3-21)***

In areas where retaining walls must be placed close to the traveled way, space should be reserved between the wall and the safety barrier to include a 1.8 meters (6 feet) wide planting pocket.

Terraced retaining walls (Figure 3-21)

In situations where site conditions permit, retaining walls over 5 meters (16 feet) in height, the wall should be divided into two separate structures sufficiently offset from one another to create a flat planting area between the two.

Mid slope retaining walls (Figure 3-22)

Retaining walls should be located at mid slope wherever possible to provide a buffer area for landscape screening between the wall and the freeway.

Terrain contoured retaining walls (Figure 3-22)

Retaining walls that follow the contours of the topography and maintain a constant elevation at the top of wall shall be used where appropriate. This type of wall shall be visually compatible with surrounding terrain and provide room at the base for a landscape screening buffer.

Plantable retaining walls

Crib walls that utilize a stacking tray design should be used in place of Caltrans standard design crib walls wherever possible to provide a landscaped surface that will blend in with the surrounding landscape.

Architectural surface treatment

Architectural features, textures and colors shall be used, as determined by the District Landscape Architect, to mitigate the appearance of retaining wall surfaces. Walls shall incorporate architectural features such as pilasters and caps to provide shadow lines, provide relief from monolithic appearance, and reduce their apparent scale.

Overcrossing, Undercrossing, Bridge, and Direct Access Ramp (DAR) Structures

Structure design shall be enhanced with architectural features and be consistent with corridor design themes developed by the District Landscape Architect. Pedestrian lighting, widened sidewalks (1.8 meters-2.4 meters [5.9 feet- 7.9 feet]in width), bicycle lanes, and other urban amenities on local street portions of structures would be provided to be consistent with community values and goals. Slope paving at undercrossings would be enhanced with texture to deter graffiti. See-through bridge rails such as the Type 80 rail (810 millimeters [32 inch] high concrete barrier with openings at bottom) would be used on the Lake Hodges and Green Valley Creek bridges.

Loss of existing freeway landscaping

Corridor landscaping

The project shall receive landscaping that is consistent with the appearance of the adjacent community. In areas of the project that are characterized by ornamental landscaping, freeway landscaping that includes trees, shrubs, and groundcover should be installed. In less developed areas of the corridor, landscaping with trees and shrubs will be planted.

Loss of existing median planting

Raised Median Planter

Existing median oleanders that are removed north of Citracado Parkway due to the project would be replaced by new oleanders of a medium sized variety planted in a raised bed of soil between two median barriers spaced a minimum of 2.0 meters (6.0 feet) apart. This can be seen in the bottom photosimulation on Figure 3-17.

Median Wall Planter

Loss of shrubs and herbaceous ground cover in existing medians of split alignment would be mitigated by creating a shrub planting area between median retaining walls and concrete barriers where the available width is of 2.0 meters (6.0 feet) or greater.

Median Barriers

In order to preserve desirable views and reduce the visual scale of the freeway facility, concrete median barriers shall be Type 60S (810 millimeter (32 inch) A shaped barrier) and Type 732 (810 millimeter (32 inch) bridge barrier).

Manufactured slopes

Slopes shall be graded 1:2 or flatter to support planting and irrigation. Grading would utilize techniques such as slope rounding, slope sculpting, and variable gradients to approximate the appearance of natural topography.

Lighting and Signage

Lighting and signage attachments on structures would occur at pilasters or be incorporated in other architectural features.

Existing freeway lighting and signage design themes for the corridor would be continued.

Pedestrian lighting on all overcrossings would be uniform and conform to the corridor design theme.

Soffit lighting would be provided on all undercrossings with pedestrian facilities.

Where possible, electrical and signal equipment at ramp termini would be placed in visually unobtrusive locations.

Operational and Maintenance Facilities

Barrier transfer machine facilities visible from the freeway or local streets would be screened from view with walls and/or vegetation, with the exception of the temporary parking in the median near Centre City Parkway.

Access control fences

Access control fencing shall be placed in visually unobtrusive locations of interchanges and bridges. It will be black vinyl coated where appropriate.

Retaining walls and sound walls near right-of-way boundaries would be placed in such a way that an additional access control fence will not be needed. The "dead" spaces that occur between walls and fences should be avoided if at all possible.

Drainage and Water Quality Facilities

Concrete interceptor ditches shall not be placed at the toe of slopes adjacent to residential property or pedestrian use areas. Alternatives such as subterranean drainage placed below finish grade or a planted geo-reinforced drainage surface would be used.

Concrete drainage devices located in non-landscaped areas would be colored to match the surrounding soil.

Soft surface alternatives to concrete ditches and rock slope protection would be utilized wherever possible.

Detention basins and geo-swales in ornamentally landscaped areas would be planted with visually compatible ornamental ground cover.

3.18 Construction Impacts

The following discussion addresses construction staging and impacts associated with construction activities.

3.18.1 Construction Staging and Detours

For construction and funding purposes the Four Managed Lanes Alternative would be broken into three separate segments for construction staging. Figure 3-25: Four Managed Lanes Alternative, shows the locations of the three different segments.

The South Segment, in the City of San Diego, begins 2.4 kilometers (1.49 miles) south of State Route 163 and extends to 0.2 kilometer (0.12 mile) south of State Route 56. This segment would include the construction of the SB on-ramp from the Sabre Springs direct access ramp (DAR). It is anticipated that construction in this segment would start between 2008 and 2010.

The Middle Segment, in the Cities of San Diego and Escondido, begins 1.0 kilometer (0.62 mile) south of State Route 56 and continues to 0.4 kilometer (0.25 mile) north of Del Lago Blvd./North County Fair OC. The schedule for this segment is to start construction in 2003 or 2004.

The North Segment, in the City of Escondido, begins at Del Lago Blvd. and extends to 0.5 km north of State Route 78. This segment would include the construction of the Del Lago Blvd./North County Fair DAR northern ramps and the Hale Avenue DARs. It is anticipated that construction in this segment would start between 2008 and 2010.

Detours

During construction, it is proposed to keep the same number of freeway lanes open during heavy demand times. This would be accomplished through the use of temporary concrete barrier and reduced shoulder and/or lane widths. Traffic would be shifted towards the median and outside widening would be completed. Once the outside widening is complete traffic would be shifted to the outside so median construction could occur.

Freeway lanes would be subject to closure during off peak times. Complete freeway closures would generally weekdays between 11:00 PM and 5:00 AM and weekends between 3:00 AM and 10:00 AM.. Freeway detours would be required for nighttime bridge work and where ramps and structures are closed.

Structure replacements would require a temporary reduction in the number of lanes and reduced shoulder width on the city streets. This is because the existing structures would be replaced one half at a time.

To mitigate this impact, the project would be staged so that adjacent bridges would not be under construction at the same time. For example, when Ted Williams Parkway/SR-56 is being reconstructed, Carmel Mountain Road overcrossing would not be.

When Ted Williams Parkway/SR-56 is finished it would provide additional lanes to assist traffic that might be detouring from the Carmel Mountain Road overcrossing construction.

Via Rancho Parkway overcrossing and Del Lago Boulevard/ North County Faire overcrossing are similar to Ted Williams Pkwy/ SR-56 and Carmel Mountain Rd overcrossing. However, Del Lago Boulevard/ North County Faire overcrossing would not be replaced in two stages but would be totally removed and replaced. The reasons for this are that traffic volume is light, the existing bridge abutments are too close to the proposed widening of the freeway to be left during construction, and the new bridge can be completed in approximately nine months instead of 18 months.

Via Rancho Parkway would be constructed in two stages, both about nine months long. However, the North County Faire Shopping Center has requested that we not impact the peak shopping season in November and December. Work windows would be put in the construction contract to start the construction in January and finish it in September for each stage.

The Highland Valley Road / West Bernardo Drive / Pomerado Road overcrossing bridge replacement is proposed to be similar to Del Lago Blvd / North County Faire overcrossing in that it would be totally removed. This will reduce the overall time that this structure is under construction from 18 months to nine months.

During this construction the ramps will remain in use but the structure itself will be closed to traffic. The traffic analysis shows that several intersections will be affected by the traffic changing patterns during this construction. The year 2005 was used for this analysis and the following chart indicates the results. It should be noted that the improvements at Rancho Bernardo Road between West Bernardo Drive and Bernardo Center Drive that are currently in construction improve the level of service and allow this detouring of traffic to function adequately.

Signalized Intersection Location	2005 Level of Service (AM / PM)	2005 Level of Service during closure of Highland Valley Road/ West Bernardo Drive Structure (AM / PM)
Rancho Bernardo Road / West Bernardo Drive	E / E	E / E
Rancho Bernardo Road / I-15 Southbound Ramps	C / C	C / D
Rancho Bernardo Road / I-15 Northbound Ramps	B / C	C / C
Rancho Bernardo Road / Bernardo Center Drive	D / E	E / E
West Bernardo Drive / Duenda Road / Bernardo Center Drive	C / C	E / E
Bernardo Center Drive / Escala Road / (Duenda Road)	A / A	C / C

The local traffic that would cross the Highland Valley Road structure will now cross at the Duenda Road / Bernardo Center Drive structure. This is estimated to be 4,000 ADT in year 2005. In addition, additional freeway trips (about 3,900 ADT) will divert to Duenda Road / Bernardo Center Drive structure for a total of about 8,000 ADT additional trips. It is proposed to perform the Highland Valley Road overcrossing replacement construction before work is begun on replacing the Duenda Road / Bernardo Center Drive Overcrossing structure.

Some southbound regional trips (about 3,000 ADT) that were using the Highland Valley Road Interchange to access Pomerado Road to connect to the communities of Sabre Springs or Poway have switched to the freeway and exit south of Bernardo Center Drive. This is indicated by the traffic volume on I-15 increasing and the volumes on Pomerado Road decreasing through this area. The northbound regional trips are not affected because those trips can still be made during the structure closure.

In the South Segment, Miramar Road/ Pomerado Road will be replaced and widened prior to work on Carroll Canyon Road. The Miramar Road / Pomerado Road structure will be replaced one half at a time keeping the same number of lanes and reducing median and shoulder width.

Once Miramar Road/ Pomerado Road structure is completed, Carroll Canyon Road Overcrossing will be replaced one half at a time. This structure will only accommodate one lane in each direction. In order to keep traffic operating at the Carroll Canyon Road Interchange, all left turns from / to the ramps will be prohibited. Through traffic will actually be improved on Carroll Canyon Road during this construction so emergency vehicle response times will not be diminished. The left turn movements that would be made at Carroll Canyon Road will shift to Miramar Road/ Pomerado Road or Mira Mesa Boulevard during this construction. Both of these interchanges were analyzed and the following shows the results:

Signalized Intersection Location	2005 Level of Service * (AM / PM)	2005 Level of Service during Replacement of Carroll Canyon Road Structure ** (AM / PM)
I-15 Southbound Ramps & Miramar Road/ Pomerado Road	D / E	E / E
I-15 Northbound Ramps & Miramar Road/ Pomerado Road	D / C	E / D
I-15 Southbound Ramps & Carroll Canyon Road	E / E	D / D
I-15 Northbound Ramps & Carroll Canyon Road	E / E	D / D
I-15 Southbound Ramps & Mira Mesa Boulevard	C / D	D / E
I-15 Northbound Ramps & Mira Mesa Boulevard	C / C	D / D

* Assume both Miramar Road/ Pomerado Road and Mira Mesa Boulevard improvements are in place.

** Left turn movements restricted at Carroll Canyon Road Interchange.

Replacement of Lake Hodges Bridge would be done in phases to ensure that the number of lanes open to motorists are not reduced. An 8 meter (26 foot) wide section would be constructed between the existing northbound and southbound main lanes. Once complete, traffic from the northbound lanes would be shifted to this newly constructed segment so that the northbound bridge could be demolished and reconstructed.

Once the northbound bridge is completed, both northbound and southbound traffic would be shifted to the new northbound and center bridges. Construction of the southbound bridge would then begin.

Reduced lane widths and detours at structures are summarized in Appendix D: Local Street Detours

There are several transit routes that may be affected during construction. Transit impacts vary from schedule impacts that would require adding additional time to the route timetable to routes that would require additional buses in order to maintain current schedules. Routes 20, 810, 820, 850, 860, and 980/990 could experience delays or require re-routing. The department is working with MTDB and NCTD to help minimize any impacts.

3.18.2 Impacts

Noise produced by construction equipment on this project would occur with varying intensities and duration during eight basic phases of construction. Because of the different phases of construction, no single location would experience a long-term period of construction noise. A rough approximation of the construction noise levels for various pieces of construction equipment are shown in Figure 3-23: Construction Equipment Noise Ranges. This figure shows the range of noise emissions from various types of construction equipment at a distance of 15 meters (50 feet).

The short-term construction equipment noise impacts are estimated by comparing the existing noise levels with the estimated noise levels that are produced by various types of construction equipment.

The main lanes of I-15 will have the same number of freeway lanes during peak hours as are currently existing. Therefore, additional delays during peak times due to construction on the main freeway lanes would be minimal. Delay will occur on the main lanes during nighttime work when the complet freeway is closed and traffic is

detoured. Complete freeway closures would generally weekdays between 11:00 PM and 5:00 AM and weekends between 3:00 AM and 10:00 AM.. Portions of the entire corridor are expected to be under construction from 2003 to 2013.

Construction delays will occur at interchanges, as bridges are replaced. The delays range from minimal delays up to 10 minutes. Each interchange will be under construction for a period between 12 and 24 months.

It is an explicit goal of the TMP to develop innovative measures to reduce delays to the absolute practicable minimum. These measures would also aid in the avoidance of substantial social and economic impacts. Specific TMP features are discussed further in Section 3.17.3: Measures to Minimize Harm.

Construction air quality impacts would be temporary in nature. Fugitive dust is airborne particulate matter, generally of a relatively large particulate size. Construction related fugitive dust would be generated by haul trucks, concrete trucks, and other earth moving vehicles operating around the construction site and on access roads.

3.18.3 Measures to Minimize Harm

To help minimize construction related noise impacts the following construction noise control measures would be implemented:

- At any given location, static work activities including but not limited to grinding operations, sand blasting, falsework erection and removal, and bridge demolition shall be confined to a maximum of 5 nights in any 21 day period.
- Sound walls and berms will be constructed prior to opening the managed lanes to traffic
- Maintenance yards, batch plants, haul roads, and other construction-oriented operations would be placed in locations that would be the least disruptive to the community. None will be allowed where construction mean peak noise levels would be increased more than 3 dBA. Noise monitoring would be required.
- Community meetings would be held to explain to the area residents about the construction work, time involved, and the control measures to be taken to reduce the impact of the construction work.
- No pile driving would occur between the hours of 7:00 p.m. and 7:00 a.m., on weekends, or on any State or Federal holidays.

- Portable noise screens would be used to provide shielding for generators or other similar portable construction equipment when work is close to noise-sensitive areas.

During construction, impacts to traffic would be mitigated through the use of many different TMP strategies including public notification, providing motorist information, prompt incident management, construction techniques, and through demand management strategies. Following is a discussion of each of these categories.

Public notification would be used to help educate individuals within the corridor about the project and delays that they may face. They will also allow any potential user the time to make alternate transportation arrangements during the construction period if they are affected. Following are the public notification strategies that would be utilized:

- Brochures and mailers
- Media releases and paid advertising
- Public Information Centers
- Public meetings
- Telephone Hotline
- Internet - Project Web Page

In addition to the public notification campaign there would also be numerous means to notify motorists out on the road of alternate routes, detours, and of any potential delays. These include:

- Changeable message signs
- Portable changeable message signs
- Ground mounted signs
- Highway advisory radio

During construction, traffic delays will exist that would only be compounded if accidents occur. Following are the strategies that will be employed to aid in incident management:

- Construction Zone Enhancement Enforcement Program (COZEEP)

- Freeway Service Patrol (FSP)
- Traffic Management Team (TMT)
- On-site traffic monitor (Contractor)

To facilitate construction staging and to ensure that the different construction contracts do not create additional traffic impacts the following strategies would be used:

- Coordination of all construction projects within the corridor with the managed lanes schedule
- Develop timing plan for critical operation completion
- Lane closure charts to limit lane closures during peak traffic periods
- Include incentive clauses for early completion, and damage clauses for late opening of lane closures in contract
- Adjacent ramp closures would not be permitted. Staged replacement of all but two of the overcrossing bridges (half at a time); to allow for continued but reduced traffic flow
- No concurrent bridge overcrossing construction would be permitted where staged bridge replacement would detour traffic on the adjacent bridge structure
- Have contingency plans to manage alternate material on-site, excess equipment, emergency detours and incidents
- Use of detours where necessary

Finally, demand management strategies would be used to help reduce the number of individuals utilizing the lanes during the construction period. These strategies include:

- Park and ride lots
- Fund additional transit service
- Rideshare marketing
- Use of ramp metering

To minimize the amount of construction dust generated, and because the project is in a State PM10 non-attainment area all of the proposed particulate control measures related to construction activities would be considered:

I. During site preparation

- Minimize land disturbances
- Use watering trucks to minimize dust
- Cover trucks when hauling dirt
- Stabilize the surface of dirt piles, if not removed immediately
- Use windbreaks to prevent any accidental dust pollution
- Limit vehicular paths and stabilize temporary roads; and pave all construction roads and parking areas for a length no less than 15.2 meters (50 feet) where they exit construction sites to limit dirt on paved roadways

II. Construction

- Cover trucks when transferring materials
- Use dust suppressants on traveled paths which are not paved
- Minimize unnecessary vehicular and machinery activities
- Minimize dirt track-out by washing or cleaning trucks before leaving the construction site (alternative to this strategy is to pave a few hundred meters (a few hundred feet) of the exit road, just before entering the public road)

III. Post-Construction

- Revegetate any disturbed land not used
- Remove unused material
- Remove dirt piles
- Revegetate all vehicular paths created during construction to avoid future off-road vehicular activities.

Chapter 4 Cumulative Impacts

Many projects along I-15 have been undertaken or are proposed to improve safety and relieve congestion within the cities of San Diego and Escondido. All of these projects have separate environmental reviews and mitigation measures where appropriate. This project and all others proposed have independent utility and do not require other projects for justfication. All of these improvements are scheduled in the Regional Transportation Plan (RTP). All impacts in the following discussion are in addition to those mentioned in Chapter 3.

Following is a discussion of past and future related projects by others, in addition to those by the Department. The ultimate magnitude of regional environmental impacts results from the additive effects of many projects.

There are many operational improvements underway on the corridor. Primary among these is construction of auxiliary and added lanes where congestion regularly occurs. These lanes would add capacity at "bottleneck" locations, and facilitate entering and exiting the freeway allowing the corridor to operate optimally. Currently auxiliary/added lane projects are planned or currently under construction at the following locations:

- Construct added lanes from 0.5 kilometers north of Citracado Parkway undercrossing to 0.4 kilometers north of Valley Parkway undercrossing
- Construct auxiliary lane from Carmel Mountain Road to Camino del Norte (Constructed)
- Construct added lanes through the Carmel Mountain Road interchange(currently under construction)
- Construct added and auxiliary lanes from Poway Rd OC to the Camino Del Norte UC, and on Route 56 from Rancho Penasquitos Blvd to 0.2 km east of Junction Route 15 (currently under construction)
- Construct auxiliary lane from Miramar Road overcrossing to the Mercy Road overcrossing

The following table summarizes impacts associated with each of these added/aux lane projects.

Project	Wetlands	Wetlands/Waters of the US	Federal Endangered Species	Sensitive Habitat
added lanes from 0.5 kilometers north of Citracado Parkway	None	None	None	None
auxiliary lane from Carmel Mountain Road	None	None	None	None
Construct added lanes through the Carmel Mountain Road	None	None	None	0.32 hectare (0.8 acres) of CSS
added and auxiliary lanes from Poway Rd OC	Impacts to six separate areas consisting of 0.057 hectares (0.016 acres)	None	6 gnatcatchers	6.47 hectare (16.0 acres) of CSS
auxiliary lane from Miramar Road	None	None	None	2.02 hectare (5.0 acres) of CSS

Other projects in the corridor include:

- Pavement rehabilitization at various areas between Camino del Norte to Route 76
- Install fiber optics and closed circuit television systems at various locations
- Grind Portland Cement Concrete (PCC) pavement and slab replacement
- Soil stabilization at various locations
- Construction of median barrier from North County Fair to Country Club Lane
- Reclaimed water conversion from Clairemont Mesa Boulevard to Miramar Road/Pomerado Road

These projects would have minor impacts since they are primarily located within existing lanes, shoulders, and the median.

In addition to the above mentioned freeway projects, there are several other future related projects which are currently being planned within the cooridor. Following is a description of other related projects being conducted by others.

The Metropolitan Transit Develelopment Board (MTDB) has proposed a project consisting of a system of transit routes connecting residential areas with major employment centers within and outside the I-15 Corridor. For example, this system of transit routes would connect Escondido, Rancho Bernardo, and Kearny Mesa with downtown San Diego, Mission Valley, and Sorrento Mesa.

Freeway transit stations and park-and-ride lots are planned in the communities of Mira Mesa (Hillery Drive), Sabre Springs (Sabre Springs), Rancho Bernardo (Rancho Bernardo), south Escondido (Del Lago), and Escondido (Hale Avenue). These stations would be connected to the freeway via direct-access ramps, allowing both carpools and High-Speed Bus Rapid Transit System (BRTS) routes to bypass the main freeway access ramps.

The Mira Mesa Transit Station is currently under environmental review and a draft environmental report is not available at this time.

The Sabre Springs Station is located on a parcel that was to be developed as a planned commercial site. MTDB prepared a Mitigated Negative Declaration (MND) in October 2002, that discusses impacts of the proposed project. Impacts to the site were accounted for and mitigated by Pardee Construction Company per the Mitigated Negative Declaration (MND) dated October 2002, as prepared by the City of San Diego. Per the MND for this development there were no biological impacts since the area consisted of non-native annual grasses. The project site was to be developed with industrial land uses requiring the paving of 5.6 acres thus increasing runoff that would drain into chicarita creek. This increased drainage was mitigated to below a level of significance through

The Rancho Bernardo Transit Station is located east of West Bernardo Drive between West Bernardo Court and Bernardo Center on a 5.74 acre parcel. MTDB prepared an Initial Study for this project in May 2001, that describes that impacts to the site were accounted for in the *Homestead Village-Rancho Bernardo Mitigated Negative Declaration (LDR N o. 96-0564, City of San Diego)* prepared by the previous owner of the site. Beyond impacts mitigated for by the developer, the transit station would have impacts to air quality, circulation, hazardous materials, utilities, and aesthetics. Each of these impacts is listed as less than significant.

The Del Lago Transit Station is being planned at an area that currently exists as a park and ride lot thus no additional impacts are anticipated.

The Hale Avenue Transit Station already exists thus no impacts would occur from incorporating this station into the bus BRTS concept.

The five BRTS are being developed concurrently and are fully compatible with the Four Managed Lanes Alternative. The Four Managed Lanes Alternative includes the basic elements needed for a BRTS to work if constructed. The direct access ramps would serve as an access point for buses, carpoolers and other managed lane traffic.

For the full implementation of the BRTS, a total of Four transit stations on the I-15 corridor would be linked to the managed lanes via direct access ramps (DAR). An additional transit station would be located on Hillery Street and would access the freeway by utilizing local roadways and would access the Managed lanes through intermediate access points located in this area. The five stations would provide parking for the transit users and for carpoolers.

Parking for transit users and carpoolers can be accommodated at all transit stations within the corridor. However, if the BRTS is very successful and demand for parking increases beyond the amount of parking available, there may be a future need to build parking structures at the transit stations. These would be subject to a separate future environmental review.

The following auxiliary lanes are proposed to be constructed concurrently with this project:

- Northbound auxiliary lane from Carmel Mountain Road on ramp to Camino del Norte off ramp
- Northbound auxiliary lane from Bernardo Center Drive on ramp to Rancho Bernardo Road off ramp
- Southbound auxiliary lane from Bernardo Center Drive on ramp to Camino del Norte off ramp

Environmental studies for these auxiliary lane projects are currently being conducted, however no resources will be disturbed beyond those of the I-15 Managed Lanes Project which will be constructed concurrently.

San Dieguito River Valley Regional Open Space Park is proposing to extend its bike trail network by constructing a bicycle/pedestrian bridge west of I-15, from the northern shore to the southern shore of Lake Hodges. This would replace bicyclists and pedestrians current option to crossing Lake Hodges other than using the existing bike lane on the shoulder of I-15.

While the impacts associated with this proposed Managed Lanes Project would be fully mitigated, it is the responsibility of local jurisdictions and the appropriate resources and permitting agencies to ensure that others also address and appropriately mitigate impacts of their future related projects. The following table, Table 4-1, shows totals of certain impact types from the 26 developments recently constructed or proposed. The Managed Lanes Project impacts occur within an existing transportation corridor. Some impacts are temporary during construction and would be mitigated as described in Section 3.17. New structures and loss of some vegetated slopes will increase urbanization of the corridor, but would be mitigated with architectual features and landscaping as described in Section 3.16. Many homes would have minor noise increases but only a few would have large increases that would be mitigated. Wetland loss that occurs would be mitigated with a multiple ratio.

Special attention has been given to the loss of 17.40 hectares (43 acres) of coastal sage scrub and related loss of 15 gnatcatcher territories. The USFWS Biological Opinion has determined that the Managed Lanes Project would not jeopardize the species existence. In addition, the biological opinion required 34.80 hectares (86 acres) of habitat to be preserved at Lake Hodges for impacts due to several of the above mentioned operational improvement projects, an added 93.65 hectares (231.43 acres) would be preserved at Bonita Meadows for impacts from the Managed Lanes Project.Prior to acquisition, both of these parcels were studied and a CEQA document was prepared.The Managed Lanes Project would not cause substantial impacts on natural resources when assessed from a cumulative viewpoint.

Table 4-1 Developments in the I-15 Coridor

Name	Jurisdiction	Proposed Uses	Wetlands	Waters of the US	Federal Endangered Species	Sensitive Habitat	Status
Mission City, (I-15,P.M. 6.8)	City of San Diego	220 acres of residential, commercial, recreation, open space	Yes - Marsh only in 2 operational ponds	No	California gnatcatchers	4.7 Coastal sage scrub, 0.2 Southern mixed chaparral, 1.7 Southern cottonwood/mulefat scrub, 1.6 Freshwater marsh	Final EIR under Review
Scripps Highlands II (I-15,P.M. 15.9)	City of San Diego	139 SFD, 42 MFD, total 9.2 acres	No	No	No Resources Identified	1.7 Coastal sage scrub, 0.2 Southern maritime chaparral	ND approved, project under construction
Scripps Ranch, Business Park III (I-15 ,P.M. 15.92)	City of San Diego	848 apartments, 100 acres total	Yes	Yes	No Resources Identified	0.5 Chamise chaparral, 21.7 Eucalyptus woodland, 2.5 Freshwater marsh, 1.3 Open water	ND approved, project under construction
Rancho Encantada, (I-15, P.M. 17.3)	City of San Diego	754 SFD, 131 MFD, 2,657 acres total	Yes	Yes, 0.4 acres	No Resources Identified	39.4 Coastal sage scrub, 38.9 Southern mixed chaparral, 69.6 Chamise chaparral, 2.7 Non-native grasslands	FEIR approved, project under construction

Name	Jurisdiction	Proposed Uses	Wetlands	Waters of the US	Federal Endangered Species	Sensitive Habitat	Status
Savannah Terrace, (I-15, P.M. 18.2)	City of San Diego	289 MFD, 31.06 acres total					Draft ND under review
Golem Project, (I-15, P.M. 23.0)	San Diego County	67 SFD, 73 acres total					Constructed
4S Ranch, (I-15, P.M. 23.7)	City of San Diego	4715 SFD, commercial, park, open space, 3525 acres total	Yes, 5.6 acres	Yes	50 California gnatcatchers	137.0 Coastal sage scrub, 2.1 Riparian scrub/woodland, 5.6 Wetlands	Aproved
Saddle Club Estates, (I-15, P.M. 26.04)	City of San Diego	44 SFD, 35 acres total					Environmental document approved

Name	Jurisdiction	Proposed Uses	Wetlands	Waters of the US	Federal Endangered Species	Sensitive Habitat	Status
Bernardo Mountain (I-15, P.M. 26.97)	City of Escondido	42 SFD, 49.7 acres total					Draft EIR under review
Loranda Subdivision Valley Center Project (I-15, P.M. 30.63)	San Diego County	169 SFD, 435 acres total				3.8 Coastal sage scrub, 42.2 Mixed chaparral, 0.05 Mulefat scrub	Draft EIR not completed yet
Cielo del Norte (I-15, P.M. 30.63)	San Diego County	186 SFD, 580 acres total	Yes		California gnatcatchers	Coastal sage scrub, Live Oak woodland, Southern mixed chaparral	Draft EIR not completed yet
Point Carmel (SR-56, P.M. 1.8)	City of San Diego	89 SFD, 31.9 acres total	Yes, 0.02 acres	No	No Resources Identified	2.0 Coastal sage scrub16.8 Southern maritime chaparral2.5 Coyotebrush scrub0.2 Non-native grasslands	ND approved, project under construction

Name	Jurisdiction	Proposed Uses	Wetlands	Waters of the US	Federal Endangered Species	Sensitive Habitat	Status
Neighborhood 10 Del Mar Highlands Estates (SR-56, P.M. 2.2)	City of San Diego	1566 SFD, 806 acres total	No	No	No Resources Identified	19.5 Coastal sage scrub, 0.1 Coyote brush scrub, 0.3 Southern willow scrub, 2.3 Non-native grasslands	FEIR approved
Fairbanks Highlands (SR-56, P.M. 2.2/7.2)	City of San Diego	92 SFD, 386 acres total	Yes		5 California gnatcatchers	3.6 Coastal sage scrub, 0.7 Southern willow scrub, 0.5 Mulefat scrub, 0.7 Non-native grasslands	Constructed
Seabreeze Farms (SR-56, P.M. 2.35/7.23)	City of San Diego	185 SFD & horse trail, 73.3 acres total	Yes	No formal	No Resources Identified	1.2 Coastal sage scurb, 6.5 Mixed chaparral, 0.1 Mulefat scrub, 0.5 Non-native grasslands	ND approved
Fairbanks Country (SR-56, Villas P.M. 3.3)	City of San Diego	64 SFD, 54.15 acres total	Yes	Yes		Coastal sage scrub, Chaparral, Non-native grasslands	Draft under review

Name	Jurisdiction	Proposed Uses	Wetlands	Waters of the US	Federal Endangered Species	Sensitive Habitat	Status
Kasai/Mondeck (SR-56, P.M. 4.2)	City of San Diego	57 SFD, 26.3 acres total	Yes	Yes	No Resources Identified	5.8 Coastal sage scrub, 1.4 Chaparral, 0.1 Non-native grasslands	FEIR approved, project under construction
Penequitos West (SR-56, P.M. 6.1)	City of San Diego	113 SFD, 30.1 acres total	Yes	Yes			Under Review
McMillian Torrey Highlands (SR-56, P.M. 6.1)	City of San Diego	142 SFD, 43.06 acres total				Southern maritime chaparral, Non-native grasslands	Under Review
Fairbanks Summit (SR-56, P.M. 6.1)	City of San Diego	42 SFD, 20.72 units	No	No			Under Review

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Appendix A Environmental Checklist

ENVIRONMENTAL SIGNIFICANCE CHECKLIST (CEQA)

The checklist was used to identify physical biological, social and economic factors which might be impacted by the proposed project. In many cases, the background studies performed in connection with this project clearly indicate the project will not affect a particular item.

A "NO" answer in the first column documents this determination. Where there is a need for clarifying discussion, an asterisk is shown next to the answer. The discussion is in the section following the checklist.

PHYSICAL. Will the proposal either directly or indirectly:	**Yes or No**	**If Yes, is it Significant? Yes or No**
1. Appreciably change the topography or ground surface relief features?	NO	
2. Destroy, cover, or modify any unique geologic, paleontologic, or physical features?	NO	
3. Result in unstable earth surfaces or increase the exposure of people or property to geologic or seismic hazards?	NO	
4. Result in or be affected by soil erosion of siltation (whether by water or wind)?	NO	
5. Result in the increased use of fuel or energy in large amounts or in a wasteful manner?	NO	
6. Result in the increase in the rate of use of any natural resource?	NO	
7. Result in the substantial depletion of any nonrenewable resource?	NO	
8. Violate any published Federal, State, or local standards pertaining to hazardous waste, solid waste or litter control?	NO	
9. Modify the channel of a river or stream or the bed of the ocean or any inlet or lake?	YES	NO
10. Encroach upon a floodplain or result in or be affected by floodwaters or tidal waves?	YES	NO
11. Adversely affect the quantity or quality of surface water, groundwater, or public water supply?	NO	
12. Result in the use of water in large amounts or in a wasteful manner?	NO	
13. Affect wetlands or riparian vegetation?	YES	NO
14. Violate or be inconsistent with Federal, State, or local water quality standards?	NO	
15. Result in changes in air movement, moisture, or temperature, or any climatic conditions?	NO	
16. Result in an increase in air pollutant emissions, adverse effects on or deterioration of ambient air quality?	NO	
17. Result in the creation objectionable odors?	NO	
18. Violate or be inconsistent with Federal, State, or local air standards or control plans?	NO	
19. Result in an increase in noise levels or vibration for adjoining areas?	YES	NO
20. Result in any Federal, State, or local noise criteria being equal or exceeded?	YES	NO
21. Produce new light, glare, or shadows?	YES	NO
BIOLOGICAL. Will the proposal result in (either directly or indirectly):		
22. Change in the diversity of species or number of any species of plants (including trees, shrubs, grass, microflora, and aquatic plants)?	YES	NO
23. Reduction of the numbers of or encroachment upon the critical habitat of any unique, threatened or endangered species of plants?	YES	NO
24. Introduction of new species of plants into an area, or result in a barrier to the normal replenishment of existing species?	NO	
25. Reduction in acreage of any agricultural crop or commercial timber stand, or affect prime, unique, or other farmland of State or local importance?	NO	
26. Removal or deterioration of existing fish or wildlife habitat?	YES	NO
27. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish, and shellfish, benthic organisms, insects or microfauna)?	YES	NO
28. Reduction of the numbers of or encroachment upon the critical habitat of any unique, threatened or endangered species of animals?	YES	NO
29. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	NO	

ENVIRONMENTAL SIGNIFICANCE CHECKLIST (cont.) **SOCIAL AND ECONOMIC. Will the proposal directly or indirectly:**	**Yes or No**	**If Yes, is it Significant? Yes or No**
30. Cause disruption of orderly planned development?	NO	
31. Be inconsistent with any elements of adopted community plans, policies or goals?	NO	
32. Be inconsistent with a Coastal Zone Management Plan?	NO	
33. Affect the location, distribution, density, or growth rate of the human population of an area?	NO	
34. Affect life-styles, or neighborhood character or stability?	NO	
35. Affect minority, elderly, handicapped, transit-dependent, or other specific interest groups?	NO	
36. Divide or disrupt an established community?	NO	
37. Affect existing housing, require the acquisition of residential improvements or the displacement of people or create a demand for additional housing?	NO	
38. Affect employment, industry or commerce, or require the displacement of businesses or farms?	NO	
39. Affect property values or the local tax base?	NO	
40. Affect any community facilities (including medical, educational, scientific, recreational, or religious institutions, ceremonial sites or sacred shrines)?	NO	
41. Affect public utilities, or police, fire, emergency or other public services?	NO	
42. Have substantial impact on existing transportation systems or alter present patterns of circulation or movement of people and/or goods?	NO	
43. Generate additional traffic?	NO	
44. Affect or be affected by existing parking facilities or result in demand for new parking?	NO	
45. Involve a substantial risk of an explosion or the release of hazardous substances in the event of an accident or otherwise adversely affect overall public safety?	NO	
46. Result in alternations to waterborne rail or air traffic?	NO	
47. Support large commercial or residential development?	NO	
48. Affect a significant archaeological or historic site, structure, object, or building?	NO	
49. Affect wild or scenic rivers or natural landmarks?	NO	
50. Affect any scenic resources or result in the obstruction of any scenic vista or view open to the public, or creation of an aesthetically offensive site open to public view?	YES	NO
51. Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours and temporary access, etc.)?	YES	NO
52. Result in the use of any publicly-owned land from a park, recreation area, or wildlife and waterfowl refuge?	YES	NO

MANDATORY FINDINGS OF SIGNIFICANCE

53. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate, a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	NO	
54. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	NO	
55. Does the project have environmental effects which are individually limited, but cumulatively considerable? Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. It includes the effects of other projects which interact with this project and, together, are considerable.	NO	
56. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	NO	

Appendix B Biological Opinion

United States Department of the Interior
Fish and Wildlife Service
Ecological Services
Carlsbad Fish and Wildlife Office
2730 Loker Avenue West
Carlsbad, California 92008

In Reply Refer to: 1-6-01-F-1328.2

MAY 0 8 2001

Mr. Michael G. Ritchie, California Administrator
Federal Highway Administration
Department of Transportation
980 Ninth Street, Suite 400
Sacramento, CA 95814-2724

Re: Biological Opinion on the Proposed Operational Improvement Projects on Interstate 15 in San Diego County, California;.

Dear Mr. Ritchie:

This document transmits the Fish and Wildlife Service's (Service) biological opinion based on our review of the proposed Operational Improvement Projects on Interstate 15 (I-15) located in San Diego County, California, and its effects on the threatened coastal California gnatcatcher (*Polioptilla californica californica,* gnatcatcher) in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Critical habitat for the gnatcatcher was designated in 2000, however none occurs within the project boundaries and therefore it will not be addressed further. Your January 27, 2001, request for formal consultation was received on January 31, 2001.

This biological opinion is based on information provided in the November 3, 2000, and January 27, Biological Assessment, meetings, and other information available in our files. A complete administrative record of this consultation is on file at the Service's Carlsbad Fish and Wildlife Office.

Focused surveys for the endangered least Bell's vireo(*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) detected neither species. A patch of *Plantago erecta*, a larval host plant for the endangered Quino checkerspot butterfly (*Euphydryas editha quino*, Quino), was observed just outside of grading limits on the southbound side of I-15, just south of State Route 56 (SR-56). No Quino were observed during protocol surveys. Suitable habitat for the endangered arroyo toad (*Bufo californicus*) is not currently present within the project area. Designated or proposed critical habitat for the above species does not occur within the project boundaries and therefore none will be adversely modified as a result of the proposed operational improvements project. For these reasons, the proposed operational improvements project is not likely to adversely affect the above species or adversely modify their respective proposed or designated critical habitats. Therefore, these species will not be addressed further in this Biological Opinion except in the Description of the Proposed Action.

CONSULTATION HISTORY

In 1999, several meetings took place between our office and Caltrans to discuss preliminary findings and discuss project review. In 2000, Caltrans and our office discussed project impacts and compensation in meetings and telephone conference calls. We received a draft Biological Assessment dated November 3, 2000, on November 7, 2000, followed by additional information on November 29, 2000. The details of the project were discussed in a January 17, 2001, meeting with Caltrans biologist Bob James at Carlsbad Field Office. On January 18, 2001, Bob James sent additional information regarding the Biological Assessment via e-mail. On January 31, 2001, we received a request for formal consultation. Field notes from Bob James were received on February 15, 2001.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The Service, Federal Highways, and Caltrans view the proposed action for which this Biological Opinion is written as a part of a larger action along the I-15 Corridor Project. Interstate highway improvement projects are often disjunct individual projects that, when pieced together, constitute a much larger single linear project. Repair and improvement work along an interstate corridor is generally conducted in finite, disjunct construction periods (and areas) to allow for minimum disturbance to the interstate's primary purpose of providing safe transportation. Each distinct project has environmental impacts associated with it that contribute to regional cumulative impacts associated with the improvement and upkeep of the interstate system Impacts associated with the I-15 Corridor Project will be addressed in the Cumulative Impacts section of this Biological Opinion. Due to the duration of the larger I-15 Corridor Project, and the need to stagger the work along the corridor, this Biological Opinion will analyze the impacts within a three year time frame associated with the proposed Operational Improvement Projects for three areas along I-15 between Mercy Road and Carmel Mountain Road. Impacts associated with these three areas will be compensated for by purchase of 86 acres of habitat near Lake Hodges. By rendering a Biological Opinion on the three Operational Improvements addressed in this document, temporal loss of habitat is minimized, and habitat that is near the impact areas can be secured for conservation to compensate for project impacts to coastal California gnatcatcher.

This Description of the Proposed Action will describe the larger I-15 Corridor Project briefly and then describe in detail the three projects within the Component Three Operational Improvements for which this Biological Opinion addresses.

The I-15 Corridor Project is composed of three (3) components:

1. Component One plans for bridge widening and either a Managed Lanes alternative or High Occupancy Vehicle Lanes alternative.

Bridge widening is proposed at Los Peñasquitos Creek, Green Valley Creek, and Lake Hodges. Timber pilings, cofferdams, and piling driving are planned and construction time is anticipated at nine months for Los Peñasquitos, one year for Green Valley and 18 months for Lake Hodges.

The Managed Lanes Alternative of Component One proposes four managed lanes in the freeway median of I-15 throughout the length of the I-15 Corridor. This alternative requires outside widening of the existing freeway lanes on at least one side and sometimes both. Some additional right-of-way will be required for temporary construction and drainage easements and noise barriers. A moveable barrier system is proposed so that the four lanes can be oriented in three different configurations depending upon traffic needs. Three moveable barrier machines would be needed. A maintenance facility is proposed in the I-15 median or adjacent, about 0.5 miles south of State Route-163 junction. Other important project features are bridge removal and reconstruction at Carroll Canyon Road, I-15/SR-56, Carmel Mountain Road, Duenda Road, Highland Valley Road, Via Rancho Parkway, and Del Lago Blvd. Direct access ramps will be constructed into the Managed Lanes at Hillery Avenue, Del Lago Blvd, and Hale Avenue. Up to 21 noise barriers are proposed throughout the I-15 Corridor. The final number will be determined later in the planning process. Potential impacts to CSS and gnatcatchers have been incorporated in the impact analysis (Table 2).

The High Occupancy Vehicle (HOV) Alternative of Component One proposes four lanes located in the freeway median separated from the main lanes by a painted buffer. This alternative also includes the same direct access ramps, bridge modifications, and noise barriers as the Managed Lanes Alternative.

2. Component Two plans for five Bus Rapid Transit Centers.

Transit Centers are proposed with the I-15 Corridor at Mira Mesa (Hillery Drive), Sabre Springs (off Evening Creek Road), Rancho Bernardo (off West Bernardo Road), Del Lago, and Escondido (from Hale Avenue)[1]. Direct Access Ramps are proposed with each of these Transit Centers. To date, the only biological resource identified that occur on these transit center sites are vernal pools present in the vicinity of Miramar College. These pools may support San Diego fairy shrimp (*Branchinecta sandiegonensis*). The Service will be consulted if impacts may affect listed species.

3. Component three plans for Operational Improvements.

Auxiliary/Added Lanes at seven locations (Table 1). Auxiliary lanes extend between entrances/exits, while "added lanes" continue through an interchange.

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[1] The Metropolitan Transit Development Board is the lead agency for all of the proposed transit centers, with the exception of Del Lago.

Table 1. Seven Proposed Auxiliary/Added Lane Projects in I-15 Corridor, Direction, and Kilopost Limits. Projects are listed from south (list top) to north (bottom).
The three projects marked in bold type are considered the Proposed Action for this Biological Opinion.

Direction(s)	KP Limits	Street Location Limits
NB, SB	20.7 – 26.1	Miramar Way – Mira Mesa Blvd
NB, SB	**28.2 – 29.0**	**Mercy Rd – Poway Rd**
SB	**29.6 – 30.9**	**Rancho Peñasquitos Blvd – State Route 56**
NB, SB	**30.6 – 32.0**	**I-15 / State Route 56 Interchange**
NB, SB	31.4 – 35.2	Carmel Mt – Camino Del Norte
NB, SB	38.1 – 43.5	Camino Del Norte – Via Rancho Pkwy
NB, SB	46.7 – 49.6	Citracado Pkwy – Valley Pkwy

Interstate 15/ State Route 56 Interchange and Auxiliary Lanes Improvement:

The main features are a loop on-ramp (eastbound SR-56 to northbound [NB] I-15), retaining walls under the Ted Williams Parkway overcrossing, and a soundwall along NB I-15 and connector from southbound [SB] I-15 to westbound SR-56. In the north part, it is proposed to add one auxiliary lane NB from the NB Carmel Mountain Road off-ramp to the end of the existing truck climbing lane. In the SB direction, the proposal is to add one lane from the SB off-ramp to the existing fifth lane located just south of the I-15/SR-56 Interchange. Noise barriers will be included on both the north- and southbound sides adjacent to the highway shoulder north of SR-56/Ted Williams Parkway to Carmel Mountain Road, and adjacent to residences on the southbound side of I-15 near SR-56. Construction is scheduled to begin in December 2001 and take about one year.

Southbound Auxiliary Lane from State Route 56 to Rancho Peñasquitos Blvd:

An auxiliary lane would be extended about 500 meters (1,700 feet) from the southern end of the I-15/SR-56 Project southward to Rancho Peñasquitos Blvd. Construction is scheduled to begin in December 2001, and be completed within the schedule of the above project.

Auxiliary/Added Lanes from Mercy Road to Poway Road:

In the northbound direction, an additional lane would extend from Scripps Poway Parkway to the Rancho Peñasquitos Creek Bridge. The lane would continue from just northbound of the bridge to Ted Williams Parkway. The bridge across Rancho Peñasquitos Creek would be widened. An auxiliary lane would also extend from Rancho Peñasquitos Blvd to Mercy Road in the southbound direction. Noise barriers are proposed on the southbound side adjacent to the highway shoulder between Rancho Penasquitos Creek and just south of Mercy Road, as well as adjacent to residences just south of Rancho Penasquitos Blvd. Construction is proposed to begin in June 2002, with completion by December 2003.

Conservation Measures

The following conservation measures are proposed to minimize impacts to sensitive habitats and species:

4. Environmentally Sensitive Areas (ESA's) and Limited Use Areas (LUA's) will be designated on project plans. ESA designation will best ensure that no impacts occur outside of the project limits. LUA designation (e.g., equipment storage/staging) will also reduce impacts.

5. Erosion control measures will be incorporated, including use of San Diego sagewort at the Los Peñasquitos Creek Bridge. A Caltrans District Biologist will review the Plans, Specifications, and Estimate (PS&E) Package and attend the pre-job meeting with contractors and Caltrans Resident Engineer to explain mitigation requirements. A biologist will provide technical assistance as needed throughout the construction period. San Diego sagewort will be included in the erosion control seed mix, as recommended in the conceptual mitigation plan (Odgen 2000).

6. Impacted San Diego barrel cactus (*Ferocactus viridescens*) will be salvaged and transplanted in appropriate habitat as recommended in the conceptual mitigation plan (Odgen 2000).

7. To compensate for the three operational improvements described in the proposed action, approximately 92.71 acres of habitat was acquired west of I-15 on the north shore of Lake Hodges. The three parcels (Tax Assessor Parcel Nos. 272-111-16, -20, and 272-252-61) were purchased by Caltrans in February 2001. consisting of about 86 acres of coastal sage scrub (CSS) supporting gnatcatchers. There are also 6.2 acres of southern mixed chaparral habitat on the parcels. Cactus wrens (*Campylorhynchus brunneicapillus*), a California State Species of Special Concern, are also present on the parcels. It is likely these lands would be transferred to a land management agency in the future. Parcels Nos. 272-111-16, -20 are within the Multiple Habitat Planning Area of the City's Multiple Species Conservation Program Subarea Plan.

8. The middle parcel Nos. 272-11-20 has four recorded conservation easements totaling 5.46 acres. The Environmental Trust has agreed to manage this area in perpetuity as open space for biological conservation. These easements are clustered at the southern end of the parcel, and are not considered to significantly detract from use of the parcel as mitigation.

The following conservation measures are proposed to minimize incidental take of gnatcatchers:

9. On the three parcels being set aside to compensate for project impacts, there are about 81 acres of CSS, supporting nine pairs and three individual gnatcatchers. To offset adverse impacts to gnatcatchers, a total of 32.2 acres of CSS (a 2:1 ratio) and six gnatcatcher

territories (1:1 ratio) would be encumbered on the parcels for these three proposed projects. The remainder would be available as mitigation for other projects.

10. Vegetation removal, including clearing and grubbing, will be done between August 31 and February 1, outside of the gnatcatcher nesting season.

The proposed I-15 Operational Improvement Projects will have a major impact on a core California gnatcatcher population and a highly important north/south corridor that facilitates gnatcatcher dispersal. The following conservation measures are proposed to minimize the cumulative impacts of Federal Highways and Caltrans actions to gnatcatchers and sensitive biologic communities:

11. To offset cumulative impacts from the proposed I-15 Operational Improvement Projects, and other future Caltrans and Federal Highways projects in San Diego County, to coastal sage scrub vegetation and the California gnatcatcher, Caltrans and/or Federal Highways may establish a mitigation bank with regional conservation value for the California gnatcatcher. The mitigation bank shall be used to offset total project impacts such that an overall net benefit is achieved for conservation of gnatcatchers and coastal sage scrub vegetation.

12. The mitigation bank shall comply with all Federal Highways and State of California Mitigation Banking policy.

13. The mitigation bank or other acquired land must be located in core gnatcatcher habitat (as defined by the Natural Community Conservation Planning Program and Multiple Species Conservation Program (MSCP) or the Multiple Habitat Conservation Program (MHCP)), and shall provide a significant contribution to regional conservation planning efforts.

14. The mitigation bank or other acquired land site shall have high biological value in the San Diego region for target species and habitats. At a minimum, the site(s) should mitigate at no less than in-kind for the amount and quality of coastal sage scrub habitat to support an equal or greater number of gnatcatcher pairs than is proposed to be impacted.

15. The site shall consist of predominantly high or very high value habitat for migratory birds and other rare animal and plants as evaluated by regional conservation planning efforts and may support wetland habitats.

16. The site shall have a high area-perimeter ratio to minimize edge effects, as well as be connected to other preserved lands.

17. Preservation should be consistent with regional conservation plans. The site should be considered by the Service and California Department of Fish and Game to be at risk of future activities that reduce the biological values that contribute to the MSCP or MHCP conservation planning efforts.

18. The mitigation bank lands shall be acquired, preserved, and managed consistent with a Mitigation Bank Implementing Agreement signed by Caltrans, Federal Highways (if applicable), the Service, and the California Department of Fish and Game, prior to initiation of project impacts for the I-15 Managed/HOV Lanes Projects.

19. A land management agency should be prepared to accept the land and have the fiscal and human resources to monitor and manage it properly in perpetuity.

20. The mitigation bank lands should be a good candidate to manage human access and prevent non-native species establishment.

21. There should not be incompatible management constraints (e.g., easements).

STATUS OF THE SPECIES/CRITICAL HABITAT

Listing Status

The Service listed the coastal California gnatcatcher as threatened on March 30, 1993 (*Federal Register* 58: 16742). Critical habitat was finalized October 24, 2000 (*Federal Register* 65: 63681).

Species Description

The coastal California gnatcatcher is a small (length: 11 centimeters; weight: 6 grams), long-tailed member of the old-world warbler and gnatcatcher family *Sylviidae* (American Ornithologists' Union 1998). The bird's plumage is dark blue-gray above and grayish-white below. The tail is mostly black above and below. The male has a distinctive black cap which is absent during the winter. Both sexes have a distinctive white eye-ring.

The coastal California gnatcatcher is one of three subspecies of the California gnatcatcher (*Polioptila californica*) (Atwood 1991). Prior to 1989, the California gnatcatcher was classified as a subspecies of the Black-tailed gnatcatcher (*Polioptila melanura*). Atwood (1980, 1988) concluded that the species was distinct from *P. melanura*, based on differences in ecology and behavior. Recent mitochondrial DNA sequencing confirmed the species-level recognition of the California gnatcatcher (Zink and Blackwell 1998).

Distribution

Gnatcatchers occur on coastal slopes in southern California, ranging from southern Ventura southward through Palos Verdes Peninsula in Los Angeles County through Orange, Riverside, San Bernardino and San Diego Counties into Baja California to El Rosario, Mexico, at about 30 degrees north latitude (Atwood 1991). In 1990, Atwood reported that ninety-nine percent of all gnatcatcher locality records occurred at or below an elevation of 300 meters (m) (984 feet (ft)). Since that time, additional data collected at higher elevation shows that this species may occur as

high as 912 m (3,000 ft) and that more than 99 percent of the known gnatcatcher locations occurred below 770 m (2,500 ft) (U.S. Fish and Wildlife Service 2000).

Habitat Affinities

Gnatcatchers typically occur in or near coastal sage scrub habitat. Coastal sage scrub is patchily distributed throughout the range of the gnatcatcher, and the gnatcatcher is not uniformly distributed within the structurally and floristically variable coastal sage scrub community. Rather, the subspecies tends to occur most frequently within California sagebrush (*Artemisia californica*)-dominated stands on mesas, gently sloping areas, and along the lower slopes of the coast ranges (Atwood 1990). An analysis of the percent gap in shrub canopy supports the hypothesis that gnatcatchers prefer relatively open stands of coastal sage scrub (Weaver 1998). The gnatcatcher occurs in high frequencies and densities in scrub with an open or broken canopy while it is absent from scrub dominated by tall shrubs and occurs in low frequencies and densities in low scrub with a closed canopy (Weaver 1998). Territory size increases as vegetation density decreases and with distance from the coast, probably due to food resource availability.

Gnatcatchers also use chaparral, grassland, and riparian habitats where they occur adjacent to sage scrub (Campbell *et al.* 1998). The use of these habitats appears to be most frequent during late summer, autumn, and winter, with smaller numbers of birds using such areas during the breeding season. These non-sage scrub habitats are used for dispersal, but data on dispersal use are largely anecdotal (Campbell *et al.* 1998). Linkages of habitat along linear features such as highways and power-line corridors may be of significant value in linking populations of the gnatcatcher (Famolaro and Newman 1998). Although existing quantitative data may reveal relatively little about gnatcatcher use of these other habitats, these areas may be critical during certain times of year for dispersal or as foraging areas during drought conditions (Campbell *et al.* 1998). Breeding territories have also been documented in non-sage scrub habitat. Campbell *et al.* (1998) discuss likely scenarios explaining why habitats other than coastal sage scrub are used by gnatcatchers including food source availability, dispersal areas for juveniles, temperature extremes, fire avoidance, and lowered predation rate for fledglings.

Critical Habitat

On October 24, 2000, the Service published the final determination of critical habitat for the gnatcatcher (*Federal Register* 65: 63680), including 207,868 hectares (ha) (513,650 acres (ac)) of Federal, state, local, and private land in Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. Primary constituent elements for the gnatcatcher are those habitat components that are essential for the primary biological needs of foraging, nesting, rearing of young, intra-specific communication, roosting, dispersal, genetic exchange, or sheltering (Atwood 1990). Primary constituent elements are provided in (1) undeveloped areas, including agricultural lands, that support or have the potential to support, through natural successional processes, various types of sage scrub, or (2) undeveloped areas that support chaparral, grassland, or riparian habitats where they occur proximal to sage scrub and where they may be utilized for

the biological needs of dispersal and foraging, and (3) undeveloped areas, including agricultural areas, that provide or could provide connectivity or linkage between or within larger core areas, including open space and disturbed areas that may receive only periodic use.

Life History

The California gnatcatcher is primarily insectivorous, nonmigratory, and exhibits strong site tenacity (Atwood 1990). Diet deduced from fecal samples resulted in leaf- and plant-hoppers and spiders predominating the samples. True bugs, wasps, bees, and ants were only minor components of the diet (Burger *et al.* 1999). Gnatcatcher adults selected prey to feed their young that was larger than expected given the distribution of arthropods available in their environment. Both adults and young consumed more sessile than active prey items (Burger *et al.* 1999).

The California gnatcatcher seems to become highly territorial by late February or early March each year, as males become more vocal during this time period (Mock *et al.* 1990). In southwestern San Diego County the mean breeding season territory size ranged from 5 to 11 ha (12 to 27 ac) per pair and non-breeding season territory size ranged from 5 to 17 ha (12 to 42 ac) per pair (Preston *et al.* 1998). During the nonbreeding season, gnatcatchers have been observed to wander in adjacent territories and unoccupied habitat increasing their home range size to approximately 78 percent larger than their breeding territory (Preston *et al.* 1998).

The breeding season of the gnatcatcher extends from mid-February through the end of August, with the peak of nesting activity occurring from mid-March through mid-May. The gnatcatcher's nest is a small, cup-shaped basket usually found 0.3 to 1 m (1 to 3 ft) above the ground in a small shrub or cactus. Clutch sizes range between three and five eggs, with the average being four. Juvenile birds associate with their parents for several weeks (sometimes months) after fledging (Atwood 1990). Nest building begins in mid-March with the earliest recorded egg date of March 20 (Mock *et al.* 1990). Post-breeding dispersal of fledglings occurs between late May and late November. Nest predation is the most common cause of nest failure (Grishaver *et al.* 1998). Gnatcatchers are persistent nest builders and often attempt multiple broods, which is suggestive of a high reproductive potential. This is, however, typically offset by high rates of nest predation and brood parasitism (Atwood 1990). Nest site attendance by male gnatcatchers was determined to be equal to that of females for the first nest attempt and then decline to almost a third of female nest attendance for later nesting attempts (Sockman 1998).

Gnatcatchers typically live for two to three years, although ages of up to five years have been recorded for some banded birds (Dudek and Associates 2000). Observations indicate that gnatcatchers are highly vulnerable to extreme cold, wet weather (Mock *et al.* 1990). Predation occurs in greater proportion in the upper and lower third of the nest shrub. Predation is lower in nests with full clutch sizes (Sockman 1997). Potential nest predators are numerous, and include snakes, raccoons, and corvids (Grishaver *et al.* 1998). The California gnatcatcher also is known to be affected by nest parasitism of the brown-headed cowbird (*Molothrus ater*). Nest parasitism apparently has resulted in earlier nesting dates of the gnatcatcher which may help compensate for the negative effect of parasitism (Patten and Campbell 1998). However, the gains in nest success

from decreased nest parasitism appear to be negated by increased nest abandonment due to predation before cowbirds have migrated into an area (Braden *et al.* 1997).

The natal dispersal, for a nonmigratory bird, such as the gnatcatcher, is an important aspect of the biology of the species (Galvin 1998). The mean dispersal distance of gnatcatchers banded in San Diego County is reported at less than 3 kilometers (km) (1.9 miles (mi)) (Bailey and Mock 1998). Although the mean dispersal distances that have been documented above are relatively low, dispersal of juveniles is difficult to observe and to document without extensive banding studies. Therefore, it is likely that the few current studies underestimate the gnatcatcher's typical dispersal capacity (Bailey and Mock 1998). Juvenile gnatcatchers are apparently able to traverse highly man-modified landscapes for a least short distances (Bailey and Mock 1998). Natural and restored coastal sage scrub habitat along highway corridors is used for foraging and nesting by gnatcatchers and may serve important dispersal functions (Famolaro and Newman 1998). Typically, however, the dispersal of juveniles requires a corridor of native vegetation which provides foraging and cover opportunities to link larger patches of appropriate sage scrub vegetation (Soule 1991). These dispersal corridors may facilitate the exchange of genetic material and provide a path for recolonization of areas from which the species has been extirpated (Soule 1991, Galvin 1998).

Population Trend

The gnatcatcher was considered locally common in the mid-1940's, but by the 1960's this subspecies had declined substantially in the United States owing to widespread destruction of its habitat (Atwood 1990). By 1980, Atwood (1980) estimated that no more than 1,000 to 1,500 pairs remained in the United States. In 1993, at the time the gnatcatcher was listed as threatened, the Service estimated that approximately 2,562 pairs of gnatcatchers occurred in the United States. In 1997, the total number of gnatcatchers in the United States was estimated at 2,899 pairs with two-thirds occurring in San Diego County (U.S. Fish and Wildlife Service 1996), after subtracting out all gnatcatcher pairs authorized for take under Habitat Loss Permits, approved Natural Community Conservation Plans, Habitat Conservation Plans, and section 7 consultations. These population estimates were intended to represent a coarse approximation of the number of gnatcatchers in southern California. Confidence intervals have not been calculated for these estimates and therefore, we can not be sure of their precision.

Threats

The loss, fragmentation, and adverse modification of habitat are the principal reasons for the gnatcatcher's federally threatened status (*Federal Register* 58: 16742). The amount of coastal sage scrub available to gnatcatchers has continued to decrease during the period after the listing of the species. It is estimated that up to 90 percent of coastal sage scrub vegetation has been lost as a result of development and land conversion (Westman 1981a, 1981b, Barbour and Major 1977), and coastal sage scrub is considered to be one of the most depleted habitat-types in the United States (Kirkpatrick and Hutchinson 1977, O'Leary 1990). The fragmentation of habitat may artificially increase populations in adjacent preserved habitat; however, these population

surpluses may be lost in subsequent years due to crowding and lack of resources (Scott 1993). In addition, agricultural use, such as grazing and field crops, urbanization, air pollution, and the introduction of non-native plants have all had an adverse impact on extant sage scrub habitat. A consequence of urbanization that is contributing to the loss, degradation, and fragmentation of coastal sage scrub is an increase in wildfires due to anthropogenic ignitions. High fire frequencies and the lag period associated with recovery of the vegetation may significantly reduce the viability of affected subpopulations (Dudek and Associates 2000). Furthermore, nest-parasitism by the brown-headed cowbird (Unitt 1984) and nest predation threaten the recovery of the gnatcatcher (Atwood 1980, Unitt 1984).

ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR §402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area that have undergone section 7 consultation, and the impacts of State and private actions which are contemporaneous with the consultation in progress.

I-15 traverses south to north across gnatcatcher habitat in San Diego and Riverside Counties. In the action area, I-15 bisects an important east-west strip of CSS habitat. This linear stretch of CSS is within the Multiple Species Conservation Program's (MSCP) Multiple Habitat Planning Area and represents one of the largest continuous blocks of habitat in the region. This large patch of habitat serves as a major east-west corridor for wildlife, and the area includes core gnatcatcher populations. Lands to both the east and west of the project area have been planned as preserves in both the City and County of San Diego MSCP Subarea Plans. To the west of the proposed project is permanent open space for the 4-S Ranch totaling 1,877 acres, and the Lake Hodges Segment of the City of San Diego Cornerstone Lands. To the east of the proposed project are the Hodges East Segment of the City of San Diego Cornerstone Lands, and unincorporated lands in the Metro/Lakeside/Jamul Segment of the County's Subarea plan.

The preservation of the lands proposed as mitigation (as described in conservation measure one in the Description of the Proposed Project) contribute to the conservation efforts of the City and County of San Diego to preserve sensitive habitats in the Lake Hodges area. In addition, the purchased lands may contribute to maintaining gnatcatcher demographic and genetic diversity between core populations in San Diego and Riverside Counties along the I-15 cooridor.

Project specific field studies were conducted by Caltrans biologists and Odgen Environmental (and their sub-consultant biologists) from March 1999 to May 2000. Caltrans biologists conducted vegetation mapping from Caltrans Highway Inventory Aerials (1:24,000, black and white, September 1997). Focused gnatcatcher (1999) and Quino surveys (Spring 2000) were done by Robert James (Fish and Wildlife Service Permit No. TE003269-2), in accordance with the latest protocol guidance.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action, that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

A total of 16.1 acres of coastal sage scrub (CSS) habitat (15 habitat patches) and six territories of coastal California gnatcatchers (*Polioptila californica californica* = gnatcatcher) (two pairs and four individuals) would be affected by construction of the three operational improvements bolded in Table 2. There would be direct loss of habitat likely used by gnatcatchers for breeding, foraging, and sheltering in these areas. The following paragraphs describe the impacts by project feature.

A pair northeast of the I-15/SR-56 Interchange and an individual to the southwest were observed in the direct impact areas for the I-15/SR-56 Interchange and Auxiliary Lane Project (i.e., two territories). A total of 10 CSS habitat patches (consisting of 10.3 acres) would be impacted by construction of the three operational improvements bolded in Table 2. Three of the patches total 8.3 acres (80% of the impact) and are of good habitat quality. The remaining seven areas, totaling 2.0 acres, are within ramp ovals or adjacent to the pavement.

The Auxiliary/Added Lanes from Mercy Road to Poway Road would impact four CSS habitat patches (3.5 acres), supporting three gnatcatcher territories (two on the southbound side, the third on the northbound side). The first patch (0.9acres) is on the northbound side, just north of Poway Road. The habitat quality is fair, with sparse shrub cover, compared to other habitat patches in the area. The remaining areas, all of good quality (fairly dense CSS), are on the southbound side (0.8 acres just north of Los Peñasquitos Creek) and two areas on the slope just south of the Creek (0.8 and 1.0 acres respectively).

The Southbound Auxiliary Lane from State Route 56 to Rancho Peñasquitos Blvd, would impact a single area of CSS habitat (2.2 acres) observed to be used by a pair of gnatcatchers. There would also be direct loss of habitat likely used by gnatcatchers for breeding, foraging, and sheltering in these areas. The shrub cover is dense California sagebrush (*Artemisia californica*) and flat-top buckwheat (*Eriogonum fasciculatum*) and of good quality with few non-native species present.

Planned transportation facilities in the I-15 Corridor with probable Federal involvement that will impact CSS and/or gnatcatchers are listed below in Table 2. Since the biological impacts for all the I-15 Corridor projects will be substantially greater than just the three "operational" projects, the mitigation would need to be correspondingly greater to reflect these associated biological values, and should have increased regional benefit to mitigate for cumulative impacts.

Table 2. I-15 Corridor Project Information and Impacts, by Proposed Project.
Note: The three proposed projects are bolded.

Proposed Projects	CSS (acres)	CSS areas impacted	[6]CAGN territories (pairs, singles)	Planned Construction Dates
[1]ML/HOV Phase 1	12.0	6	2 (2s)	10/2003 - 12/2005
[2]ML/HOV CDN-VR	23.5	18	9 (8p, 1s)	10/2003 - 12/2005
[3]ML/HOV Phase 2	0.2	1	-	2006+
[4]ML/HOV Phase 3	3.4	4	3 (3p)	2006+
[5]ML/HOV BTM Bridge	4.1	1	1 (1s)	10/2003 - 12/2005
ML/HOV Subtotal	43.2	30	15 (11p, 4s)	-
I-15 / SR-56 Interchange	**10.3**	**10**	**2 (1p, 1s)**	**8/2002 - 2/2004**
Carmel Mt Road	0.8	1	-	12/2001 - 12/2002
SR-56 to Rancho Peñasquitos Blvd	**2.2**	**1**	**1 (1p)**	**8/2002 - 2/2004**
Poway to Mercy Road	**3.5**	**4**	**3 (3s)**	**7/2003 - 12/2004**
Miramar Way to Mira Mesa Blvd	5.0	3	-	2/2004- 2/2004
Operational Project Subtotal	21.8	19	6 (2p, 4s)	-
TOTAL	**65.0**	**49**	**21 (13p, 8s)**	-

[1]Managed Lanes/High Occupancy Vehicle Lanes from just south of I-15/SR-56 Interchange to Centre City Parkway (central phase)
[2]An operational project between Camino Del Norte to Via Rancho Parkway planned to be built concurrent with ML/HOV Phase 1
[3]From Centre City Parkway to SR-78 (northern phase)
[4]From just south of SR-163 to just south of SR-56 (southern phase)
[5]Barrier Transfer Machine
[6]Coastal California Gnatcatcher

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

The majority of activities anticipated to affect gnatcatchers within the foreseeable future are local urban development projects with no Federal involvement. The conservation of gnatcatchers in the United States is dependent on both the 4 (d) special rule, established at the time of listing, and multi-species Habitat Conservation Plans such as the MSCP, and the Multiple Habitat Conservation Program (MHCP). The 4 (d) rule recognized the State's Natural Community Conservation Planning (NCCP) Program, and several local governments' ongoing multi-species conservation planning efforts that intend to apply Act standards to activities affecting the gnatcatcher. Under the special rule, incidental take of the gnatcatcher by land-use activities

addressed in an approved NCCP Plan would not be considered a violation of section 9 of the Act, provided that the Service determined that the NCCP Plan meets the issuance criteria for an "incidental take" permit, pursuant to section 10(a)(2)(B) of the Act and 50 CFR 17.32(b)(2). Ultimately, conservation of the gnatcatcher is dependent upon implementation of the special rule and HCPs working in concert with conservation on federal lands. Therefore cumulative effects are expected to be minimal with the proper implementation of established conservation strategies.

CONCLUSION

After reviewing the current status of the gnatcatcher, the environmental baseline for the action area, the effects of the proposed operational improvements, and the cumulative effects, it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the gnatcatcher, and is not likely to destroy or adversely modify designated critical habitat. The Service reached this conclusion for the following reasons:

1) The majority of the CSS habitat impacted is of medium to low quality. Impacted habitats are small oval, or linear, disjunct patches which have high perimeter to area ratios. The majority of impacts will take only portions of gnatcatchers' territories, and this habitat removal will occur outside the breeding season.

2) Impacts to gnatcatchers will be offset by the conservation of occupied habitat inside the Multiple Habitat Planning Area boundary. The CSS which would be preserved is of medium to high quality, occurs in a contiguous habitat patch, connects to other preserved lands, exhibits a low perimeter to area ratio, and will be managed for long-term conservation of the site.

3) To offset cumulative impacts from the proposed I-15 Operational Improvements Projects, Caltrans would establish a mitigation bank or conservation area of regional importance to gnatcatcher populations.

4) Impacts to gnatcathers will be minimized through the implementation of Best Management Practices, such as delineation of Environmentally Sensitive Areas and Limited Use Areas.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Harass is

defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by Federal Highways and Caltrans so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. Federal Highways and Caltrans have a continuing duty to regulate the activity that is covered by this incidental take statement. If Federal Highways and Caltrans fail to assume and implement the terms and conditions or (2) fail to require the applicant to adhere to the terms and conditions of this incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, Federal Highways and Caltrans or the applicant must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement. [50 CFR §402.14(i)(3)]

AMOUNT OR EXTENT OF TAKE

Based on Service protocol surveys of the project footprint, the Service anticipates one individual could be harmed as a result of loss of habitat resulting in a significant reduction in the individual's ability to forage. In addition, seven gnatcatchers are expected to be harassed through the loss of small amounts of habitat outside the breeding season which would require the individuals to shift territories.

The Service will not refer the incidental take of any migratory bird or bald eagle for prosecution under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 668-668d), if such take is in compliance with the terms and conditions (including amount and/or number) specified herein.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measure are necessary and appropriate to minimize take of gnatcatchers:

1. The Federal Highways Administration and Caltrans shall adhere to the project description and conservation measures set forth in this Biological Opinion.

2. The Federal Highways Administration and Caltrans shall implement best management practices during construction in order to minimize impacts to gnatcatcher habitat and thereby minimize the amount of take anticipated.

3. The Federal Highways Administration and Caltrans shall use local, endemic plant and seed stock for revegetation efforts resulting from the proposed project. Revegetation efforts shall be intended to recreate the impacted native community. This shall apply to all areas which are temporarily cleared, graded or otherwise adversely impacted by the proposed project. Areas between main lanes of the freeway and ramps, and inside ramp ovals, may be seeded or replanted with non-invasive ornamental plants.

4. To offset impacts from the proposed I-15 Operational Improvement Projects, and other future Caltrans and Federal Highway projects in San Diego County, to coastal sage scrub vegetation and the California gnatcatcher, Caltrans and/or FHWA shall establish a mitigation bank with regional conservation value for the California gnatcatcher.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, Federal Highways and Caltrans must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

The Federal Highways and Caltrans shall implement reasonable and prudent measure one through the following terms and conditions:

1.1 The Federal Highways Administration and Caltrans shall implement conservation measures set forth in the project description portion of this Biological Opinion.

The Federal Highways and Caltrans shall implement reasonable and prudent measure two through the following terms and conditions:

2.1 The project work area, consistent with that described in the project description, will be delineated with plastic orange fencing in the field before construction, and a map depicting the project work area will be provided to the construction crews. Construction crews will be educated as to the importance of containing impacts within the project

delineation boundary. Environmentally Sensitive Areas, and Limited Use Areas shall be clearly marked by fencing on site and clearly shown and labeled on the map depicting the project work area. Before construction begins, the Service shall be provided with a copy of the project work area map and education materials presented to the construction crews.

2.2 The Service shall be allowed to access and inspect the project site for compliance with the proposed project description and with the terms and conditions of this biological opinion. Any habitat destroyed that is not in the identified project footprint should be disclosed immediately to the Service for possible reinitiation of consultation. Compensation for such habitat loss will be requested at a minimum ratio of 5:1.

2.3 Before construction begins, a storm water prevention plan (SWPP) shall be developed and implemented to minimize erosion. The Service shall be notified when this plan is developed, and shall be provided with a copy upon request.

The Federal Highways and Caltrans shall implement reasonable and prudent measure three through the following terms and conditions:

3.1 All cut and fill slopes, or other areas which have been cleared of vegetation, shall be seeded or planted with appropriate native, local stock from the immediate area. No exotic, non-native plants shall be used in any portion of this project. The seed list, or planting pallet, as well as revegetaion and monitoring plans, shall be submitted to the Service for approval prior to any revegetation efforts. Areas between main lanes of the freeway and ramps, and inside ramp ovals, may be seeded or replanted with non-invasive ornamental plants.

The Federal Highways and Caltrans shall implement reasonable and prudent measure four through the following terms and conditions:

4.1 Federal Highways and Caltrans shall work in collaboration with the Service and California Fish and Game to identify possible mitigation bank locations. Within three months of this opinion, these parties shall meet to discuss possible mitigation bank site locations.

4.2 Within six months of this opinion, a mitigation site, or sites, shall be identified and agreed upon by Federal Highways, Caltrans, the Service and California Fish and Game. A description of the property, and its conformance with regional conservation planning efforts (such as the MSCP, MHCP), shall be provided to the Service and California Fish and Game. This deadline may be extended with written consent of the Service.

4.3 Within nine months of this opinion, a land management agency shall be identified to accept the land and have the fiscal and human resources to monitor and manage it properly in perpetuity. This land management agency shall be subject to the approval of

the Service and California Fish and Game. This deadline may be extended with written consent of the Service.

4.4 Within one year of this opinion, a draft Mitigation Bank Implementing Agreement shall be in review by Caltrans, Federal Highways (if applicable), the Service, and the California Department of Fish and Game. This deadline may be extended with written consent of the Service.

4.5 Prior to initiation of project impacts for the I-15 Managed/HOV Lanes Project, the final Mitigation Bank Implementing Agreement shall be signed by Caltrans, Federal Highways (if applicable), the Service, and the California Department of Fish and Game .

The Service's Carlsbad Office is to be notified within three working days should any endangered or threatened species be found dead or injured during this project. Notification must include the date, time, and location of the carcass, and any other pertinent information. Dead animals may be marked in an appropriate manner, photographed, and left on-site. Injured animals should be transported to a qualified veterinarian. Should any treated animals survive, the Service should be contacted regarding the final disposition of the animals. The Service contact person is Bill Ostheimer and he may be contacted at the letterhead address or at (760) 431-9440.

The Service believes that no more than one gnatcatcher will be harmed and seven harassed as a result of the proposed action. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans or to develop information.

1. In an effort to assist with regional conservation, Federal Highways and Caltrans should develop guidelines for planting road cut and fill areas with local endemic species. The Service invites Federal Highways and Caltrans to informal discussions of potential cooperative efforts to ensure the continuation of coastal sage scrub and locally endemic plants along highway corridors.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal consultation on the I-15 Operational Improvements at and near the I-15/SR 56 Interchange as outlined in the January 27, 2001, initiation package. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation. If you have any questions or concerns about this biological opinion, please contact Bill Ostheimer of my staff at (760) 431-9440.

Sincerely,

Nancy Gilbert

Nancy Gilbert
Assistant Field Supervisor

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Appendix C Nonstandard Features

Managed Lane Design Exceptions (Mandatory Standards)

Geometric Cross - Section

Reduced Shoulder Widths (Managed Lanes and Inside Mainline)

Location	Shoulder type	Begin Station	End Station	Length	Standard Width	Proposed Width	Cost to make std.	Reason for Exception *
				m	m	m	Dollars (million)	
				SOUTH				
Most Southern N/B Entrance	N/B Inside Mainline	195+36 "11-SD-15R"	211+00 "ML1"	1,564	3	2.4 to 3.0	3.0	Existing Conditions/Environmental Impacts
H Avenue O/C	Right Managed Lanes	195+98 "11-SD-15L"	-	69 (at bent)	3	2.4 to 3.0	4.0	Structure Cost
Route 163/15 Separation	Right Managed Lanes	199+34 "ML1"	-	68 (at bent)	3	2.7	30	Structure Cost
Route 163/15 Separation	S/B Inside Mainline	199+34 "ML1"	210+00 "ML1"	1,066	3	2.4 to 3.0	10	Existing Conditions/Structure Cost
Between Mira Mesa Blvd and Poway Rd	N/B inside Mainline	272+00 "ML1"	299+40 "ML1"	2,740	3	2.4 to 3.0	2.6	Exist.cond. Repl. Ex.Ret.Wall
				MIDDLE				
Sabre Springs DAR	N/B Inside Mainline	311+50 "ML2"	313+50 "ML2"	150	3	2.0 to 3.0	12	Aesthetic Treatment &Tight Geometry
Sabre Springs DAR & 15/56 Separation	S/B Inside Mainline	318+00 "ML2"	324+40 "ML2"	640	3	0.37 to 3.0	5	Aesthetic Treatment &Tight Geometry
Sabre Springs DAR & 15/56 Separation	N/B Inside Mainline	322+00 "ML2"	324+80 "ML2"	280	3	0.6 to 3.0	2.6	ROW & Tight Geometry
Carmel Mountain Road	N/B Inside Mainline	341+54 "ML2"	-	100 (at bent)	3	1.5 to 3.0	9	ROW & Tight Geometry
Carmel Mountain Road	S/B Inside Mainline	341+54 "ML2"	-	100 (at bent)	3	1.5 to 3.0	9	ROW & Tight Geometry
Camino Del Norte	NB Managed Lanes	363+10	363+80	70	3	1.8 to 3.0	6	Structure Cost
Duenda Rd. O/C	N/B Inside Mainline	402+43 "ML2"	403+26 "ML2"	83	3	1.4 to 3.0	2	ROW & Tight Geometry
Duenda Rd. O/C	S/B Inside Mainline	402+47 "ML2"	403+65 "ML2"	83	3	1.5 to 3.0	2	ROW & Tight Geometry
Highland Valley Rd. / West Bernardo Dr. O/C	N/B Inside Mainline	428+92 "ML2"	429+57 "ML2"	71 (at bent)	3	0.6 to 3.0	3	ROW & Tight Geometry
Highland Valley Rd. / West Bernardo Dr. O/C	S/B Inside Mainline	428+88 "ML2"	429+60 "ML2"	72 (at bent)	3	1.5 to 3.0	3	ROW & Tight Geometry
Lake Hodges Bridge	S/B Inside Mainline	431+95 "SB-6"	433+99 "SB-6"	204	3	1.7 to 4.0	40	Structure Cost
Lake Hodges Bridge	S/B Managed Lane	431+98"ML2"	434+00"ML2"	202	3	0.7 to 3.0	40	Structure Cost
Via Rancho Pkwy O/C	N/B Inside Mainline	442+70 "ML2"	449+30 "ML2"	509	3	0.6 to 3.0	20	ROW & Tight Geometry
Via Rancho Pkwy O/C	S/B Inside Mainline	442+64 "ML2"	450+50 "ML2"	786	3	0.6 to 1.5	20	ROW & Tight Geometry
Del Lago O/C	S/B Inside Mainline	450+50 "ML2"	460+59 "ML2"	1009	3	1.5 to 3.0	8	ROW & Tight Geometry
Del Lago O/C	N/B Managed Lane	447+95 "ML2"	449+30 "ML2"	135	3	1.2 to 3.0	7	ROW & Tight Geometry
Del Lago O/C	S/B Managed Lanes	449+45 "ML2"	449+90 "ML2"	45	3	1.2 to 3.6	7	ROW & Tight Geometry
				NORTH				
Citracado Pkwy	HOV Lane	474+00 "MLL1"	477+18 "MLL1"	318	3	2.3 to 3.0	3.0	ROW & Tight Geometry/Structure Cost

* See text for a more detailed discussion.

Reduced Shoulder Widths (Ramps)

Location	Shoulder type	Begin Station	End Station	Length	Standard Width	Proposed Width	Cost to make std.	Reason for Exception *
				m	m	m	Million Dollars	
				SOUTH				
Miramar Road O/C	S/B Loop On Ramp	241+55 "ML2"	-	70	2.4	0.5 to 2.4	0.4	ROW & Tight Geometry
				MIDDLE				
Sabre Springs DAR & 15/56 Separation	N/B Loop On Ramp	323+72 "ML2"	-	80	2.4	1.2 to 3.0	6	ROW & Tight Geometry
Del Lago DAR	N/B Off Ramp	444+15 "ML2"	444+60 "ML2"	45	2.4	3.0 to 0.9	5	ROW & Tight Geometry
Del Lago DAR	N/B Offramp DAR	444+60 "ML2"	446+60 "ML2"	200	2.4	0.9 to 2.4	6	ROW & Tight Geometry
Del Lago DAR	S/B On Ramp	444+04 "ML2"	444+80 "ML2"	76	2.4	3.0 to 1.4	8	ROW & Tight Geometry
Del Lago DAR	S/B Off Ramp	451+56 "ML2"	454+03 "ML2"	248	2.4	2.4 to 1.1	0.7	ROW & Tight Geometry
				NORTH				
Ninth Ave.	S/B On Ramp	493+12 "MLL1"	494+45 "MLL1"	133	2.4	2.4 to 1.7	1.8	ROW & Tight Geometry

Managed Lane Design Exceptions (Mandatory Standards)

Geometric Cross - Section (Continued)

Reduced Shoulder Widths (Due to sign structures/value pricing gantries)

Location	Shoulder type	Begin Station	End Station	Length, m	Standard Width, m	Proposed Width, m	Cost to make std.	Reason for Exception *
Hillery Drive Direct Access Ramps (braided at-grade access ramps)	NB Managed Lanes	258+85	259+15	30	3.0	2.4 to 3.0	5.0	ROW & Tight Geometry
	N/B Inside Mainline	258+85	259+00	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit between Mira Mesa Blvd and Mercy Rd	SB Managed Lanes	286+45	287+75	30	3.0	2.4 to 3.0	3.5	ROW & Tight Geometry
	SB Inside Mainline	286+60	286+75	15	3.0	2.4 to 3.0		
Between Mercy and Poway Rd.	NB Managed Lanes	290+85	291+15	30	3.0	2.4 to 3.0	3.0	ROW & Tight Geometry
	NB Inside Mainline	291+00	291+15	15	3.0	2.4 to 3.0		
Between Mercy and Poway Rd.	SB Managed Lanes	290+85	291+15	30	3.0	2.4 to 3.0	3.0	ROW & Tight Geometry
	SB Inside Mainline	291+00	291+15	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit between Mercy Rd. and Poway Rd.	SB Managed Lanes	300+25	300+65	30	3.0	2.4 to 3.0	4.0	ROW & Tight Geometry
	SB Inside Mainline	300+40	300+65	15	3.0	2.4 to 3.0		
Between Poway Rd. and 15/56	SB Managed Lanes	307+85	308+15	30	3.0	2.4 to 3.0	3.5	ROW & Tight Geometry
	SB Inside Mainline	308+00	308+15	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit at Camino Del Norte	NB Managed Lanes	362+35	362+65	30	3.0	2.4 to 3.0	8.0	ROW & Tight Geometry
	NB Inside Mainline	362+35	362+50	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit at Rancho Bernardo Road	SB Managed Lanes	408+25	408+55	30	3.0	2.4 to 3.0	7.0	ROW & Tight Geometry
	SB Inside Mainline	408+40	408+55	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit at Green Valley Creek	NB Managed Lanes	410+45	410+75	30	3.0	2.4 to 3.0	7.0	ROW & Tight Geometry
	NB Inside Mainline	410+45	410+60	15	3.0	2.4 to 3.0		

Managed Lane Design Exceptions (Mandatory Standards)

Managed Lane Sight Distance

Based on a design speed of 110 km/h, the standard sight distance is 220 m

Location	Section	Station	A (grade difference)	Design Speed	Proposed Sight Dist.	Proposed VC Length	Cost to make std.	Reason for Exception *
				km/hr	m	m	Million Dollars	
Near 163/15 Merge	ML 1 (southern section)	199+65	3.9 (sag)	80	137	120	29	Existing Conditions
Near 163/15 Merge	ML 1 (southern section)	203+47	7.5 (crest)	80	125	290	29	Existing Conditions
North end of exist Reversible Lanes	middle section	316+41	6.1 (crest)	100	188	534	20	Existing Conditions
North end of exist Reversible Lanes	middle section	320+80	3.13 (sag)	85	146	90	20	Existing Conditions
Duenda	middle section	401+37	2.9 (crest)	90	160	182	30	Existing Conditions

Profile: PHS2.dgn and phase3/south1.dgn

Ramp Sight Distance

Based on a design speed of 80 km/h, which requires a sight distance of 130 m.

Location	Section	Station	A (grade difference)	Design Speed	Proposed Sight Dist.	Proposed Length	Cost to make std.	Reason for Exception *
				km/hr	m	m	Million Dollars	
Sabre Springs DAR OC	Slip Ramp	320+40	4 (crest)	60	80	60	35	Existing Conditions

* See text for a more detailed discussion.

Managed Lane Design Exceptions (Mandatory Standards)

Interchange Spacing - CL to CL

Location	Spacing Type			Required Length	Proposed	Existing	Cost to make std.	Reason for Exception *
							Million Dollars	
163/15 Interchange to Miramar Way	CL to CL: FWY to Local			3000 m	2692 m	2692 m	100	Existing Condition/Environmental Impacts/Tight Geometry
Miramar Road to Carroll Canyon Road	CL to CL: Local to Local			1500 m	1150 m	1150 m	150	Existing Condition/Environmental Impacts/Tight Geometry
Mercy Rd to Poway Rd	CL to CL: Local to Local			1500 m	1372 m	1372 m	100	Existing Condition/Environmental Impacts/Tight Geometry
Poway Rd to 15/56 Separation	CL to CL: Local to FWY			3000 m	1954 m	1954 m	200	Existing Condition/Environmental Impacts/Tight Geometry
15/56 Separation to Carmel Mtn Rd	CL to CL: FWY to Local			3000 m	1782 m	1782 m	300	Existing Condition/Environmental Impacts/Tight Geometry
Bernardo Ctr Dr to Rancho Bernardo Rd	CL to CL: Local to Local			1500 m	1204 m	1204 m	160	Existing Condition/Environmental Impacts/Tight Geometry
Via Rancho Pkwy to Centre City Pkwy	CL to CL: Local to Local			1500 m	1113 m	1113 m	200	Existing Condition/Environmental Impacts/Tight Geometry
Ninth Avenue to Valley Pkwy	CL to CL: Local to Local			1500 m	861 m	861 m	150	Existing Condition/Environmental Impacts/Tight Geometry
Valley Parkway to SR 78	CL to CL: Local to FWY			3000 m	1404 m	1404 m	260	Existing Condition/Environmental Impacts/Tight Geometry

* See text for a more detailed discussion.
Note: See text for Direct Access Ramp interchange spacing.

Interchange Spacing - Weaving

Location	Spacing Type			Required Length	Proposed	Existing	Cost to make std.	Reason for Exception *
							Million Dollars	
S/B Miramar Way On to S/B 163/15 Off	Weaving			1500 m	1263 m	1303 m	100	Existing Condition/Environmental Impacts/Tight Geometry
N/B Miramar Way On to N/B Miramar Rd Off	Weaving			600 m	559 m	697 m	3	Existing Intersections/Tight Geometry
N/B Miramar Rd On to N/B C. Cyn Rd Off	Weaving			600 m	542 m	485 m	80	Existing Condition/Environmental Impacts/Tight Geometry
S/B C. Cyn Rd On to S/B Miramar Rd Off	Weaving			600 m	417 m	376 m	160	Existing Condition/Environmental Impacts/Tight Geometry
S/B 15/56 On to S/B RPQ/Poway Rd Off	Weaving			1500 m	437 m	508 m	200	Existing Condition/Environmental Impacts/Tight Geometry
N/B 15/56 On to N/B CMR Off	Weaving			1500 m	1130 m	1065 m	300	Existing Condition/Environmental Impacts/Tight Geometry
S/B CMR On to S/B 15/56 Off	Weaving			1500 m	966 m	1080 m	300	Existing Condition/Environmental Impacts/Tight Geometry
N/B Bernardo Ctr Dr to N/B R.B. Rd Off	Weaving			600m	451 m	534 m	150	Existing Condition/Environmental Impacts/Tight Geometry
S/B Centre City Pkwy. On to S/B V R Pkwy Off	Weaving			600 m	422 m	583 m	100	Existing Condition/Environmental Impacts/Tight Geometry
N/B Ninth Ave On to N/B Valley Pkwy Off	Weaving			600 m	337 m	298 m	150	Existing Condition/Environmental Impacts/Tight Geometry
S/B Valley Pkwy On to S/B Ninth Ave Off	Weaving			600m	580 m	426 m	150	Existing Condition/Environmental Impacts/Tight Geometry
N/B Valley Pkwy On to N/B SR 78 Off	Weaving			1500 m	535 m	531 m	260	Existing Condition/Environmental Impacts/Tight Geometry
S/B SR 78 On to S/B Valley Pkwy Off	Weaving			1500 m	451 m	425 m	260	Existing Condition/Environmental Impacts/Tight Geometry

* See text for a more detailed discussion.
Note: See text for Direct Access Ramp interchange spacing.

Managed Lane Design Exceptions (Mandatory Standards)

Horizontal Clearances

To Fixed Objects CHDM Index 309.1(3)a

Location	Shoulder type	Begin Station	End Station	Length	Standard Width	Proposed Width	Cost to make std.	Reason for Exception *
			-	m	m	m	Million Dollars	
N/B Entrance South of H Ave	N/B Inside Mainline	195+36 "11-SD-15R"	211+00 "ML1"	1,564	3	2.4 to 3.0	3.0	Existing Conditions/Environmental Impacts
H Avenue O/C	Right Managed Lanes	195+98 "11-SD-15L"	-	69 (at bent)	3	2.4 to 3.0	4.0	Structure Cost
SR 163 Interchange O/C	Right Managed Lanes	199+34 "ML1"	-	68 (at bent)	3	2.7	40	Structure Cost
SR 163 Interchange O/C	S/B Inside Mainline	199+34 "ML1"	210+00 "ML1"	1,066	3	2.4 to 3.0	10	Existing Conditions/Structure Cost
Sabre Springs DAR & 15/56 Separation	N/B Inside Mainline	322+00 "ML2"	324+80 "ML2"	280	3	0.6 to 3.0	2.6	ROW & Tight Geometry
Carmel Mountain Road	N/B Inside Mainline	341+54 "ML2"	-	100 (at bent)	3	1.5 to 3.0	9	ROW & Tight Geometry
Carmel Mountain Road	S/B Inside Mainline	341+54 "ML2"	-	100 (at bent)	3	1.5 to 3.0	9	ROW & Tight Geometry
Camino Del Norte	NB Managed Lanes	363+10	363+80	70	3	1.8 to 3.0	6	Structure Cost
Duenda Rd. O/C	N/B Inside Mainline	402+43 "ML2"	403+26 "ML2"	83	3	1.4 to 3.0	3	ROW & Tight Geometry
Duenda Rd. O/C	S/B Inside Mainline	402+47 "ML2"	403+65 "ML2"	83	3	1.5 to 3.0	3	ROW & Tight Geometry
Highland Valley Rd. / West Bernardo Dr. O/C	N/B Inside Mainline	428+92 "ML2"	429+57 "ML2"	71 (at bent)	3	0.6 to 3.0	3	ROW & Tight Geometry
Highland Valley Rd. / West Bernardo Dr. O/C	S/B Inside Mainline	428+88 "ML2"	429+60 "ML2"	72 (at bent)	3	1.5 to 3.0	3	ROW & Tight Geometry
Lake Hodges Bridge	S/B Inside Mainline	431+95 "SB-6"	433+99 "SB-6"	204	3	1.7 to 4.0	40	Structure Cost
Lake Hodges Bridge	S/B Managed Lane	431+98"ML2"	434+00"ML2"	202	3	0.7 to 3.0	40	Structure Cost
Via Rancho Pkwy O/C	N/B Inside Mainline	442+70 "ML2"	449+30 "ML2"	509	3	0.6 to 3.0	20	ROW & Tight Geometry
Via Rancho Pkwy O/C	S/B Inside Mainline	442+64 "ML2"	450+50 "ML2"	786	3	0.6 to 1.5	20	ROW & Tight Geometry
Del Lago O/C	S/B Inside Mainline	450+50 "ML2"	460+59 "ML2"	1009	3	1.5 to 3.0	8	ROW & Tight Geometry
Via Rancho Pkwy O/C	S/B Managed Lane	444+04 "ML2"	444+86 "ML2"	82 (at bent)	3	1.2 to 3.0	16	ROW & Tight Geometry
Del Lago O/C	N/B Managed Lane	447+95 "ML2"	449+30 "ML2"	135	3	1.2 to 3.0	7	ROW & Tight Geometry
Del Lago O/C	S/B Managed Lanes	449+45 "ML2"	449+90 "ML2"	45	3	1.2 to 3.6	7	ROW & Tight Geometry
Citracado Pkwy	HOV Lane	474+00 "MLL1"	477+18 "MLL1"	318	3	2.3 to 3.0	3.0	ROW & Tight Geometry/Structure Cost
Del Lago DAR	N/B Off Ramp	444+15 "ML2"	446+60 "ML2"	45	2.4	3.0 to 0.9	5	ROW & Tight Geometry
Del Lago DAR	N/B Off Ramp	444+20 "ML2"	446+60 "ML2"	240	2.4	0.9 to 2.4	6	ROW & Tight Geometry
Del Lago DAR	S/B On Ramp	444+04 "ML2"	444+80 "ML2"	76	2.4	3.0 to 1.4	8	ROW & Tight Geometry
Del Lago DAR	S/B Off Ramp	451+56 "ML2"	454+03 "ML2"	248	2.4	2.4 to 1.1	8	ROW & Tight Geometry
Ninth Ave.	S/B On Ramp	493+12 "MLL1"	494+45 "MLL1"	133	2.4	2.4 to 1.7	1.8	ROW & Tight Geometry

Horizontal Clearances

Reduced Shoulder Widths (Due to sign structures/value pricing gantries)

Location	Shoulder type	Begin Station	End Station	Length, m	Standard Width, m	Proposed Width, m	Cost to make std.	Reason for Exception *
Hillery Drive Direct Access Ramps (braided at-grade access ramps)	NB Managed Lanes	258+85	259+15	30	3.0	2.4 to 3.0	5.0	ROW & Tight Geometry
	N/B Inside Mainline	258+85	259+00	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit between Mira Mesa Blvd and Mercy Rd	SB Managed Lanes	286+45	287+75	30	3.0	2.4 to 3.0	3.5	ROW & Tight Geometry
	SB Inside Mainline	286+60	286+75	15	3.0	2.4 to 3.0		
Between Mercy and Poway Rd.	NB Managed Lanes	290+85	291+15	30	3.0	2.4 to 3.0	3.0	ROW & Tight Geometry/Environmental Impacts
	NB Inside Mainline	291+00	291+15	15	3.0	2.4 to 3.0		
Between Mercy and Poway Rd.	SB Managed Lanes	290+85	291+15	30	3.0	2.4 to 3.0	3.0	ROW & Tight Geometry
	SB Inside Mainline	291+00	291+15	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit between Mercy Rd. and Poway Rd.	SB Managed Lanes	300+25	300+65	30	3.0	2.4 to 3.0	4.0	ROW & Tight Geometry
	SB Inside Mainline	300+40	300+65	15	3.0	2.4 to 3.0		
Between Poway Rd. and Sabre Springs	SB Managed Lanes	307+85	308+15	30	3.0	2.4 to 3.0	3.5	ROW & Tight Geometry
	SB Inside Mainline	308+00	308+15	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit at Camino Del Norte	NB Managed Lanes	362+35	362+65	30	3.0	2.4 to 3.0	8.0	ROW & Tight Geometry
	NB Inside Mainline	362+35	362+50	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit at Rancho Bernardo Road	SB Managed Lanes	408+25	408+55	30	3.0	2.4 to 3.0	7.0	ROW & Tight Geometry
	SB Inside Mainline	408+40	408+55	15	3.0	2.4 to 3.0		
Managed Lanes at grade access exit at Green Valley Creek	NB Managed Lanes	410+45	410+75	30	3.0	2.4 to 3.0	7.0	ROW & Tight Geometry
	NB Inside Mainline	410+45	410+60	15	3.0	2.4 to 3.0		

Managed Lane Design Exceptions (Mandatory Standards)

Horizontal Clearances (continued)

To Walls CHDM Index 309.1(3)b

Location	Shoulder type	Begin Station	End Station	Length	Standard Width	Proposed Width	Cost to make std.	Reason for Exception *
				m	m	m	Million Dollars	
Miramar Road O/C	S/B Loop On Ramp	241+55 "ML2"	-	70	2.4	0.5 to 2.4	0.4	Bridge Abutement
Between Mira Mesa Blvd and Poway Rd	N/B inside Mainline	272+00 "ML1"	299+40 "ML1"	2,740	3	2.8 to 3.0	2.6	Exist.cond. Repl. Ex.Ret.Wall
Sabre Springs DAR	N/B Inside Mainline	312+00 "ML2"	313+50 "ML2"	150	3	2.0 to 3.0	12	Aesthetic Treatment &Tight Geometry
15/56 Separation	N/B Loop On Ramp	323+72 "ML2"	-	80	2.4	1.2 to 3.0	6	ROW & Tight Geometry
Sabre Springs DAR & 15/56 Separation	S/B Inside Mainline	318+00 "ML2"	324+40 "ML2"	640	3	0.37 to 3.0	5	Aesthetic Treatment &Tight Geometry

Superelevation

Location	Station	Radius	Design Speed	Standard Rate	Proposed Rate	Comfortable Rate	Cost to make std.	Reason for Exception *
		m	km/hr	%	%	CHDM (fig. 203.2)	Million Dollars	
Miramar Rd. / Pomerado Rd. (NB offramp)	243+40	97	50	12	6.6	4	2.3	ROW & Tight Geometry
Poway Rd. (NB offramp)	303+60	231	45	11	8	-2	2.8	ROW & Tight Geometry
Sabre Springs (NB ML offramp)	316+00	203	70	11	8	5	7	ROW & Tight Geometry
Sabre Springs (NB ML offramp)	317+40	260	60	10	8	-1	7	ROW & Tight Geometry
Sabre Springs DAR O/C Bridge	10+88	60	35	12	2	2	40	Outside Vertical Limit for Ramp Tie-in
Sabre Springs DAR/Connector Road	12+22	100	40	12	3	-2	40	ROW & Tight Geometry
Sabre Springs DAR/Connector Road	13+50	200	40	11	3	-2	40	ROW & Tight Geometry
Sabre Springs DAR/Connector Road	14+78	100	40	12	4	-2	40	ROW & Tight Geometry
Sabre Springs DAR/Connector Road	16+50	25	30	12	4	4	40	ROW & Tight Geometry
Carmel Mtn Rd. (offramp)	340+00	715	80	5	3	-2	2.6	ROW & Tight Geometry
Carmel Mtn Rd. (offramp)	341+60	90	45	12	3	2	2.6	ROW & Tight Geometry
Rancho Bernardo Rd. (offramp)	389+60	206	70	11	8.5	5	2.4	ROW & Tight Geometry
Rancho Bernardo Rd. (offramp)	391+40	182	50	12	8.5	-2	2.4	ROW & Tight Geometry
Hale Avenue	508+00	1460	110	2	-2	-2	7	Constrained by existing bridge.

* See text for a more detailed discussion.

Vertical Clearances (temporary)

Location				Required Clearance	Proposed Clearance		Cost to make std.	Reason for Exception *
				m	m		Million Dollars	
Mira Mesa Blvd.				4.6	4.30		2.0	Construction Falsework/Avoid Lowering Road
Felicita				4.6	4.30		1.0	Construction Falsework/Avoid Lowering Road
Citracado				4.6	4.43		1.5	Construction Falsework/Avoid Lowering Road

* See text for a more detailed discussion.

Managed Lane Design Exceptions (Advisory Standards)

Ramp Departure Angles

Location	Lane Type	Station			Standard Angle	Proposed Angle	Cost to make std	Reason for Exception *
					Degrees	Degrees	Dollars (million)	
Miramar Way	NB Off-Ramp	221+00			4.879	3.57	1.5	Existing Conditions/Environmental Impacts
Carol Canyon Rd.	SB Off-Ramp	250+20			4.879	3.95	9.0	ROW & Tight Geometry
Carrol Canyon Rd.	NB Off-Ramp	250+60			4.879	3.93	2.0	ROW & Tight Geometry
Hillery DAR	NB Managed Lane DAR	255+03			4.879	2.48	10	Constrained by N/B lanes
Hillery DAR	SB Managed Lane DAR	269+53			4.879	1.72	38	Constrained by S/B lanes
Poway Rd.	SB Off-Ramp	307+88			4.879	3.08	4.0	ROW & Tight Geometry/Env Impacts
Sabre Springs DAR	NB Off-Ramp	315+00			4.879	4.01	10.0	ROW & Tight Geometry
Sabre Springs DAR	SB Managed Lane DAR	325+00			4.879	3.1	8	Constrained by S/B lanes
15/56 Separation	SB Off-Ramp	328+80			4.879	2.86	15.0	ROW & Tight Geometry
Camino Del Norte	NB Off-Ramp	356+00			4.879	4.12	4.0	ROW & Tight Geometry
Camino Del Norte	SB Off-Ramp	367+00			4.879	3.27	2.6	ROW & Tight Geometry
Rancho Bernardo DAR	NB Managed Lane DAR	379+00			4.879	1.15	15	Constrained by N/B lanes
Rancho Bernardo DAR	SB Managed Lane DAR	390+00			4.879	1.15	13	Constrained by S/B lanes
Ranch Bernardo Rd.	SB Off-Ramp	396+00			4.879	4.367	2.6	ROW & Tight Geometry
Highland Valley Rd / W. Benardo	SB Off-Ramp	430+00			4.879	4.023	5.0	ROW & Tight Geometry/ Env Impacts
Via Rancho PKWY	SB Off-Ramp	446+00			4.879	2.607	7.0	ROW & Tight Geometry
Citracado Parkway	SB Off-Ramp	479+50			4.879	3.316	1.5	ROW & Tight Geometry
Del Lago	NB Managed Lane DAR	444+80			4.879	2.5	26	Constrained by N/B lanes
Del Lago	SB Managed Lane DAR	454+60			4.879	2.79	26	Constrained by S/B lanes

* See text for a more detailed discussion.

Converging Dimensions for Entrance Ramps

Location	Lane Type	Station	Standard 2.0 to 0 pt	Prop 2.0 to 0 pt	Standard 4.25 to 2.0 pt	Prop 4.25 to 2.0 pt	Cost to make std	Reason for Exception *
			m	m	m	m	Dollars (million)	
Near 163/15 Merge **	NB On-Ramp	203+20	100	25	50	11	8	Replace Structure
Miramar Way **	NB On-Ramp	229+00	100	130			1.1	Existing Conditions
Hillery DAR	SB Managed Lane DAR	255+41	100	70	50	64	2.5	ROW & Tight Geometry
Hillery DAR	NB Managed Lane DAR	267+00	100	100	50	165	2.9	ROW & Tight Geometry
Mira Mesa Blvd. **	NB On-Ramp (loop)	269+00	100	82			2.6	Structure Widening
Sabre Springs ***	Temporary Slip Ramp	319+00	100	100	50	78	8	ROW & Tight Geometry
Rancho Bernardo DAR	SB Managed Lane DAR	380+00	100	100	50	116	10	ROW & Tight Geometry
Rancho Bernardo DAR	NB Managed Lane DAR	388+00	100	100	50	114	9	ROW & Tight Geometry
Rancho Bernardo Rd.	NB On-Ramp	395+00	100	100	50	95	1.0	ROW & Tight Geometry
Centre City Pkwy **	SB On-Ramp	450+00	100	117	50	85	1.7	ROW & Tight Geometry
Del Lago	SB Managed Lane DAR	445+00	100	100	50	144	15	ROW & Tight Geometry
Del Lago	NB Managed Lane DAR	453+00	100	100	50	116	15	ROW & Tight Geometry
Citracado Parkway	SB On-Ramp	470+40	100	100	50	82	1.0	ROW & Tight Geometry
Ninth Ave	SB On-Ramp	492+40	100	100	50	130	3.4	ROW & Tight Geometry

* See text for a more detailed discussion.
** This ramp picks up an auxiliary lane
*** Temporary slip ramp will be removed when Southern Segment is constructed.

Managed Lane Design Exceptions (Advisory Standards)

Vertical Alignment

Managed Lane - Minimum length of vertical curve based on design speed of 110 km/h = 68 mph

Location	Section	Station	A (grade difference)	Type	Required Length	Proposed Length	Cost to make std	Reason for Exception *
					m	m	Dollars (million)	
Main Lane - Various Locations *	NB and SB Main Lanes	210+00 to 516+00	Var	N/A	60	PI to PI	420	Existing Pavement / Environmental Impacts
Sabre Springs DAR	SB Off-Ramp	322+55	6.6	Sag	160	80	30	Constrained by Column
Sabre Springs DAR	Slip Ramp **	320+40	4	Crest	160	60	35	Profile must match SB Pave.

* See text for a more detailed discussion.

** Temporary slip ramp will be removed when Southern Segment is constructed.

Minimum Median Width

Location		Begin Station	End Station	Length	Standard Width	Proposed Width	Cost to make std	Reason for Exception *
				m	m	m	Dollars (million)	
Northern Segment		479+40	514+00	3,460	10.8	9.0	26	ROW & Tight Geometry

* See text for a more detailed discussion.

Two Lane Exit Ramp Standard

Location	Ramp Type	Station	Existing Volume	2020 Volume	Required Lanes	Proposed Lanes	Cost to make std	Reason for Exception *
							Dollars (million)	
Reversible HOV lane - SB exit to SR-163	SB Exit	206+00	1250	2150	2	1	15	New Structure and Modify IC
Miramar Way	NB Exit	226+00	1300	1600	2	1	10	Tight Geometry / Rebuild IC
Mira Mesa Blvd	NB Exit	259+00	1600	2200	2	1	4	ROW & Tight Geometry
Mira Mesa Blvd	SB Exit	271+00	1400	2000	2	1	3.0	ROW & Tight Geometry
Carmel Mtn. Road	SB Exit	344+00	1100	1520	2	1	5	ROW & Tight Geometry

Temporary Vertical Clearance (Railroad)

Location				Required Clearance	Proposed Clearance		Cost to make std.	Reason for Exception *
				m	m		Dollars (million)	
W. Washington Ave OH				7.01	6.86		4	Falsework / Avoid Lowering Tracks

Auxiliary Lanes

Location	Direction			Required Length	Proposed Length		Cost to make std.	Reason for Exception *
				m	m		Dollars (million)	
Miramar Rd. to Carroll Canyon	Northbound			600	542		6	ROW & Tight Geometry / Env Impacts

* See text for a more detailed discussion.

Appendix D Local Street Detours

I-15 Managed Lanes Project
Local Street Detours

North Segment

Location	Facility	Existing				Proposed				Construction Staging 1				Construction Staging 2				Vertical Clearance	Temporary Minimum Vertical Clearance
		Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway		
*Centre City Parkway/ South Direct Connector **	Undercrossing	11.3m (37')	WB: 2-3.6m (12') thru lanes + var. width shld 1.46m - 2.4m (4.8' - 7.8')	none	EB side: shared shoulder	same	same	same	same	Close connector to traffic for approx. 6 months; route traffic around construction site. Lower road profile and lengthen tunnel. *				N/A				4.6m (15.1')	N/A
South Centre City Parkway / Clarence Lane	Undercrossing	12.8m (42')	EB: 1-3.6m (12') lane; WB: 1-3.6 m (12') lane + 1-2.4m (8') shldr	North side: dirt 3.05m (10')	Both sides: shared shoulder	same	same	same	same	same	Lower road profile 0.38m (1.25') to meet minimum vertical clearance. Perform this work under traffic control or weekend closure.	same	same	12.8m (42')	Widen CIP/PS structure; cast above final grade and lower into place. Traffic lanes - same.	same	same	4.6m (15.1)	4.6m (15.1)
Citracado Parkway	Undercrossing	23.16m (76') + 7.3m (24') raised median	EB: 2-3.6m (12') thru lanes + 1-3.6m (12') LT lane + 2.4m (8') outside shld; WB: 2-3.6m (12') thru lanes + 1-3.6m (12') LT lane+ 2.4m (8') outside shldr	Both sides: paved 3.05m (10')	Both sides: shared shoulder	same	same	same	same	16.46m (54') + 11.58m (38') raised median	Widen structure: EB: 1-3.6m (12') thru + 1-3.6m (12') LT lane; WB: 1-3.6m (12') thru + 1-3.6m (12') LT lane	Provide 1.5m (5') separate falsework opening for peds on both sides	Shared traveled lane	N/A				5.1m (16.7')	4.42m (14.5')
Felicita Road	Undercrossing	19.5m (64')	EB: 1-3.6m (12') thru lane+ 3.05m (10') shld + 1.22m (4') bike lane+ 1.83m (6') half median; WB: 1-3.6m (12') thru lane+ 3.05m (10') shld + 1.22m (4') bike lane+ 1.83m (6') half median	South side: 1.67m (5.5'); North side: dirt 1.5m (5')	Both sides: bike lane 1.2m (4')	same	same	same	same	same	Lower road profile 0.26m (10.2 in.) to meet minimum vertical clearance. Perform this work under traffic control or weekend closure.	same	same	9.75m (32')	Widen structure: EB: 1-3.6m (12') lane + 1.2m (4') shld; WB: 1-3.6m (12') lane + 1.2m (4') shld	Provide 2.4m (8') separate falsework opening for bike/peds on both sides	Provide 2.4m (8') separate falsework opening for bike/peds on both sides	4.7m (15.42')	4.3m (14.1')
Ninth Avenue	Undercrossing	To be handled by work in EA 232650																	
Valley Parkway	Undercrossing	To be handled by work in EA 232651																	
Escondido Flood Control	Channel	3.05m (10') maintenance access road on north and south side	3.05m (10') maintenance access road on north and south side	South side: share bike/ped path 3.05m (10')	South side: bike/ped path 3.05m (10')	same	same	same	same	3.05m (10') maintenance access road on south side only	3.05m (10') maintenance access road - south side only	South side: bike/ped path 3.05m (10')	South side: bike/ped path 3.05m (10')	N/A				4.1m (13.5')	3.65m (12')
Hale Avenue	Undercrossing	19.5m (64')	EB: 2-3.6m (12') thru lane + 0.76m (2.5') shld+ 1.67m (5.5') half median; WB: 1-3.6m (12') thru and 1-3.6m (12') right turn lane+ 0.76m (2.5') shld + 1.67m (5.5') half median	Both sides: 1.5m (5')	Both sides: shared shoulder	same	EB: 2-3.6m (12') thru lanes; WB: 3-3.6m (12') (1 thru, 1 right turn, 1 left turn) lanes	same	same	same	Lower road profile 0.3m (1') to meet minimum vertical clearance. Perform this work under traffic control or weekend closure.	same	same	same	Widen CIP/PS structure; cast above final grade and lower into place. Traffic lanes - same.	same	same	4.6m (15.1)	4.6m (15.1)
West Washington Avenue / Sante Fe OH	Overhead	13.78m (45.2')	EB: 1-3.6m (12') thru lane + 3.23m (10.6') shld; WB: 1-3.6m (12') thru lane + 3.23m (10.6') shld	North side: 1.5m (5')	Both sides: shared shoulder	same	same	same	same	same	EB: 1-3.6m (12') thru + 2.4m (8') shld; WB: 1-3.6m (12') thru + 2.4m (8') shld	same	same	N/A				7.5m (24.6')	6.88m (22.6')
West Mission Avenue	Undercrossing	19.8m (65')	EB: 2-3.3m (10.8') thru lanes + 1.67m (5.5') bike lane + 1.64m (5.4') half median; WB: 2-3.3m (10.8') thru lanes + 1.67m (5.5') bike lane + 1.64m (5.4') half median	Both sides: 1.5m (5')	Both sides: bike lane 1.67m (5.5')	same	same	same	same	same	same	same	same	N/A				10.06m (33')	8.8m (29')

Definitions :

Same = Same as existing

CIP/PS = Cast in Place/Pre-stressed Concrete

Notes:

* Centre City Parkway temporary closure will redistribute trips to Citracado Parkway, Felicita Road, Ninth Avenue, Valley Parkway, Via Rancho Parkway and Del Lago DAR. The greatest diversion is to Citracado Pkwy/ Felicita Road where 58% of this traffic will divert to. See text for a more detailed description.

I-15 Managed Lanes Project
Local Street Detours

Middle Segment

Location	Facility	Existing				Proposed				Construction Staging 1				Construction Staging 2				Vert. Clearance	Temporary Minimum Vert. Clearance
		Roadway Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway		
Route 56/15 Separation Ted Williams Parkway	Separation	28.3m (92.75')	EB:2 thru, 2 Left turn lanes &1.8m (6') Shoulder WB:2 thru, 1 trap free Rt & 1.8m (6') Shoulder	North side: 1.8 m (6')	EB: Shared 1.8m (6') Shoulder WB: Shared 1.8m (6') Shoulder	44.7m (146.7')	EB: 3-3.6m (12') thru, 1 trap Rt &3.6m (3.6 m (12') Bike Lane (Type 1) WB: 3-3.6m (12') thru, 1 trap Rt & 3.6m (12') Bike Lane (Type 1)	Shared 3.6m (12') Bike Path Both sides	EB: 1-3.6m (12') Type 1 Bike Path WB: 1-3.6m (12') Type 1 Bike Path	15.9m (52.2') & 1-0.6m (2') K-Rail median (Remove southerly 12.02m (40.05') & close North Sidewalk)	EB: 2-3.2m (10.5') Thru Lane& 1-3.2m (10.5') Trap WB: 1-3.2m (10.5') Thru Lane&1-3.2m (10.5') Trap	Closed	Both Sides: Shared Traveled Lane	25.8m (84.72') & 1-0.6m (2') K-Rail Median (Remove Northerly 18.0 m (58.7'))*	EB: 2-3.2m (10.7') Thru & 1-3.2m (10.7') Trap Lane WB: 2-3.2m (10.7') Thru & 1-3.2m (10.7')Trap Lane	None	Both Sides: Shared Traveled Lane	5.8m(19')	4.76m (15.6')
Carmel Mountain Road OC	Overcrossing	24.7m (81')	EB:2 thru, 2 Left turn lanes (bk-bk) & 1.5m (5') Shoulder WB:2 thru, 2 Left turn lanes (bk-bk) & 1.5m (5') Shoulder	Both side: 1.5 m (5')	EB: Shared 1.5m (6') Shoulder WB: Shared 1.5m (6') Shoulder	33.9m (111.4')	EB: 3-thru, 1 Left turn Lane, 1 Left turn (back to back) & 2.4m (8') Shoulder ** WB: 2-thru,1 Left Lane, 1 Left turn lane (back to back) & 2.4m (8') Shoulder	Both side: 1.8 m (6')	Both Sides: Shared 2.4m (8') Shoulder	16.5m (54') (Remove southerly 9.8m (32'))	EB: 2-3.0m (10') Thru & 1-3.0m (10') Left Lane (bk-bk) WB: 2-3.0m (10') Thru & 1-3.0m (10') Left Lane (bk-bk)	North Side only: 1.2m (4')	Both Sides: Shared Traveled Lane	*16.5m (54') (Remove northerly 18.0m (59'))	EB: 2-3.0m (10') Thru & 1-3.0m (10') Left Lane (bk-bk) WB: 2-3.0m (10') Thru & 1-3.0m (10') Left Lane (bk-bk)	South Side only: 1.2m (4')	Both Sides: Shared Traveled Lane	5.5m(18')	4.74m (15.6')
Camino Del Norte UC	Undercrossing	32.3m (106')	EB: 2-3.6m (12') thru, 1-3.6m (12') Left turn lane & 2.4m (8') Shoulder WB: 2-3.6m (12') thru, 1 3.6m (12') Left turn lane & 2.4m (8') Shoulder	Both side: 1.8 m (6')	EB: Shared 2.4m (8') Shoulder WB: Shared 2.4m (8') Shoulder	46.7m (153.2')	EB: 2-3.6m (12') thru, 1 Thru with Right option,1-3.6m (12') Right & 2-3.6m (12') Left Turn WB: 3-3.6m (12') thru & 2-3.6m (12') Left turn lane	Both side: 1.5 m (5')	EB: 1.8m (6') Bike Lane WB: 1.8m (6') Bike Lane	EB: 10m (33') WB: 10m (33')	EB: 2-3.3m (11') Thru & 1-3.3m (11') Left Lane WB: 2-3.3m (11') Thru & 1-3.3m (11') Left Lane	Provide separate 2.4m (8') Pedestrian Bike Falsework Opening Both Sides		N/A				5.18m(17')	4.61m (15.1')
Bernardo Center Drive UC	Undercrossing	25.0m (82')	EB: 2-3.6m (12') thru, 1-3.6m(12') Left turn lanes (bk-bk) & 2.4 m (8') Shoulder WB: 2-3.6m (12') thru, 2 3.6 m (12') Left turn lanes (bk-bk) & 2.4m (8') Shoulder	Both side: 1.5 m (5')	EB: Shared 2.4m (8') Shoulder WB: Shared 2.4m (8') Shoulder	29.3m (96')	EB: 2-3.6m (12') thru, 1-3.6m (12') Left turn lane, 1 Left turn Lane (bk-bk) & 1.8m (6') Bike Lane WB: 2-3.6m (12') thru, 1-3.6m (12') Left turn lane, 1 Left turn Lane (bk-bk) & 1.8m (6') Bike Lane	North Side: 1.5m (5') (Behind Columns) South Side: 1.5m (5') (Behind Columns)	EB: 1.8m (6') Bike Lane WB: 1.8m (6') Bike Lane	EB: 10m (33') WB: 10m (33')	EB: 2-3.3m (11') Thru & 1-3.3m (11') Left Lane WB: 2-3.3m (11') Thru & 2-3.3m (11') Left Lane	Provide separate 1.5m (5') Pedestrian Falsework Opening South Side	Both Sides: Shared Traveled Lane	N/A				4.83m(15.9')	4.83m(15.9') (Use Pre-cast girders)
Rancho Bernardo Road UC	Undercrossing	37.2m (122')	EB: 3-3.6 m (12') thru, 2.7m (9') half median, 1-3.6m (12') Aux Lane & 1.5m (5') Shoulder WB: 3-3.6 m (12') thru, 2.7m (9') half median, 1-3.6m (12') Aux Lane & 1.5m (5') Shoulder	Both side: 1.5 m (5')	EB: Shared 1.5m (5') Shoulder WB: Shared 1.5m (5') Shoulder	37.2m (122')	EB: 3-3.6 m (12') thru, 2.7m (9') half median, 1-3.6m (12') Aux Lane & 1.5m (5') Shoulder WB: 3-3.6 m (12') thru, 2.7m (9') half median, 1-3.6m (12') Aux Lane & 1.5m (5') Shoulder	Both side: 1.5 m (5')	EB: 1.5m (5') Bike Lane WB: 1.5m (5') Bike Lane	EB: 9.1m (30') WB: 9.1m (30')	EB: 2-3.3m (11') Thru,2.4m (8') shoulder WB: 2-3.3m (11') Thru,2.4m (8') shoulder	Both side: 1.5 m (5')	EB: Shared 1.5m (5') Shoulder WB: Shared 1.5m (5') Shoulder	N/A				5.77m(18.94')	4.67m (15.3')
Duenda Road OC	Overcrossing	19.5m (64')	EB:2-3.6 m (12') thru & 2.4m (8') Shoulder WB: 2-3.6 m (12') thru & 2.4m (8') Shoulder	Both side:1.8 m (6')	EB: Shared 2.4m (8') Shoulder WB: Shared 2.4m (8') Shoulder	Same	Same Same	Same Same	Same Same	8.2 m (27') (Remove northerly 11.6m (38'))	EB: 1-4.0m (13') thru WB: 1-4.0m (13') thru	North Side: none South side: 1.8m (6')	Both Sides: Shared Traveled Lane	* 9.8m (32') (Remove southerly 11.6m (38'))	EB: 1-4.2m (14') thru WB: 1-4.2m (14') thru	North Side: 1.8m (6') South side=none	Both Sides Shared Traveled Lane	5.7m(18.7')	4.6m (15')
Highland Valley Rd / West Bernardo Drive / Pomerado Road OC	Overcrossing	9.8m (32')	EB: 1-3.6 m (12') thru WB: 1-4.3 m (14') thru	South side: 1.5 m(5')	EB: Shared traveled lane WB: Shared traveled lane	21.6m (70.9')	EB: 2-3.6m (12') thru, 0.6m (2') Shoulder WB: 2-3.6m (12') thru& 1.2m (4') Shoulder	North Side: 3.6m (12') Comb. Sidewalk & Bikepath South side: none	WB: 3.6m (12') Combination Bikepath & Sidewalk	This bridge will be closed during construction. Ramps will remain in use but thru traffic will be detoured. See text for a detailed discussion.								5.6m(18.37')	4.6m (15')
Lake Hodges Bridge	Bridge	Not Applicable	Not Applicable	Shared 12' Bike/Ped Path / Trail	Shared 3.6 m (12') Bike/Ped Path / Trail	Replace Bridge New bridge will be 3 bridges; one for NB, one for SB, and one for Managed Lanes				Same	Lower Bike/Ped. Path/Trail to obtain 3.3m (11') Vertical Clearance. This work could be performed during a five day closure.	Same	Same	N/A				3.3m (11')	3.3m (11') (Use Pre-cast girders)
Via Rancho Pkwy OC	Overcrossing	28.7m (94')	EB: 2-3.6 m (12') thru,0.8 m (2.5') Half Median, 2.4m (8') Shoulder WB :2-3.6 m (12') thru, 2-3.6 m (12') Left Trap, 2.4 m (8') Shoulder, 0.8 m (2.5') Half Median	Both side: 1.8 m (6')	EB: Shared 2.4m (8') Shoulder WB: Shared 2.4m (8') Shoulder	36.0m (118.25')	EB: 3-3.6m (12') thru,2.0m (6.5') Median, 2.4m (8') Shoulder WB: 3-3.6m (12') thru, 2-3.6m (12') Left trap & 2.4m (8') Shoulder	Both side: 1.8 m (6')	EB: 2.4m (8') Shared Shoulder WB: 2.4m (8') Shared Shoulder	17.5m (57.5') (Remove southerly 13.0m (42.5'))	EB: 2-3.3m (11') thru WB: 2-3.3m (11') thru, 1-3.3m (11') Left	North Side only: 1.8m (6')	Both Sides: Shared Traveled Lane	* 17.5m (57.47') (Remove northerly 19.3m (63.5'))	EB: 2-3.3m (11') thru WB: 1-3.3m (11') Left, 2-3.3m (11') thru	South Side only: 1.8m (6')	Both Sides: Shared Traveled Lane	5.72m(18.77')	4.68m (15.3')
Del Lago Blvd. / North County Fair OC	Overcrossing	22.3m (73.3')	EB: 1-3.6 m (12') thru & 5.2 m (17') Shoulder WB: 1-3.6 m (12') thru & 9.5 m (31.1') Shoulder	South side: 1.5 m(5')	EB: Shared 9.5 m (31.1') Shoulder WB: Shared 5.23 m (17') Shoulder	Varies 22.2m to 24.9 m (72.7' to 81.6')	EB: 2-3.6m (12') thru, 1-3.6m (12') Right WB: 2-3.6m (12') thru, 1-3.6m (12') Right	Both side: 1.8 m (6')	EB: 1.5m (5') Shared Shoulder WB: 1.5m (5') Shared Shoulder	This bridge will be closed during construction. Traffic will be detoured to Via Rancho Parkway. See text for a detailed discussion.								7.54m(24.7')	6.5m (21.3')

Definitions :

Same = Same as existing
CIP/PS = Cast in Place/Pre-stressed Concrete

Notes:

* 1.0 m (3.3') closure pour needed after construction of Stage 2 for Route 56/15 Separation, Carmel Mountain Road, Duenda Road, and Via Rancho Parkway.
** For Carmel Mountain Road, proposed structure width accommodates 3 through lanes westbound with dual left turn lanes back-back.

I-15 Managed Lanes Project
Local Street Detours

South Segment

Location	Facility	Existing				Proposed				Construction Staging 1				Construction Staging 2				Vertical Clearance	Temporary Minimun Vertical Clearance
		Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway	Rdwy Width	Traffic Lanes	Sidewalk	Bikeway		
'H' Avenue (military road)	Overcrossing	9.8 m (32.2')	EB: (1) 3.6 m lane + (1) 1.2 m (4') shoulder	none	WB: Shared Unstriped Shoulder	Same	Same	Same	Same	No impacts to H Avenue	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			WB: (1) 3.6 m lane + (1) 1.2 m (4') shoulder		WB: Shared Unstriped Shoulder						N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Ammo Road (military road)	Overcrossing	8.5 m (28')	EB: (1) 3.6 m (12') lane +0.9 m (3') unstriped shoulder	none	EB: Shared Unstriped Shoulder	Same	Same	Same	Same	No impacts to Ammo Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			WB: (1) 3.6 m (12') lane + 0.9 m (3') unstriped shoulder		WB: Shared Unstriped Shoulder						N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Miramar Way	Overcrossing	12.2 m (40')	EB: (1) 3.6 m (12') lane + 2.4 m (8') unstriped shoulder	none	EB: Shared 2.4 m (8') Shoulder	Same	Same	Same	Same	No construction impacts to Miramar Way	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			WB: (1) 3.6 m (12') lane + 2.4 m (8') unstriped shoulder		WB: Shared 2.4 m (8') Shoulder						N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Miramar Road / Pomerado Road	Overcrossing	VARIES 27.4- 31.1 m (90'- 102')	EB: 2.1 m (7') stripped half median, (2) 3.6 m (12') lanes + (1) trap free right + 2.4 m (8') shoulder	South side: 1.5 m (5')	EB: Shared 2.4 m (8') Shoulder	28.7 m-32.3 m (94'-106')	EB: Same as existing except 1.2 m (4') shoulder	South side: 2.4 m (8') at grade / Barrier separated ped facility	EB & WB: shared 1.2 m (4') shoulder	Remove southern half of the bridge	EB: (1) 3.4 m (11') lane + (1) 3.2 m (10.5') lane, no shoulder	North side: 1.5 m (5')	Share traveled lane	*** 13.4 m (44')	EB: (2) 3.4 m (11') lanes, no shoulder.	South side: 1.5 m (5')	Share traveled lane	5.6 m (18.4')	4.6 m (15.1')
			WB: 2.1 m (7') stripped half median, (2) 3.6 m (12') lanes +2.4 m (8') shoulder + 1 trap free right lane	North side: 1.5 (5')	WB: Shared 2.4 m (8') Shoulder		WB: 2.1 m (7') stripped median + (3) 3.6 m (12') lanes + 1.2 m (4') shoulder + 1 trap free right	North side: 2.4 m (8') at grade / Barrier separated ped facility		16.6 m (54.5')	WB: (2) 3.4 m (11') lanes + (1) trap lane, no shoulder.			Remove northern half of the bridge.	WB: (2) 3.4 m (11') lanes, no shoulder.				
Carroll Canyon Road	Overcrossing	22 m (72')	EB: (2) 3.6 m (12') lanes + (1) 4.3 m (14') left turn (bck-bck) + 1.5 bike lane	South side: 2.4 m (8') at grade / barrierseparated ped facility	EB & WB: 1.5 m (5') bikelane	22 m (72')	EB: (2) 3.6 m (12') lanes + (1) 4 m (13') left turn (bck-bck) + 1.5 m bike lane	South side: 2.4 m (8') at grade / Barrier separated ped facility	EB & WB: 1.5 m (5') bike lane	Remove north 12.5 m (41') structure	EB: (1) 3.3 m (11') lane + 1.3 m (4.3') rt shoulder, with a k-rail median **	South side: 1.5 m (5') sidewalk	Share shoulder	*** 10.9 m (35.6')	EB: (1) 3.6 m (12') lane + 1.5 m (5') rt shoulder, with a k-rail median **	North side: 1.5 m (5') sidewalk	Share shoulder	5.7 m (18.7')	4.66 m (15.3')
			WB: (2) 3.6 m (12') lanes + (1) 4.3 m (14') left turn (bck-bck) + 1.5 m bike lane	North side: None			WB: (2) 3.6 m (12') lanes + (1) 4 m (13') left turn (bck-bck) + 1.5 m bike lane	North side: None		10 m (33')	WB: (1) 3.3 m (11') lane + 1.3 m (4.3') rt shoulder, with a k-rail median **				WB: (1) 3.6 m (12') lane + 1.5 m (5') rt shoulder, with a k-rail median **				
Mira Mesa Blvd	Undercrossing	25.6 m (84') + 5.5 m (18') raised median / bent	EB: 1.8 m (6') shoulder + (3) 3.6 m (12') lanes	North and South sides: 1.7 m (5.7') sidewalk	Shared 1.8 m (6') shoulder	Same	Same	Same	Same	EB: 10.2 m (34') *	EB: (3) 3.4 m (11.3') lanes	Provide 3.6 m (12') pedestrian/bike falsework opening (both sides). This will require undercutting abutment slope by 1.3 m (4.3'). *		N/A				4.86 m (15.9')	4.30 m (14.1')
			WB: Same as EB							WB: 10.2 m (34') *	WB: (3) 3.4 m (11.3') lanes								
Scripps Poway Parkway / Mercy Road	Undercrossing	31.7 m (104')	EB: 0.9 m (3') shldr + (3) 3.6 m (12') lanes + 1.2 m (4') buffer + (2) left turn lanes (bck-bck)	North & South sides: 1.5 m (5') sidewalk	EB: Shared 0.9 m (3') shoulder	Same	Same	Same	Same	EB: 12.5 m (41.2')	EB: (3) 3.6 m (12') lanes + (1) 1.5 m (5') shoulder + (2) 3.6 m (12') left turn lanes (bck-bck)	1.5 m (5') both sides	Share traveled lane	N/A				5.86 m (19.2')	4.70 m (15.4')
			WB: 0.9 m (3') shldr+ 3.6 m (12') buffer + (2) 3.6 m (12') lanes + 2 left turn lanes (bck-bck)		WB: Shared 0.9 m (3') shoulder +3.6 m (12') buffer					WB: 16.22 m (53.2')	WB: (2) 3.6 m (12') left turn lanes (bck-bck)+ (2) 3.6 m (12') lanes + (1) 1.5 m (5') shoulder								
Poway Road / Rancho Peñasquitos Blvd	Overcrossing	20.7 m (68') + 1.5 m (5') raised median	EB: 2 m (6.5') shldr + 4.1 m (13.5') lane + 3.6 m (12') lane + 0.8 m (2.5') half median	North & South sides: 1.5 m (5') sidewalk	EB & WB: Shared 2 m (6.5') shoulder	24.3 m (80')	EB: same	Same	Same	Remove 10.8 m (35.3') southern portion	EB: (1) 3.6 m (12') lane	North side: 1.5 m (5')	Share traveled lane	*** 10.9 m (35.8')	EB: (1) 3.6 m (12') lane	South side: 1.5 m (5')	Share traveled lane	5.4 m (17.7')	4.7 m (15.4')
			WB: Same as EB				WB: 2 m (6.5') shldr + 4.1 m (13.5') lane +(2) 3.6 m (12') lane + 0.76 m (2.5') half median		Same	11.9 m (39') includes K-Rail median	WB: (2) 3.6 m (12') lane			Remove 14.6 m (47.9') northern portion	WB: (2) 3.6 m (12') lane				

Definitions :

Same = Same as existing

CIP/PS = Cast in Place/Pre-stressed Concrete

Notes:

* At Mira Mesa Blvd., place 2.6 meter (8.5') falsework bent between traffic lanes and pedestrian walkway/ bike path on each side for construction staging.

** Restrict all left turn moves at Carroll Canyon during construction. This traffic will divert to Mira Mesa Boulevard or Miramar Road/ Pomerado Road. See text for detailed discussion.

*** 1.0 m (3.3') closure pour needed after construction of Stage 2 for Miramar Road, Carroll Canyon Road, and Poway Road.

Appendix E Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
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July 26, 2000

TITLE VI
POLICY STATEMENT

The California State Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, sex and national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

Jeff Morales

JEFF MORALES
Director

Appendix F Mitigation Monitoring Program

MMRR.xls

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
DESIGN KICK-OFF	Project Manager	Beginning of 1 phase						
PRE-LOG-IN REVIEW	Design	80% Plans						
ENVIRONMENTAL PS&E REVIEW	Environmental Coordinator	District PS&E Circulation						
IN-HOUSE PRECONSTRUCTION MEETING	Project Manager	Contract Award						
Transfer Resident Engineer Book	Project Engineer	Preconst Meeting						
PREJOB MEETING with CONTRACTOR	Construction	Beginning of Construction						
ENVIRONMENTAL COMPLIANCE REVIEW	Construction	Safety Review						
DESIGN FEATURES MEMORANDUM	Construction / Design	Post Construction						
NOISE	Env "C"							
construct a 3.05 meter (10 foot) wall on top of a 1.83 meter (6 foot) berm beginning approximately 400 meters (1312 feet) south of Carroll Canyon Road extending to the north 100 meters (328 feet).	RE/Env. C	Prior to opening new lanes						
construct a 2.44 meter (8 foot) to 3.05 meter (10 foot) wall be built that varies between the edge of shoulder and the right-of-way line. The barrier would be placed on the southbound (west) side of I-15 and extends from Carroll Canyon Road north for 740 meters (2460 feet).	RE/Env. C	Prior to opening new lanes						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Construct a 3.05 to 4.27 meter (10 to 14 foot) high wall beginning approximately 100 meters (328 feet) south of Scripps Poway Parkway/Mercy Road on the wes of I-15 and would extend north over the Mercy Road overcrossing for a distance of approximately 1000 meters (3280 feet).	RE/Env. C	Prior to opening new lanes						
To balance earthwork, a 2.44 meter (8 foot) berm/wall combination is proposed on the southbound (west) side of I-15 beginning approximately 300 meters (984 feet) north of Carmel Mountain Road and ending approximately 600 meters (1968 feet) south of Camino del Norte. This berm will replace the existing berm that will be removed during construction	RE/Env. C	Prior to opening new lanes						
At the five locations containing severe noise impacts, install double-paned windows, acoustic wall insulation and ai conditioning to abate the severe noise impacts	RE/Env. C	Prior to opening new lanes						
WATER QUALITY								
Construct a 75 meter (246 foot) swale on the northbound outside shoulder at Peñasquitos Creek, a 120 meter (394 foot) swale on the southbound outside shoulder at Peñasquitos Creek	RE / NPDES	Construction						
Construct a 120 meter (394 foot) swale on the southbound outside shoulder at San Clemente Creek	RE / NPDES	Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Construct a 130 meter (426 foot) swale on the northbound outside shoulder at Lake Hodges	RE / NPDES	Construction						
Construct a 190 meter (623 foot) swale on the southbound outside shoulder at the San Clemente Creek	RE / NPDES	Construction						
Where an increase in paved surfaces leads to an increase in either total or peak runoff discharges, a thorough evaluation will be performed to determine if any impacts will result	NPDES	Construction						
If increased runoff will cause an increased potential for downstream impacts in the channels, the Departmen will consider modifications to channel lining materials including vegetation, geotextile mats, rock and rip rap	NPDES	Construction						
Perimeter control practices will be used to protect undisturbed areas from offsite runoff and to prevent sediment damage to areas below the project	RE / NPDES	Construction						
where needed, incorporate retention or detention facilities to reduce peak discharge	NPDES	Construction						
where needed, energy dissipation devices will be used at culvert outlets	RE / NPDES	Construction						
Use soil stabilizers on disturbed areas to reduce sediment loads	RE / NPDES	Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Spill containment and prevention contro measures must be implemented in accordance with the SWMP	RE / NPDES	Construction						
all runoff from Lake Hodges Bridge will be conveyed to a treatment device prior to discharging, therefore, no direct runoff will be discharged into Lake Hodges without treatment	RE / NPDES	Construction						
WETLAND AND WATERS	Env "B" / Stewardship							
Environmentally Sensitive Areas (to be avoided) and Limited Use Areas (to be only used temporarily for specific purposes) would be designated on design plans to prohibit work from extending into sensitive areas	R.E./ Biologist	All Phases of Construction						
ESA and LUA will be monitored by the project biologist during construction	Biologist	All Phases of Construction						
All work will be prohibited from extendin into areas designated as ESA	R.E./ Biologist	All Phases of Construction						
Retaining walls would be used to minimize the filling of wetlands	Biologist/ Design	All Phases of Construction						
Disposal sites for excess dirt would be located in non-sensitive areas	R.E./ Biologist	All Phases of Construction						
Designate all sensitive resources not directly impacted by the project as ESAs to avoid further impacts during construction	Biologist	All Phases of Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Impacts to wetlands would be mitigated through off site purchases and protection of wetlands currently under private ownership. It is proposed that temporary impacts be mitigated at a rati of 1:1 and permanent impacts at a ratio of 3:1	Biologist	Prior to Construction						
N/A								
WILDLIFE	Env "B"							
Construct bridge falsework with spaces large enough to allow passage of mule deer and other mammals	R.E./ Biologist	All Phases of Construction						
Leave no open trenches if work is not actively being performed in the immediate area	R.E./ Biologist	All Phases of Construction						
Shield lighting to minimize disruptions outside immediate work area	R.E./ Biologist	All Phases of Construction						
Have biological monitor on site to monitor corridors	R.E./ Biologist	All Phases of Construction						
ENDANGERED SPECIES	Env "B"							
Establishment of environmentally sensitive areas (ESA)	Project Manager/ Biologist	During Design						
Pile driving at Lake Hodges will occur outside vireo breeding season (March 15 through September 15)	Project Manager/ Biologist	During Design						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
When night work occurs lighting will be shielded and directed away from habitat	R.E./ Biologist	All Phases of Construction						
Purchase offsite mitigation for impacts to CSS habitat and gnatcatchers	Project Manager/ Biologist	During Design						
VISUAL	Landscape Architecture							
Noise barriers would consist of landscaped berms wherever possible. Landscaped berms are preferred for noise barriers.	PM /LA /RE	Design/ Construction						
In areas where the right-of-way is too narrow to accommodate a berm, a retaining wall may be used to avoid constructing a sound wall on top of the berm	PM /LA /RE	Design/ Construction						
Where berm/soundwall combinations are used, they would incorporate a berm with a 1:2 slope on the freeway side of that is 1.2 meters (4 feet) high (minimum).	PM /LA /RE	Design/ Construction						
In cases where berms are entirely unfeasible, sound walls should incorporate planting on both sides. In some cases, retaining walls may be needed to provide the required planting space on the freeway side of the wall	Project Manager /Landscape Architect	During Design						
Where right-of-way is too narrow to employ the configurations listed above, safety barrier is required to be placed in front of the wall. A minimum 0.6 meter (2 feet.) wide planting area should be provided between the back of the barrier and the face of wall. Placing the sound wall on top of the barrier should be avoided where possible	Project Manager /Landscape Architect	During Design						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
In situations where noise receptors are located above the elevation of the freeway, noise walls located at the top of slope near the right-of-way line or on private property shall be used if feasible and reasonable	Project Manager /Landscape Architect	Design						
where the walls would block views from residences, transparent panels should be used to preserve those views.	Project Manager /Landscape Architect	Design/ Construction						
Noise walls will be designed to be visually compatible with the surrounding community. Architectural detailing such as pilasters, wall caps, interesting block patterns, and offset wall layouts will be used to add visual interest, reduce the apparent height of the walls, and to mee community design goals	Project Manager /Landscape Architect	During Design						
In areas where retaining walls must be placed close to the traveled way, space should be reserved between the wall an the safety barrier to include a 1.8 meters (6 feet) wide planting pocket.	Project Manager /Landscape Architect	During Design						
In situations where site conditions permit, retaining walls over 5 meters (16 feet) in height, the wall should be divide into two separate structures sufficiently	Project Manager /Landscape Architect	During Design						
Retaining walls should be located at mid slope wherever possible to provide a buffer area for landscape screening between the wall and the freeway	Project Manager /Landscape Architect	During Design						
Retaining walls that follow the contours of the topography and maintain a constant elevation at the top of wall shall be used where appropriate. This type of wall shall be visually compatible with surrounding terrain and provide room at the base for a landscape screening buffer.	Project Manager /Landscape Architect	Design/ Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Crib walls that utilize a stacking tray design should be used in place of Caltrans standard design crib walls wherever possible to provide a landscaped surface that will blend in with the surrounding landscape	Project Manager /Landscape Architect	During Design						
Architectural features, textures and colors shall be used, as determined by the District Landscape Architect, to mitigate the appearance of retaining wall surfaces. Walls shall incorporate architectural features such as pilasters and caps to provide shadow lines, provide relief from monolithic appearance, and reduce their apparent scale.	Project Manager /Landscape Architect	Design/ Construction						
Structure design shall be enhanced with architectural features and be consistent with corridor design themes developed by the District Landscape Architect	Project Manager /Landscape Architect	Design/ Construction						
Pedestrian lighting, widened sidewalks (1.8 meters-2.4 meters [5.9 feet- 7.9 feet]in width), bicycle lanes, and other urban amenities on local street portions of structures would be provided to be consistent with community values and goals	PM /LA /RE	Design/ Construction						
Slope paving at undercrossings would be enhanced with texture to deter graffiti.	PM /LA /RE	Design/ Construction						
See-through bridge rails such as the Type 80 rail (810 millimeters [32 inch] high concrete barrier with openings at bottom) would be used on the Lake Hodges and Green Valley Creek bridges	Project Manager /Landscape Architect	Design						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
The project shall receive landscaping that is consistent with the appearance of the adjacent community. In areas of the project that are characterized by ornamental landscaping, freeway landscaping that includes trees, shrubs, and groundcover should be installed. In less developed areas of the corridor, landscaping with trees and shrubs will be planted.	Project Manager /Landscape Architect	Design						
Existing median oleanders that are removed north of Citracado Parkway du to the project would be replaced by new oleanders of a medium sized variety planted in a raised bed of soil between two median barriers spaced a minimum of 2.0 meters (6.0 feet) apart.	PM /LA /RE	Design/ Construction						
Loss of shrubs and herbaceous ground cover in existing medians of split alignment would be mitigated by creatin a shrub planting area between median retaining walls and concrete barriers where the available width is of 2.0 meters (6.0 feet) or greater	PM /LA /RE	Design/ Construction						
In order to preserve desirable views anc reduce the visual scale of the freeway facility, concrete median barriers shall be Type 60S (810 millimeter (32 inch) A shaped barrier) and Type 732 (810 millimeter (32 inch) bridge barrier).	Project Manager /Landscape Architect	Design						
Slopes shall be graded 1:2 or flatter to support planting and irrigation. Grading would utilize techniques such as slope rounding, slope sculpting, and variable gradients to approximate the appearanc of natural topography	PM /LA /RE	Design/ Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Lighting and signage attachments on structures would occur at pilasters or be incorporated in other architectural features.	PM /LA /RE	Design/ Construction						
Existing freeway lighting and signage design themes for the corridor would be continued.	Project Manager /Landscape Architect	Design						
Pedestrian lighting on all overcrossings would be uniform and conform to the corridor design theme.	Project Manager /Landscape Architect	Design						
Soffit lighting would be provided on all undercrossings with pedestrian facilities.	PM /LA /RE	Design/ Construction						
Where possible, electrical and signal equipment at ramp termini would be placed in visually unobtrusive locations.	PM /LA /RE	Design/ Construction						
Barrier transfer machine facilities visible from the freeway or local streets would be screened from view with walls and/or vegetation, with the exception of the temporary parking in the median near Centre City Parkway	Project Manager /Landscape Architect	Design						
Access control fencing shall be placed in visually unobtrusive locations of interchanges and bridges. It would be coated with black vinyl where appropriate	PM /LA /RE	Design/ Construction						
Retaining walls and sound walls near right-of-way boundaries would be placed in such a way that an additional access control fence will not be needed. The “dead” spaces that occur between walls and fences should be avoided if at all possible	Project Manager /Landscape Architect	Design						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Concrete interceptor ditches shall not be placed at the toe of slopes adjacent to residential property or pedestrian use areas. Alternatives such as subterranean drainage placed below finish grade or a planted geo-reinforced drainage surface would be used	PM /LA /RE	Design/ Construction						
Concrete drainage devices located in non-landscaped areas would be colored to match the surrounding soil.	PM /LA /RE	Design/ Construction						
Soft surface alternatives to concrete ditches and rock slope protection would be utilized wherever possible.	PM /LA /RE	Design/ Construction						
Detention basins and geo-swales in ornamentally landscaped areas would b planted with visually compatible ornamental ground cover.	PM /LA /RE	Design/ Construction						
PALEONTOLOGY	Env "B"							
a qualified paleontologist should be present at the pre-construction meeting and should be present on-site during the original cutting of previously undisturbed deposits of high sensitivity formations	RE /Cultural	Pre-construction Meeting						
When fossils are discovered, the paleontological monitor should recover them which may include temporarily directing, diverting, or halting grading activities	RE /Cultural	All Phases of Construction						
Fossil remains collected during the monitoring and salvage portion of the program should be cleaned, repaired, sorted, and cataloged	RE /Cultural	All Phases of Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
A final summary report should be completed that outlines the results of the program. This report should include discussions of the monitoring methods used, stratigraphic section(s) explosed, fossils collected, and significance of recovered fossils	RE /Cultural	All Phases of Construction						
Impacts to paleontological resources will be minimized through construction monitoring, fossil recovery, laboratory analysis, report preparation and curation	RE /Cultural	All Phases of Construction						
PARKS & RECREATION	Env "A"							
Within 60 days of the completion of the abutment work at Kit Carson Park, the park will be returned to the same condition as was found prior to grading. All vegetation that would be removed during construction would be restored in kind. This would include a 3 year plant establishment period.	RE / PM	Widening of Beethoven Dr / Del Lago						
Every effort should be made to minimize the temporary construction impacts to the trail at Lake Hodges.	RE / Generalist	All Phases of Construction						
In the event that a full closure of the trail is required for work over the trail, coordination with JPA would occur to ensure that trail users are notified prior	RE / Generalist	All Phases of Construction						
To minimize interference with trail operations, major construction equipment accessing the lake bed would be permitted to cross the trail only in the early morning and late evening when there is less traffic on the trail.	RE / Generalist	All Phases of Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
In the event that smaller equipment would need to be brought across the Lake Hodges Bike Trail during open hours, construction personnel and appropriate signage would be located at either end of the trail to inform users.	RE / Generalist	All Phases of Construction						
The Lake Hodges Bike trail will remain open on weekends, holidays, and for special events	RE / Generalist	All Phases of Construction						
Lighting will be installed under the Lake Hodges Bridge to help eliminate tunnel effects and to improve safety underneath the proposed structure.	RE / PM	All Phases of Construction						
BICYCLISTS & PEDESTRIANS								
To minimize interference with the Mira Mesa bike path operations, construction equipment would be permitted to only cross the trail, at designated areas, in the early morning and late evening when there is minimal traffic on the trail	RE / Generalist	All Phases of Construction						
structures will be upgraded to provide for enhanced bicycle and pedestrian features including lighting, wider sidewalks, full standard shoulder widths and standard class 1,2, or 3 bike lanes.	Project Manager /Landscape Architect	Design						
CONSTRUCTION								
Near sensitive receptors, night work would be confined to a maximum of five consecutive nights at any given location. Between consecutive periods of work, a minimum of two weeks will be given prior to initiating additional work.	RE/Env. C	All Phases of Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
Sound walls and berms will be constructed prior to opening lanes to traffic	RE/Env. C	All Phases of Construction						
Maintenance yards, batch plants, haul roads, and other construction-oriented operations would be placed in locations that would be the least disruptive to the community. None will be allowed where construction mean peak noise levels would be increased more than 3 dBA. Noise monitoring would be required	RE/Env. C	All Phases of Construction						
Community meetings would be held to explain to the area residents about the construction work, time involved, and the control measures to be taken to reduce the impact of the construction work.	RE / PM	All Phases of Construction						
No pile driving would occur between the hours of 7:00 p.m. and 7:00 a.m., on weekends, or on any State or Federal holidays.	RE/Env. C	All Phases of Construction						
Portable noise screens would be used to provide shielding for generators or other similar portable construction equipment when work is close to noise-sensitive areas.	RE/Env. C	All Phases of Construction						
Public notification would be used to help educate individuals within the corridor about the project and delays that they may face	RE / PM	All Phases of Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
During construction, impacts to traffic would be mitigated through the use of many different TMP strategies including public notification, providing motorist information, prompt incident management, construction techniques, and through demand management strategies.	RE / PM	All Phases of Construction						
Public notification would be used to help educate individuals within the corridor about the project and delays that they may face. Public notification strategies that could be used are brochures and mailers, media releases and paid advertising, public Information Centers, public meetings, telephone Hotline, and internet - Project Web Page	RE / PM	All Phases of Construction						
Notify motorists out on the road of alternate routes, detours, and of any potential delays thorugh the use of changeable message signs, portable changeable message signs, ground mounted signs, and highway advisory radio.	RE / PM	All Phases of Construction						
Construction Zone Enhancement Enforcement Program (COZEEP), freeway Service Patrol (FSP), traffic Management Team (TMT), and on-site traffic monitor (Contractor) would be employed to aid in incident management:	RE / PM	All Phases of Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
To facilitate construction staging to ensure that the different construction contracts do not create additional traffic impacts coordination of all construction projects within the corridor with the managed lanes schedule, developing timing plan for critical operation completion, development of lane closure charts to limit lane closures during peak traffic periods	RE / PM	All Phases of Construction						
Include incentive clauses for early completion and include damage clause for late opening of lane closures in contract	RE / PM	All Phases of Construction						
adjacent ramp closures would not be permitted at the same time.	RE / PM	All Phases of Construction						
Staged replacement of all but two of the overcrossing bridges (half at a time); to allow for continued but reduced traffic flow, no concurrent bridge overcrossing construction would be permitted where staged bridge replacement would detour traffic on the adjacent bridge structure	RE / PM	All Phases of Construction						
have contingency plans to manage alternate material on-site, excess equipment, emergency detours and incidents, use of detours where necessary	RE / PM	All Phases of Construction						
Demand management strategies including use of park and ride lots, fund additional transit service, rideshare marketing, and use of ramp metering would be used to help reduce the number of individuals utilizing the lanes during the construction period	RE / PM	All Phases of Construction						

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
To reduce air quality impacts during site preparation minimize land disturbances, use watering trucks to minimize dust, cover trucks when hauling dirt, stabilize the surface of dirt piles, if not removed immediately, use windbreaks to prevent any accidental dust pollution, Limit vehicular paths and stabilize temporary roads; and pave all construction roads and parking areas for a length no less than 15.2 meters (50 feet) where they exit construction sites to limit dirt on paved roadways	RE/Env. C	site preparation						
To reduce air quality impacts during Construction the following measures should be used: cover trucks when transferring materials, use dust suppressants on traveled paths which are not paved, minimize unnecessary vehicular and machinery activities, minimize dirt track-out by washing or cleaning trucks before leaving the construction site (alternative to this strategy is to pave a few hundred feet of the exit road, just before entering the public road)	RE/Env. C	Construction						
To reduce air quality impacts post construction the following measures should be used:Revegetate any disturbed land not used, remove unused material, remove dirt piles, Revegetate all vehicular paths created during construction to avoid future off-road vehicular activities	RE/Env. C	Post-Construction						
PERMITS								
U.S. Army Corps	Stewardship							
N/A								
CA Department of Fish and Game	Stewardship							
N/A								
Coastal Commission	Stewardship							

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
				Initial	Date		Initial	Date
N/A								
U.S. Fish and Wildlife	Env "B"							
N/A								
FLOODPLAIN								
Limit the area affected by construction to minimum necessary through the use of barriers or fences to protect sensitive areas	RE / Hydraulics	All Phases of Construction						
Employing BMPs to control erosion and runoff	Re / NPDES	All Phases of Construction						
Designate and restrict access to Environmentally Sensitive Areas (ESA)	RE	All Phases of Construction						
HAZARDOUS WASTE	Env "C"							
If hazardous waste is discovered during construction, the resident engineer will take appropriate actions, which may include but not be limited to halting work in the area of concern, flagging the area and notifying the Department's District Hazardous Waste Coordinato	RE / Env "C"	All Phases of Construction						
The Department's District Hazardous Waste Coordinator will take appropriate actions which may include but not be limited to calling a hazardous materials (HAZMAT) team from San Diego County, contacting a certified laboratory to sample and identify the hazardous waste	RE / Env "C"	All Phases of Construction						
All established procedures for clean-up will be followed	RE / Env "C"	All Phases of Construction						

PROJECT PERSONNEL

Initial	Full Name	Title	Phone Number	Assigned to Project	Tranferred from Project	Remarks
				Date	Date	
	Larry Carr	Project Manager	688-3167			
	David Nagy	Environmental Coordinator	688-6830			
	Thomas Krenbeh	Construction Liason	688-6763			
	Kim Miller	District Biologist	688-6993			
	Karen Crafts	District Archaeologist	688-6013			
		Construction Senior				
		Resident Engineer				

Appendix G Noise Data

TABLE 2-1: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENTS 1, 2 AND 3

Segment Number: Inter-changes	Noise Barrier ID (if applicable)	Free-way Side (East or West)	Site ID	Site Address	Existing Conditions: Max Measured L_{eq} (dBA)	Existing Conditions: Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Existing Conditions: Noise Level Exceeds Cat. B NAC?	Existing Conditions: K-Factor (dBA)	Future Conditions With K-Factor: No Abatement L_{eq} (dBA)	Future Conditions With K-Factor: Noise Level Exceeds Cat. B NAC?	Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	Edge of Shoulder: 1.83 m (6 ft)	Edge of Shoulder: 2.44 m (8 ft)	Edge of Shoulder: 3.05 m (10 ft)	Edge of Shoulder: 3.66 m (12 ft)	Edge of Shoulder: 4.27 m (14 ft)	Edge of Shoulder: 4.88 m (16 ft)	Noise Levels with Right-of-Way Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	Right-of-Way: 1.83 m (6 ft)	Right-of-Way: 2.44 m (8 ft)	Right-of-Way: 3.05 m (10 ft)	Right-of-Way: 3.66 m (12 ft)	Right-of-Way: 4.27 m (14 ft)	Right-of-Way: 4.88 m (16 ft)	Description of Most Effective Soundwall (Location and Height)
1: Miramar to Carroll Canyon	1-1	W	103	9745 Mesa Springs Way	67	68	yes	0	71	yes	2.9	71	71	70	68	67	66	2.4	,69	68	67	66	65	64	12' at R/W
		W	102	9745 Mesa Springs Way	65	65	no	0	67	yes		66	65	65	64	64	63		66	65	64	63	63	63	12' at R/W / Top of Slope
		W	101	9715 Mesa Springs Way	67	66	yes	0	67	yes	2.5	67	66	66	65	64	63	4.1	66	65	64	63	63	62	16' at R/W
		W	100	9715 Mesa Springs Way	69	71	yes	0	72	yes		72	72	71	70	69	68		70	69	68	67	66	65	
		W	105C	10208 Maya Linda Rd	66	69	yes	-2	69	yes		69	69	69	69	69	68		69	68	67	66	65	64	
		W	105B	10208 Maya Linda Rd	69	71	yes	0	71	yes	3.2	70	70	69	69	68	67	2.3	70	70	68	67	66	65	14' at R/W
2: Carroll Canyon to Mira Mesa Blvd	2-1	W	105	10208 Maya Linda Rd	69	70	n/a [2]	0	71	n/a [2]	< 1.5	69	68	67	66	65	65	< 1.5	70	68	67	66	64	64	16' at R/W
		W	105A	10208 Maya Linda Rd	68	67	yes	-1	68	yes	< 1.5	67	66	65	64	64	63	< 1.5	67	66	66	65	64	63	
		W	1105	10208 Maya Linda Rd		70	yes	0	71	yes	< 1.5	70	69	68	68	67	66	< 1.5	71	70	69	68	67	67	
		W	104	10208 Maya Linda Rd	74	75	n/a [2]	0	78	n/a [2]	< 1.5	74	72	71	69	68	68	< 1.5	75	72	69	68	67	67	12' at E/S (transitions)
		W	104A	10208 Maya Linda Rd	72	72	yes	-1	75	yes	< 1.5	72	71	70	69	68	67	< 1.5	73	71	70	68	68	67	
		W	1303-1	10320 Maya Linda Rd		66	yes	0	71	yes	1.8	67	66	65	64	63	63								8' at E/S
		W	303	10340B Maya Linda Rd.	65	68	yes	0	73	yes	1.8	69	67	66	65	64	63								
		W	1303-2	10360 Maya Linda Rd		68	yes	0	72	yes	1.8	68	67	65	64	63	63								
		W	302	10380C Maya Linda Rd.	65	68	yes	0	72	yes	2.7	68	66	65	64	63	63								
		W	1302-1	10420 Maya Linda Rd		70	yes	0	74	yes	2.7	70	69	67	66	65	64								
		W	1302-2	10440 Maya Linda Rd		69	yes	0	73	yes	2.7	69	68	66	65	64	63								
		W	301/301R	10480 Maya Linda Rd.	70	71	yes	0	74	yes	2.7	71	69	68	67	66	65								
		W	1301	10480 Maya Linda Rd		70	yes	0	74	yes	2.7	71	69	68	67	66	65								
		W	300/300R	9889 Erma Road	69	71	yes	0	75	yes	2.7	72	70	69	68	67	66								
3: Mira Mesa to Mercy/ Scripps	n/a	W	1112	11297 Spitfire Rd.		60	no	-4	60	no		58	58	57	57	56	56		60	60	60	60	60	60	DNQ [1]
		W	112	11331 Spitfire Rd.	56	58	no	-4	60	no	1.8	58	58	57	57	56	56	<1.5	60	60	60	60	60	60	
		W	112A	11310 Spitfire Rd.	60	63	no	0	64	no		63	62	62	61	60	59		64	64	64	64	64	64	
		W	113	11341 Spitfire Rd.	60	61	no	0	63	no		62	61	61	60	60	60		63	63	63	63	63	63	
		W	114	11365 Spitfire Rd.	53	61	no	0	63	no	<1.5	62	62	61	61	60	60	3.2	63	63	63	63	63	63	
		W	114A	11390 Spitfire Rd.	62	60	no	-3	62	no		61	60	59	58	57	57		62	62	62	62	62	62	
		W	115A	11397 Spitfire Rd.	61	63	no	0	65	no		64	63	62	61	60	60		65	65	65	65	65	65	
		W	116	11445 Spitfire Rd.	53	57	no	-8	59	no		58	57	56	54	53	53		59	59	59	59	59	59	
	3-1	E	106	9848 Erma Drive	68	71	yes	-2	71	yes	4	71	71	71	71	71	70	<1.5	70	70	69	68	67	66	16' at R/W
		E	3	9899 Scripps Westview	75	74	yes	0	75	yes		74	74	74	74	74	73		73	72	71	70	69	68	
		E	107	9899 Erma Way	75	75	n/a [3]	0	75	n/a [3]	PLEASE REFER TO TABLE 2-1A FOR THE DATA FOR THESE SITE ID'S														DNQ [1]
	3-2	E	108	9895 Scripps Westview	73	74	n/a [3]	0	75	n/a [3]															12' at E/S
		E	1002	9889 Scripps Westview		82	n/a [3]	6	83	n/a [3]															
		E	2A	9889 Scripps Westview	78	78	n/a [3]	3	79	n/a [3]															
		E	2	9889 Scripps Westview	79	81	n/a [3]	6	81	n/a [3]															
		E	1109	9906 Scripps Westview		79	n/a [3]	4	80	n/a [3]															
		E	109	9906 Scripps Westview	77	79	n/a [3]	4	80	n/a [3]															
	3-3	E	1110	9926 Scripps Westview		80	n/a [3]	4	80	n/a [3]															14' at R/W
		E	110	9926 Scripps Westview	75	76	n/a [3]	4	77	n/a [3]															
		E	1A	10070 Scripps Vista Way	70	71	yes	-1	72	yes		72	71	70	69	67	66		71	70	69	68	67	66	
		E	1	10070 Scripps Vista Way	65	64	no	-1	65	no		65	65	64	64	64	63		64	64	64	64	63	63	
		E	111	10040 Scripps Vista Way	67	67	yes	-1	67	yes	3.1	67	67	67	66	65	64	6.3	67	67	66	66	65	64	
		E	117	10020 Scripps Vista Way	66	69	yes	-1	70	yes		70	70	70	69	69	68		70	68	67	66	65	64	
		E	3A	9899 Scripps Westview	68	72	yes	0	72	yes	3.5	72	72	72	71	70	69	<1.5	71	70	68	67	66	65	12' at R/W
		E	118	9990 Scripps Vista Way	59	62	no	-3	63	no	3.5	63	63	63	63	62	61	<1.5	61	59	59	58	58	57	

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}.

1 - DNQ - Does not qualify for consideration of noise abatement; does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h).

2 - Not Applicable. The site is not representative of a noise-sensitive land use.

3 - Not Applicable. The site is not representative of an Activity Category B land use. Site is representative of an Activity Category E land use (interior noise standard). Please refer to Table 2-1A.

TABLE 2-1A: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENT 3

Segment Number: Inter-changes	Noise Barrier ID (if applic-able)	Free-way Side (East or West)	Site ID	Site Address	Existing Conditions						Future Conditions With K-Factor																Description of Most Effective Soundwall (Location and Height)
													Interior Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA)							Interior Noise Levels with Right-of-Way Soundwall (L_{eq} dBA)							
					Max Exterior Measured L_{eq} (dBA)	Modeled Existing Exterior Peak-Noise Hour L_{eq} (dBA)	Measured Interior Noise Level (Windows Closed) (dBA)	Measured Insertion Loss (dBA)	Interior Noise Level Exceeds Cat. E NAC?	K-Factor (dBA)	No Abatement Interior L_{eq} (dBA)	Interior Noise Level Exceeds Cat. E NAC?	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	
	3-1	E	107	9899 Erma Way	75	75	50	25	No	0	50	no															DNQ
		E	108	9895 Scripps Westview	73	74	49	25	No	0	50	no															
		E	1002	9889 Scripps Westview		82	57	25	yes	6	58	Yes		57	56	55	53	52	51		58	57	57	56	55	54	12' at E/S
	3-2	E	2A	9889 Scripps Westview	78	78	53	25	yes	3	54	Yes	3.2	54	52	51	49	48	47	4.9	54	54	54	54	52	51	
		E	2	9889 Scripps Westview	79	81	56	25	yes	6	n/a [2]	n/a [2]		56	54	52	51	50	49		56	56	56	55	54	52	
		E	1109	9906 Scripps Westview		79	54	25	yes	4	55	Yes		55	53	51	50	49	48		55	55	55	55	54	52	
		E	109	9906 Scripps Westview	77	79	54	25	yes	4	55	Yes		54	53	51	50	48	47		54	54	54	53	53	51	
	3-3	E	1110	9926 Scripps Westview		80	55	25	yes	4	55	Yes		54	53	52	51	49	48		55	53	52	51	50	49	14' at R/W
		E	110	9926 Scripps Westview	75	76	51	25	No	4	52	Yes	3.5	51	50	50	49	48	46	2.4	51	50	50	48	47	46	

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}

1 - DNQ - Does not qualify for consideration of noise abatement, does not approach or exceed the NAC for Category E land uses of 52 dBA L_{eq} (h)

2 - Not Applicable. The site is not representative of a noise-sensitive land use

TABLE 2-2: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENTS 4, 5

Segment Number: Inter-changes	Noise Barrier ID (if applicable)	Free-way Side (East or West)	Site ID	Site Address	Existing Conditions				Future Conditions With K-Factor																							
											Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA)							Noise Levels with Right-of-Way Soundwall (L_{eq} dBA)							Noise Levels with Property Line Soundwall (L_{eq} dBA)							
					Max Measured L_{eq} (dBA)	Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Noise Level Exceeds Cat. B NAC?	K-Factor (dBA)	No Abatement L_{eq} (dBA)	Noise Level Exceeds Cat. B NAC?	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Description of Most Effective Soundwall (Location and Height)
4: Mercy/ Scripps to Poway Road/ Rancho Penas-quitos	4-1A,B	W	306	9860 Mercy Road	65	66	yes	0	68	yes		66	66	65	64	63	62															
		W	305	9854 Mercy Road	64	66	yes	0	69	yes	2.7	67	67	65	64	63	62															14' at E/S
		W	304	9848 Mercy Road	63	63	no	0	66	yes	1.8	64	64	63	62	61	60															
		W	304A	9933 Kika Ct.	55	58	no	-2	61	no		60	59	58	57	57	56															
		W	307	9842 Mercy Road	61	55	no	-8	58	no		57	56	55	54	53	52															
	4-1B	W	304B	9905 Kika Ct.	57	60	no	-1	63	no		62	61	60	59	58	58															14' at E/S
		W	119	9980 Kika Ct.	61	63	no	0	65	no		64	63	62	61	61	60															
		W	120	9946 Kika Ct.	65	65	no	0	66	yes	<1.5	66	65	64	63	62	62															
		W	120A	9946 Kika Street	59	63	no	-1	65	no		64	63	62	61	60	60															
		W	120B	9946 Kika Street	61	65	no	0	67	yes	<1.5	66	65	64	63	62	61															
		W	121	9952 Kika Ct.	65	66	yes	0	69	yes	1.8	68	66	65	65	64	63															
	n/a	W	1122-2	9741 Paseo Montril		61	no	0	62	no																						DNQ [1]
	4-2	W	1122-1	9749 Paseo Montril		64	no	0	66	yes															<1.5	63	61	59	58	57	56	8' at P/L
		W	122A/AR	9765 Paseo Montril	67	69	yes	0	70	yes															<1.5	67	64	62	60	59	58	
		W	123A	9811 Paseo Montril	67	68	yes	0	70	yes															<1.5	67	65	63	61	59	58	
		W	124A	9829 Paseo Montril	73	74	yes	0	76	yes															<1.5	76	76	76	76	76	76	10' at P/L
		W	125/125R	9829 Paseo Montril	66	67	yes	0	68	yes															<1.5	67	65	62	61	60	59	
		W	1125-2	9841 Paseo Montril	0	65	no	0	66	yes															<1.5	64	63	61	61	60	59	
5: Poway Road/ Rancho Penas-quitos Blvd to SR 56 (Ted Williams Pkwy)	n/a	W	126	10273 Via del Sud	61	61	no	0	63	no																						DNQ [1]
		W	127A	10289 Ave. Grande	62	63	no	0	65	no																						
		W	128	13035 Via del Sud	57	64	no	0	65	no																						
		W	129	10329 Azuaga St.	57	59	no	-3	61	no																						
		W	130	10341 Azuaga St.	59	59	no	-4	61	no																						
	5-1	W	5	10365 Azuaga St.	65	65	no	0	66	yes	<1.5	66	66	66	66	66	66								1.5	66	65	63	62	60	59	14' at Existing Soundwall Location
	n/a	W	131	10377 Azuaga St.	63	63	no	0	65	no															1.5	65	64	62	60	58	57	DNQ [1]
		W	308	Ted Williams Pkwy O/R	60	61	no	-8	61	no		61	60	60	59	59	58															
		W	309	Ted Williams Pkwy O/R	57	60	no	-5	60	no		60	60	59	59	58	58															

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}

1 - DNQ - Does not qualify for consideration of noise abatement, does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h)

TABLE 2-3: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENT 6

Segment Number: Inter-changes	Noise Barrier ID (if applic-able)	Free-way Side (East or West)	Site ID	Site Address	Existing Conditions: Max Measured L_{eq} (dBA)	Existing Conditions: Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Existing Conditions: Noise Level Exceeds Cat. B NAC?	Existing Conditions: K-Factor (dBA)	Future Conditions (With K-Factor): No Abatement L_{eq} (dBA)	Future Conditions (With K-Factor): Noise Level Exceeds Cat. B NAC?	Noise Levels w/ Edge of Shoulder Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	Noise Levels w/ Edge of Shoulder Soundwall (L_{eq} dBA): 1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels w/ Right-of-Way[1] Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels w/ Property Line Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Modified Berm	Description of Most Effective Soundwall (Location and Height)
6: SR-56 (Ted Williams Pkwy) to Carmel Mountain Rd		W	1312	Caminito Sulmona		57	no	0	63	no		63	63	63	63	62	62		62	61	60	60	59	59									DNQ [3]
	n/a	W	332	10514 Caminito Sulmona	57	57	no	0	62	no		62	62	62	62	62	62		62	62	61	61	60	60									Not Feasible
		W	311	13859 Via Rimini	63	66	yes	0	68	yes	1.9	68	68	67	67	66	66	4.0	68	68	68	68	67	65	<1.5	68	68	68	68	67	65		14' at P/L / R/W
	6-1	W	1310	13883 Via Rimini		66	yes	-1	68	yes		68	68	68	68	67	67		68	67	66	64	63	62		68	67	66	64	63	62		16' at P/L / R/W
		W	310	13899 Via Rimini	62	65	no	-1	68	yes	7.8	68	68	68	68	67	67	<1.5	66	65	63	62	62	61	<1.5	68	68	66	65	64	63		10' at P/L
	6-2	W	1132	14022 Caminito Almonte		72	yes	3	74	yes		74	74	74	73	73	73		74	73	73	72	70	69		72	71	69	68	67	66		
		W	132	14020 Caminito Almonte	73	75	n/a [2]	3	77	n/a [2]																							
		W	6	11093 Via San Marco	70	68	yes	0	70	yes	8.2	70	70	70	70	70	70	5.3	70	70	70	70	70	70	2.1	70	69	66	65	63	62		12' at P/L
		W	1133-1	11094 Via San Marco		69	yes	0	71	yes		71	71	71	71	71	71		71	71	71	71	69	68		71	69	67	65	63	62		
		W	133	14187 Conluito Quevedo	68	69	yes	0	72	yes	4.7	72	72	72	71	71	71	3.4	72	72	72	72	71	71	<1.5	72	70	68	67	65	64		
		W	1133-2	14203 Caminito Quevedo		70	yes	0	75	yes		75	74	73	72	71	70		75	75	75	75	74	70		75	75	71	67	65	63		
	6-3	W	134	10955 Carmel Mountain Rd	66	65	no	0	73	yes	3.4	73	72	71	70	68	67	5.8	73	73	72	71	70	68								67	Modified Berm
		W	1134	10955 Carmel Mountain Rd		65	no	0	75	yes		75	74	72	71	69	68		75	75	74	73	71	70								69	
		W	3135-1	10955 Carmel Mountain Rd		64	no	0	74	yes		74	73	71	70	69	67		74	73	72	71	70	68								67	
		W	135	10955 Carmel Mountain Rd	64	64	no	0	74	yes	3.2	74	73	72	70	69	68	<1.5	74	74	72	71	70	68								67	
		W	8	10955 Carmel Mountain Rd	63	64	no	-2	69	yes		68	68	68	68	67	66		69	68	68	68	68	67								67	
		W	1135-2	10955 Carmel Mountain Rd		67	yes	0	76	yes		75	74	73	72	71	69		75	75	74	73	72	70								69	
		W	136	10955 Carmel Mountain Rd	65	68	yes	0	75	yes	3.6	75	74	73	72	71	70	2.5	75	75	74	74	73	71								70	
		W	1136	10955 Carmel Mountain Rd		66	yes	0	74	yes		74	73	72	70	69	68		74	74	73	71	70	69								69	
		W	137	10955 Carmel Mountain Rd	63	67	yes	0	74	yes	3.2	74	73	71	70	69	67	2.9	74	73	72	70	69	68								69	
		W	1137	10955 Carmel Mountain Rd		65	no	0	74	yes		74	72	70	69	68	67		74	72	70	69	68	67								68	
		W	7	10955 Carmel Mountain Rd	62	64	no	0	71	yes		71	69	68	67	66	66		71	69	68	67	66	66								66	
		W	316	10955 Carmel Mountain Rd.	60	62	no	-2	67	yes		67	67	67	66	65	64		67	67	67	66	65	64								64	
		W	315	10955 Carmel Mountain Rd.	66	66	yes	0	73	yes	3.3	72	72	71	70	68	67	2.3	72	72	71	70	68	67								68	
		W	1314	10955 Carmel Mountain Rd		67	yes	-1	73	yes		73	72	71	70	68	67		73	72	71	69	68	67								68	
		W	314	10955 Carmel Mountain Rd.	62	64	no	-1	69	yes	3.3	68	68	67	66	65	64	3.2	68	68	67	66	65	64								66	
	n/a	W	313	14340 Penasquitos Dr.	67	58	n/a [2]			n/a [2]																							n/a [2]
	6-4	E	138B	Adj to 10282 Rancho Carmel Dr	62	64	no	0	66	yes		66	65	64	63	62	61																16' at E/S [4]
		E	138A	Adj to 10282 Rancho Carmel Dr	62	64	no	-1	66	yes		65	64	63	62	61	60																
		E	1138-1	10278 Rancho Carmel Dr		65	no	0	66	yes		66	65	64	63	62	61									66	65	64	64	64	63		
		E	138	10282 Rancho Carmel Dr	63	65	no	0	67	yes	3.2	66	66	64	63	62	62								1.8	67	66	63	62	60	59		
		E	1138-2	10296 Rancho Carmel Dr		65	no	0	67	yes		66	66	64	64	63	62									67	64	61	60	59	59		
		E	139	10320 Rancho Carmel Dr	58	65	no	0	67	yes	<1.5	66	66	65	64	63	62								3.0	67	67	65	63	61	59		
		E	139Alt	10314 Rancho Carmel Dr	63	65	no	0	67	yes		66	66	65	64	63	62									67	67	66	64	62	61		
		E	1139	1525 Tanglewood		65	no	0	67	yes		67	66	65	64	63	62									67	67	67	64	62	60		
		E	1140-1	10326 Rancho Carmel Dr		62	no	-3	64	no		64	63	62	61	60	59									64	61	59	57	55	54		
		E	140	10326 Rancho Carmel Dr	57	62	no	-3	65	no	3.1	64	63	62	61	60	60								1.4	65	64	61	59	57	56		
		E	1140-2	Rancho Carmel Dr		62	no	-3	64	no		64	63	62	61	60	60									64	63	61	59	58	56		
		E	141	10388 Rancho Carmel Dr	57	59	no	-4	62	no	3.2	62	61	61	60	59	58		62	62	61	61	61	61	1.4	62	61	59	57	56	55		
		E	1141	Rancho Carmel Dr		58	no	-4	61	no		61	61	60	60	59	58		61	61	60	60	60	60		60	60	60	59	57	56		
		E	1142	1525 Tanglewood		61	no	-2	64	no		64	64	64	63	63	62		64	64	63	62	62	61									16' at Existing Berm Location
		E	142A	14042 Chicarita Creek	59	62	no	-2	66	yes	3.3	66	66	65	65	64	63		65	65	64	63	63	62									
		E	143A	14076 Chicarita Creek	68	63	no	-1	69	yes	2.9	69	69	68	67	66	65		68	67	66	65	64	63									
		E	1143	14134 Chicarita Creek		62	no	-1	67	yes		67	67	67	66	65	64		66	65	64	63	63	62									
		E	144	14136 Chicarita Creek	62	63	no	0	66	yes	2.5	66	66	66	66	66	65		66	65	64	64	63	63									
	n/a	E	1144	14174 Chicarita Creek		63	no	0	65	no		65	65	65	65	65	65		65	64	64	64	63	63									DNQ [3]
		E	145	14192 Chicarita Creek	67	63	no	0	65	no		65	65	65	65	64	64		64	64	63	63	63	62									
		E	1145	14222Z Chicarita Creek		61	no		63	no		63	63	63	63	63	63		63	63	63	62	62	61									
		E	9	14228 Woodbrush Rd	58	61	no	0	64	no		64	64	64	64	64	63		64	64	63	62	62	61									
		E	146	14234 Chicarita Creek	63	63	no	0	68	yes		67	67	66	65	65	64		68	67	67	66	65	64									n/a [5]

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}.

1 - Right-of-way soundwall location, or (for those cases in which a barrier located at the right-of-way would be ineffective because of site geometry) an intermediate location such as atop an existing berm within Caltrans right-of-way.

2 - Not Applicable. The site is not representative of a noise-sensitive land use.

3 - DNQ - Does not qualify for consideration of noise abatement; does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h).

4 - A 4.88 meter (16 foot) high soundwall constructed at the edge of shoulder (E/S) would provide the minimum 5 decibel insertion loss necessary in order to be considered feasible. Construction of a 4.88 meter high wall at the E/S would require completion of a fact sheet in order to comply with the provisions of Chapter 1100 (see also Section 82.2, "Approvals for Non Standard Design" of the Caltrans Highway Design Manual, 5th edition., July 1, 1995).

5 - Land use in question is hotel/motel. While subject to Category B NAC, there are no apparent exterior living use areas adjacent to the freeway. Based upon prior measurements for similar construction types, interior noise levels would be below interior NAC of 52 dBA L_{eq} (h)

TABLE 2-4: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENTS 7, 8

Segment Number: Inter-changes	Noise Barrier ID (if applicable)	Freeway Side (East or West)	Site ID	Site Address	Existing Conditions: Max Measured L_{eq} (dBA)	Existing Conditions: Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Existing Conditions: Noise Level Exceeds Cat. B NAC?	Existing Conditions: K-Factor (dBA)	Future Conditions (With K-Factor): No Abatement L_{eq} (dBA) [4]	Future Conditions: Noise Level Exceeds Cat. B NAC?	Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels with Right-of-Way[1] Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels with Property Line Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Description of Most Effective Soundwall (Location and Height)
7 Carmel Mountain Rd to Camino del Norte	7-1 Alt	W	GC-1	14555 Penasquitos Dr		71	yes	0	72	yes									71	70	69	67	66	65								14' at R/W / Top of Berm Feature
		W	GC-2	14555 Penasquitos Dr		70	yes	0	70	yes									69	69	68	67	66	66								
		W	GC-3	14555 Penasquitos Dr		70	yes	0	68	yes									66	66	65	64	63	63								
	n/a	W	GC-4	14555 Penasquitos Dr		67	yes	0	63	no																						DNQ [2]
		W	GC-5	14555 Penasquitos Dr		71	yes	0	65	no																						
		W	147	15025 Andorra Way	57	60	no	-3	62	no																						
		W	148	15081 Andorra Way	61	64	no	0	64	no																						
		W	149	15205 Andorra Way	63	65	no	-1	63	no								3.4	62	62	61	61	61	61	1.5	63	62	61	60	58	57	
	7-1	W	150	15255 Andorra Way	72	72	yes	0	72	yes								5.5	72	71	70	69	68	67	1.5	70	67	65	63	62	61	14' at P/L
		W	151	15305 Andorra Way	67	70	yes	0	70	yes								2.7	69	68	68	67	66	66	1.5	69	68	67	66	64	63	
		W	1151	Andorra Way		66	yes	0	67	yes								4.3	67	67	66	66	65	65	1.5	67	66	64	63	62	61	
	n/a	W	152	15304 Paseo Ajanta	56	58	no	-2	60	no																						DNQ [2]
		W	13	15314 Paseo Ajanta	52	55	no	-4	58	no																						
		W	153A	15346 Paseo Ajanta	57	59	no	0	63	no																						
		W	154	15404 Paseo Ajanta	51	53	no	-2	61	no																						
		W	32	11397 Paseo Albacete	52	54	no	-1	61	no																						
		W	155	15494 Paseo Ajanta	47	49	no	-4	53	no																						
		W	156	11253 Corte Montanoso	57	60	no	-2	63	no																						
		W	157	Corte Montanoso		61	no	-1	64	no																						
8 Camino del Norte to Bernardo Center Dr (southern crossing)	8-1A, B	W	1358	Lofty Trail Ct.		65	no	0	66	yes		63	64	63	62	63	60		66	66	66	66	66	66		66	66	66	66	66	65	14' at E/S
		W	158	15508 Lofty Trail Ct	64	65	no	0	66	yes	2.2	65	64	63	62	61	60	6.0	66	66	66	66	66	66	2.0	66	66	66	65	65	63	
		W	159	15717 Lofty Trail Ct.	60	63	no	-2	64	no		63	62	61	60	59	58		64	64	64	64	64	64		64	64	64	64	63	63	
		W	160	15765 Lofty Trail Dr	63	65	no	0	65	no	3.7	64	63	63	62	61	60	10.6	65	65	65	65	65	65	2.5	65	65	65	65	65	64	16' at E/S [3]
		W	161	15813 Lofty Trail Dr	64	67	yes	0	66	yes		65	65	64	63	62	61		66	66	66	66	66	66		66	66	66	65	63	62	
		W	165A	15853 Lofty Trail Dr	67	69	yes	-1	71	yes	4.6	70	68	68	66	65	64	6.2	71	71	71	71	71	71	2.0	71	71	69	68	66	65	12' at E/S [3]
	8-2	W	1365	Lofty Trail Dr		67	yes	-3	69	yes		69	69	69	69	68	68		69	69	69	69	69	69		69	68	67	66	66	65	10' at P/L
		W	166	11515 Windy Summit	68	68	yes	0	70	yes	8.3	70	70	70	70	70	70	5.5	70	70	69	68	67	66	<1.5	68	66	64	62	61	60	
		W	1166	Windy Summit		69	yes	0	71	yes		71	71	71	71	70	70		70	70	70	69	69	68		69	66	64	63	62	61	
		W	167	15945 Lofty Trail Dr	65	68	yes	0	69	yes	7.6	69	69	69	69	69	69	4.7	69	69	69	68	68	67	<1.5	67	64	62	60	59	58	
		W	168	15991 Lofty Trail Dr	66	69	yes	0	70	yes		70	70	70	69	69	69		70	70	69	69	69	69		68	66	64	63	61	60	
		W	1168	16029 Lofty Trail Dr		70	yes	0	70	yes		70	70	70	70	69	69		70	70	70	70	70	69		68	65	64	62	61	60	
		W	169	16403 Lofty Trail Dr	65	68	yes	-3	68	yes	10.0	68	68	68	68	68	68	7.3	68	68	68	68	68	68	<1.5	66	64	62	61	60	59	
		W	170	11525 Eaglesview	71	70	yes	0	70	yes		70	70	69	69	69	69		70	70	70	70	70	69		66	64	62	61	60	59	
		W	171	10525 Earthstar Ct	70	70	yes	6	71	yes		71	70	70	70	70	70		71	71	71	71	71	70		69	67	66	65	65	65	
		W	1171	10512 Earthstar Ct		71	yes	6	72	yes		72	72	72	72	72	72		72	72	72	72	72	72		70	69	67	66	66	65	
		W	1172-1	16165 Lofty Trail Dr		60	no	0	62	no		62	62	62	62	62	62									60	59	58	58	58	57	
		W	18	16133 Lofty Trail Dr	60	57	no	0	59	no		59	59	59	59	59	59									58	57	57	56	56	56	
		W	172A	16149 Lofty Trail Dr	64	69	yes	0	70	yes	15.5	70	70	69	69	69	69								<1.5	66	63	61	59	58	57	
		W	1172-2	16165 Lofty Trail Dr		68	yes	0	70	yes		69	69	69	69	69	68									66	63	60	58	57	57	
		W	173	16181 Lofty Trail Dr	61	64	no	-3	66	yes	8.0	66	66	66	66	66	65								<1.5	63	61	59	58	57	56	
		W	1173	11488 Turtleback		64	no	-1	66	yes		66	66	66	66	66	66									66	64	61	59	57	57	
		W	174A	11476 Turtleback	62	66	yes	0	68	yes		68	68	68	68	68	68									67	65	63	61	59	58	
		W	17	11464 Turtleback	53	56	no	-2	58	no		58	58	58	58	58	58									58	57	56	56	55	55	
		W	175	11452 Turtleback	60	63	no	-2	65	no	7.5	65	65	65	65	65	65								<1.5	65	64	60	58	56	55	
	8-3	E	1162	Avenida Sivrita		66	yes	-2	67	yes		67	67	68	67	67	66		67	66	65	64	63	63		67	65	64	62	61	60	12' at P/L
		E	162	11503 Avenida Sivrita	64	67	yes	-2	69	yes		69	69	69	69	68	68		69	69	67	66	65	64		69	67	65	63	62	60	
		E	163	Avenida Sivrita	67	69	yes	0	72	yes	7.7	72	72	72	72	72	72	6.0	72	72	72	72	72	71	<1.5	72	70	68	65	64	62	
		E	164	Avenida Sivrita	62	66	yes	-2	68	yes		68	68	68	67	67	66		68	68	68	67	67	67		68	66	65	63	62	61	
	8-4	E	1176	El Paracho		67	yes	0	68	yes		68	68	68	67	67	66									66	63	61	59	58	58	10' at P/L
		E	176	11698 El Paracho	70	70	yes	0	72	yes		72	72	72	71	70	70									71	68	66	63	62	61	
		E	177	11722 Calle Vivienda	69	70	yes	0	72	yes	12.2	72	72	72	72	71	71	10.2	72	72	72	71	70	69	<1.5	69	67	65	64	63	62	
		E	178	11740 Calle Vivienda	66	69	yes	0	70	yes		70	70	70	70	70	70		70	70	70	70	69	69		68	66	64	63	62	61	
		E	179D	11762 Vivienda	69	70	yes	3	71	yes	13.0	71	71	71	71	71	71	<1.5	71	70	69	69	68	68	<1.5	71	71	71	69	68	66	
		E	179	11762 Calle Vivienda	63	63	no	0	64	no		64	64	64	64	64	64		64	64	64	63	63	63		64	64	64	63	62	61	
		E	179C	11762 Vivienda	60	62	no	0	64	no		64	64	64	64	64	64		64	63	63	63	63	62		64	63	63	62	61	61	
		E	180	11658 Corte Giera	65	67	yes	-3	68	yes	16.8	68	68	68	68	68	68	<1.5	68	68	68	68	68	67	<1.5	67	65	64	63	63	62	12' at P/L
		E	1180	11650 Corte Giera		70	yes	3	71	yes		71	71	71	71	71	71		71	71	71	71	70	70		69	67	65	63	62	61	
	8-5	E	181	11705 Debas Misiones	59	70	yes	-2	71	yes	14.7	71	71	71	71	71	70								<1.5	70	65	62	60	58	58	10' at P/L
		E	1181-1	16042 Caminito Tomas		66	yes	-2	67	yes		67	67	67	67	67	66									65	63	61	60	58	57	
		E	1181-2	16082 Caminito Tomas		68	yes	-2	69	yes		69	69	69	69	68	68									68	64	62	60	58	57	
	8-6	E	318	16146 Avenida Venusto	69	70	yes	0	72	yes	12.0	72	72	72	72	72	71								1.5	72	70	68	66	64	63	14' at P/L
		E	1318	16150 Avenida Venusto		72	yes	0	74	yes		74	74	74	74	74	73									74	73	72	71	69	67	
		E	317	16156 Avenida Venusto	69	71	yes	0	73	yes	12.3	73	73	73	73	73	72								<1.5	73	73	73	71	69	66	16' at P/L
	8-7	E	1019-1	11705 Corte Sosegada		66	yes	-4	67	yes		67	67	67	67	67	67									67	65	63	61	59	56	12' at P/L
		E	19	11706 Corte Sosegada	60	62	no	-4	61	no	9.9	61	61	61	61	61	61								<1.5	61	60	59	59	58	58	
		E	1019-2	11706 Corte Sosegada		64	no	-4	66	yes		66	66	66	66	66	66									66	64	62	60	58	56	
		E	1019-3	11705 Corte Templanza		65	no	-4	66	yes		66	66	66	66	66	66									66	65	62	61	59	58	
		E	1019-4	Corte Templanza		63	no	-4	64	no		64	64	64	64	64	64									64	62	60	58	57	56	

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}

1 - Right-of-way soundwall location, or (for those cases in which a barrier located at the right-of-way would be ineffective because of site geometry) an intermediate location such as atop an existing berm within Caltrans right-of-way

2 - DNQ - Does not qualify for consideration of noise abatement, does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h)

3 - As shown in Figure 19, Receiver 165A would have the benefit of two barriers (Barriers 8-1B and 8-2), although the most effective barrier at this site would be the edge-of-shoulder barrier. Receiver 165A is located in an area of transition from freeway below-grade to freeway above-grade, therefore Barriers 8-1B and 8-2 overlap in this area

4 - No Abatement L_{eq} and future noise levels with abatement for Segment 7 receptors incorporates a berm as a design feature of the project

5 - A 4.88 meter (16 foot) high soundwall constructed at the edge of shoulder (E/S) would provide the minimum 5 decibel insertion loss necessary in order to be considered feasible. Construction of a 4.88 meter high wall at the E/S would require completion of a fact sheet in order to comply with the provisions of Chapter 1100 (see also Section 82.2, "Approvals for Non Standard Design" of the Caltrans Highway Design Manual, 5th edition, July 1, 1995)

TABLE 2-5: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENTS 9, 10

Segment Number: Inter-changes	Noise Barrier ID (if applicable)	Free-way Side (East or West)	Site ID	Site Address	Existing Conditions: Max Measured L_{eq} (dBA)	Existing Conditions: Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Existing Conditions: Noise Level Exceeds Cat. B NAC?	Existing Conditions: K-Factor (dBA)	Future Conditions (With K-Factor): No Abatement L_{eq} (dBA)	Future Conditions (With K-Factor): Noise Level Exceeds Cat. B NAC?	Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels with Right-of-Way[1] Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels with Property Line Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Description of Most Effective Soundwall (Location and Height)
9: Rancho Bernardo Rd to Bernardo Center Dr (northern crossing) Duenda Rd.	n/a	W	182	17051 W Bernardo Drive	59	62	no	-3	64	no	3.1	63	62	61	60	59	58	2.0	64	64	64	64	64	63							DNQ[2]
		W	183	17412 Caminito Canasto	61	63	no	0	66	yes	2.9	65	64	63	62	61	61	3.0	66	65	65	65	65	65							
		W	1183	17131 W Bernardo Drive		65	no	0	65	no		65	65	64	64	63	62		65	64	64	63	63	62							
		W	22	17133 W Bernardo Drive	64	64	no	0	65	no	3.2	65	65	65	64	64	63	3.3	65	64	64	63	62	62							
		W	184	17147 Caminito Canasto	62	63	no	0	65	no		65	65	65	65	64	63		64	64	63	62	62	61							
		W	23	17343 Caminito Canasto	63	63	no	0	64	no		64	64	64	64	64	63		64	63	62	62	61	61							
		W	1023	17353 Caminito Canasto		64	no	0	65	no		65	65	65	65	64	64		65	64	63	62	62	61							
		W	185	17373 Jocatal	64	66	yes	0	67	yes	<1.5	67	67	67	66	66	65	<1.5	66	65	64	64	63	62							
		W	24	17443 Caminito Canasto	62	65	no	0	66	yes	2.4	66	66	66	65	65	64	1.9	65	64	64	63	62	62							
		W	1186	17453 Caminito Canasto		63	no	0	65	no		65	65	64	64	64	63		64	63	63	62	61	61							
		W	186	17495 Valladares	61	63	no	0	65	no		65	65	65	65	64	63		64	64	63	62	62	61							
		W	191	17523 Caminito Canasto	59	62	no	-2	64	no	2.7	64	63	63	62	62	61	2.6	63	62	61	61	60	60							
	9-1	E	187	11819 Bernardo Terrace	69	70	yes	0	72	yes	3.7	72	72	72	71	71	70	1.5	71	70	69	67	66	65							12' at R/W
		E	188A	11819 Bernardo Terrace	63	63	no	0	64	no		64	64	64	64	63	63		64	63	62	61	61	60							14' at R/W
		E	20	11816 Bernardo Terrace	68	69	yes	0	71	yes	5.3	71	71	71	71	71	70	<1.5	70	69	68	67	65	64							
		E	189	17426 Ashburton	71	72	yes	3	74	yes	9.1	74	74	74	74	74	74	<1.5	73	71	70	68	67	66							12' at R/W
		E	1189	17438 Ashburton		72	yes	3	73	yes		73	73	73	73	73	74		73	71	69	68	67	66							
		E	21	17466 Ashburton	70	69	yes	0	70	yes		70	70	70	70	70	71		70	67	65	64	63	63							
		E	1021	17466 Ashburton		71	yes	0	73	yes		73	73	73	73	73	73		72	70	68	67	65	64							
		E	190	17426 Ashburton	70	72	yes	0	74	yes	6.9	74	74	74	74	74	73	<1.5	73	69	67	65	64	63							10' at R/W / P/L
		E	1190	17548 Ashburton		70	yes	0	71	yes		71	71	72	71	71	70		71	68	66	65	63	62							
		E	25	17625 Fairlie	67	69	yes	0	71	yes	6.5	71	71	71	71	70	70	<1.5	70	67	65	64	63	62							
10: Bernardo Center Dr (northern crossing) Duenda Rd. to Green Valley Creek Bridge	n/a	W	1192	11616 Duena Rd		66	yes	0	67	yes		67	66	66	66	65	65		66	66	65	65	64	63							Not Feasible
		W	192	11616 Duena Rd	76	75	n/a[3]	0	78	n/a[3]	2.7	77	75	75	73	72	71	4.7	76	74	73	72	70	69							n/a[3]
	10-1	W	1027-1	17616 Valladares		65	no	-2	66	yes		66	65	65	64	63	62		65	64	63	62	61	61							14' at R/W / Terrain Line
		W	27	17616 Valladares	63	65	no	-2	66	yes	<1.5	66	65	64	63	63	62	3.1	65	64	63	62	61	60							
		W	1027-2	17605 Valladares		66	yes	-2	68	yes		67	67	66	65	64	63		67	66	65	64	63	62							
	n/a	W	1193-1	31681 Jocatal		60	no	-1	61	no		61	61	61	60	60	60		61	60	60	60	59	59							DNQ[2]
		W	193	11686 Jocatal	58	60	no	-1	62	no	2.0	62	62	61	61	61	60	3.1	61	61	61	60	60	60							
		W	1193-2	31696 Agreste Pl.		59	no	-1	61	no		61	61	60	60	60	60		60	60	60	60	59	59							
		W	194	17957 Almendro Ln.	57	58	no	0	61	no		61	61	61	61	60	60		61	60	60	60	60	59							
		W	1195-1	18037 Valladares		59	no	0	62	no		62	62	62	61	61	61		61	61	61	60	60	60							
		W	195	18057 Valladares	57	60	no	0	62	no	<1.5	62	62	62	62	62	62	<1.5	62	61	61	61	61	60							
		W	1195-2	18107 Valladares		61	no	0	63	no		63	63	63	63	63	62		63	62	62	62	61	61							
		W	1197	18157 Valladares		60	no	-1	62	no		62	62	62	62	61	61		62	61	61	61	60	60							
		W	197	18177 Valladares	54	61	no	-1	63	no		63	63	63	62	61	61		62	62	61	61	61	60							
		W	30	18198 Valladares	61	64	no	0	65	no	2.5	65	65	64	64	63	62	7.0	65	64	63	62	61	61							
		W	198	11646 Andanza	54	57	no	-6	58	no		58	57	56	56	55	54		57	56	55	55	54	53							
		W	322	Bernardo Street	63	61	no	0	61	no		61	60	60	60	60	60		61	61	61	61	61	61							
	10-2	E	21320	Ashborton		67	yes	0	67	yes		67	67	67	66	65	65									67	66	65	64	63	62	16' at P/L / Top-of-Slope
		E	320	11820 Caminito Ronaldo Bldg. 5	67	69	n/a[3]	0	70	n/a[3]	2.9	70	70	70	69	68	67								<1.5	70	68	66	64	63	62	
		E	1320	Caminito Pinero		68	yes	0	68	yes		68	68	68	68	67	66									68	67	66	64	63	62	
		E	26	17865 Caminito Pinero Bldg. 14	67	69	n/a[3]	-2	70	n/a[3]	7.5	70	70	70	70	70	70								<1.5	70	67	65	62	61	60	
		E	1026-1	17865 Caminito Pinero		65	no	-2	66	yes		66	66	66	66	66	66									66	65	64	63	62	61	
		E	1026-2	17865 Caminito Pinero		~65	no	-2	66	yes		66	66	66	66	66	66									66	65	64	63	62	61	
		E	319	17865 Caminito Pinero Bldg. 24	66	68	n/a[3]	0	70	n/a[3]	6.5	70	70	70	70	70	70								<1.5	70	69	67	65	64	62	14' at P/L / Top-of-Slope
		E	1319	17865 Caminito Pinero		65	no	0	67	yes		67	67	67	67	67	67									67	66	65	65	64	63	
	n/a	E	1029-1	11956 Voisin Court		68	yes	0	69	yes		69	69	69	69	69	69									69	69	69	68	68	67	Not Feasible
		E	1029-2	11954 Corte Tezcuco		68	yes	0	69	yes		69	69	69	69	69	69									69	69	69	69	68	67	
		E	29	S. Curb Cibreteo / Escala	68	69	n/a[3]	0	70	n/a[3]	4.1	70	70	70	70	70	70								1.5	69	68	67	66	65	64	n/a[3]
		E	323	Escala Dr.	62	61	no	0	63	no		63	62	62	62	62	62		63	63	63	63	63	63								DNQ[2]

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}.

1 - Right-of-way sound-wall location, or (for those cases in which a barrier located at the right-of-way would be ineffective because of site geometry) an intermediate location such as atop an existing berm within Caltrans right-of-way.

2 - DNQ - Does not qualify for consideration of noise abatement; does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h).

3 - Not Applicable. The site is not representative of a noise-sensitive land use.

TABLE 2-6: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENTS 11, 12

Segment Number: Inter-changes	Noise Barrier ID (if applicable)	Free-way Side (East or West)	Site ID	Site Address	Existing Conditions				Future Conditions																								
											With K-Factor																						
												Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA)							Noise Levels with Right-of-Way[1] Soundwall (L_{eq} dBA)							Noise Levels with Property Line Soundwall (L_{eq} dBA)							
					Max Measured L_{eq} (dBA)	Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Noise Level Exceeds Cat. B NAC?	K-Factor (dBA)	No Abatement L_{eq} (dBA)	Noise Level Exceeds Cat. B NAC?	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Description of Most Effective Soundwall (Location and Height)
11: Green Valley Creek Bridge to Pomerado Rd (northern crossing)	11-3	W	321	18500 W. Bernardo Dr	62	64	no	-1	65	no	3.0	64	64	62	62	61	60	< 3.0	64	63	62	62	61	60	1.9	65	65	65	65	65	65	16' at Top of Existing Berm
		W	324A	18800 Bernardo Ave.	70	65	no	-1	66	yes		65	64	63	62	61	60		65	64	63	62	61	60		66	66	66	66	66	66	
		W	1324	18800 Bernardo Ave.		64	no	-1	65	no		65	64	63	62	61	60		65	64	63	61	61	60		65	65	65	65	65	65	
		W	324	18800 Bernardo Ave.	62	65	no	-1	66	yes	2.8	66	65	64	63	62	61	< 3.0	66	64	63	62	61	60	2.5	66	66	66	66	66	66	
	11-1	W	1031A-1	18655 W. Bernardo Ave.		76	yes	4	77	yes	7.7	77	77	77	77	76	76	3.1	77	77	76	75	74	73	2.0	77	76	74	72	70	69	12' at P/L / Top-of-Slope
		W	1031A-2	18655 W. Bernardo Ave.		74	yes	4	75	yes		75	75	75	75	75	75		75	75	75	74	74	73		74	73	72	71	70	69	14' at P/L / Top-of-Slope
		W	31A	18755 W. Bernardo Ave.	60	74	yes	4	76	yes	14.4	76	76	76	76	76	76	4.3	75	75	75	74	74	73	2.3	75	75	74	73	72	71	16' at P/L / Top-of-Slope
		W	1031A-3	18755 W. Bernardo Ave.		70	yes	4	70	yes		70	70	70	70	70	70		70	70	69	69	68	68		70	69	69	68	67	67	12' at P/L / Top-of-Slope
		W	31B	18755 W. Bernardo Ave.	79	79	n/a[3]	6	78	n/a[3]																						
		W	1031B	18755 W. Bernardo Ave.		73	yes	6	74	yes		74	74	74	74	74	74		74	73	73	72	72	72		72	71	70	69	68	68	
		W	201	18655 W. Bernardo Dr.	77	78	yes	4	79	yes	10.8	79	79	79	79	79	79	5.5	78	78	78	77	76	76	<1.5	78	76	74	71	69	67	10' at P/L / Top-of-Slope
		W	202	18655 W. Bernardo Dr.	62	65	no	0	66	yes		66	66	66	66	66	66		66	66	66	65	65	65		65	64	61	60	58	58	
	n/a	W	203	18655 W. Bernardo Dr	60	61	no	0	63	no		63	63	63	63	63	63		63	63	62	62	62	62		63	62	60	58	57	56	DNQ[2]
	11-2	E	199	18614 Caminito Pasadero	64	65	no	0	67	yes	7.5	67	67	67	67	67	67	6.4	67	67	67	67	67	67	2.2	66	64	63	62	61	60	12' at P/L / Top-of-Slope
		E	1199	18630 Caminito Cantilena		63	no	0	65	no		65	65	65	65	65	65		65	65	65	65	65	65		65	64	63	62	61	61	
		E	200	18656 Caminito Cantilena	67	68	yes	3	70	yes	5.9	70	70	70	70	70	70	6.8	70	70	70	70	70	70	<1.5	70	69	67	66	65	65	14' at P/L
		E	31	8692 Caminito Cantilena	64	66	n/a[3]	-2	68	n/a[3]	5.4	68	68	68	68	68	68	4.8	68	68	68	68	68	68	<1.5	68	67	65	64	62	61	
		E	1031-1	18736 Caminito Cantilena		66	yes	-2	67	yes		67	67	67	67	68	67		67	67	67	67	67	66		67	67	65	63	62	61	
		E	1031-2	18752 Caminito Cantilena		63	no	-2	65	no		65	65	65	65	65	65		65	65	65	64	64	63		65	64	63	61	60	59	
		E	1031-3	18812 Caminito Cantilena		62	no	-2	64	no	5.8	64	64	64	64	63	63	<1.5	63	63	63	62	62	61	<1.5	64	63	62	61	61	60	
		E	325	18826 Caminito Cantilena	63	65	no	0	69	yes	6.4	69	69	69	69	69	69	1.7	66	65	64	63	62	62	1.7	69	68	65	64	62	61	
		E	1325-1	18840 Caminito Cantilena		65	no	0	66	yes		66	66	66	66	66	66		66	66	66	66	65	65		66	66	64	63	62	61	
		E	325A	18840 Caminito Cantilena	65	64	no	0	66	yes	12.6	66	66	66	66	66	66	<1.5	66	66	66	66	66	66	<1.5	66	65	63	62	61	60	
		E	1325-2	Caminito Cantilena		65	no	0	66	yes		66	66	66	66	66	66		66	66	66	66	65	65		66	65	62	60	59	58	12' at P/L
12: Pomerado Rd to Via Rancho Pkwy	n/a	W	328	None (open-space)	57	70	n/a[3]	-1	72	n/a[3]																						n/a[3]
	12-2	W	327	None (open-space)	70	68	yes	0	70	yes	<1.8	67	66	65	64	63	63															16' at E/S[4]
		W	1327-1	None (open-space)		72	yes	0	72	yes	<3.1	71	70	69	68	67	66															
		W	1327-2	None (open-space)		69	yes	0	71	yes	3.1	69	69	68	67	66	65															
		W	1327-3	None (open-space)		67	yes	0	68	yes		67	67	66	65	64	63															
	n/a	W	1204-1	3640 Vista de la Canada		60	no	0	61	no																						DNQ[2]
	12-3	W	204	3630 Vista de la Canada	72	71	yes	0	72	yes															3.1	70	68	67	65	63	61	10' at P/L / Top-of-Slope
	n/a	W	1204-2	3610 Avenida Amarosa		62	no	0	64	no																						DNQ[2]
		W	205	3538 Avenida Amarosa	60	61	no	0	63	no																						
		W	1205	3542 Avenida Amarosa		59	no	0	61	no																						
		W	1206	3530 Avenida Amarosa		63	no	-1	64	no																						
		W	206	3526 Avenida Amarosa	58	60	no	-1	62	no																						
	12-1	E	326	None (open-space)	68	70	yes	0	72	yes		70	69	69	68	68	68															12' at E/S
		E	206B	None (open-space)	64	69	yes	0	70	yes	1.8	68	67	66	65	64	63															
		E	206A	None (open-space)	69	69	yes	0	71	yes	1.8	69	67	66	65	64	64															10' at E/S
		E	206C	None (open-space)		68	yes	0	69	yes	2.4	68	67	66	65	64	63															14' at E/S

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}.

1 - Right-of-way soundwall location, or (for those cases in which a barrier located at the right-of-way would be ineffective because of site geometry) an intermediate location such as atop an existing berm within Caltrans right-of-way.

2 - DNQ - Does not qualify for consideration of noise abatement; does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h).

3 - Not Applicable. The site is not representative of a noise-sensitive land use.

4 - A 4.88 meter (16 foot) high soundwall constructed at the edge of shoulder (E/S) would provide the minimum 5 decibel insertion loss necessary in order to be considered feasible. Construction of a 4.88 meter high wall at the E/S would require completion of a fact sheet in order to comply with the provisions of Chapter 1100 (see also Section 82.2, "Approvals for Non Standard Design" of the Caltrans Highway Design Manual, 5th edition., July 1, 1995).

TABLE 2-7: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENTS 13, 14

Segment Number: Inter-changes	Noise Barrier ID (if applic-able)	Free-way Side (East or West)	Site ID	Site Address	Existing Conditions: Max Measured L_{eq} (dBA)	Existing Conditions: Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Existing Conditions: Noise Level Exceeds Cat. B NAC?	Existing Conditions: K-Factor (dBA)	Future Conditions (With K-Factor): No Abatement L_{eq} (dBA)	Future Conditions (With K-Factor): Noise Level Exceeds Cat. B NAC?	Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	Edge of Shoulder: 1.83 m (6 ft)	Edge of Shoulder: 2.44 m (8 ft)	Edge of Shoulder: 3.05 m (10 ft)	Edge of Shoulder: 3.66 m (12 ft)	Edge of Shoulder: 4.27 m (14 ft)	Edge of Shoulder: 4.88 m (16 ft)	Noise Levels with Right-of-Way[1] Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	Right-of-Way: 1.83 m (6 ft)	Right-of-Way: 2.44 m (8 ft)	Right-of-Way: 3.05 m (10 ft)	Right-of-Way: 3.66 m (12 ft)	Right-of-Way: 4.27 m (14 ft)	Right-of-Way: 4.88 m (16 ft)	Noise Levels with Property Line Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	Property Line: 1.83 m (6 ft)	Property Line: 2.44 m (8 ft)	Property Line: 3.05 m (10 ft)	Property Line: 3.66 m (12 ft)	Property Line: 4.27 m (14 ft)	Property Line: 4.88 m (16 ft)	Description of Most Effective Soundwall (Location and Height)
13: Del Lago Blvd to Centre City Pkwy		W	329	3278 Via Ribera	57	61	no	-3	61	no																					
		W	330	3248 Via Ribera	62	63	no	-2	64	no																					DNQ [2]
		W	331	3218 Via Ribera	60	58	no	0	59	no																					
		W	3333	3218 Via Ribera		65	no	0	66	yes														<1.5	66	66	65	63	62	62	
	n/a	W	333	106 Camino Bailen	63	65	n/a[3]	0	67	n/a[3]														<1.5	67	66	64	62	61	60	Not Feasible
		W	332	140 Camino Bailen	47	50	no	-9	51	no																					
		W	207	232 Silver Creek	50	54	no	0	55	no																					DNQ [2]
		W	209	226 Clarence	61	65	no	-1	66	yes									66	65	65	65	64	64							
		W	1209	226 Clarence		66	yes	-1	67	yes									67	67	66	66	65	65							Not Feasible
	13-2	W	210	3018 South Center City Pkwy.	77	78	yes	0	79	yes									79	78	76	76	75	74							16' at R/W / Top of Slope
	13-1	E	334	3165 El Ku Ave.	66	64	no	0	65	no		63	63	62	61	61	60														DNQ [2]
		E	3208	3127 El Ku Ave.		63	no	0	66	yes	<1.5	65	64	63	62	61	61														
		E	208	3137 El Ku Ave.	61	62	no	0	65	no		64	63	62	62	61	61														16' at E/S [4]
	n/a	E	32	3115 El Ku Ave.	61	62	no	-2	64	no		63	62	61	60	59	58														
		E	1032	3105 El Ku Ave.		62	no	-2	64	no		62	61	60	60	59	58														
		E	1335-1	3039 El Ku Ave.		63	no	-2	63	no		62	61	60	60	59	58														DNQ [2]
		E	335	3014 El Ku Ave.	66	63	no	-2	64	no		63	62	61	60	59	58														
		E	1335-2	3014 El Ku Ave.		62	no	-2	63	no		62	61	60	59	58	57														
14: Centre City Pkwy to Felicita Ave	14-5	W	211	302 Woodland Hills Dr.	66	67	yes	0	68	yes														<1.5	67	65	62	60	59	57	10' at P/L
	14-7	W	1211	2456 Alexander Dr.		71	yes	0	71	yes														<1.5	70	68	65	63	61	60	10' at P/L
	n/a	W	215	2448 Alexander Dr.	53	63	no	-2	64	no																					DNQ [2]
	14-6	W	1215	2418 Alexander Dr.		67	yes	-2	67	yes														<1.5	67	66	64	63	62	60	14' at P/L
		W	216	2413 Alexander Dr.	53	55	no	-5	56	no																					
		W	1216	2411 Alexander Dr.		58	no	-5	58	no																					DNQ [2]
		W	36A	2407 Alexander Dr.	61	63	no	-3	64	no																					
	n/a	W	217A	Miller Ave.	61	64	no	-1	65	no																					
		W	218A	2315 Miller Ave.	64	67	yes	-2	68	yes									68	67	67	66	66	65							Not Feasible
		W	1218	2315 Miller Ave.		64	no	-2	64	no									64	64	63	62	62	61							
		W	219	2324 Miller Ave.	59	61	no	-2	62	no																					DNQ [2]
		W	224	800 Monticello Drive	55	58	no	-5	59	no																					
	14-1	E	213	2865 South Center City Pkwy.	67	68	yes	0	70	yes	3.0	68	66	65	64	63	62	3.0	70	69	69	69	69	69							
		E	212	2851 South Center City Pkwy.	63	66	yes	-2	68	yes	3.4	66	65	64	63	62	61	3.4	68	67	67	65	64	63							12' at E/S
	14-2	E	1214	2789 South Center City Pkwy.		66	yes	-4	66	yes								2.7	65	65	64	63	62	61							16' at Top of Slope
		E	214	2777 South Center City Pkwy.	55	56	no	-5	58	no																					
	n/a	E	33	491 Lost Oak Lane	55	56	no	-4	58	no																					DNQ [2]
		E	1336	535 Lost Oak Ln.		60	no	0	60	no																					
	14-3	E	336	571 Lost Oak Ln.		68	yes	0	69	yes								<1.5	69	68	66	65	64	63							14' at Top of Slope
	14-3A	E	220	594 Lost Oak Ln.	73	72	yes	0	74	yes															<1.5	73	71	70	69	68	67	12' at Top of Slope / P/L
		E	1221	401 Rancho La Mirada Ln.		66	yes	0	66	yes															<1.5	66	66	65	64	64	63	Not Feasible
	n/a	E	221	2242 Alexander Dr.	60	63	no	0	65	no																					
		E	222	2205 Alexander Dr.	66	63	no	0	65	no								3.0	64	64	64	63	63	63							DNQ [2]
	14-4	E	1222	2183 Alexander Dr.		67	yes	0	68	yes								3.0	67	66	66	65	64	63							
		E	223	2187 Alexander Dr.	72	72	yes	3	75	yes								<1.5	74	73	72	70	69	68							16' at Top of Slope

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}.

1 - Right-of-way soundwall location, or (for those cases in which a barrier located at the right-of-way would be ineffective because of site geometry) an intermediate location such as atop an existing berm within Caltrans right-of-way.

2 - DNQ - Does not qualify for consideration of noise abatement; does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h).

3 - Not Applicable. The site is not representative of a noise-sensitive land use.

4 - A 4.88 meter (16 foot) high soundwall constructed at the edge of shoulder (E/S) would provide the minimum 5 decibel insertion loss necessary in order to be considered feasible. Construction of a 4.88 meter high wall at the E/S would require completion of a fact sheet in order to comply with the provisions of Chapter 1100 (see also Section 82.2, "Approvals for Non Standard Design" of the Caltrans Highway Design Manual, 5th edition., July 1, 1995).

TABLE 2-8: SUMMARY OF RESULTS: SOUND32 NOISE MODELING: SEGMENT 15

Segment Number/ Interchange	Noise Barrier ID (if applicable)	Freeway Side (East or West)	Site ID	Site Address	Existing Conditions: Max Measured L_{eq} (dBA)	Existing Conditions: Modeled Existing Peak-Noise Hour L_{eq} (dBA)	Existing Conditions: Noise Level Exceeds Cat. B NAC?	Existing Conditions: K-Factor (dBA)	Future Conditions (With K-Factor): No Abatement L_{eq} (dBA)	Future Conditions (With K-Factor): Noise Level Exceeds Cat. B NAC?	Noise Levels with Edge of Shoulder Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels with Right-of-Way[1] Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Noise Levels with Property Line Soundwall (L_{eq} dBA): Break-Line-of-Sight Height (meters)	1.83 m (6 ft)	2.44 m (8 ft)	3.05 m (10 ft)	3.66 m (12 ft)	4.27 m (14 ft)	4.88 m (16 ft)	Description of Most Effective Soundwall (Location and Height)
15 Felicita Ave to 9th Ave	15-5	W	1225A-1	964 Gamble Lane		66	yes	-1	68	yes	3.0	67	66	65	64	63	62		68	68	68	68	66	65								16' at E/S[4]
		W	225A	964 Gamble Lane	64	67	yes	-1	70	yes	2.7	68	67	66	65	64	63	2.4	69	69	69	67	65	64								
		W	1225A-2	964 Gamble Lane		67	yes	-1	70	yes	2.7	68	67	66	65	64	63	2.4	70	70	69	68	66	65								
		W	39A	Gamble Lane	57	60	no	-5	62	no		62	62	61	60	59	58		62	62	62	61	60	60								
		W	1039	Gamble Lane		64	no	-4	66	yes	3.0	66	65	64	63	62	61		66	66	66	65	64	64								
		W	39	Gamble Lane	60	62	no	-4	65	no		63	63	62	61	60	59		64	64	64	64	63	63								
		W	226	Gamble Lane	64	69	yes	0	71	yes		71	71	71	71	70	69	<1.5	69	68	67	66	65	64								14' at R/W / Top of Slope
		W	1233	2064 Bernardo Ave.		67	yes	0	70	yes	2.4	70	70	70	69	67	67	<1.5	68	67	66	65	64	63								
		W	231	2064 Bernardo Ave.	64	69	yes	0	71	yes	3.0	71	70	69	69	68	67	1.5	69	69	68	67	66	65								
		W	232	Bernardo Ave.	64	66	yes	-1	68	yes	3.7	68	68	67	66	66	65	2.4	67	67	66	65	64	64								Not Feasible
	n/a	W	337	Bernardo Ave.	67	69	n/a[1]	-1	72	n/a[1]		71	71	70	69	68	67		72	71	70	69	68	67								n/a[1]
		W	338	Bernardo Ave.	69	70	n/a[1]	0	72	n/a[1]		71	71	70	69	68	67		72	72	71	70	69	68								
		W	1338	Bernardo Ave.		71	n/a[1]	0	73	n/a[1]		72	71	70	69	68	67		73	72	71	70	69	68								
	15-8	W	339	Lemon Ave.	70	73	yes	-2	74	yes		73	72	70	68	67	66		74	72	69	67	66	65								14' at R/W / Top of Slope
		W	1339	Bernardo Ave.		69	yes	-2	70	yes		70	70	69	68	67	67		70	69	69	68	67	66								
		W	340	Bernardo Ave.	68	71	yes	0	74	yes									71	69	67	66	64	63								
		W	340A	1476 Knoll Glenn Park	68	70	yes	0	72	yes									70	70	68	67	66	65								
		W	340B	adj. to 1476 Knoll Glenn Park	71	70	yes	0	72	yes									71	70	69	68	67	65								
	n/a	W	1340	1525 Tanglewood		62	no	0	63	no									63	63	62	62	61	60								DNQ[2]
		W	1342-1	Tanglewood		62	no	-2	63	no									62	61	60	60	59	58								
		W	342B	1295 Ridgegrove	62	54	no	-8	55	no									55	55	54	53	53	52								
		W	342A	1303 Bernardo Ave.	61	62	no	-2	65	no									64	63	62	61	60	59								
		W	1342-2	Bernardo Ave.		62	no	-2	63	no									63	62	61	60	59	59								
		W	1343	Bernardo Ave.		64	no	-2	65	no								<1.5	65	64	63	62	61	60								
	15-9	W	343	1225 Bernardo Ave.	60	64	no	-2	66	yes								<1.5	64	64	62	61	60	59								12' at R/W / Top-of-Slope
	n/a	W	236	R/W @ 1464 W. 11th Ave.	74	73	n/a[1]	0	78	n/a[1]																						n/a[3]
		W	1236	1464 W. 11th Ave.		70	yes	0	72	yes									71	70	70	69	69	68								Not Feasible
	15-6A,B	W	237	1564 Tanglewood	71	73	yes	0	74	yes		74	73	72	70	69	68		73	71	69	67	65	64								14' at E/S
		W	1238	Tanglewood		69	yes	0	71	yes	1.8	70	69	67	66	65	64		71	71	71	70	68	67								
		W	238	1561 Tanglewood	63	68	yes	-3	69	yes	1.8	68	67	65	65	62	61		69	68	67	65	64	62								
		W	238A	1561 Tanglewood	61	66	yes	-3	68	yes	4.3	67	66	65	64	62	61		67	67	67	66	65	64								
		W	244	1525 Tanglewood	63	66	yes	-1	68	yes	2.4	67	66	65	64	63	62		68	68	68	67	67	67								
	15-1	E	227	809 Palm Terrace	64	65	yes	-1	70	yes	2.1	68	66	65	64	63	62	2.1	68	66	65	64	63	62								16' at E/S[4]
		E	227A	809 Palm Terrace	61	68	yes	0	70	yes	2.1	69	69	68	67	66	55	2.1	69	69	68	67	65	64								
		E	1227-1	9946 Kika Street		67	yes	-1	69	yes	2.4	68	68	67	66	65	54	2.4	68	67	67	66	65	63								
		E	228	825 Palm Terrace	63	67	yes	0	69	yes	<1.5	66	65	64	64	63	53	<1.5	67	66	65	64	63	63								
		E	1228-1	2130 Felicita Rd.		69	yes	0	71	yes	1.8	69	68	66	66	65	64	1.8	69	68	66	65	64	64								
		E	1228-2	2111 Felicita Rd.		69	yes	0	69	yes	<1.5	67	67	66	66	65	54	<1.5	68	67	66	65	64	63								
	n/a	E	229	2000 Felicita Rd.	62	65	no	-1	66	yes									66	66	65	64	63	62		66	66	65	64	63	62	Not Feasible
		E	38	2025 Felicita Ave.	62	66	yes	0	67	yes									67	67	67	66	66	65								
		E	1038	Felicita		70	yes	0	72	yes									72	72	72	71	71	70								
	15-2	E	230	2035 Felicita Rd.	72	74	yes	0	79	yes								3.0	77	77	76	75	74	73								14' at Top of Slope / R/W
		E	1230	Rohn Read		69	yes	0	72	yes									71	71	70	70	69	68								
		E	1233	1996 Rohn Read		67	yes	0	70	yes								4.0	69	69	68	67	66	65								16' at Top of Slope
		E	233A	1994 Bernardo Ave.	71	71	yes	0	74	yes								1.8	74	72	71	70	69	68								
		E	234	1992 Bernardo Ave.	69	69	yes	0	71	yes								4.0	71	70	70	69	68	67								
		E	37	1971 Bernardo Ave.	60	68	yes	-1	71	yes								4.0	71	70	69	69	68	67								
		E	235	1975 Bernardo Ave.	73	73	yes	0	76	yes								4.3	75	73	72	71	70	69								
		E	1235	1971 Bernardo Ave.		72	yes	0	74	yes								4.3	73	73	72	71	70	69								
		E	341	1967 Bernardo Ave.	61	79	yes	3	81	yes								3.7	80	79	77	76	75	73								
		E	1341	1967 Bernardo Ave.		75	yes	3	77	yes								6.1	77	76	76	75	74	74								
	15-3	E	1041-2	1931 Morton Glen		64	no	0	67	yes									67	68	68	67	67	67	1.5	67	65	63	61	60	59	12' at P/L
		E	1041-1	1927 Morton Glen		68	yes	0	70	yes									70	70	70	70	70	70	1.5	70	68	65	64	62	61	10' at P/L
		E	41A	1923 Morton Glen	69	68	yes	0	70	yes									70	70	70	70	70	70	1.5	70	66	64	62	60	59	
	n/a	E	5016	1240 Pinecrest Dr.		66	n/a[1]	0	67	n/a[1]															1.5	66	65	64	62	61	61	n/a[3]
		E	5008	11th Ave		67	yes	0	68	yes															1.5	67	67	67	66	65	65	Not Feasible
		E	1042-2	11th Ave		69	yes	0	70	yes									69	69	69	68	67	66								
	15-4	E	1042-1	11th Ave		69	yes	0	70	yes								<1.5	70	69	66	65	64	63								12' at R/W
		E	42	1325 11th Ave.	75	77	n/a[1]	0	78	n/a[1]								<1.5	72	69	66	64	62	61								6' at R/W
		E	1042-3	1430 W. 11th Ave		69	yes	0	70	yes								<1.5	70	69	68	66	65	64								14' at R/W

NOTES:

Noise levels shown in bold text indicate that a 5-decibel noise reduction is achieved, compared with the No-Abatement L_{eq}

1 - Right-of-way soundwall location, or (for those cases in which a barrier located at the right-of-way would be ineffective because of site geometry) an intermediate location such as atop an existing berm within Caltrans right-of-way.

2 - DNQ - Does not qualify for consideration of noise abatement; does not approach or exceed the NAC for Category B land uses of 67 dBA L_{eq} (h).

3 - Not Applicable. The site is not representative of a noise-sensitive land use.

4 - A 4.88 meter (16 foot) high soundwall constructed at the edge of shoulder (E/S) would provide the minimum 5 decibel insertion loss necessary in order to be considered feasible. Construction of a 4.88 meter high wall at the E/S would require completion of a fact sheet in order to comply with the provisions of Chapter 1100 (see also Section 82.2, "Approvals for Non Standard Design" of the Caltrans Highway Design Manual, 5th edition., July 1, 1995).

Appendix H Major Cut and Fill Areas

I-15 Managed Lanes Project - Major Cut/Fill Areas

Nearest Interchange / Project Location	Approximate Height, m		Approximate Limits		Type (RW = Retaining Wall)	Location (Looking North)			
	Minimum	Maximum	Begin STA	End STA		Left of Mainline	Left Side Mgd Lanes	Right Side Mgd Lanes	Right of Mainline
Route 163 / 15 Separation	0	5	200+80	205+20	Fill+RW		X		
Route 163 / 15 Separation	0	10	205+00	207+20	Fill+RW			X	
Route 163 / 15 Sep to Ammo Road	0	7	212+00	216+00	Cut	X			
Ammo Road to Miramar Way	0	8	216+00	218+00	Fill+RW	X			
Miramar Way to Miramar Road	0	7	235+00	241+00	Fill+RW/Fill	X			
Carroll Canyon Road to Hillery Dr. DAR	0	10	254+40	259+60	Fill+RW / Cut+RW	X			
Mira Mesa Blvd.	0	5	270+40	271+80	Fill+RW	X			
Mira Mesa Blvd. to Scripps Poway Pkwy	0	12	273+00	278+50	Fill+RW/Fill	X			
Mira Mesa Blvd. to Scripps Poway Pkwy	3	5	286+00	287+50	Fill+RW	X			
Scripps Poway Pkwy to Rancho PQ Crk	3	7	294+00	298+50	Fill+RW/Fill	X			
Poway Rd to End of Exist Rev. Lanes	2	5	305+50	308+00	Cut+RW				X
Poway Rd to Sabre Springs DAR	0	20	310+50	312+00	Cut				X
Poway Rd to Sabre Springs DAR	0	11	311+50	313+00	Cut	X			
Poway Rd to Sabre Springs DAR	0	5	312+50	319+00	Fill+RW			X	
Poway Rd to Sabre Springs DAR	2	12	315+00	319+60	Fill+RW		X		
Route 56 / 15 Sep to Carmel Mtn Rd	5	8	328+00	338+50	Berm+RW	X			
Route 56 / 15 Sep to Carmel Mtn Rd	0	7	335+50	340+50	Berm+RW				X
Carmel Mtn Road to Camino Del Norte	0	10	346+00	356+00	Berm+RW	X			
Carmel Mtn Road to Camino Del Norte	4	21	357+50	360+20	Cut+double RW				X
Camino Del Norte to Bernardo Center Dr	0	14	359+00	367+50	Fill+RW/Cut	X			
Camino Del Norte to Bernardo Center Dr	0	23	368+00	374+00	Cut+double RW	X			
Camino Del Norte to Bernardo Center Dr	0	16	369+00	374+00	Cut+RW				X
Bernardo Center Dr	0	22	375+00	378+80	Cut+RW	X			
Bernardo Ctr Dr to Rancho Bernardo DAR	0	12	380+50	384+60	Cut+RW/Cut	X			
Rancho Bernardo Road	0	12	389+40	394+60	Cut+RW	X			
Rancho Bernardo Rd to Green Valley Crk	0	7	395+00	410+50	Berm+RW/Berm	X			
Green Valley Crk to Highland Valley Rd	0	23	415+00	421+50	Berm	X			
Green Valley Crk to Highland Valley Rd	0	12	423+50	428+20	Cut+RW				X
Lake Hodges	0	9	430+50	432+00	Fill+RW				X
Lake Hodges to Via Rancho Pkwy	0	8	436+50	440+00	Cut+RW	X			
Via Rancho Pkwy to Del Lago Blvd DAR	0	8	444+50	449+00	Soil Nail RW	X			
Via Rancho Pkwy to Del Lago Blvd DAR	0	18	450+00	453+00	Cut+RW	X			
Centre City Parkway	0	12	453+50	458+20	Fill+RW				X
Clarence Lane to Citricado Parkway	0	16	459+50	468+00	Cut				X

Appendix I Coordination

The following resource agencies were consulted and coordinated with in the development of the proposed project.

California Department of Fish and Game	
US Army Corps of Engineers (ACOE)	03/17/99
US Environmental Protection Agency (EPA)	02/23/99
US Fish and Wildlife Service (USFWS)	07/08/98
US Fish and Wildlife Service (USFWS)	01/25/99
US Fish and Wildlife Service (USFWS)	03/99
US Fish and Wildlife Service (USFWS)	09/21/99
US Fish and Wildlife Service (USFWS)	10/15/99
US Fish and Wildlife Service (USFWS)	02/18/00
US Fish and Wildlife Service (USFWS)	04/19/00
US Fish and Wildlife Service (USFWS)	05/9/00
US Fish and Wildlife Service (USFWS)	06/06/00
US Fish and Wildlife Service (USFWS)	06/27/00
US Fish and Wildlife Service (USFWS)	03/26/02

In addition, Caltrans met with numerous Cities, Community planning groups, and agencies along the corridor. During each of these meetings a presentation was given to ensure each group was aware of the project and any changes since previous presentations and to address any questions or concerns.

City of Escondido Development Staff	06/21/00
City of Escondido Development Staff	03/06/01
City of Escondido Development Staff	04/02/02
City of Escondido City Council	04/08/98
City of San Diego Development Staff	06/16/00
City of San Diego Development Staff	03/06/01
City of San Diego Legislative Staff	02/07/01
City of San Diego Legislative Staff	02/16/01
City of San Diego Planning Commission	02/15/01
County of San Diego Board of Supervisions	04/20/98
Greater SD Chamber of Commerce, Trans. Subcommittee	01/27/98
I-15 Policy Advisory Committee Meeting	5/28/88
I-15 Policy Advisory Committee Meeting	8/06/98
I-15 Policy Advisory Committee Meeting	03/25/99
I-15 Policy Advisory Committee Meeting	05/27/99
I-15 Policy Advisory Committee Meeting	09/09/99
I-15 Policy Advisory Committee Meeting	06/10/00
I-15 Policy Advisory Committee Meeting	02/14/02
I-15 Policy Advisory Committee Meeting	05/23/02
I-15 Policy Advisory Committee Meeting	09/18/02
MCAS Miramar	03/01/00

MCAS Miramar	04/30/02
Miramar Ranch North Planning Committee	06/19/01
Miramar Ranch North Planning Committee	12/18/01
Miramar Ranch North Planning Committee	02/05/02
Mira Mesa Community Planning Group	11/16/01
Mira Mesa Community Planning Group	02/19/02
North County Transit District	04/23/01
North County Transit District	04/02/02
Poway Chamber of Commerce	04/25/02
Rancho Bernardo Community Planning Board	10/25/99
Rancho Bernardo Community Planning Board	09/21/00
Rancho Bernardo Community Planning Board	06/21/01
Rancho Bernardo Planning Group	05/26/98
Rancho Bernardo Planning Group	07/18/02
Rancho Bernardo Town Council	02/09/98
Rancho Penasquitos Planning Board	05/06/98
Rancho Penasquitos Planning Board	05/05/99
Rancho Penasquitos Planning Board	12/05/01
Rancho Penasquitos Planning Board	04/04/01
Rancho Penasquitos Planning Board	08/07/02
Sabre Springs Planning Board	06/16/99
Sabre Springs Planning Board	09/15/99
Sabre Springs Planning Board	09/15/99
Sabre Springs Planning Board	03/15/00
Sabre Springs Planning Board	02/21/01
Sabre Springs Planning Board	05/15/02
San Dieguito River Park	02/02/00
San Dieguito River Park	04/24/01
San Dieguito River Park	04/11/02
SANDAG Transportation Subcommittee	05/14/98
SANDAG Transportation Subcommittee	01/28/00
Scripps Ranch Community Planning Group	04/01/98
Scripps Ranch Community Planning Group	10/07/99
Scripps Ranch Community Planning Group	06/07/01
Scripps Ranch Community Planning Group	02/07/02
Scripps Ranch Community Planning Group	04/04/02
Scripps Ranch Civic Association	04/14/98
U.S. Postal Service – Rancho Carmel Dr.	04/19/02

The following individuals and organizations were contacted, wrote, or phoned Caltrans during the planning process to express their interest in the project. Meetings were set up to ensure that each group knew what was proposed and to address any concerns that they had.

CEAL Committee	06/13/00
Chi Epsilon Fraternity, SDSU Chapter	11/18/98
Diamond Gateway Chamber of Commerce	
Escondido Lions Club	12/02/99
Garden Communities	08/04/99
Garden Communities	02/07/01
Highway Development Association	04/10/00
Interstate 15 Chamber Alliance	04/23/98
Scripps Westview Condominium Homeowners Assoc.	07/20/00
Scripps Westview Condominium Homeowners Assoc.	1/10/02
Scripps Westview Condominium Homeowners Assoc.	02/21/02
SD Board of Realtors	04/09/98
Westfield Shoppingtown	06/06/01
Westfield Shoppingtown	05/21/02

The Following agencies were represented at monthly project development team (PDT) meetings.

City of San Diego
City of Escondido
San Diego Association of Governments (SANDAG)
Metropolitan Transit Development Board (MTDB
North County Transit (NCTD)
Federal Highways Administration (FHWA)

Appendix J Public Comments

Federal Agencies	Received via	Addressed
USFWS	Mail / Email	included

State Agencies	Received via	Addressed
state clearinghouse	Mail / Email	included
State Clearing House - terry roberts	Mail / Email	included
Department of Fish and Game	Mail / Email	included
DTSC	Mail / Email	included

Local Agencies/ Organizations	Received via	Addressed
conservation biology institute	Mail / Email	included
Mira Mesa Planning Group	Mail / Email	included
San Dieguito River Valley	Mail / Email	included
San Dieguito River Valley Conservancy	Mail / Email	included
MTDB	Mail / Email	included
County of San Diego	Mail / Email	included
Rancho Bernardo Comm. Plnng Brd	Mail / Email	included
City of Escondido	Mail / Email	included
San Diego County Bicycle Coalition	Mail / Email	included
City of San Diego	Mail / Email	included
Scripps ranch Planning Group	Mail / Email	included

Citizens	Received via	Addressed
Christopher Bender/Beth Famiglietti	Mail / Email	included
Gene Strocco	Mail / Email	included
Tina Robinson	Mail / Email	included
concerned residents: segment 7	Mail / Email	included
law offices of cynthia eldred	Mail / Email	included
geocon - david evans, tom giles, dustin dunn		included
jeri larson (jeffjerilarson)	Mail / Email	included
laura & Rick Birman	Mail / Email	Not included - issue addressed
Sheng Ye	Mail / Email	Not included - issue addressed
souvannarath	Mail / Email	Not included - issue addressed
David Cheng	Mail / Email	Not included - issue addressed
maria & Andrew bonczyk	Mail / Email	Not included - issue addressed
DeAnna Hood	Mail / Email	Not included - issue addressed
katherine Joyce	Mail / Email	Not included - issue addressed
Sylvia Potter	Mail / Email	Not included - issue addressed

Berta Temme	Mail / Email	Not included - issue addressed
Eric Bowcott	Mail / Email	Not included - issue addressed
	Mail / Email	Not included - issue addressed
Beth Byrd	Mail / Email	Not included - issue addressed
Brian Eshelman	Mail / Email	Not included - issue addressed
michael tran	Mail / Email	Not included - issue addressed
steven pomiak	Mail / Email	Not included - issue addressed
viet pham, david keezer	Mail / Email	Not included - issue addressed
maria valinski, richard lang	Mail / Email	Not included - issue addressed
kellie wong	Mail / Email	Not included - issue addressed
matias negatu	Mail / Email	Not included - issue addressed
cherie linneman	Mail / Email	Not included - issue addressed
tobi antony	Mail / Email	Not included - issue addressed
hui yang	Mail / Email	Not included - issue addressed
mei-ling tu	Mail / Email	Not included - issue addressed
snadra gomo	Mail / Email	Not included - issue addressed
edith smith	Mail / Email	Not included - issue addressed
allison & Scott McClay	Mail / Email	Not included - issue addressed
Stacey Griffin	Mail / Email	Not included - issue addressed
timothy durant	Mail / Email	Not included - issue addressed
john piskor	Mail / Email	Not included - issue addressed
ramewh kasavarju	Mail / Email	Not included - issue addressed
susan hong	Mail / Email	Not included - issue addressed
julie boes	Mail / Email	Not included - issue addressed
nikki phu	Mail / Email	Not included - issue addressed
morio okubo	Mail / Email	Not included - issue addressed
susan edwards	Mail / Email	Not included - issue addressed
james vanderspek	Mail / Email	Not included - issue addressed
sudipta mohanty	Mail / Email	Not included - issue addressed
roy bell	Mail / Email	Not included - issue addressed
farquhar lloyd	Mail / Email	Not included - issue addressed
siavash haghkhah	Mail / Email	Not included - issue addressed
ruby dela cruz	Mail / Email	Not included - issue addressed
alexandre bulboaca	Mail / Email	Not included - issue addressed
juke chen	Mail / Email	Not included - issue addressed
khai nguyen	Mail / Email	Not included - issue addressed
kim tran	Mail / Email	Not included - issue addressed
truc nguyen	Mail / Email	Not included - issue addressed
heather sadleer	Mail / Email	Not included - issue addressed
clair bjerregaard	Mail / Email	Not included - issue addressed
kimberly pagano	Mail / Email	Not included - issue addressed
aurora ramos	Mail / Email	Not included - issue addressed
henry & Nancy Chen	Mail / Email	Not included - issue addressed
Michael sullivan	Mail / Email	Not included - issue addressed
yosina Lissebeak	Mail / Email	Not included - issue addressed

brad maciejewski	Mail / Email	Not included - issue addressed
irene and les perry	Mail / Email	Not included - issue addressed
radicle lazarescli	Mail / Email	Not included - issue addressed
young hoan kim	Mail / Email	Not included - issue addressed
jennifer ouellet	Mail / Email	Not included - issue addressed
sebastian capella	Mail / Email	Not included - issue addressed
brett ching	Mail / Email	Not included - issue addressed
timothy hood	Mail / Email	Not included - issue addressed
masangkay	Mail / Email	Not included - issue addressed
jiyoug xue	Mail / Email	Not included - issue addressed
lisa polikov	Mail / Email	Not included - issue addressed
cathy carlson	Mail / Email	Not included - issue addressed
Ritsuko douglass	Mail / Email	Not included - issue addressed
hugo morales	Mail / Email	Not included - issue addressed
Busterk	Mail / Email	Not included - issue addressed
myron monroe	Mail / Email	Not included - issue addressed
article in paper	Mail / Email	Not included - issue addressed
Trevor Bourget	Mail / Email	Not included - issue addressed
perry leiber	Mail / Email	Not included - issue addressed
kathy tezeno	Mail / Email	Not included - issue addressed
foggy 43	Mail / Email	Not included - issue addressed
vicki kenny	Mail / Email	Not included - issue addressed
Shirley Tweedell	Mail / Email	Not included - issue addressed
AJ Steger	Mail / Email	Not included - issue addressed
james pope	Mail / Email	Not included - issue addressed
Kenneth baker	Mail / Email	Not included - issue addressed
Donald and Audrey Anderson	Mail / Email	Not included - issue addressed
Ruthie Melton	Mail / Email	Not included - issue addressed
Diana Vallese	Mail / Email	Not included - issue addressed
Rein Kosenkranius	Mail / Email	Not included - issue addressed
Irene arsten	Mail / Email	Not included - issue addressed
Bill Bayne	Mail / Email	Not included - issue addressed
Patricia Doyle	Mail / Email	Not included - issue addressed
Ray Barry	Mail / Email	Not included - issue addressed
James and Norine Maher	Mail / Email	Not included - issue addressed
ladysmd	Mail / Email	Not included - issue addressed
SCCDC1	Mail / Email	Not included - issue addressed
Dick and Paula Barton (angelbeliever5)	Mail / Email	Not included - issue addressed
warren uppling (jwup)	Mail / Email	Not included - issue addressed
tina and phil bozarth (tbozarth)	Mail / Email	Not included - issue addressed
George Webster	Mail / Email	Not included - issue addressed
rosemary maver	Mail / Email	Not included - issue addressed
colette burgers	Mail / Email	Not included - issue addressed
11695 Corte Guera	Mail / Email	Not included - issue addressed
community assoc	Mail / Email	Not included - issue addressed
neighbors	Mail / Email	Not included - issue addressed

jge chaya	Mail / Email	Not included - issue addressed
kenny vicki	Mail / Email	Not included - issue addressed
laurie sulzenfuss	Mail / Email	Not included - issue addressed
killakacsa	Mail / Email	Not included - issue addressed
george maguire	Mail / Email	Not included - issue addressed
sherisa varga (sonlight)	Mail / Email	Not included - issue addressed
ron easterbrooks	Mail / Email	Not included - issue addressed
(karalyn003) karaLyn Drake	Mail / Email	Not included - issue addressed
waren uppling	Mail / Email	Not included - issue addressed
warren uppling (jwup)	Mail / Email	Not included - issue addressed
john warren	Mail / Email	Not included - issue addressed
wang Kuirong MGIA0400	Mail / Email	Not included - issue addressed
jordan douglas	Mail / Email	Not included - issue addressed
jim stoneburner	Mail / Email	Not included - issue addressed
mark von gerichten (mvon)	Mail / Email	Not included - issue addressed
barbara baker (blbaker)	Mail / Email	Not included - issue addressed
margot (chubby) jackson	Mail / Email	Not included - issue addressed
cindy evans	Mail / Email	Not included - issue addressed
robert iiko	Mail / Email	Not included - issue addressed
Tim Lehn (tlehn)	Mail / Email	Not included - issue addressed
Tim Lehn (tlehn)	Mail / Email	Not included - issue addressed
calli34 clint allison	Mail / Email	Not included - issue addressed
bonnie ann dowd	Mail / Email	Not included - issue addressed
cathleen walkley (cmwalkley)	Mail / Email	Not included - issue addressed
Stan newman	Mail / Email	Not included - issue addressed
Debra Briski	Mail / Email	Not included - issue addressed
Roby Ramon	Mail / Email	Not included - issue addressed
Roby Ramon	Mail / Email	Not included - issue addressed
Rolando Blancas	Mail / Email	Not included - issue addressed
Stephanie Stillwell	Mail / Email	Not included - issue addressed
Andrew Young	Mail / Email	Not included - issue addressed
Jeff Bowles	Mail / Email	Not included - issue addressed
joe pierzina (d&J Pierzina)	Mail / Email	Not included - issue addressed
Emett Greenwald	Public Hearing Comment	Not included - issue addressed
Emett Greenwald	Public Hearing Comment	Not included - issue addressed
Dennis Bamman, Liz Cherry, Darlene Dunn	Public Hearing Comment	Not included - issue addressed
Nori Pierce	Public Hearing Comment	Not included - issue addressed
Irwin Lee	Public Hearing Comment	Not included - issue addressed
Sergene Turley	Public Hearing Comment	Not included - issue addressed
Randy Fillat	Public Hearing Comment	Not included - issue addressed

Donald Jarel	Public Hearing Comment	Not included - issue addressed
Max Kiltz	Public Hearing Comment	Not included - issue addressed
Dennis Smith	Public Hearing Comment	Not included - issue addressed
Clayt and naomi Vermeulen	Public Hearing Comment	Not included - issue addressed
Miles & Doris Gray	Public Hearing Comment	Not included - issue addressed
Julie and Jim Moore	Public Hearing Comment	Not included - issue addressed
Anne heavener	Public Hearing Comment	Not included - issue addressed
Dave McWeeny	Public Hearing Comment	Not included - issue addressed
Beth famiglieth	Public Hearing Comment	Not included - issue addressed
maeleine aprahamian	Public Hearing Comment	Not included - issue addressed
andrea chandler	Public Hearing Comment	Not included - issue addressed
lynn and terry badger	Public Hearing Comment	Not included - issue addressed
chaney hardman	Public Hearing Comment	Not included - issue addressed
max kiltz	Public Hearing Comment	Not included - issue addressed
mike lutz	Public Hearing Comment	Not included - issue addressed
Liz Cherry	Public Hearing Comment	Not included - issue addressed
mark sarojak	Public Hearing Comment	Not included - issue addressed
allison McClay	Public Hearing Comment	Not included - issue addressed
Keri sarojak	Public Hearing Comment	Not included - issue addressed
Anne Le Reverend	Public Hearing Comment	Not included - issue addressed
Debby Sather	Public Hearing Comment	Not included - issue addressed
Dwight Carlson	Public Hearing Comment	Not included - issue addressed
Elaine Cook	Public Hearing Comment	Not included - issue addressed
Bill Simons	Public Hearing Comment	Not included - issue addressed
Dorothy Risheberger	Public Hearing Comment	Not included - issue addressed
Mike Chandler	Public Hearing Comment	Not included - issue addressed
Mira Mesa Planning group	Public Hearing Comment	Not included - issue addressed
Donald Jarel	Court Reporter/Hearing	Not included - issue addressed
Darlene Dunn	Court Reporter/Hearing	Not included - issue addressed
Suri Pierce	Court Reporter/Hearing	Not included - issue addressed
George Cook	Court Reporter/Hearing	Not included - issue addressed
Hemena Hyman	Court Reporter/Hearing	Not included - issue addressed
Mike Chandler	Court Reporter/Hearing	Not included - issue addressed
Andrea Chandler	Court Reporter/Hearing	Not included - issue addressed
Dennis Seisun	Court Reporter/Hearing	Not included - issue addressed
Sergene Turley	Court Reporter/Hearing	Not included - issue addressed
Bill Bayne	Court Reporter/Hearing	Not included - issue addressed
keri sarojak	Court Reporter/Hearing	Not included - issue addressed
mark Sarojak	Court Reporter/Hearing	Not included - issue addressed

John Groff	Court Reporter/Hearing	Not included - issue addressed
Hillard	Court Reporter/Hearing	Not included - issue addressed
Tina Robinson	Court Reporter/Hearing	Not included - issue addressed
Dwight Carlson	Court Reporter/Hearing	Not included - issue addressed

In order to avoid duplication some letters/comments are not individually addressed in this document particularly if they raised the same or similar concerns or questions already. However, responses to all environmental concerns are provided.

Comment Summary

During the public comment period 217 letters were received by mail, email, or at the public hearing. In several instances a single person submitted more than one comment letter. Where individuals submitted comments at the public hearing and mailed in a letter, or in instances where an individual submitted multiple letters that contained different concerns both were accepted. Following is a summary of the general responses received:

163 letters were received from citizens regarding potential noise impacts from the proposed project

15 letters expressed concerns regarding traffic and operation of the proposed facility

13 letters stated that an east/west wildlife crossing was needed or had other biological concerns

12 letters expressed concern that the proposed project would influence property values of their homes or rental units

10 letters stated that construction related impacts would create community disruptions

9 letters contained concerns regarding visual impacts which included use of landscaping, graffiti control, and blocked views

8 letters contained concerns regarding impacts to parks or trails

6 letters expressed concerns regarding air quality

5 letters expressed concerns regarding safety issues

5 letters expressed concerns with the Hillery Drive DAR

4 letters concerned errors found within the document

Additional concerns raised within the comment letters included nonstandard features, growth inducement, land use, water quality, hazardous waste, constructing a parallel freeway, smart growth, extension of the public comment period, hours of operation of the proposed facility, pavement type to be used, construction techniques at Lake Hodges, and the need to prepare an EIR/EIS.

General Comment 1: Property Value

Several citizens expressed concerns that the proposed project would reduce the value of their property or reduce the ability to rent out properties located adjacent to the corridor.

Response
Many different factors go into determining the property value of homes including the demand for housing in an area. It is not expected that the I-15 Managed Lanes Project will have an influence on property values within the corridor given that the housing demand within San Diego County is on the rise. This is best expressed in SANDAG's Region 2020 publication released February 2002 which states: "The San Diego region is facing a serious housing crisis. Construction is not keeping up with demand, home prices are skyrocketing, and rental rates are climbing."

General Comment 2: Air Quality

Several residents along the corridor expressed concerns regarding additional air pollution that will be created during construction and from expansion of the facility.

Response
An Air Quality Study Report was completed in March 2001. This report describes the air pollutants associated with motor vehicle exhaust, determines applicable air quality standards and regulations, examines the existing air quality conditions in the study area, and identifies and quantifies the possible air quality impacts that could result from the proposed improvements. The report determined that the proposed project would not cause any adverse air quality impacts. A summary of the reports findings can be found in Section 3.6.2 of the DED. In addition, Section 3.17.3 contains a discussion regarding measures to address air quality during construction.

General Comment 3: Construction related impacts
Several letters expressed concerns regarding noise, duration of work, and dust control during construction.

Response
The environmental document addresses temporary construction noise in Section 3.17.3 Measures to Minimize Harm. This section addresses measures that would be used to reduce noise, reduce construction dust, notify residents of delays and of construction schedules, help incident management, and reduce delays due to conflicts between construction contracts.

General Comment 4: An EIR/EIS should be prepared

Several letters expressed concern regarding the decision to prepare a ND/FONSI for this project and expressed that they felt that the appropriate document should be an EIR/EIS

Response
An EIR/EIS is not needed because studies, and careful consideration of public comments have determined that the proposed project has no significant impacts. The mitigated ND/FONSI is reserved for projects that have impacts that are not significant after mitigation. The Department uses the judgment and knowledge of the interdisciplinary project development team (PDT) based on the concepts of context and intensity (NEPA) and setting (CEQA) to determine the nature of impacts.
With the support of specialists and the completed technical studies, the PDT concluded that all project related impacts could be minimized based upon context and intensity and that a ND/FONSI was the appropriate level document for the project. Numerous measures to minimize impacts are identified and planned as outlined in Chapter 3: Affected Environment, Environmental Consequences, and Measures to Minimize Harm and in Appendix F: Mitigation Monitoring and Reporting Record. The Department continues to support the decision that an ND/FONSI is the appropriate level document for the proposed project.

General Comment 5: Significant Impacts under CEQA

Several comments were received which raised concerns regarding the significance of impacts under CEQA.

Response
The Department does not adopt thresholds in the determination of significance under CEQA but uses the professional judgment and knowledge of the interdisciplinary project development team based on the concepts of context and intensity (NEPA) and setting (CEQA). There are no requirements regarding how significance under CEQA must be presented within an IS/EA. The Department has adopted the CEQA Checklist, found in appendix A, to analyze any impacts and their significance under CEQA. Any information required to support the findings on this checklist can be found in Chapter 3 as appropriate.

General Comment 6: Concerns regarding noise impacts

Numerous letters were received that expressed concerns regarding noise abatement decisions that were made throughout the corridor.

Response
Traffic Noise impacts were identified in the Technical Noise Report June 2000, abatement was considered in the Reasonable Feasible Analysis dated September 2002 and the recommended feasible and reasonable barriers are included in the ND/FONSI. These barriers are discussed in detail in Chapter 3.7.3.

Based on the Technical Noise study dated June 2000, in accordance with 23 CFR 772, noise impacts were analyzed and abatement was considered where appropriate.

In areas where substantial increases occurred, as defined by the Caltrans Noise protocal and 23 CFR 772, additional abatement measures would be considered. Per current regulations and project development team input noise abatement is proposed where reasonable and feasible.

Following a review of the noise analysis one additional wall within the project corridor was identified as meeting the reasonable and feasible criteria if an easement is donated. A description of this barrier can be found in section 3.7.3, segment 8.

General Comment 7: Hours of operation of the proposed managed lanes

Comments were received that expressed concerns regarding the hours that the current express lanes operate, and requested that the Department keep the lanes open at all times.

Response
The current opening time for the reversible lanes is 5:45AM to 6:00AM and is based on freeway conditions. If freeway conditions change and congestion begins earlier, the opening time can be re-evaluated. This comment has been passed on to the Traffic Operations Department.

General Comment 8: Impacts to Bicyclists

Several comments were received expressing a desire for bicyclists to be able to utilize freeway shoulders and to continue to be permitted to use the Lake Hodges Bridge overcrossing.

Response
Caltrans will and has made provisions for bicycle traffic in the proposed project. Where alternative alignments exist, it is proposed to utilize those alignments instead of designating freeway shoulders for bicycle use. Where no reasonable alternatives exist, the use of shoulders for bicycle use will be permitted.

Currently, the only location that the use of the freeway shoulder is allowed is over Lake Hodges Bridge. This situation will continue until the San Dieguito River Parks structure and bicycle/ pedestrian path is completed.

On local streets, adequate shoulder width is being provided to enhance bicycle traffic through intersections.

United States Department of the Interior
Fish and Wildlife Service
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92009

In Reply Refer To:
FWS-SDG-1328.4

DEC 2 2002

Charles "Muggs" Stoll
Deputy District Director
Caltrans
District 11
PO Box 85406 M.S. 46
San Diego, California 92186-5406

Re: Draft Environmental Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration for the Interstate 15 Managed Lanes Project, San Diego County, California (EA #: 064800)

Dear Mr. Stoll:

1 The U.S. Fish and Wildlife Service (Service) has reviewed the referenced Draft Environmental Initial Study/ Environmental Assessment and Proposed Mitigated Negative Declaration (MND) for the Interstate 15 (I-15) Managed Lanes Project (Project) from Interstate 163 (I-163) in the City of San Diego to State Route 78 (SR78) in the City of Escondido, in San Diego County, California. The purpose of the project is to expand I-15 to better handle the current and future traffic needs between San Diego and Escondido. The Managed Lanes Project is part of a larger set of operational improvement projects planned for I-15. A biological opinion (FWS-SDG-1328.2; Opinion) was issued on May 8, 2001, for the Operational Improvement Projects. That Opinion discussed three components of the overall operational improvements including either managed lanes or high occupancy vehicle lanes alternatives. However, the Opinion did not address effects to the 11 pairs and four individual coastal California gnatcatchers (*Polioptila californica californica*; gnatcatcher) that are discussed in Managed Lanes Project MND.

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*).

The Managed Lanes Project proposes to construct four managed lanes in the freeway median of I-15 from 1.5 miles south of I-163 in the City of San Diego, to 0.3 mile north of SR78 in the City of Escondido. The total project length is 21.1 miles. The project would impact 11 pairs and four individual gnatcatchers; 43.2 acres of coastal sage scrub; a patch of dot seed plantain (*Plantago erecta*), a larval host plant for the endangered Quino checkerspot butterfly (*Euphydrus editha quino*); and five separate locations with jurisdictional wetlands and waters of the United States.

1 Caltrans and Federal Highway Administration (FHWA) reinitiated formal consultation with the Service on adverse effects to the gnatcatcher, to include the I-15 Managed Lanes Project in the proposed action. The Service issued a Biological Opinion on this reinitiation on January 16, 2003. To offset impacts from the Managed Lanes Project to gnatcatchers, a total of 97.8 acres of coastal sage scrub (CSS) (at a 2:1 ratio) and fourteen (14) gnatcatcher territories will be encumbered on both the Walsh properties at Lake Hodges and at Bonita Meadows. To satisfy this requirement, the remaining 46.1 acres of CSS at the Walsh properties and 51.7 acres of CSS at Bonita meadows will be debited. In addition, a total of fourteen (14) gnatcatcher territories, ten (10) pairs and four (4) single gnatcatchers, will be debited from the two properties. A copy of the Biological Opinion referenced above will be included in Appendix B in the Final MND.

2 This comment letter addresses the following major concerns regarding the proposed project: potential impacts to the federally endangered San Diego ambrosia (*Ambrosia pumila*; ambrosia), potential indirect effects to vernal pool species, inconsistency with the existing opinion for operational improvements to I-15, noise attenuation adjacent to wildlife corridors, and coordinating efforts with the Lake Hodges pedestrian/bike crossing. Other concerns are addressed in an attachment.

San Diego ambrosia was recently listed as endangered under the Act (*Federal Register* 67: 44372-44382, 2002). Ambrosia was historically found throughout the proposed project area and currently occurs in patches between Oceanside and Santee. However, the MND does not mention San Diego ambrosia other than in the species list provided by the Service (Figure 3-7B of the MND). Because San Diego ambrosia is known from the proposed project area, we recommend surveys for this species. If San Diego ambrosia is found within the project area, impacts to ambrosia should be avoided. If avoidance is not possible, minimization measures and mitigation requirements should be incorporated into the final MND.

3 According to the MND, a vernal pool complex occurs along the top of the cutslope within the I-15 right-of-way on Miramar Marine Corp Air Station, between I-163 and State Route 52. The MND does not discuss the potential indirect effects to the vernal pool complex from construction of the Project. However, the upper margin of one of the pools is approximately one meter from the edge of the slope. Any construction activity on this slope could potentially permanently damage the pool's hydrology. Fugitive dust could also cover flowering plants or dormant propagules of the listed species that occur in the vernal pool complex. The final MND should address all potential effects to these pools and all measures to avoid or minimize these effects.

4 Although the existing Opinion for the Operational Improvement Projects analyzed effects to gnatcatchers, that Opinion did not address impacts to the 11 pairs and four individual gnatcatchers that will be impacted by the proposed project. The existing Opinion only addresses impacts to eight gnatcatchers. Therefore, reinitiation of formal section 7 consultation will be necessary to address impacts to additional gnatcatchers that were not addressed in the original Opinion.

The Service recommends installing noise attenuation structures (landscaped sound berms and sound walls), similar to those recommended for residential areas along both sides of I-15, at Penasquitos Canyon Preserve, and Green Valley and Chicarita creeks. These stream systems support well developed riparian communities that have great value as wildlife corridors and have potential as areas for recolonization by least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*).

The Service recommends including the proposed Lake Hodges pedestrian/bike bridge as part of the Lake Hodges bridge replacement project, a component of the Managed Lanes Project. The pedestrian/bike bridge is still in the early conceptual planning stage, and including the pedestrian/bike bridge as part of the I-15 bridge replacement project would minimize impacts to environmental resources. For example, the proposed pedestrian/bike bridge could be cantilevered off of the Lake Hodges bridge, thus eliminating the need for a separate pedestrian/bike bridge across the lake.

2 Biological surveys for the federally endangered San Diego ambrosia were conducted in 1999 for the I-15 Corridor by AMEC Earth and Environmental (Final Biological Resource Surveys for the I-15 Corridor, October 1999). A population of San Diego ambrosia was located on the west side of I-15, south of Via Rancho Parkway, just north of Lake Hodges. This is depicted in the MND on Figure 2-22. The populations of ambrosia will not be impacted by the proposed project. The location will be marked as an Environmentally Sensitive Area during construction to ensure that no activities occur in that area. A detailed discussion of San Diego ambrosia will be added to the MND under section 3.12 Threatened and Endangered Species, 3.12.2 Impacts.

3 Section 3.9 Wetlands and Waters of the United States, 3.9.1 Affected Environment of the Draft MND state that "vernal pools, some supporting rare plants and animals, occur in the segment where the southbound right-of-way passes through Miramar MCAS. These areas were created in 1983 to offset impacts due to earlier I-15 construction. In addition to vernal pools created as mitigation, naturally occurring vernal pools exist in this region." In order to avoid direct impacts to these vernal pools that exist at the top of the slope, a bridge for the barrier transfer machine south of H Avenue is proposed. In addition, these vernal pools have been designated as Environmentally Sensitive Areas (ESAs) to avoid any further impacts during construction. Figure 2-3 of the Project Features Maps delineates the ESA and will be included on Figure 2-3 in the Final MND.

4 Any indirect impacts from noise, light, vibration and exhaust would be addressed through minimization measures and Best Management Practices (BMP's) included in Section 3.17 Construction Impacts of this Negative Declaration. In addition, Caltrans will include a more detailed description and a discussion of potential indirect impacts to these vernal pools in the Final MND.

Thank you for the opportunity to comment on the Draft Environmental Initial Study/ Environmental Assessment and Proposed Mitigated Negative Declaration for the Interstate 15 Managed Lanes Project. Should you have any questions regarding our comments, please call John DiGregoria of my staff at (760) 431-9440.

Sincerely,

Susan E. Wynn
Acting Assistant Field Supervisor

cc: Pam Beare, California Department of Fish and Game

Enclosure

U.S. FISH AND WILDLIFE SERVICE
COMMENTS AND RECOMMENDATIONS
ON FWS-SDG-1328.4

General Comments

5 1. The Service recommends constructing replacement bridges with bat friendly structures. Because bat populations are declining in San Diego County, constructing bat friendly bridges would enhance the recovery of local bat populations.

6 2. The minimization and mitigation measures for each stage of the Project should be modified to include the following:

a. All clearing and grubbing should occur outside the gnatcatcher breeding season of approximately February 15 to August 31. In addition, prior to construction activities, a qualified biologist should survey the preserved habitat areas adjacent to the project site to determine if any gnatcatcher nests are within a distance potentially affected by noise from these activities. If no nesting gnatcatchers are located, no additional measures will need to be taken to mitigate indirect impacts. However, if nesting gnatcatchers are observed, no activity will occur without noise attenuation (e.g., noise barriers) to ensure that noise levels within occupied gnatcatcher habitat do not exceed 60 dBA Leq.

b. If the construction (including grading) occurs during raptor breeding season (typically February 15 - August 31, although breeding can begin as early as January), a qualified biologist should conduct a pre-construction survey of the project site and surrounding habitat to determine whether there are active raptor nests within that area. If an active nest is observed, we recommend that a buffer be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer should be a minimum width of 500 feet and should be in effect as long as construction is occurring and until the nest is no longer active.

c. The Service recommends the use of native plants to the greatest extent feasible in the landscape areas adjacent to and/or near mitigation/open space areas and/or wetland/riparian areas. The applicant should not plant, seed or otherwise introduce invasive exotic plant species to the landscaped areas adjacent and/or near the mitigation/open space area and/or wetland/riparian areas. Exotic plant species not to be used include those species listed on Lists A & B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999." This list includes such species as: pepper trees, pampas grass, fountain grass, ice plant, myoporum, black locust, capeweed, tree of heaven, periwinkle, sweet alyssum, English ivy, French broom, Scotch broom, and Spanish broom. A copy of the complete list can be obtained by contacting the California Exotic Pest Plant Council at 32912 Calle del Tesoro,

5 Caltrans is currently examining the possibility of adding bat friendly structures (bat boxes) to bridges that will be replaced.

6 Section 3.12.3 Measures to Minimize Harm will be revised to minimize all direct and indirect impacts to the least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher and breeding raptors as included in the revised Biological Opinion issued by the Service on January 16, 2003.

The following paragraph specifically addressing invasive species will be added as a separate section to the Final MND.

On February 3, 1999, President Clinton signed Executive Order 13112 requiring Federal agency action to combat the introduction or spread of invasive species in the United States. Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the state's noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project. The landscaping and erosion control that is proposed for the I-15 Managed Lanes corridor will not use species listed as noxious weeds and will not plant, seed or otherwise introduce invasive exotic plant species to the landscaped areas adjacent and/or near the mitigation/open space area and/or wetland/riparian areas.

During construction, in areas of particular sensitivity, such as mitigation/open space areas and/or wetland/riparian areas, extra precautions may be taken if invasive species are found in or adjacent to the construction areas. These may include the inspection and cleaning of construction equipment and eradication strategies to be deployed should an invasion occur.

San Juan Capistrano, California 92675-4427, or by accessing their web site at http://www.caleppc.org.

d. The Service has concerns about the potential effects that project-related changes in natural hydrologic regimes may have to the onsite drainages and their associated biological resources. The project design should mitigate for any increased potential for flooding. We recommend that natural drainage (i.e., pre-development hydrology) be retained as much as possible so that flows that once reached the habitats downstream continue to after development, subsequent to undergoing filtration and attenuation from BMPs. We recommend that a "natural" treatment system (i.e., created buffer such as vegetated strips or grassy swales, using native plants) be integrated into the site design to attenuate the increased velocities of surface flows and provide natural filtration to the surface flows.

3. The final MND should include maps that show the following:

7 a. The project area in relation to surrounding habitat, the Multiple Habitat Conservation Plan (MHCP), and the Multiple Species Conservation Program (MSCP).

b. The true boundaries of Lake Hodges. Many maps within the document show Lake Hodges terminating at I-15 and not continuing to the east of I-15. These maps should be modified to correctly portray Lake Hodges.

8 4. The final MND should provide a more detailed analysis of the projects' potential impacts on sensitive species. This should include an expanded discussion of how indirect impacts may affect sensitive species.

5. The final MND should include a description of how both on-site preservation areas and off-site acquisition areas will be protected, maintained, monitored, and funded in perpetuity.

9 6. We recommend that the final MND state that prior to commencement of grading or clearing, mitigation measures will be reviewed and approved by the Service.

Specific Comments

10 7. The final MND should include the requirement that a monitoring/management plan for the mitigation site, consistent with MSCP and MHCP guidelines, that addresses both the habitat and the species will be developed and implemented in coordination with the Service. The plan should include management objectives to determine the distribution and abundance of plants and animals found within the on-site preserve and build a baseline database from this information. Management should include monitoring specific taxonomic groups to determine whether the site is functioning naturally or if the biological diversity of the site is being degraded or diminished. Additional management objectives should include dealing with threats posed by human encroachment and from

7 A regional graphic will be added to the Final MND to show the project's relationship to the City's MSCP and MHCP areas. In addition, the proposed Managed Lanes project will cross the City of San Diego's MHPA boundary in three main locations: Los Penasquitos Canyon (Figure 2-10), Green Valley Creek Bridge (Figures 2-19 and 2-20) and Lake Hodges (Figures 2-20 and 2-21). All Projects Features Maps will be revised in the final document to depict the City's MHPA boundaries where applicable.

All figures in the Final MND will be revised to show the true boundaries of Lake Hodges.

8 Comment noted. Impacts to biological resources will be analyzed as three separate sections in the Final MND to include wetlands, threatened and endangered species, and wildlife. All of the above mentioned sections will be revised to include a more detailed description and analysis of both direct and indirect impacts. Please note that all technical study reports have been incorporated by reference

9 Comment Noted. This condition will be added to the Final MND in Section 3.12.3

non-native plants and animals that have been introduced into California over the last 100 years. All threats should be monitored and managed appropriately. The plan should also include measures to establish an appropriate financial mechanism (e.g., escrow account, performance bond) that would assure that the conservation measures are fully implemented. This plan, including funding, should be implemented prior to, or concurrent with, the initiation of construction.

11 8. The final MND should include the provision for a biological monitor to be present during construction and to oversee the mitigation activities to ensure that conservation measures required in the final MND, resource agency permits, and construction documents are performed in compliance with those documents and any concurrent or subsequent mitigation plans. The biological monitor will have the authority to halt all associated project activities, which may be in violation of the conditions of any permits in effect. Any unauthorized impacts or actions not in compliance with the required mitigation should be immediately brought to the attention of th Service.

12 9. To minimize impacts to gnatcatchers, the final MND should state that updated protocol-level surveys for the coastal California gnatcatcher and other listed species be performed no more than one year prior to an application for a permit from the Service.

13 10. Temporary fencing should be required in all locations of the project where proposed grading or clearing is within 100 feet of proposed biological open space. Fencing should be placed on impact side and should result in no vegetation loss within open space. All temporary fencing shall be removed only after the conclusion of all grading, clearing and construction.

10 The Service reissued a non-jeopardy Biological Opinion on January 16, 2003 for the proposed I-15 Managed Lanes. The terms and conditions listed below specifically address Service Comment (7) above. A copy of the Biological Opinion referenced above will be included in Appendix B in the Final MND. In addition, see Caltrans response to Service Comment (5) above.

11 Comment noted. The Final MND will be revised to include the provision for a biological monitor to be present during construction and to oversee the mitigation activities to ensure that conservation measures required in the Final MND, resource agency permits, and construction documents are performed in compliance with those documents and any concurrent or subsequent mitigation plans. In Sections 3.9 Wetlands and Waters of the United States, 3.10 Wildlife, and 3.12 Threatened and Endangered Species, the presence of a biological monitor will be added as a measure to minimize harm.

12 Comment noted. Pre-construction surveys for the coastal California gnatcatcher will be conducted prior to construction. In addition, the presence of a biological monitor will be added as a measure to minimize harm (see answer to Service comment (8) above).

13 The Service reissued a non-jeopardy Biological Opinion on January 16, 2003 for the proposed I-15 Managed Lanes. The Terms and Conditions 2.1 specifically address Service Comment (10) above. A copy of the Biological Opinion referenced above will be included in Appendix B in the Final MND.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

ACKNOWLEDGEMENT OF RECEIPT

DATE: November 15, 2002

TO: Jason A. Reynolds
Department of Transportation, District 11
P.O. Box 85406, MS 46
2829 Juan Street
San Diego, CA 92186-5406

RE: Interstate 15 Managed Lanes
SCH#: 2002101112

1 This is to acknowledge that the State Clearinghouse has received your environmental document for state review. The review period assigned by the State Clearinghouse is:

Review Start Date: October 23, 2002
Review End Date: November 21, 2002

We have distributed your document to the following agencies and departments:

Air Resources Board, Transportation Projects
California Highway Patrol
Department of Fish and Game, Region 5
Department of Parks and Recreation
Department of Toxic Substances Control
Department of Water Resources
Native American Heritage Commission
Office of Historic Preservation
Regional Water Quality Control Board, Region 9
Resources Agency
State Lands Commission

The State Clearinghouse will provide a closing letter with any state agency comments to your attention on the date following the close of the review period.

Thank you for your participation in the State Clearinghouse review process.

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
(916)445-0613 FAX(916)323-3018 www.opr.ca.gov

26

1 Comment noted

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

November 22, 2002

Jason A. Reynolds
Department of Transportation, District 11
P.O. Box 85406, MS 46
2829 Juan Street
San Diego, CA 92186-5406

Subject: Interstate 15 Managed Lanes
SCH#: 2002101112

Dear Jason A. Reynolds:

1 The State Clearinghouse submitted the above named Joint Document to selected state agencies for review. The review period closed on November 21, 2002, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
(916)445-0613 FAX(916)323-3018 www.opr.ca.gov

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1 Comment Noted

Document Details Report
State Clearinghouse Data Base

SCH# **2002101112**
Project Title Interstate 15 Managed Lanes
Lead Agency Caltrans #11

Type **JD** Joint Document

Description The proposed project would construct four managed lanes, a moveable barrier system, auxiliary lanes, and added lanes from State Route 163 in the City of San Diego to State Route 78 in the City of Escondido, in San Diego County, California.

Lead Agency Contact

Name Jason A. Reynolds
Agency Department of Transportation, District 11
Phone 619-688-0121 ***Fax***
email
Address P.O. Box 85406, MS 46
2829 Juan Street
City San Diego ***State*** CA ***Zip*** 92186-5406

Project Location

County San Diego
City San Diego, Escondido
Region
Cross Streets From SR-163 to SR-78
Parcel No.
Township ***Range*** ***Section*** ***Base*** S.B

Proximity to:

Highways 52, 163, 56, 78
Airports
Railways
Waterways Green Valley, Las Penasquitos, San Clemente Creeks & LK Hodges
Schools
Land Use Transportation Corridor

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Economics/Jobs; Flood Plain/Flooding; Noise; Population/Housing Balance; Recreation/Parks; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Wildlife; Landuse; Growth Inducing; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 9; Department of Toxic Substances Control; Native American Heritage Commission; State Lands Commission

Date Received 10/23/2002 ***Start of Review*** 10/23/2002 ***End of Review*** 11/21/2002

Note: Blanks in data fields result from insufficient information provided by lead agency.

State of California - The Resources Agency

GRAY DAVIS, *Governor*

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

November 22, 2002

Charles Stoll, Deputy District Director
Environmental Division, MS-46
California Department of Transportation, District 11
P.O. Box 85406
San Diego, CA 92186-5406

Comments on the Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration for the Interstate 15 Managed Lanes Project, P.M. 10.7-31.8, San Diego County

Dear Mr. Stoll:

The Department of Fish and Game (Department) has reviewed the above-referenced Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration (DIS) that was received on October 22, 2002. The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA), Sections 15386 and 15381 respectively. The Department is responsible for the conservation, protection, and management of the state's biological resources, pursuant to Fish and Game Code (DFG Code) 1802, and rare, threatened, and endangered plant and animal species pursuant to the California Endangered Species Act (CESA). The Department also administers the Natural Community Conservation Program (NCCP).

The proposed project is located on Interstate 15 (I-15) from 1.49 miles south of State Route 163 in the City of San Diego to 0.31 mile north of State Route 78 in the City of Escondido. The project consists of the construction of four "managed lanes" within the median that would be separated from the main lanes with fixed concrete barriers. The four lanes are considered managed because they could be configured with a movable barrier to consist of 3 lanes northbound and 1 lane southbound, 2 lanes in each direction, or 1 lane northbound and 3 lanes southbound, depending on traffic demand. These lanes would be open to high occupancy vehicles, buses and possibly single occupancy vehicles (SOV) through the Value Pricing Program, which sells extra capacity to SOV users. The additional lanes would be accommodated within the existing right of way and would utilize the median, as well as widening to one or both sides of the outside lanes where necessary. The project would improve freeway capacity and transit opportunities.

The DIS identifies impacts to both wetlands and waters of the U.S., and threatened and endangered species, but includes mitigation that would avoid potentially significant impacts. Wetland and waters impacts occur at five locations. The impact to threatened and endangered species is limited to the coastal California gnatcatcher. Wildlife corridors are also discussed, but only temporary impacts are

identified. The Natural Environment Study (NES) for the project indicates that several other listed or sensitive species are known to occur adjacent to the project, but either no impacts are anticipated or the impacts are not considered significant, even without mitigation.

The Department offers the following comments regarding the adequacy of the DIS to support the proposed finding that the project will not have a significant impact on biological resources:

Streambeds and Riparian Resources

As acknowledged in the DIS, a Streambed Alteration Agreement (SAA), pursuant to Section 1600 *et seq.* of the Fish and Game Code will be needed for project construction. The Department's issuance of an SAA for a project that is subject to CEQA, requires CEQA compliance actions by the Department as a responsible agency. As such, the Department may consider the document prepared by Caltrans for the project. To minimize additional requirements by the Department pursuant to Section 1600 *et seq.* and/or CEQA, the IS should fully identify the potential impacts on all stream and lake beds, and associated riparian resources including species of special concern, and provide adequate avoidance, mitigation, monitoring and reporting commitments.

Although the DIS refers to wetlands and waters of the U.S., both terms are specific to areas under the jurisdiction of the U.S. Army Corps of Engineers. There is no discussion of how, or if, these differ from areas of Department jurisdiction. The IS should include the methodology used to determine the areas subject to Section 1600 *et seq.*, a description of the habitat types at each location, the area of impact and its context, along with proposed mitigation measures, all in sufficient detail to support the finding of no significant impact.

NCCP/Wildlife Corridors

The project is located within two NCCP areas, the City of San Diego Subarea of the Multiple Species Conservation Program (MSCP) and the Draft Escondido Subarea Plan of the Multiple Habitat Conservation Program (MHCP). These plans have identified lands targeted for conservation which are intended to create a connected system of biologically viable habitat lands that would maximize the protection of sensitive species. These lands are referred to as the Multi-Habitat Planning Area (MHPA) within the MSCP and Biological Core and Linkage Areas (BCLA) in the MHCP. The project crosses three areas included in the MHPA, but none of the BCLA. The three areas are Los Penasquitos Creek, Green Valley Creek and Lake Hodges. As acknowledged in the DIS, the Los Penasquitos Creek and Lake Hodges portions of the MHPA are considered important wildlife corridors. Because I-15 creates a very effective barrier to wildlife movement, these corridors are critical to the success of the MSCP and therefore the long-term viability of wildlife populations in the county. Any potential impact to either corridor would be significant. The DIS indicates that there would be no permanent impacts to wildlife corridors, only temporary impacts during construction activities. However, the document lacks a sufficiently detailed discussion to adequately support this statement.

For example, there is currently a trail that passes under the I-15 bridge over Lake Hodges. This project will replace the current bridge, which has an open median, with a structure that is wider and without an open median. The DIS indicates that the San Dieguito River Park Joint Powers Authority (JPA) "expressed concern regarding tunnel effects and lack of light due to the additional structures covering the trail." To mitigate for this, "Lighting will be installed under the bridge to help eliminate tunnel effects and to improve safety underneath the proposed structure." There is no indication of the hours this lighting would be in use, however, if it is used at anytime other than daylight hours, wildlife use may be adversely affected. Additional adverse impacts to this corridor, combined with past impacts such as the construction

1 Section 3.9 Wetlands and Waters of the United States will be revised to include descriptions of each type of wetland to be impacted (with acreages), such as riparian habitat, freshwater marsh, natural flood channel, etc. in addition to type of impact (temporary vs. permanent), and the methodology used to determine the areas subject to Section 1600 *et seq*. A table will also be provided that quantifies impacts to both U.S. Army of Corps of Engineers (USACOE) jurisdictional areas (both "water's of the U.S." and wetlands) and DFG jurisdictional areas.

2 Impacts to wetlands will be mitigated through an off site purchase and protection of wetlands currently under private ownership. Caltrans proposes that temporary impacts be mitigated at a ratio of 1:1 and permanent impacts at a ration of 3:1. Caltrans is currently discussing with the City of San Diego to determine the feasibility of doing wetland creation/restoration/enhancement work at Los Penasquitos Creek within the Los Penasquitos Canyon Preserve. It is downstream of the I-15 crossing where project impacts to Los Penasquitos Creek would occur. A detailed description of this site can be found in Section 3.9.3.

3 The proposed Managed Lanes project will cross the City of San Diego's MHPA boundary in three main locations: Los Penasquitos Canyon (Figure 2-10), Green Valley Creek Bridge (Figures 2-19 and 2-20) and Lake Hodges (Figures 2-20 and 2-21). All areas north of Lake Hodges, where Interstate 15 bisects the City of Escondido are within the planning area for the MHCP and the City of Escondido's Subarea Plan. All Projects Features Maps will be revised in the final document to depict the City's MHPA boundaries where applicable. In addition, a regional graphic will be added to the final document to show the project's relationship to the City's Multiple Species Conservation Program (MSCP), MHPA areas and MHCP.

4 Section 3.10 Wildlife will be revised to include an analysis of the project's compliance with the City's MSCP Land Use Adjacency Guidelines (construction and operational noise, lighting, toxics, landscaping and drainage) for those areas near and within the MHPA. In addition, a description of how the I-15 Managed Lanes will remain consistent with the MHCP's procedures and guidelines for limiting impacts to sensitive species and habitats, evaluating unavoidable impacts and establishing mitigation will be included.

of the trail, which reduced the slope area available for wildlife and allowed for more human usage, along with the San Diego Water Authority Emergency Storage Project, may severely restrict or eliminate wildlife use of the corridor. Any such change, including minor changes at this location or the other corridors, needs to be thoroughly explored, and mitigated as necessary, before a finding can be made that there is no significant impact.

If after a thorough review of the project design details, Caltrans can support a finding of no significant impact, the Department requests that this, and all future Caltrans projects and encroachment permit approvals, maintain the viability of these corridors regardless of any legal requirement to do so. Department staff are available to assist with this as needed.

Least Bell's Vireo and Southwestern Willow Flycatcher

Both the least Bell's vireo and southwestern willow flycatcher utilize habitat adjacent to the project as shown on Figures 2-21 and 2-22. The DIS indicates that neither species was observed within the project footprint, but it fails to address the potential for indirect impacts or that the birds may be in a different location when the project goes to construction. The potential for take, as defined in CESA, that may result from project activities needs to be more thoroughly addressed. Pre-construction surveys, and possibly also construction monitoring, will be needed.

Coastal Sage Scrub

The figures depicting impacts to coastal sage scrub and the mitigation for this impact should be clarified. Impacts to coastal sage scrub are shown even where it occurs outside of the grading limits, but similar locations for sensitive species are not included as an impact. In addition, the mitigation for coastal sage scrub impacts that is described in the DIS differs from that in the NES.

Sensitive Plant Species

The NES for the project indicates that Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*) occurs on the west side of I-15, north of Los Penasquitos Canyon and that this population would be impacted by a proposed access road and staging area. Although the DIS shows the presence of other sensitive plant species on Figures 2-1 through 2-28, the location of Robinson's peppergrass is not shown and there is no discussion of the impact or mitigation. This plant is not listed as endangered or threatened, but it is on the California Native Plant Society List 1B. Plants on this list are all "rare throughout their range" and "are judged to be vulnerable under present circumstances or to have a high potential for becoming so."(CNPS, 2001). Section 15380(d) of the Guidelines requires that species that are not listed "shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria" for listing. The California Natural Diversity Database, a statewide list of sensitive species and habitats, contains only 11 occurrences of this species. Because of its rarity, impacts to Robinson's peppergrass should be avoided, particularly since the impact would only be from staging and access, not the project itself.

Impacts to four other sensitive plants, California adolphia (*Adolphia californica*), San Diego sagewort (*Artemisia palmeri*), Orcutt's brodiaea (*Brodiaea orcuttii*), and San Diego barrel cactus (*Ferocactus viridescens*) are mentioned and a commitment is made to avoid and minimize these impacts. In addition, transplantation and/or off-site mitigation would be provided as determined in coordination with the appropriate resource agencies. The extent of the impact and the mitigation measure should be included in the IS to support the proposed finding of no significant impact.

5 Section 3.12.3 Measures to Minimize Harm in the final MND will be revised to minimize all direct and indirect impact to the least Bell's vireo and southwestern willow flycatcherThe Biological Opinion will be included in the Final MND in Appendix B and all measures will be included in the Final MND.

6 All Project Features maps will be updated to accurately address impacts to sensitive resources, including upland habitats (coastal sage scrub) and species that are within and adjacent to the project.

7

Mitigation for impacts to coastal sage scrub and the coastal California gnatcatcher described in the NES include the purchase of three parcels of land near Lake Hodges, referred to as the Walsh Property, with a total of 81 acres of CSS and 12 gnatcatcher territories. Subsequent to the NES, additional mitigation for cumulative impacts to coastal sage scrub and the gnatcatcher from the I-15 Managed Lanes project was identified. The second site, Bonita Meadows, is located in southeast San Diego and consists of 200 acres of preserved land with 72.51 acres of CSS and eight gnatcatcher territories. Bonita Meadows is located within the County of San Diego and the MSCP limits, and the eastern portion of the property falls within the MHPA, specifically, the County of San Diego, Pre-approved Mitigation Area (PAMA). Both mitigation properties will be described in the Final MND.

8

All Project Features maps will be updated to accurately address impacts to sensitive resources, including upland habitats (coastal sage scrub) and species that are within and adjacent to the project. Specifically, Figure 2-10 will be revised in the Final MND to show the correct location of Robinson's peppergrass. The polygon representing the peppergrass was mistakenly labeled as San Diego sagewort in the Draft MND. Impacts to this species were identified in the NES and Section 3.12.22 of the Draft MND and would result from a proposed bridge access road and staging area. Section 3.12.2 Impacts of the Final MND will be revised to avoid all impacts to Robinson's peppergrass by relocating the proposed staging area and identifying an alternative route for access underneath Los Penasquitos Bridge during construction.

All staging areas should be located in areas that do not support sensitive species or vegetation communities. In addition, all access roads should avoid these areas whenever this is an alternative that would not result in an even greater impact. The Department appreciates the opportunity to comment on your project. We look forward to working with you to refine the project features to be as compatible as possible with the preservation of the fish and wildlife resources of the state. Questions regarding this letter and further coordination on these issues should be directed to Pam Beare at (858) 467-4229.

Sincerely,

For William E. Tippets
Environmental Program Manager

References Cited:

California Native Plant Society. 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, CA. 388pp.

File: Cron
file: I15MNDcom.doc

9 Section 3.12 Threatened and Endangered Species will be revised in the Final MND to adequately describe the populations of sensitive plant species found within the I-15 Managed Lanes project footprint. The extent of the impact and the mitigation measures proposed will also be included in the Final MND. Measures to avoid and minimize impacts will also be described.

Department of Toxic Substances Control

Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

November 19, 2002

Mr. Jason A. Reynolds
California Department of Transportation
2829 Juan Street (Old Town), MS 46
San Diego, California 92186

ENVIRONMENTAL ASSESSMENT/NEGATIVE DECLARATION FOR THE INTERSTATE 15 MANAGED LANES - (SCH # 2002101112)

Dear Mr. Reynolds:

The Department of Toxic Substances Control (DTSC) has received your Environmental Assessment and Negative Declaration (EA/ND) for the above-mentioned Project.

Based on the review of the document, DTSC's comments are as follows:

1 1) The EA/ND needs to identify and determine whether current or historic uses have resulted in any release of hazardous wastes/substances at the site.

2 2) The EA/ND needs to identify any known or potentially contaminated site within the proposed Project area. For all identified sites, the EA/ND needs to evaluate whether conditions at the site pose a threat to human health or the environment.

3 3) The EA/ND should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and the government agency to provide appropriate regulatory oversight.

4 4) The project construction may require soil excavation and soil filling in certain areas. Appropriate sampling is required prior to disposal of the excavated soil. If the soil is contaminated, properly dispose the soil rather than placing it in another location. Land Disposal Restrictions (LDRs) may be applicable to these soils. Also, if the project is planning to import soil for backfilling the areas excavated, proper sampling should be conducted to make sure that the imported soil is free of contamination.

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1 The environmental investigation of the project area concluded that neither past nor present historic uses have resulted in hazardous wastes/substances at the site.

2 Known or potential contaminated sites were not identified during environmental study within the project area. Therefore the proposed construction activities at the project area are not considered a threat to human health or the environment with regard to hazardous waste issues.

3 Environmental investigation has been performed at the project area, and it was concluded that hazardous waste issues are not anticipated for this project. If investigation/remediation were required due to encountering unsuspected or unknown contamination during construction activities onsite, the San Diego County Department of Health Services and/or the Regional Water Quality Control Board would be contacted by the Department to oversee the activities.

4 Excavated soil will be exported for this project. The excavated soil will be relinquished to the contractor for subsequent re-use or disposal. Importing soil is not a part of this project. Environmental investigation of the project area has been conducted and it included: review of aerial photos, government agency lists regarding hazardous wastes, soil sampling and testing for aerially deposited lead, and a site reconnaissance. The investigation concluded that hazardous waste issues are not anticipated for this project. Therefore, excavated soil will be exported as clean fill material. Land Disposal Restrictions (LDRs) will not apply to the clean fill material

5) Any hazardous wastes/materials encountered during construction should be remediated in accordance with local, state, and federal regulations. Prior to initiating any construction activities, an environmental assessment should be conducted to determine if a release of hazardous wastes/substances exists at the site. If so, further studies should be carried out to delineate the nature and extent of the contamination. Also, it is necessary to estimate the potential threat to public health and/or the environment posed by the site. It may be necessary to determine if an expedited response action is required to reduce existing or potential threats to public health or the environment. If no immediate threat exists, the final remedy should be implemented in compliance with state regulations and policies rather than excavation of soil prior to any assessments.

6) If during construction of the project, soil and/or groundwater contamination is suspected, construction in the area should cease and appropriate Health and Safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the EA/ND should identify how any required investigation and/or remediation will be conducted, and the government agency to provide appropriate regulatory oversight.

DTSC provides guidance for the Preliminary Endangerment Assessment (PEA) preparation and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP, please visit DTSC's web site at www.dtsc.ca.gov.

If you have any questions regarding this letter, please contact Ms. Rania A. Zabaneh, Project Manager at (714) 484-5479.

Sincerely,

Haissam Y. Salloum, P.E.
Unit Chief
Southern California Cleanup Operations Branch
Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief
Planning and Environmental Analysis Section
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

5 If unsuspected or unknown hazardous wastes are encountered during construction, environmental assessment, investigation, and characterization will be performed in accordance with local, state, and federal regulations to evaluate the nature and extent of contamination, and to evaluate the potential threat to public health or the environment. This will be followed by appropriate remediation, if necessary. The Department has performed an environmental investigation of the project area. The investigation concluded that hazardous wastes are not anticipated for this project.

6 Contamination of soil or groundwater is not suspected within the project boundary. If hazardous wastes not detected during the Department environmental assessment are encountered during construction, work will cease within the impacted location within the project area, the appropriate regulatory agencies would be notified, and the proper Health and Safety procedures would be implemented. The contaminated soil or groundwater encountered would be investigated and/or remediated in accordance with local, State, and federal regulations with appropriate regulatory oversight.

CONSERVATION BIOLOGY INSTITUTE

Conservation Biology Institute

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November 9, 2002

Charles "Muggs" Stoll
Deputy District Director
District 11, Environmental Division
California Department of Transportation
2829 Juan Street, M.S. 46
P.O. Box 85406
San Diego, CA 92186-5406

Subject: **Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration for the Interstate 15 Managed Lanes Project**

Dear Mr. Stoll:

Thank you for the opportunity to comment on the subject document. The Conservation Biology Institute is a non-profit conservation science organization that has been active in natural resources conservation, management, and monitoring activities in San Diego County. In particular, we have been closely involved with the planning and implementation of the Multiple Species Conservation Program (MSCP). One aspect of our work has been associated with the design, management, and monitoring of wildlife movement corridors and habitat linkages within the MSCP and between Natural Community Conservation Planning (NCCP) program subregions. Our comments on the subject document are restricted to the subject of wildlife movement corridors and habitat linkages.

1 The information presented in Section 3.10 Wildlife is incomplete, the analysis of impacts is superficial, and the measures to minimize harm that are presented are inadequate to ensure that wildlife movement through the San Dieguito River Valley (Lake Hodges Bridge) is maintained in the future. The description of the Affected Environment does not adequately characterize the importance of habitat connectivity and wildlife corridors to maintaining the long-term viability of the regional preserve system. It also does not emphasize the critical nature of the movement corridors at the San Dieguito River Valley and Los Peñasquitos Creek. These river valleys are the only two remaining east-west connections linking coastal habitat preserves west of Interstate 15 with inland preserve areas east of Interstate 15. As such, the importance of enhancing habitat connectivity and facilitating wildlife movement through these areas cannot be overstated.

1 Section 3.10 Wildlife, 3.10.1 Affected Environment will be revised in the Final Mitigated Negative Declaration (MND) to include a more detailed description of the importance of habitat connectivity and wildlife corridors within the San Dieguito River Valley (Lake Hodges and Green Valley Creek) and Los Penasquitos Creek.

2 The analysis of impacts identifies only temporary impacts associated with the project. In fact, in the San Dieguito River Valley, the wildlife corridor under the existing Interstate 15 bridge is currently not functional for many wildlife species when the water levels of Lake Hodges are high. During high water periods in Lake Hodges, surface water covers all of the ground and vegetation under the bridge. This leaves only rip-rapped slopes at the base of the bridge abutments and the paved North Shore Segment of the Coast-to-Crest Trail as possible routes of movement for terrestrial wildlife under the bridge. Thus, at times, the bridge over Interstate 15 can completely sever the wildlife movement corridor.

3 Mitigation measures presented in the document are associated only with the construction phase of the project. While these measures are adequate to offset the temporary impacts of the project, they are insufficient to resolve the long-term effects of the existing bridge design. We strongly encourage Caltrans to consider incorporating into the project design in the area of the San Dieguito River Valley features to facilitate wildlife movement that are not affected by the level of Lake Hodges, particularly in light of the fact that the entire bridge will be replaced as part of the project. Such a design might include a dirt path, constructed along the base of the northern and southern bridge abutments, above the high water mark of the lake. For example, where there is currently rip-rap at the base of the existing southern bridge abutment and the paved Coast-to-Crest trail on the north side of the river valley, small retaining structures could be built and soil placed on top of this to provide a level path for wildlife movement. The grade of the path would ideally transition into adjacent open space areas outside of Caltrans right-of-way and have vegetation along the margins to provide cover.

We believe that given such design modifications, which would be very small fraction of overall project costs, the wildlife corridor functions of this critically important area can be greatly improved. We applaud the efforts of Caltrans to design and implement its projects in an environmentally sensitive fashion, particularly for your efforts to provide for wildlife movement with bridges, tunnels, and other project features. We ask you to consider incorporating such features into this project.

I would be happy to discuss these issues further at your convenience.

Sincerely,

Michael D. White, Ph.D.
Senior Ecologist

2 All impacts to wildlife corridors within the I-15 Managed Lanes corridor will be temporary and construction related. Temporary impacts to wildlife corridors at Lake Hodges, Green Valley Creek, Los Penasquitos Creek, Chicarita Creek and San Clemente Canyon are likely to occur. The proposed measures as described in Section 3.10.2 would facilitate movement and habitat use by animals such as mule deer, bobcat, mountain lion, and gray fox during construction. In addition, these measures would be consistent with the City's MSCP Land Use Agency Guidelines for those areas near the MHPA.

3 A wildlife corridor will be added to the bridge design for Lake Hodges on both the south and north sides of the bridge. This will eliminate any permanent impacts to wildlife movement underneath the bridge after the Managed Lanes are constructed. Currently, wildlife can move freely underneath the Lake Hodges bridge because the lake is not full, or use the existing riding/hiking trail on the north side of the bridge. The San Diego County Water Authority (SDCWA) is proposing to construct the Lake Hodges Inlet/Outlet project as an element of its Emergency Water Storage Project (ESP). Water levels at Lake Hodges will be maintained year round at 311 feet mean sea level (msl) by filling or withdrawing water through the proposed inlet/outlet. Maintaining the water at this elevation will inundate all riparian vegetation that currently exists within the lakebed. Once the lakebed is full (proposed construction 2004/2005), wildlife will be restricted to use the riding/hiking trail only. Caltrans is proposing the design of an additional passageway that wildlife could use on the south side of the bridge. Preliminary designs depict a 3-meter bench cut into the slope extending east from the existing nursery, underneath the bridge abutment, west to West Bernardo Road. This proposed bench will be above 311 feet msl, which will be the maintained water level of the lake. A complete description of the proposed design as well as an exhibit will be included in the Final MND.

Mira Mesa Community Planning Group

Executive Committee

Ted Brengel
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Fairfield Residential
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Karen Ruggels
H. G. Fenton Company
Developer Member

11975 Thomas Hayes Lane
San Diego, CA 92126-1157

November 12, 2002

California Department of Transportation
Attn: David Nagy
2829 Juan Street-Old Town MS 46
P. O. Box 85406
San Diego, CA 92186-5406

Re: Interstate 15 Managed Lanes Project, Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration.

Dear Mr. Nagy,

The Mira Mesa Community Planning Group has reviewed the referenced document and has the following comments:

1 1. The project proposes to develop automobile access to the managed lanes at Hillery Street. While we anticipated bus access at this location, automobile access is a new proposal with potentially large impacts on Hillery and surrounding intersections, particularly the very congested intersections at Black Mountain Road and Mira Mesa Blvd. and Westview Parkway and Mira Mesa Blvd. We feel that these impacts must be assessed and mitigation provided. Careful attention to this problem could make the difference between a project that relieves traffic in a very bad area, or makes the problem intolerable.

2 2. Increased traffic on Hillery could effectively block pedestrian access between Miramar College to the south and Mira Mesa Market Center to the north. This is an important route for pedestrians and the proposed changes significantly affect the walkability and pedestrian friendliness which we have been trying to promote in this area and in other parts of the community. How will pedestrian flow across Hillery be maintained?

3 3. Figure 2-7 has the existing apartments north and south of the Hillery DAR outlined, and the caption is labeled "Proposed Structure" but it is not described in the text. What is intended here? The document should also assess the impact of the

1 Subsequent to the Draft Circulation and in response to public comments, the DAR proposed at Hillery Drive has been removed from consideration as part of the I-15 Managed Lanes Project. Omission of this access would not impair the function of the project. Ingress and egress to the managed lanes would still be provided via the intermediate access points planned throughout the length of the project corridor.

2 See Response to Comment #1 above

3 The boxes shown in Figure 2-7 were not meant to show a proposed structure but were placed to call attention to the existing apartment buildings. This feature has been omitted from the figure.

project on the apartment complex, which currently has its main access point at the location of the proposed DAR.

4 4. Figures 2-22 and 2-23 illustrate the planned Direct Access Ramp in Rancho Bernardo, but no such illustration is provided for Mira Mesa. Such an illustration could help in the understanding of potential problems, and we request that a similar illustration of the Hillery DAR be provided.

5 5. Very large block walls are proposed for areas adjacent to Mira Mesa, as shown for example in figures 3-10, 3-11, and 3-13A. Our experience has shown that such large flat walls with minimal or no landscaping are graffiti attractors. The project should include landscaping sufficient to deter graffiti, and a graffiti removal plan to quickly remove any graffiti that does appear.

6 6. Some of the large block walls are very stark and would look much better with some additional landscaping, and if possible with a reduction is height. Figure 3-13A, for example, looks very bleak compared to Figure 3-13. Also, the high wall in Figure 3-13A blocks views of Los Peñasquitos Canyon Preserve and the future Canyon Hills Park which are currently visible from that location.

Please feel free to contact me if you have any questions regarding these issues. I can be reached by telephone at (619) 985-4094 (cellular) or (858) 693-4079 (home). My e-mail address is tbrengel@san.rr.com.

Sincerely,

Ted Brengel

Ted Brengel
Chairman
Mira Mesa Community Planning Group

cc: Mayor Dick Murphy (via e-mail)
Councilmember Brian Maienschein (via e-mail)
Ms Cecilia Williams, City of San Diego Planning Department (via e-mail)

4 See Comment #1

5 The walls shown in figures shown in figures 3-10 and 3-13A show a worst case scenario that was used in the visual assessment report. These walls would be subject to all feasible visual mitigation measures as described in Chapter 3.16.3. Figure 3-11 shows a large wall that was split into two walls with a planting pocket between them.

6 Wall heights were determined based on results of the Technical Noise Study and Reasonable Feasible Analysis in order to maximize abatement of noise.

All walls in the corridor would receive architectural treatment and/or landscaping where feasible per the mitigation measures discussed in Chapter 3.16.3.

San Dieguito River Valley
Regional Open Space Park
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Escondido, CA 92025
(858) 674-2270 Fax (858) 674-2280
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Dr. Philip Pryde
Citizens Advisory Committee

Dick Bobertz
Executive Director

November 19, 2002

Mr. David Nagy
Associate Environmental Planner
MS.46, P.O. Box 85406
San Diego, CA 92186-5406

Subject: Interstate 15 Managed Lanes Project
Draft Initial Study/Environmental Assessment and
Proposed Mitigated Negative Declaration

Dear Mr. Nagy:

Thank you for providing the San Dieguito River Park Joint Powers Authority (JPA) an opportunity to review and comment on Caltrans' draft Initial Study/EA/MND for the I-15 Managed Lanes project. As you know, the I-15 northern segment that crosses Lake Hodges is within the San Dieguito River Park Focused Planning Area (FPA). These comments reflect those of the JPA Board after consideration of the information in the draft IS/EA/MND and a presentation by Chris Thomas and Everett Townsend of Caltrans to the River Park's Citizens Advisory Committee (CAC) on November 1, 2002. Our comments are intended to ensure that all legal requirements are met without delaying the project.

The JPA appreciates Caltrans' proactive approach in coordinating the design of this project with River Park staff. Caltrans' staff has met with River Park staff to discuss design approaches and details on several occasions. Design considerations have included minimizing impacts to the River Park's existing Lake Hodges North Shore Trail undercrossing that passes underneath I-15, and connecting the Class I bike path planned along the north side of the Pomerado Road Bridge over I-15 with the River Park's proposed Class I bike path along West Bernardo Road. As you know, the River Park is currently pursuing permits from the City of San Diego for a pedestrian/bicycle bridge over Lake Hodges just west of I-15 and a connecting trail along West Bernardo Road.

Our specific comments on the draft MND/EA are as follows:

1 1. Page 54 of the draft MND/EA acknowledges the San Dieguito River Park; however, a 4(f) evaluation was not included in the document. The northern segment project area is within a heavily used recreational area that should be evaluated with respect to Section 4(f), Protection of

Recycled Paper

1 Though the park is adjacent to the I-15 facility all uses that would occur next to the freeway are transient in nature and would not constitute a 4(f) impact. In addition, Bridge construction at Lake Hodges would result in temporary disruptions to trail users and would result in approximately five days of complete closures. Impacts to the trail beneath the Lake Hodges Bridge would not be considered an impact to a Section 4(f) resource (49 U.S.C. Sec 303 and FHWA Policy Paper September 24, 1989 #14 and #22) since the trail is located within State right-of-way and is considered a secondary use of the property. A condition of the encroachment permit dated October 13, 1994 states that, "Permittee will vacate the State Right of way, should such right of way become needed for highway purposes;" thus, further illustrating that the trail is a secondary use of the property. The requrements of Section 4(f) do not apply to the subsequent highway construction on the reserved reight-of-way as previously planned.

See Comment #2 on the letter from San Dieguito River Valley Conservancy regarding Sikes Adobe.

The temporary construction easements are required for access only and would be temporary in nature per the conditions stated within the Section 4(f) Policy Paper and 49 U.S.C.

Publicly Owned Park, Recreation Area, Wildlife or Waterfowl Refuge, or Land from Historic Sites.

2 2. According to the draft MND/EA, the project will cause up to a 4 decibel increase in noise levels within the open space area of segment 12 which is adjacent to the Hodges North Shore Trail. However, no mitigation is proposed to reduce noise levels along the trail because this area is "not considered an area of frequent human use that would benefit from a reduced noise level" (page 87). There are several resources on the east side of I-15 that warrant protection from increased impacts from this project under Section 4(f) (Protection of Publicly Owned Park, Recreation Area, Wildlife or Waterfowl Refuge, or Land from Historic Sites). This area is, in fact, heavily used as a recreational resource by the public. The North Shore Trail segment of the Coast to Crest Trail is an extremely popular regional multi-use trail that receives approximately 300 trail users per day on weekends. In addition, Lake Hodges is designated by the National Audubon Society and American Bird Conservancy as a Globally Important Bird Area and the historic homestead of Sikes Adobe is listed as a state historic site. In 2003, the adobe farmhouse will be restored to its 1880 "period of significance" by the San Dieguito River Park under a state legislative grant. These resources will be significantly impacted by the widening and increased traffic associated with this project. The MND/EA should address this and require noise mitigation consisting of a landscaped berm/noise wall along the east side of I-15 to mitigate increased noise levels in this recreational area.

3 3. Page 55 of the draft MND/EA discusses the impact of the project from the reconstruction of the Hodges I-15 Bridge to the Hodges North Shore Trail undercrossing that exists under I-15. The MND/EA states that there will be both a temporary and permanent reduction in clearance of the trail undercrossing from the existing 12' to 11'. However, Caltrans representatives reported at the San Dieguito River Park CAC meeting that the I-15 Bridge will be completely replaced instead of reconstructed resulting in maintaining the trail clearance at 12'. The San Dieguito River Park was pleased to hear of this project change. The final MND/EA should reflect this significant change in the project.

4 4. The draft MND/EA lists several measures to "minimize harm" to the Hodges North Shore Trail during construction (pages 56 and 57). These measures include minimal disruption to the trail during construction and only "minimal" closures; the trail would remain open

2 See Comment #1

3 Page 55 of the draft EA/IS was in error and has been revised to show that there will not be a reduction in the trail height since the bridge will be replaced. Replacement of the bridge was shown in the draft EA/IS in Table 2-2 and was discussed elsewhere in the document.

4 The Department understands the importance of this trail in relation to the network of trails that exists throughout the connected open space and will make every effort to keep this trail open as discussed in section 3.4.3. During the preconstruction meeting for this contract, the contractor will be made aware of all conditions related to the trail.

Section 3.4.3 contains many different mitigation measures to help mitigate construction related impacts. In addition, the Department will continue to coordinate with JPA staff in order to minimize impacts to park users to the greatest extent practicable.

on weekends, holidays, and for special events; and major construction equipment would be permitted to cross the trail only in the early morning and late evening when there is less traffic on the trail. In addition, Caltrans representatives reported to the CAC that during demolition of the I-15 Bridge, which would take about two weeks, trail closures would only occur at night and the trail would remain open during the daytime. The San Dieguito River Park is very concerned about impacts of this major project on the trail and appreciates the efforts of Caltrans to minimize the disruption. The River Park should be ensured that Caltrans contractors are educated about the procedures that need to be followed during construction in and around the trail. We recommend that a detailed list of construction procedures and measures be agreed to between Caltrans and the San Dieguito River Park staff so that both parties are informed. The procedures should be reviewed at pre-construction meetings and understood and followed by all contractors working on the project.

5 5. In addition to potential impacts to the trail itself as discussed in comment #4, the San Dieguito River Park is concerned about construction impacts to the habitat around the project site. Although the MND/EA states that all work would occur within the Caltrans right-of-way, our experience is that construction contractors and equipment frequently cause impacts to habitat outside of a "construction zone". As stated in comment #4, a detailed list of construction procedures and measures should be agreed to by Caltrans and the San Dieguito River Park staff. The procedures should be reviewed at pre-construction meetings and understood and followed by all contractors working on the project.

6 6. Any habitat impacted in the San Dieguito River Park FPA should be replaced within the FPA. The draft MND/EA states that the Bonita Meadows Mitigation Site in Proctor Valley will be used as mitigation for impacts resulting from the project. However, the Biological Opinion mentions three parcels on the north side of Lake Hodges (within the San Dieguito River Park FPA) to mitigate for direct impacts and that a mitigation bank can be used for mitigation. It appears that the Lake Hodges parcels are to mitigate for direct impacts and the Proctor Valley site is mitigation for cumulative impacts. The final MND/EA should be revised to better explain the amount and location of proposed mitigation areas.

7 7. At the CAC meeting Caltrans representatives stated that the design of the new I-15 Bridge will include a "dry" wildlife crossing under the

5 As discussed in response #4, the contractor will be made aware of all issues that are relavant to the park and trail users. The Department will continue to coordinate with JPA staff in order to minimize impacts to park users to the greatest extent practicable.

6 Two different sites have been obtained to mitigate biological impacts. The first site is comprised of three parcels of land near Lake Hodges, referred to as the Walsh Property, with a total of 81 acres of CSS and 12 gnatcatcher territories. Although this parcel is outside of the City's boundaries, it is immediately adjacent to the San Dieguito River Valley Park's recently acquired Bernardo Mountain parcel and the City's MHPA surrounding Lake Hodges. The second site, Bonita Meadows, is located in southeast San Diego and consists of 200 acres of preserved land with 72.51 acres of CSS and eight gnatcatcher territories.

south side of the new bridge to accommodate wildlife under I-15 when Lake Hodges is full. A wildlife crossing is certainly warranted in this location since I-15 represents a major barrier to wildlife movement along a regionally significant corridor in the San Dieguito River Valley. When the lake level is low, mammals (such as mule deer and mountain lion) and other wildlife frequently pass under I-15 to get to the water's edge. The San Dieguito River Park was pleased to hear of this addition to the project and would like to see the final MND/EA reflect the project change.

Again, the San Dieguito River Park appreciates the opportunity to comment on the draft MND/EA and the communication between River Park and Caltrans staff on design issues. We look forward to resolution of the issues outlined above and ongoing coordination with Caltrans on this important project. Please feel free to contact the River Park's Environmental Planner, Shawna Anderson (858-674-2275, ext. 13), if you have any questions regarding our comments. We look forward to receiving the final MND/EA.

Sincerely,

Dick Bobertz

Dick Bobertz
Executive Director

7 A wildlife crossing is planned on the south side of the Lake Hodges overcrossing. Further details regarding this structure can be found in section 3.10 or in the responses to the letter from the Conservation Biology Institute.

L18

San Dieguito River Valley Conservancy

November 21, 2002

Mr. David Nagy
Associate Environmental Planner
MS 46, P.O. Box 85406
San Diego, CA 92186-5406

Subject: **Interstate 15 Managed Lane Project – Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration**

Dear Mr. Nagy:

Included in this letter are the comments of the San Dieguito River Valley Conservancy concerning the Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration for the proposed Interstate 15 Managed Lanes Project, which has been publicly circulated. The San Dieguito River Valley Conservancy is a 16 year-old private, non-profit citizen organization with 1,500 members, whose mission is to protect the resources of the San Dieguito River Valley and to promote the implementation of the 55-mile, ocean to Volcan Mountain, San Dieguito River Park.

Our comments can be summarized as follows:

- The significant noise impacts to the regional River Park and public trail system at the north end of the Lake Hodges Bridge have not been appropriately recognized or addressed. A noise reduction measure—preferably a naturally landscaped berm—should be included east of the freeway, north of the Lake Hodges Bridge

- The significant negative impacts of the existing bridge on east-west wildlife movement, which will be aggravated by the widened, rebuilt bridge, and the opportunity the proposed bridge reconstruction provides to remedy this regionally significant problem have not been identified nor adequately addressed. The project should be designed to ensure for the passage of wildlife under the Lake Hodges Bridge during high lake level conditions.

Noise Impacts to Users of the San Dieguito River Park

1 Section 3.7.1 (Page 63) identifies "parks" as a "sensitive receptor" with respect to noise. Figure 3-24 (in the figures following Page 146) identifies "parks" under Activity Category B with respect to noise standards and lists a Noise Abatement Criteria of 67 dBA Leq(h) for this category. Section 3.7.2 (Page 72) states, "Traffic Noise impacts are defined by the Department's Traffic Noise Analysis Protocol to occur when there is a substantial increase (12 dBA) in noise with the project or when the predicted noise levels from the project approach (1 dBA) or exceed the Noise

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1 Trail use is considered to be transient in nature thus no areas of frequent human use exist in accordance with 23 CFR 772. In addition this trail was constructed under I-15 through state R/W via a permit identifying that impacts could occur to the trail due to future widening and that the park agreed that these impacts would not impair the function or use of the trail.

Abatement Criteria (NAC)" (emphasis added). Table 3-6 Noise Impacts (beginning on Page 92) indicates that all 5 of the sample sites along the public trail area of the Coast-to-Crest Trail of the San Dieguito River Park have predicted post-project noise levels in excess of the 67 dBA NAC previously cited. In 3 of these cases the exceedance is by 5 dBA. Although we are not acoustical engineers, we are familiar enough with noise measurement to understand that this is a significant increase. (The Concise Encyclopedia of the Sciences in its definition of "Decibel" says, "Doubling the noise level adds 3 to the decibel rating.")

The San Dieguito River Park and Coast-to-Crest Trail meet the definition of a "sensitive receptor." Because the project noise projections exceed the Noise Abatement Criteria, the projected noise levels exceed the traffic noise impacts threshold potentially requiring mitigation. According to the report (Page 87), the Noise Study Report and Reasonable Feasible Analysis considered a noise barrier along the key eastside stretch, north of the Lake Hodges Bridge, where there is a staging area for a trail, which extends under I-15 and 17 miles along North Lake Hodges and through the San Pasqual Valley. This option is summarily dismissed in the analysis because, "This area is not considered an area of frequent human use that would benefit from reduced noise level." (Page 87) This conclusion is not supported, is completely judgmental, and discounts the significance of a major recreational resource. The trail has a substantial and growing use and is a major element of the San Dieguito River Park and County of San Diego trails systems.

A sound barrier measure—preferably as natural, or natural appearing, as possible—to reduce the noise impacts of this critical trails segment should be re-analyzed and evaluated in the appropriate context of its mitigation potential for a major regional recreational resource. The reduction in noise impacts on major recreational uses in our increasingly urbanized region needs to be specially recognized and weighed.

2 With respect to Segment 12 in 3.7.1 **Affected Environment** (beginning Page 70), although the draft report contends that impacts to future land uses do not need to be mitigated, the fact that the future headquarters and visitor center for the San Dieguito River Park is planned to be located north and east of the Lake Hodges Bridge--within about 700 feet of the increased-capacity and noisier freeway--should be identified for the public.

3 (Editorial Notes: 1) there is an apparent typo on Page 87 in the fourth paragraph, where the conversion for 50 meters is specified as "1.5 feet"; 2) the use of s "1:3000" scale on Figure 2-1 through Figure 2-28 may be a standard technical practice, but it does not seem appropriate for a public review document.)

Aggravation of Existing Major Negative Impacts Of Lake Hodges Bridge to Regionally Significant Wildlife Movement Corridor & Need to Take Advantage of Opportunity to Remedy the Situation

4 Reportedly, Caltrans has announced its intention to include a wildlife crossing under the new I-15 Lake Hodges Bridge. However, the wildlife movement issue is inadequately addressed in the draft document and the bridge under-crossing design feature is not discussed in the draft report.

2 Caltrans' Architectural Historians, Headquarters Environmental Analysis Division, has concluded that the Sikes Adobe, location of the new headquarters building, will not be directly or indirectly affected by the proposed project There will be no appreciable visual or audible changes to the current setting of the Sikes Adobe for the following reasons:

- All proposed construction will be contained within the existing I-15 right of way (r/w).
- The Sikes Adobe is a considerable distance from the r/w (500 feet at its closest point).
- Structures (a 2-3 story, 600 foot long self storage facility and a water reclamation plant) and dense stands of vegetation intervene between the adobe and the project.
- No substantial change in noise level (0.8 decibel increase) will occur as a result of the project.

In regards to the final point, a noise analysis study was carried out on December 19, 2002 a District 11 Noise Specialist. A field measurement was made during the PM peak noise hour and the measurement showed that the Sikes Adobe is currently not impacted (64.9 dBA). The 2002 traffic noise model prepared for this project was run using coordinates obtained from GIS mapping, since the receptor was beyond the limits of the microstation topo. The result was 65.7 dBA. Since this receptor is a considerable distance from the main lane traffic it is very likely that the model may be over predicting, as it does not consider atmospheric attenuation. In addition, the noise measurement was taken on the front side of the building (front yard) ,whereas in normal practice noise measurements are taken in the backyard and are usually significantly lower.

The project's Area of Potential Effects (APE) has been defined in the vicinity of the Sikes Adobe as the existing I-15 right of way, based on all the above considerations.

3 The Typo on page 87 has been corrected.

The Comment regarding the use of 1:3000 scale photos is noted

4 The Department is proposing to construct a wildlife crossing along the southern abutment slopes below the Lake Hodges Bridge during the bridge replacement. The crossing will be 3 m (10 ft.) in width with a minimum vertical clearance of 3 m (10 ft.). Additional details can be found in Chapter 3.10 or in the responses to the letter submitted by the Conservation Biology Institute.

5 The **Affected Environment** discussion in 3.10.1 (Page 115) does not adequately describe the significance of the wildlife corridor along the San Dieguito River through the Lake Hodges area and the San Pasqual Valley nor does it address the impacts to this critical corridor.

The Lake Hodges/San Pasqual wildlife corridor is a major east-west habitat linkage, one of the remaining two identified as having the potential in San Diego County to maintain a viable connection between resource areas in eastern San Diego County and key areas along the coast. The **Impacts** Section 3.10.2 (Page 116) identifies only "temporary impacts" to the wildlife corridor at Lake Hodges and proposes only construction-related mitigation measures.

The existing bridge across Lake Hodges is not designed to accommodate east-west habitat movement, especially during periods of high lake levels. During high-water periods, the options for wildlife movement are either along the rip-rapped slopes of the bridge abutments or through the very limited passageway of the North Lake Hodges Segment of the Coast-to-Crest Trail that runs under I-15 north of the Lake Hodges Bridge.

Without a design feature to specifically provide for habitat movement, the reconstruction and widening of the Lake Hodges Bridge will aggravate these very significant impacts to wildlife movement in this critical regional habitat corridor. The rebuilding of the Lake Hodges Bridge provides a once-in-a-century opportunity to remedy the present unsatisfactory blockage of wildlife movement. The project should not aggravate this serious deficiency but should be the opportunity to restore this critical wildlife linkage.

The Lake Hodges Bridge should be designed with an appropriate span to provide for a level path for wildlife movement under the bridge during periods of high water. This level passageway should be of sufficient width and should transition to areas appropriate for wildlife movement.

The Conservation Biology Institute (CBI) is presently preparing a Habitat Management Plan for the Lake Hodges/San Pasqual area. CBI should be consulted about the design of a wildlife passage under a reconstructed Lake Hodges Bridge. They can assist in ensuring the design of a wildlife passage under the bridge is consistent with and supportive of the broader regional habitat plan.

Additional attention should also be directed to wildlife passage issues relating to the Hodges North Shore Trail under-crossing north of the Lake Hodges Bridge. At best, this is a secondary wildlife corridor, but it is important because of the bottleneck for wildlife movement of the I-15 crossing of Lake Hodges. The potential to improve the functionality of this passage for wildlife should be explored, especially the issue of appropriate approach areas and design of the opening for this passageway. In addition, given the role of this underpass as a secondary habitat corridor at a severely constrained point, the idea of lighting this facility needs to be re-evaluated—especially
6 with respect to over-night periods of wildlife movement. The Conservation Biology Institute and the San Dieguito River Park staff can assist on this issue.

5 Section 3.10 Wildlife, 3.10.1 Affected Environment will be revised in the Final Mitigated Negative Declaration (MND) to include a more detailed description of the importance of habitat connectivity and wildlife corridors within the San Dieguito River Valley (Lake Hodges and Green Valley Creek) and Los Penasquitos Creek.

All impacts to wildlife corridors within the I-15 Managed Lanes corridor will be temporary and construction related. Temporary impacts to wildlife corridors at Lake Hodges, Green Valley Creek, Los Penasquitos Creek, Chicarita Creek and San Clemente Canyon are likely to occur. The proposed measures as described in Section 3.10.2 would facilitate movement and habitat use by animals such as mule deer, bobcat, mountain lion, and gray fox during construction. In addition, these measures would be consistent with the City's MSCP Land Use Agency Gu idelines for those areas near the MHPA.

A wildlife corridor will be added to the bridge design for Lake Hodges on the south side of the bridge. This will eliminate any permanent impacts to wildlife movement underneath the bridge after the Managed Lanes are constructed. Currently, wildlife can move freely underneath the Lake Hodges Bridge because the lake is not full, or use the existing riding/hiking trail on the north side of the bridge. The San Diego County Water Authority (SDCWA) is proposing to construct the Lake Hodges Inlet/Outlet project as an element of its Emergency Water Storage Project (ESP). Water levels at Lake Hodges will be maintained year round at 311 feet mean sea level (msl) by filling or withdrawing water through the proposed inlet/outlet. Maintaining the water at this elevation will inundate all riparian vegetation that currently exists within the lakebed. Once the lakebed is full (proposed construction 2004/2005), wildlife will be restricted to use the riding/hiking trail only. Caltrans is proposing the design of an additional passageway that wildlife could use on the south side of the bridge. Preliminary designs depict a 3-meter bench cut into the slope extending east from the existing nursery, underneath the bridge abutment, west to West Bernardo Road. This proposed bench will be above 311 feet msl, which will be the maintained water level of the lake. A complete description of the proposed design as well as an exhibit will be included in the Final MND.

The Lake Hodges North Shore Riding/Hiking Trail on the north side of the Lake Hodges Bridge will remain after the proposed Managed Lanes are constructed. This wildlife corridor along with the additional passageway proposed on the southside of the Lake Hodges Bridge will allow wildlife to move freely under I-15 and will improve the functionality of the passage for wildlife once Lake Hodges is full and maintained at the mean spillway elevation (311 feet msl).

Additional Comments:

7 • Figure 3-6 (in figures following Page 146) should be updated to reflect the recent purchase of a major 232 acre parcel on Bernardo Mountain and the fact that the public open space area just west of the project has been significantly expanded.

8 • We share the concern, raised by the San Dieguito River Park, regarding the lack of any 4(f) evaluation for a project directly impacting a major regional park.

Thank you for the opportunity to comments on this project. We are hopeful that the additional mitigation measure we have identified can be carefully considered and added to enhance the project.

Respectfully submitted,

Bill Simmons
President
San Dieguito River Valley Conservancy

Craig Adams
Executive Director
San Dieguito River Valley Conservancy

6 Lighting that currently exists underneath the Lake Hodges Bridge consists of low, foot level lights that are directed at the riding and hiking trail. Any future design would be consistent to what currently exists underneath the bridge. In addition, lights will be proposed to run on timers, which would shut them off at a predetermined time, eliminating any potential indirect impacts to wildlife movement underneath the bridge. The proposed design of the lights and their potential effects on wildlife movement will be further addressed in Section 3.10 Wildlife in the Final MND.

7 The figures have been updated to reflect the recent purchase

8 Please see comments #1 in the letter from the San Dieguito River Park regarding 4(f) issues

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November 22, 2002 CIP 20432

Mr. David Nagy
California Department of Transportation
2829 Juan Street, MS 46
San Diego, CA 92186-5406

Dear Mr. Nagy:

Subject: INTERSTATE 15 MANAGED LANES PROJECT, DRAFT INITIAL STUDY/ ENVIRONMENTAL ASSESSMENT AND PROPOSED MITIGATED NEGATIVE DECLARATION REVIEW COMMENTS

Thank you for the opportunity to comment on the California Department of Transportation (Caltrans) Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration (MND) for the Interstate 15 (I-15) Managed Lanes Project. As you are aware, Caltrans, the San Diego Association of Governments (SANDAG), and MTDB are working together to develop the I-15 Managed Lanes/Bus Rapid Transit (ML/BRT) Project. The purpose of the project is to improve mobility within the north I-15 corridor by making it easier and more efficient for people to use alternative transportation modes, such as transit service and carpools.

We have reviewed the referenced document and have the following comments:

1 1. Figure 1-4A, Proposed 2020 3 + 1 Managed Lane Traffic Flow and Page 22, Hillery Drive DAR. According to the figure's traffic numbers, the Direct Access Ramp (DAR) at Hillery Drive will have daily traffic volumes of 15,000. Hillery Drive is a two-lane collector road and could not accommodate this traffic volume increase. Over the past three years, MTDB has been working with Miramar College to locate an off-street transit center serving the college and Mira Mesa/Scripps Ranch communities. Given the need for an off-street transit center in Mira Mesa to handle current transit needs, in addition to the fact that most of the project funding for construction of this station has already been secured from sources separate from the ML/BRT Project, we plan to move ahead with the environmental studies in FY 2003 and final design in FY 2004. Assuming that the remaining funding balance becomes available, construction could take place in FY 2005. Because the Caltrans DAR improvements will add a significant volume of traffic to the local roadway network, the mitigation for this additional traffic on Hillery Drive, and the congested intersections of Black Mountain Road and Mira Mesa Boulevard, and Westview Parkway and Mira Mesa Boulevard due to the DAR should be borne by the Caltrans' Managed Lanes Project and not the MTDB Mira Mesa Transit Center.

Member Agencies:
City of Chula Vista, City of Coronado, City of El Cajon, City of Imperial Beach, City of La Mesa, City of Lemon Grove, City of National City, City of Poway, City of San Diego, City of Santee, County of San Diego, State of California
Metropolitan Transit Development Board is Coordinator of the Metropolitan Transit System and the Taxicab Administration
Subsidiary Corporations: San Diego Transit Corporation, San Diego Trolley, Inc., and San Diego & Arizona Eastern Railway Company

1 Subsequent to the Draft Circulation and in response to public comments, the DAR proposed at Hillery Drive has been removed from consideration as part of the I-15 Managed Lanes Project. Omission of this access would not impair the function of the project. Ingress and egress to the managed lanes would still be provided via the intermediate access points planned throughout the length of the project corridor.

2. Page 16, Managed Lanes Alternative, Structures. Since many of the existing overcrossing structures in the I-15 corridor will need to be replaced, please consider adding transit priority, such as queue jumpers and transit signal priority on the following reconstructed bridges to speed up transit travel time: Duenda Road, Camino Del Norte, Carmel Mountain Road, Rancho Bernardo Road, and Ted Williams Parkway. **2**

3. Page 17, Managed Lanes Alternative, Ramp Realignments. Since ramp realignments would be required at several locations to accommodate additional widening on these ramps and to accommodate widening of the main lanes, please add a high-occupancy-vehicle (HOV) only lane on all freeway on-ramps to further encourage transit and carpooling. Additional California Highway Patrol (CHP) enforcement should also be increased at these locations. **3**

4. Page 22, Managed Lanes Alternative, Enforcement/Emergency Vehicles. We have observed 30 percent to 35 percent violation rates of single-occupant-vehicles (SOVs) in the HOV on-ramp lanes. We have also received complaints from community members that enforcement on HOV on-ramps needs to be increased to discourage SOV use. Therefore, we recommend increased CHP enforcement for the HOV on-ramp lanes and the managed lanes. The revenue generated from additional enforcement could be used to fund the extra enforcement and transit operations. **4**

5. Page 26, Nonstandard Mandatory and Advisory Design Features. The Sabre Springs DAR overcrossing sight distance design exception should be further analyzed to ensure safe BRT vehicle operations. **5**

6. Page 31, Management Strategies for Excess Capacity. The environmental document explains that if the Value Pricing program is not implemented, nonpricing management strategies would be investigated as part of the Managed Lanes Project. These nonpricing strategies could include allowing other vehicles, such as light service trucks, light delivery trucks, taxis, electric vehicles, or other certified high-mileage vehicles to use the managed lanes without a fee. MTDB does not support allowing light service and delivery trucks to use the managed lanes or for taxis to use the managed lanes without a fee. Allowing these vehicles to use the managed lanes deters from the regional HOV/ML policies contained in the draft 2030 Regional Transportation Plan and the ML/BRT Project goal to encourage people to use alternative travel modes and to provide less congested traffic conditions for alternate transportation users (such as transit users and HOVs). **6**

7. Section 3.17.2, Impacts and Section 3.17.3, Measures to Minimize Harm. The document states that the main lanes of I-15 will have the same number of freeway lanes during peak hours as currently exist; therefore, additional delays during peak times due to construction on the main freeway lanes would be minimal. We believe that traffic will be impacted with slower travel speeds and increased congestion due to shifting traffic during construction, narrowing travel lanes and shoulder widths, and "rubber-necking" by drivers passing construction areas. **7**

2 Additional through lanes will be added at Camino Del Norte, Carmel Mountain Road, Rancho Bernardo Road, and Ted Williams Parkway.

Transit priority will be included in final signal and structure design, where feasible.Additional through lanes will be added at Camino Del Norte, Carmel Mountain Road, Rancho Bernardo Road, and Ted Williams Parkway.

3 Ramp HOV bypass lanes currently exist on many of the ramps in the corridor. HOV by-pass lanes have been investigated for those ramps that don't currently have them and where feasible, they have been added. Please see Comment #5 regarding CHP enforcement.

4 Comment noted. Observations of the violation rate do not indicate a very high violation rate on the HOV by-pass lanes at ramp meters. However, Caltrans supports the concept of additional CHP enforcement and is incorporating CHP enforcement areas, where feasible. However, the fines paid by violators can not be used for enforcement or transit purposes in the corridor.

5 The design exception noted is on the managed lanes, not the overcrossing structure. As stated in the June 10, 2002 Design Exception Fact Sheet: "The existing reversible HOV facility terminates at the HOV ramp overcrossings just south of SR-56. The existing profile was raised to create the vertical clearance necessary for the ramp structures. The existing reversible HOV lanes do not continue north within the median, however, the proposed managed lanes will extend the existing profile. Similar to the south end, a crest and a sag vertical curve are needed to bring the Managed Lane profile down to match the existing main lanes. As a result, two non-standard sight distance locations are created (one for the sag and one for the crest) because the profile needs to provide vertical clearance for the Sabre Springs DAR OC."

6 Comment noted. Before any non-pricing strategies would be implemented, additional studies, public input, and new legislation would be required.

8 Thus, it is important to recognize that transit will not be able to mitigate construction related impacts without increased resources and use of freeway shoulder lanes for transit priority. The current Transit Mobility Plan (TMP) for Unit 1 of the middle segment of the managed lanes construction only provides enough money to fund an additional bus to mitigate impacts to the current transit schedule of Route 20 from expected construction delays. Additional money should be allocated to increase transit operating frequencies, implement new routes, and increase marketing efforts to encourage I-15 users to utilize transit on their daily commute trip. Caltrans should promote the use of highway TransNet dollars for I-15 construction mitigation for transit operations (MTDB is using transit TransNet dollars for construction mitigation for Interstate 8 automobile traffic impacts from Mission Valley East construction).

9 The demand management strategy calls for the funding additional transit service, but no resources are currently included in the Unit 1 TMP. The funding of additional transit service should be included in the final Caltrans TMP for all stages of the Managed Lanes construction.

8. 10 Page 148, Cumulative Impacts. Please delete the freeway transit station Carmel Mountain Ranch and add South Escondido/Del Lago. There are five freeway transit stations: Escondido (an existing transit center), South Escondido (Del Lago, across from North County Faire), Rancho Bernardo, Sabre Springs, and Mira Mesa.

9. 11 Appendix I, Coordination. This appendix should also note that Caltrans, MTDB, North County Transit District (NCTD), and SANDAG held various meetings of the I-15 Policy Advisory Committee (PAC) to brief and gain input from elected officials in the north I-15 corridor. Meetings were held on the following dates: September 18, 2002, May 23, 2002, February 14, 2002, June 10, 2000 (meeting cancelled, but a written summary of key issues was provided to the PAC), September 9, 1999, May 27, 1999, March 25, 1999, August 6, 1998, and May 28, 1988.

Again, thank you for the opportunity to work with Caltrans to implement this regionally significant project and to comment on the Caltrans Draft Initial Study/Environmental Assessment and Proposed MND for the I-15 Managed Lanes Project.

Sincerely,

for Toni Bates
Director of Planning and Development

AIsla
L-MNDCMTS.KDONNE

cc: Kathy Donnelly
Dave Schumacher

7 The use of freeway shoulder lanes, for transit priority in the construction zone, is currently under review. Comment noted. Freeway lane capacities are reduced when lane and shoulder widths are reduced. This reduction can be very minor if the detour design is able to provide a full standard right shoulder and only the inside lane widths are reduced. So for analysis purposes, the detours will provide about the same level of service on the freeway lanes as existing conditions.

8 As outlined in the project TMP (Transportation Management Plan—not Transit Mobility Plan), Caltrans will employ various congestion management strategies—in addition to transit enhancement—to mitigate construction related impacts. Other potential mitigation measures include Freeway Service Patrol, Public Information ads (radio, newspaper, TV), CHP construction zone speed enforcement (COZEEP), portable changeable message signs (CMSs), closed circuit television cameras (CCTVs), highway advisory radio (HAR). Funding will be prioritized and allocated based on the cost-effectiveness of the particular strategy, with details determined during final design.

9 The Middle Segment Unit 1 currently has $160,000 allocated for enhancing transit service in the corridor.

10 The text has been changed to reflect the five transit station locations

11 Thank you for the additional coordination information. Appendix I will be updated to include these meetings

County of San Diego

JOHN L. SNYDER
DIRECTOR
(858) 694-2233
FAX: (858) 268-0461

DEPARTMENT OF PUBLIC WORKS

5555 OVERLAND AVE, SAN DIEGO, CALIFORNIA 92123-1295

COUNTY ENGINEER
COUNTY AIRPORTS
COUNTY ROAD COMMISSIONER
TRANSIT SERVICES
COUNTY SURVEYOR
FLOOD CONTROL
WASTEWATER MANAGEMENT

November 21, 2002

Mr. Charles Stoll, Deputy District Director
Caltrans Disctrict 11
P.O. Box 85406, M.S. 46
San Diego, CA 92186-5406

INTERSTATE 15 MANAGED LANES PROJECT – DRAFT INITIAL STUDY / ENVIRONMENTAL ASSESSMENT AND PROPOSED MITIGATED NEGATIVE DECLARATION

Dear Mr. Stoll,

County staff has reviewed the Interstate 15 Managed Lanes Project – Draft Initial Study/ Environmental Assessment and Proposed Mitigated Negative Declaration report prepared by Caltrans dated October 2002. The following are our comments:

1 • The report should include a Level of Service (LOS) summary table. The summary table should show the projected LOS differences between the No Build Alternative and the I-15 ML Project. The LOS analysis should be shown for each segment of I-15, in both the ML and mainline.

2 • The timing of the proposed construction phases should be included in the report.

3 • Figures 2-32 and 2-33 show a conceptual photosimulation of a proposed Direct Access Ramp (DAR) for Rancho Bernardo. The photosimulation should be enhanced to show proposed intersection control at the intersections of the DAR and the Managed Lane ramps. An operational assessment of the DARs onto the Managed Lane ramps should also be provided. This should include:

- Queuing/stacking of vehicles on the DAR and between the Managed Lane ramps, especially during rush hour
- Expected amount and length of pockets for transit/vehicles to enter the Managed Lane ramps
- Intersection Control
- Sight distance

1 Traffic comparisons of all three scenarios can be obtained from Figures 1-2A through 1-4B:Traffic Maps

2 Comment Noted

3 Operational Assessment of the DARs -
The traffic Analysis performed looked at the type of intersection control needed, the amount of traffic on each leg, length of queues that would develop, and traffic weaving onto/ or exiting the Managed Lanes.

The design of the DARs took into account bus transit vehicles in determining curb returns. Sight distance was based on HDM standards and the length of ramps was based on providing adequate storage for vehicles on the ramps.

Charles Stoll
November 21, 2002
Page 2

4 • The report does not mention potential effects from any possible improvements to the existing I-15 and SR56/Ted Williams Parkway interchange. The report should include a brief discussion and/or show an additional Project Features Map with alternate I-15/SR56 interchanges.

5 • On page 6, ridership rates are given for buses and carpools. The basis for these ridership rates should be included in the Appendix.

If you have questions or need additional information, please call me at (858) 694-3728.

BOB GORALKA
Project Manager

4 Impacts to 15/56 are included within the document. Refer to wetlands and waters section and project features maps for exact locations of impacts at this intersection.

5 The ridership rates on page 6 are based on assumptions used in the Regional Transportation Model.

RANCHO BERNARDO
COMMUNITY PLANNING BOARD
PMB 230 - 11808 Rancho Bernardo Road #123
San Diego, CA 92128-1902

November 21, 2002

David Nagy
Caltrans, District 11
2829 Juan Street – Old Town, M.S. 46
San Diego, CA 92186-5406

SUBJECT: Interstate 15 Managed Lanes Project (Draft Initial Study/EA and Proposed Mitigated Negative Declaration)

Dear Mr. Nagy:

The Rancho Bernardo Community Planning Board appreciates the efforts Caltrans has made to provide information regarding the Interstate 15 Managed Lanes Project to the community, particularly the open house that was held on November 14. We understand the need for this project, but at the same time, we believe that every effort should be made to minimize the effects of this project on the residents who live in proximity to I-15.

1 The Planning Board, having reviewed the draft EA/MND, believes that the document does not adequately address the requirements of the California Environmental Quality Act (CEQA) with respect to the use of a Mitigated Negative Declaration, nor does it provide adequate information regarding several aspects of the project, including whether or not an impact is considered significant under CEQA. We therefore request that the document be revised to 1) incorporate appropriate mitigation as required for a Mitigated Negative Declaration, and 2) provide additional details regarding the project that will support the conclusions of the document with respect to noise, visual quality, biological resources, and localized traffic impacts. The Board has also identified several issues addressed in the document that require further clarification. Presented below are our specific comments related to the draft EA/MND.

2

1. Inappropriate Use of a Mitigated Negative Declaration. The draft EA/MND states that when the predicted noise level approaches or exceeds the Noise Abatement Criteria, there is a traffic noise impact. Although not stated, we considered this a significant noise impact since such noise levels would exceed City of San Diego General Plan noise standards for residential uses. As no mitigation is proposed to reduce noise levels to below a level of significance for at least 219 homes in Rancho Bernardo, a Mitigated Negative Declaration cannot be approved for this project. A determination that mitigation is not economically feasible can only be used to justify project approval despite unmitigated impacts if an Environmental Impact Report and accompanying findings and statement of overriding considerations have been prepared. CEQA Section 21064.5 defines a mitigated negative declaration as "a negative declaration prepared for a

1 See General Comment # 4

2 See General Comment # 5

project when the initial study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." Further, Section 15074(b) of the CEQA Guidelines state "The decisionmaking body shall adopt the proposed negative declaration or mitigated negative declaration only if it finds on the basis of the whole record before it (including the initial study and any comments received), that there is no substantial evidence the project will have a significant effect on the environment and that the negative declaration or mitigated negative declaration reflects the lead agency's independent judgment and analysis." The project has not been revised to reduce noise impacts and there is substantial evidence in the record that a significant effect will occur, therefore, until all significant impacts are mitigated a MND cannot be adopted for this project.

2. Other Noise Related Issues. The increased noise levels along the I-15 corridor following construction will adversely affect numerous neighborhoods within the Rancho Bernardo community including the western edge of Bernardo Heights, the neighborhoods of Playmoor, Bernardo Terrace, Bernardo Point, and Vista del Lago, the eastern edge of Westwood and High Country West, and the residents of Casa de las Campanos. Many of the homes to be affect are located immediately adjacent to the freeway and are particularly prone to freeway noise because of the topography. This is particularly true for the homes on the west side of the freeway between Camino del Norte and Bernardo Center Drive (High Country West) where southbound traffic climbs a significant grade and tire noise is directed up the slope to the back of the homes on Lofty Trail. There are many other similar examples between Camino del Norte and Lake Hodges, and for some of the neighborhoods, particularly the higher density neighborhoods, the noise impacts will extend beyond those residents located immediately adjacent to the freeway.

   Currently, the noise levels experienced by the residents in proximity to the freeway are often so high that it is not possible to carry on a normal conversation in their backyards, or in the case of the higher density developments, in commonly shared recreational areas. By moving the travel lanes closer to the homes, and increasing the number of lanes from 8 to 14, it will obviously have acoustical ramifications, and will worsen the existing problem.

   According to the MND, the predicted noise levels for many of these homes will increase by anywhere from 1 to 7 decibels. To the layman, 68 may not sound like much of a difference over 65, but we understand that these are logarithmic numbers, and that an increase of 3 decibels is an increase of 100% above a level that is already too high.

   The Planning Board is not convinced that the actual and projected noise levels fully recognize the extent of the problem for a number of reasons. We are concerned that many of the noise measurements were taken during periods of significant congestion. Slow traffic would result in lower noise levels, distorting the accuracy of the projected noise levels following project completion. Additionally, it is not clear that the projected

noise levels have taken into account the future conditions of the hillside following project completion. Did the calculations take into consideration project-related earthwork that might eliminate existing bluffs and/or berms that function as natural sound barriers?

The Board is also concerned with many of the conclusions in the document, particularly those related to costs and feasibility of appropriate mitigation. The costs appear unrealistically high and we believe must be challenged. For instance, on page 83, there are two proposed sound barriers along a section of High Country West homes. The first involves a 14-foot-high, 1,312-foot-long section of wall that would benefit 14 residences. The estimated cost is $588,000 (exceeding the allowable cost of $266,000). The estimated cost for this section of wall is $448 per linear foot ($42,000 per home, where $19,000 per home would be allowed).

3 The second is a 10-foot-high, 3,608-foot-long wall benefiting 40 residences overlooking the freeway, at a cost of $1,678,000 (exceeding the allowable cost of $920,000). The estimated cost of this section of wall is $465 per linear foot ($41,950 per home, where $23,000 per home would be allowed). Such cost estimates appear to be inflated and completely unrealistic. We believe these costs are based on inaccurate assumptions and misinformation. Based on these examples, we request that the cost estimates for the walls required throughout the community be reevaluated and that additional information be provided to justify the estimates. It is also the Board's opinion that the number of residents that would benefit from these walls is higher than the current numbers indicate. This is particularly true in the higher density areas.

The Community has recently completed several sound wall studies for areas along Camino del Norte and Rancho Bernardo Road, and cost estimates were obtained in association with these studies. The typical range of estimates was from $100 to $140 per linear foot. (The Caltrans estimates are almost 4 times higher than these estimates.) Caltrans should reevaluate the current estimates, as well as explore ways to reduce the cost of the walls such as working with the affected homeowners and the homeowners associations in an effort to reach agreements for easements at no cost or reduced costs in exchange for the construction of sound walls and working to obtain permission to construct the walls closer to the homes so that construction can occur in flatter areas rather than on the slopes within the freeway right-of-way. Such agreements could result in shorter walls and would allow more flexibility in wall construction such as allowing the use of glass panels, which would preserve views, while also reducing the cost of the mitigation measure.

3. Impacts to Localize Traffic During Construction. The draft EA/MND does not adequately document the local traffic impacts that would occur as a result of construction. We are particularly concerned about increased congestion during the 9+months that the West Bernardo Bridge will be closed. The document provides no data regarding where 4 and how this detoured traffic would circulate through the community. The document should specifically describe how traffic volumes on Bernardo Center Drive, Rancho Bernardo Road, Pomerado Road, Escala Drive, and West Bernardo Drive would be impacted by this action. According to the traffic analysis prepared for the 4S Ranch development, even with the improvements currently being implemented at Rancho Bernardo Road and I-15, the level of service on Rancho Bernardo Road between West Bernardo Drive and Bernardo Center Drive is expected to be at Level of Service D.

3 Costs estimates come from the Office of Office Engineers and is based on historical data for the region.

To the human ear, a 10 dBA increase in noise level is associated with a 100% perceived change in the noise level, or i.e. twice as loud. And a 3 dBA increase in noise level is associated with a 23% perceived change in the noise level, or i.e. barely perceptible increase. Typically the doubling of traffic will result in a 3 dBA increase, which is barely perceptible to the human ear.

Noise measurements were conducted in accordance with the Technical Noise Supplement guidelines. Measurements were taken throughout the day and adjusted to the noisiest hour which does not typically occur during peak hour. No measurement was conducted during congested periods. The future predicted noise levels were predicted using Sound32 noise prediction model. Sound32 input parameters include future traffic volumes, traffic speeds, mix of vehicles and site geometry. Yes, the noise model did take into consideration the project- related earthwork. The projected noise levels have taken into account the future terrain conditions following project completion.

4 A Discussion of detour traffic issues related to the closure of the Highland Valley Road/ West Bernardo Drive structure has been expanded in Chapter 3.17. Local street traffic impacts during construction of the Highland Valley Road/ West Bernardo Drive/ Pomerado Road structure replacement have been included.

Therefore, the document must provide data to justify the statement that the improvements at the Rancho Bernardo Road interchange can accommodate the additional traffic. Further, the Rancho Bernardo Road/Bernardo Center Drive intersection is highly congested during the PM peak hours, how would this situation be worsened by the detour. Will any other construction affecting local traffic, such as bridge improvements at Bernardo Center Drive, occur while this detour is ongoing? If so, how will this further impact local traffic circulation?

The document also does not adequately address the issue of nighttime freeway closures and impacts to local roads, such as Pomerado Road, during construction. Will any freeway traffic be routed onto local streets at night to accommodate construction? If so, which streets will be affected and for how long? What actions will Caltrans take to avoid excessive traffic on parallel arterials such as Pomerado Road during construction? This is a particularly important issue in the vicinity of Pomerado Road and Highland Valley Road, where traffic already backs up into the community at peak hours, making it difficult for residents of Vista del Lago to access their neighborhood.

There is a construction staging area proposed near the I-15/Bernardo Center Drive interchange, behind Burger King. How will this staging area be accessed and when will access be required? Access issues and construction-related movement in and out of this area are significant because of the excessive congestion on Bernardo Center Drive at this location during AM peak hours, and with construction, this congestion is sure to worsen.

5

4. Visual Quality/Community Character. To be consistent with CEQA, the document must state whether the impacts associated with this project are significant or less than significant. The statement included in the document that "overall changes to community character are considered low to moderately-high" is not adequate. At a minimum, the Board believes the visual and community character impacts from this project are cumulatively significant. We appreciate the thought that has already gone into reducing the impact of concrete, sound and retaining walls, and manufactured slopes on the area's visual quality and community character, but we would also request that treatments similar to those used on I-15 to the south near University Avenue be implemented in this part of the corridor. That would include special bridge treatments such as color accents, decorative fencing and handrails, and boxed tree plantings along the bridge. These measures would further reduce the effect of massive concrete walls and bridges that will dominate the views from within and along the freeway.

The Board also requests that additional information be provided regarding the height of proposed retaining walls and cut and fill slopes within the Rancho Bernardo Community. We are particularly concerned with the visual appearance of the retaining wall to be constructed along the eastern bank of the freeway from Bernardo Center Drive to Rancho Bernardo Road. A visual simulation of this wall would be helpful. It appears that this wall may be highly visual from Webb Park, as well as other parts of the community. We would therefore like information regarding the height of the wall and the specific measures that would be taken to reduce its visibility within the community.

See expanded discussion in Chpater 3.17. Although additional traffic will be using these intersections, the level of service remains at E or better. The Highland Valley Road / West Bernardo Drive / Pomerado Road Overcrossing bridge replacement will be completed before work is begun on the replacement of Duenda Road / Bernardo Center Drive bridge replacement. The structure widening of Bernardo Center Drive Undercrossing will not affect this area, as the same number of traffic lanes will be provided during that construction.

At Bernardo Center Drive Interchange, no construction staging area is proposed near the "Burger King" Restaurant. A construction easement is proposed for an area immediately north of this restaurant, however, no construction equipment will need to access this area from private property. This easement is for construction of a soil-nail retaining wall along the freeway right of way. The easement is for the soil nails (Steel rods placed in 6" bored holes and grouted with concrete). This work is all underground and will be constructed from the freeway right of way, which is why no construction equipment needs to access the easement area itself.

5 See general comment #4

A corridor concept plan has been prepared and all walls will receive architectural treatments, as described in Section 3.16, to be consistent with the concept

Cut/Fill slope locations and quantities can be found in Appendix H: Major Cut/Fill Slopes

5. Bike Lanes on the I-15/Lake Hodges Bridge. Would bicycles be permitted on the bridge during construction if a separate pedestrian/bicycle bridge has not yet been constructed over Lake Hodges? Once freeway construction has been completed over Lake Hodges will bicycle use continue to be permitted on the shoulder even if a separate pedestrian/bicycle bridge is constructed across Lake Hodges?

6 6. Trail Undercrossing at Lake Hodges. The trail under Lake Hodges will become an important component of the Class 1 bikeway connection between Rancho Bernardo and Escondido once a separate pedestrian/bicycle bridge is constructed across the lake. How could the reduction in vertical clearance under the bridge from 12 feet to 11 feet impact bicycle and equestrian users? Does an 11-foot clearance comply with Caltrans standards for a Class 1 bikeway?

7 7. Biological Resources. The EA/MND states that impacts to wetlands will be mitigated through off site purchase and protection of wetlands currently under private ownership. How is this consistent with the "no net loss" policy of the MSCP and the resource agencies? Please indicate where wetland creation/restoration will occur to mitigate for permanent impacts to wetlands as a result of this project.

How will the long term protection of lands purchased for habitat mitigation be assured? Will a management plan be developed for these mitigation lands? Who will be responsible for management, and will funds be provided to support these future management efforts?

Surveys for least Bell's vireo were conducted prior to the extensive growth of willows within the construction corridor in the vicinity of Lake Hodges. What additional measures will be required to avoid impacts to this endangered species during bridge construction? Will construction be timed to avoid the nesting season?

The current I-15/Lake Hodges bridge blocks any opportunities for east/west wildlife movement when Lake Hodges is full. Considering the significance of the San Dieguito River drainage as a wildlife corridor, what steps are being taken to ensure adequate opportunities for wildlife movement under the new freeway bridge when the water level in the lake is high?

Finally, there is a significant area of native vegetation located on the south side of Bernardo Center Drive, just west of I-15. The current plans indicate that this habitat will be impacted during construction. In discussions with Caltrans staff on November 14, it appears that these impacts will not occur. The loss of this habitat would be significant for both biological and aesthetic reasons; therefore, to avoid any inadvertent impacts to this resource, Figure 2-17 should be changed to delete any reference to impacts in this area.

8 8. 2+2 HOV Alternative. The decision to delete from further consideration the alternative to construct two dedicated HOV lanes in each direction, rather than constructing managed lanes, should be explained in greater detail. The current discussion in the EA/MND lacks specificity and as such does not provide adequate detail for the public to fully understand Caltrans' decision to delete this alternative from further consideration. It would seem that implementation of this alternative would be less costly and might also

6 The reduction in vertical clearance from 12 feet to 11 feet is acceptable. 11 feet is still above the minimum and desirable vertical clearances for bicycles on Class I bikeways. HDM 1003.1 (2) states that the vertical clearance to obstructions across the clear width of the path shall be a minimum of 2.5 m (8.2 ft). Where practical, a vertical clearance of 3 m (9.8 ft) is desirable. The Highway Design Manual standard for equestrian undercrossings is found in HDM 208.7 (Must be 3 m high and 3 m wide). 11 feet exceeds the standard.

7 All impacts to wetland within Caltrans right of way and within the City's MHPA will be consistent with the mitigation ratios referenced in the City's Biology Guidelines for wetland habitats. No properties to fully mitigate the project's wetland impacts were identified immediately adjacent to the I-15 corridor. Caltrans, however, is currently discussing with the City of San Diego to determine the feasibility of doing wetland creation/restoration/enhancement work at Los Penasquitos Creek within the Los Penasquitos Canyon Preserve. An exhibit representing the site as well as a description will be included in the Final MND.

Avoidance and minimization measures will be described in Chapter 3 as to how the proposed design minimizes wetland impacts to the maximum extent possible. For example, two new bridges will be built at both Lake Hodges and Green Valley Creek instead of the original proposal of widening/retrofit of the existing bridges thus reducing the permanent impacts to wetlands.

Section 3.12.3 Measures to Minimize Harm in the final MND will be revised to minimize all direct and indirect impact to the least Bell's vireo and southwestern willow flycatcher.

A wildlife corridor will be added to the bridge design for Lake Hodges on both the south and north sides of the bridge. This proposed corridor would be above 311 feet msl, which will be the maintained water level of the lake. A complete description of the proposed design as well as an exhibit will be included in the Final MND.

The coastal sage scrub habitat located on the south side of Bernardo Center Drive, just west of I-15 will not be impacted by the proposed project. Figure 2-17 in the Final MND will be revised to reflect no impacts in this area.

8 The 2+2 HOV Alternative does not meet the purpose and need for the project as extensive traffic queues would extend up to 11 kilometers (7 miles) beyond the limits of the project in year 2020. The reason for this is that the 2 HOV lanes would be over capacity during peak hours with buses and carpoolers. This would require a carpool definition change to 3+ people in a vehicle in order to keep the HOV lanes at LOS D. This level of service is required for the Bus Rapid Transit System to operate a reliable system. This carpool definition change would increase the volume on the main lanes by 1,000 VPH or more, creating substantially more congestion.

reduce the need for some of retaining walls along the corridor. Please explain why the directional split demand is 55-60/40-45 in the peak direction within the main travel lanes, but 70/30 in the HOV lanes. Why wouldn't the directional split demand be the same in both the main travel lanes and the HOV lanes?

8

9. Value Pricing Program. The description in the EA/MND regarding this program implies that additional signage and other visually intrusive facilities would be installed in the corridor if this program were approved. We would like the opportunity to review the environmental documentation that will be prepared for this program before it is approved so that we might have the opportunity to comment on the potential visual impacts that could occur as a result of implementing this program.

9

10. Nonstandard Mandatory and Advisory Design Features. There is a long list of design exceptions that will be required in order to implement this project, however, no information is provided regarding the extent to which these exceptions would exceed current standards, nor is there any information related to any potential safety issues associated with these exceptions. This is of particular concern with respect to off-sets, lengths, and angles of onramps merging into the main lanes. Please provide additional information regarding how decisions related to design exceptions are made and how safety is factored into these decisions.

The Board wants to see this project proceed, but we also want to be certain that all of the details regarding the project have been fully disclosed and that none of our residents and homeowners are burdened with unreasonable permanent impacts as a result of this project. We look forward to working with you to resolve and/or further explore the issues outlined above, particularly the noise and local traffic issues that will have a profound affect on this community's quality of life.

Sincerely,

Kathy Keehan

Kathy Keehan, Planning Board Chair

cc: Larry Carr, Caltrans, District 11
Jeff Lewis, Federal Highway Administration
Councilmember Brian Maienschein, District 5, City of San Diego

8 Regarding the comment on why the directional split is higher on the Managed Lanes compared to the main lanes; the regional transportation model assigns HOV and transit trips based on several factors. The two most important factors are the time differential between driving alone and HOV and transit trips and if the facility has preferential treatment for HOV and transit trips. The 70/30 directional split for HOV trips on I-15 is caused by the magnitude of congestion in the peak direction. This leads to the travel time for HOV trips being superior to drive alone trips in the peak direction with the Managed Lane project because of the preferential treatment. In the reverse peak direction there is less congestion and so much less time savings for HOV trips as compared to drive alone trips.

9 A report has been prepared for each category of Design Exceptions, Mandatory and Advisory. These reports document in greater detail why each exception is necessary. These reports are available to review. The approval process for these exceptions ensures that a proper balance is maintained between excessive cost for right of way and construction and additional community disruption with the geometric standards of the facility. Safety of the travelling public is a primary issue in these reports and nothing is proposed in this project that is considered unsafe.

CITY OF
ESCONDIDO
201 NORTH BROADWAY
ESCONDIDO, CA 92025

November 22, 2002

Mr. Larry Carr, Project Manager
I-15 Managed Lanes Project
Caltrans District 11
P.O. Box 85406
San Diego, California 92186-5406

Subject: I-15 Managed Lanes Project
Comments on Draft Environmental Document

Dear Mr. Carr:

Attached for your use and response is the list of comments/suggestions for this project as viewed by the City of Escondido.

The City of Escondido appreciates this opportunity to comment on the Draft Environmental Assessment/Initial Study (EA/IS) and Mitigated Negative Declaration (MND) for this project. Your willingness to partner with us on this regionally significant project is important. The existing I-15 corridor through Escondido experiences many hours each day of severe congestion. Everyone using this facility fully appreciate and support the need to increase its capacity, but many do not understand the impacts that will occur during this expansion.

If you have any questions on our comments or would like to meet on this project, I would recommend you call Ronald W. Anderson, City Engineer, or Patrick Thomas, Director of Public Works at (760) 839-4651.

Sincerely,

Lori Holt-Pfeiler
Mayor

cc: Patrick Thomas, Director of Public Works
Ronald Anderson, Assistant Director of Public Works
Ed Domingue, Principal Engineer/CIP
Scott Schedell, Engineer II

Lori Holt Pfeiler, Mayor
June Rady, Mayor Pro Tem
Tom D'Agosta
Ed Gallo
Marie Waldron

MIDDLE SEGMENT

1. TRAFFIC ISSUES

   A. The Environmental Document states that there will be no reduction in the number of lanes during construction in the peak hours. Even though there will be no reduction in lanes, traffic will be slowed because of drivers observing construction. It is suggested that the Environmental Document address the benefits of installing temporary screening at bottleneck locations during construction.

   B. It is likely that traffic will divert to Beethoven Drive to cross the del Lago Bridge during constructing of the Via Rancho Parkway Bridge. Beethoven Drive westerly of Via Rancho Parkway is a private road and use can and probably would be restricted by North County Faire. (the City leases the land to North County Faire) It is suggested that the Environmental Document address traffic impacts if Beethoven Drive is closed during construction of the Via Rancho Parkway Bridge.

   C. During the commute, the Lake Hodges Bridge is unable to handle the southbound traffic. Since three new structures will be built at Lake Hodges and construction for each structure will take 10 to 12 months, this area will be under construction for 30 to 36 months. The City believes the Environmental Document needs to address the effects of a 30 to 36 month construction period on traffic in this area. Other mitigation methods such as re-striping the southbound Lake Hodges Bridge for 5 lanes should be evaluated. Bicycle traffic could be diverted to a temporary structure or banned during construction. (If the new San Dieguito River Authority Bike/Pedestrian Bridge is completed bike traffic will not be an obstacle to re-striping the bridge for 5 lanes) The fifth lane could be continued south by re-striping the existing lanes and utilizing the existing shoulder. The use of the shoulder would end at the existing fifth lane just north of the Duenda Road over crossing. Although use of the shoulder would preclude its use for emergency stops, there are areas to the right of the shoulder where disabled vehicles could stop. Disabled vehicles could also be removed by patrolling tow trucks. Other sections of the Environmental Document discuss having tow trucks patrolling sections or freeway to remove disabled vehicles where there is insufficient shoulder.

2. SOUND WALLS

   A. How is protocol allowance determined? It is not clear in the Environmental Document how this allowance is determined. The City believes the majority of citizens will simply divide the protocol allowance by the number of houses benefited to derive the amount Caltrans is willing to spend to reduce the noise impact to a particular house. This gives the appearance of discrimination when the unit cost for a house in Rancho Bernardo is higher than the unit cost for a house in Escondido

1 The traffic analysis (using year 2005) shows that about 325 additional vehicles in the peak hour will use Citracado Parkway (from Centre City Parkway) to access the freeway during the closure of the Southbound Centre City Parkway ramp. In terms of ADT this portion of Citracado Parkway would increase from 5900 to 9000 during this time. While this is about a 53% increase in traffic volume, the two-lane road could handle this amount of traffic for a limited time. Driveways would remain open and would be accessed similar to existing conditions. Temporary noise impacts would be in the range of one to two decibels, amounts that are hardly discernable by the human ear.

The Department will consider all appropriate measures as detailed design studies get underway.

2 The traffic detour plans assume, as you noted, that some traffic will use Beethoven Drive / Del Lago Boulevard as an alternative to Via Rancho Parkway when that structure is under construction. To ensure that this traffic can use this private road during construction, a temporary access easement is being acquired from North County Faire

3 Traffic impacts as a result of construction staging sequences and detours have been evaluated as part of the DIS/EA, and all potential significant impacts addressed. The addition of a fifth lane in the southbound direction at Lake Hodges will be considered, as introducing an additional lane into the construction workzone could further raise safety concerns for construction personnel. Additionally, it may conflict with temporary bike access across Lake Hodges, as well as worsen an already deteriorated level of service in the corridor. As detailed design studies get underway the Department will continue to consider all possible strategies to help minimize traffic impacts during construction.

3. ENVIRONMENTAL ISSUES

A. The Environmental Document does not correctly address construction staging of the Lake Hodges Bridge. A new structure is to be constructed east of the existing bridge. Even if this new structure is within existing right of way, there will be a disturbance of habitat in Lake Hodges and to the north and south of Lake Hodges where current freeway lanes are transitioned to the new structure.

B. The Environmental Document only mentions the Multiple Species Conservation Program. (MSCP) All portions of the project within the City limits are in the planning area for the Multiple Habitat Conservation Program (MHCP) Further discussion of the effects on the program and the City's Subarea Plan are warranted.

C. The Bernardo Mountain property was recently purchased by the San Dieguito River Park Joint Powers Authority for permanent open space conservation and the development application to subdivide the property has been withdrawn.

D. The Environmental Document should document how much Coastal Sage Scrub (CSS) is proposed for removal within each jurisdiction. Further, the document should clarify whether the proposed CSS removal in Escondido will count towards the City's 5% allocation of allowable CSS removal under the Interim 4d process. The City has already authorized removal or initiated applications for removal of its entire 5% allocation under the interim process and does not anticipate implementation of its MHCP Subarea Plan until late 2003. To date, the City has not tracked CSS removal for Caltrans projects (such as the park and ride facility on Del Lago Boulevard) as part of the City's 5% allocation under the assumption that Caltrans is responsible for permitting and mitigating projects within its right of way.

4. VISUAL ISSUES

A. It appears that the retaining walls generally visible only to people in cars on the freeway will have no relief or decorative features. Conversely, it appears that retaining walls visible to people in cars (and people in structures) not on the freeway, will have decorative features. Since there will be a significant number of motorists observing the retaining walls while traveling the freeway, the City believes some consideration should be made for the aesthetic appearance of the retaining walls to people traveling the freeway. The cost would be minimal, but the aesthetic value would be greatly improved and appreciated.

4 For each noise barrier, a base allowance of $17,000 per benefited residence is considered. If applicable, this base allowance may be enhanced by the following five reasonableness factors: Absolute Noise Levels (predicted future levels without barrier); Build vs. Existing Noise Levels (future vs. existing levels); Absolute Noise Reduction (barrier effectiveness); New Construction or Predate 1978 (age of residences- $10,000 is added for residences built in or prior to 1978); Total Noise Abatement Allowance vs. Project Cost (to determine if the barrier costs are less than 50% of the total project cost). Once all of these five components are added to the $17,000 base amount, then the overall allownce per benefited residence is obtained. This number is then compared with the actual construction cost of the barrier per benefited residence. If the allowance is more than or equal the actual construction cost, then the barrier is considered. This approach is applicable throughout the state regardless of which city or community the barrier is proposed for.

5 The construction staging of the Lake Hodges Bridge in the DIS/EA has been revised to reflect current plans.

6 All areas north of Lake Hodges, where Interstate 15 bisects the City of Escondido are within the planning area for the MHCP and the City of Escondido's Subarea Plan. A regional exhibit showing the project's relationship to the MHCP will be added to the final document. In addition, Chapter Three, Section 3.12.3 and the appropriate Biological Resources sections will be revised to include a discussion of the MHCP and the City's Subarea Plan.

7 Comment Noted

8 The California Department of Transportation is not a signatory to the MHCP; therefore, "take" authorization is delegated by the USFWS and CDFG by the Section 7 process. The portion of the I-15 Managed Lanes project that falls within the MHCP, falls within the City of Escondido Subarea Plan. Caltrans, San Diego Gas & Electric and other agencies that administer property or easements within the area encompassed by this subarea plan are responsible for their own permit needs and are not covered by the plan (Draft Escondido SubArea Plan, June 2001). Therefore, Caltrans is exempt from the City's Interim 4d process.

9 Chapter 3.16.3 describes aesthetic treatments that will be used to mitigate visual impacts within the corridor.

NORTH SEGMENT

1. TRAFFIC ISSUES

10

A. When the southbound Centre City Parkway on ramp is closed for construction, traffic will divert to Citracado Parkway to access the freeway. The Environmental Document does not address the impacts to Citracado Parkway. Citracado Parkway has inadequate sight distance and capacity to handle the diverting traffic. Issues such as noise and residents being affected in their inability to get in and out of their driveways during rush hour need to be addressed. If the Centre City Parkway onramp is to be closed, Caltrans must improve Citracado Parkway from Centre City Parkway to the I-15 on ramp. Improving Citracado Parkway will require an environment review that is not addressed in this document.

10 Caltrans would restore the pavement condition of Citracado Parkway to pre-detour conditions after the Centre City Parkway ramp is opened.

L29

SDCBC San Diego County Bicycle Coalition

November 20, 2002

NOV 22 2002
12:00 DH

Charles "Muggs" Stoll
Deputy District Director
District 11, Environmental Division
California Department of Transportation
2829 Juan Street, M.S. 46
P.O. Box 85406
San Diego, CA 92186-5406

Dear Mr. Stoll,

The San Diego County Bicycle Coalition staff has read the I-15 Managed Lanes Project Mitigated Negative Declaration and found some items of concern.

1) What exact disruptions to bicycle traffic will occur during the construction phase of this project? The document alludes to the fact that detours may be necessary for the Mira Mesa bike path, and that the north Lake Hodges undercrossing may be closed for a period of days. Have these decisions been finalized, and if so, what provisions have been made to ensure that bicycle traffic will not be impacted during construction? **1**

2) The discussion of the re-construction of the Lake Hodges bridge seems to assume that bicycle traffic will be able to use the not-yet-constructed Lake Hodges bike and ped bridge between Rancho Bernardo and Escondido as a detour. Since the bike and ped bridge construction does not yet have all the necessary permits and engineering, it seems premature to assume the it will be open for traffic in time to accommodate a bicycle detour. We ask that Caltrans develop an alternative that does not rely on an un-built structure to provide bicycle access across Lake Hodges. The optimum alternative for bicyclists would be to retain shoulder access across Lake Hodges both during construction and after the managed lanes project is complete. **2**

Thank you for your attention to these matters.

Sincerely,

Kathy Keehan

Kathy Keehan
Executive Director

San Diego County Bicycle Coalition
P.O. Box 34544 San Diego CA 92163
(858) 487-6063
www.sdcbc.org

1 The final details have not been fully worked out to my knowledge yet but non-motorized travel shall be accommodated during construction. We are mandated to do this as per Deputy Directive 64 and the Streets and Highways Code Section 888. Of particular note is Article 3.5, Section 157 which says that "The Department shall not construct a State Highway as a freeway that will result in the severance or destruction of an existing major route for nonmotorized transportation traffic and light motorcycles, unless it provides a reasonable, safe, and convenient alternative or such a route exists". Any disruption to current bicycle facilities and access that occur that cannot be accommodated on the current facility will be accommodated by signed detours and those detours will be planned in conjunction with the bicycle community and announcements will be made in advance to the bicycle community as to when they should use the detours.

2 The Lake Hodges Bike/Ped Bridge may not be completed in time for the construction phase of Caltrans managed lane and bridge widening project. We realize this and must plan for this possibility. If the bridge is not complete by the time we go to construction bicycles should be accommodated on the shoulders as there is no alternative route. Also retaininig shoulder access post construction for bicycles has still been not ruled out. With the Deptartment's new committment to non-motorized travel and providing travel choices & options we should fully consider retaining non-motorized access on the bridge. Also an analysis using the Highway Design Manual Chapter 1000 Guildelines of Bicycle Use of Freeway Shoulders shall be perforned to examine grade, out of direction travel time, vehicle conflicts, etc. before any decision to close the current freeway shoulders that are open to bicycle travel will be made.

THE CITY OF SAN DIEGO

November 21, 2002

Mr. Charles Stoll
Deputy District Director
Department of Transportation, District 11
P.O. Box 85406, MS 46
San Diego, CA 92186-5406

Dear Mr. Stoll:

Subject: Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration (MND) for the Interstate 15 Managed Lanes Project (EA# 064800)

As a responsible agency, the City of San Diego appreciates the opportunity to review and comment on the above-referenced document for this significant improvement proposal for Interstate 15 (I-15). This proposal includes the construction of four managed lanes, a moveable barrier system, auxiliary lanes, and added lanes along I-15, extending from State Route 163 in the City of San Diego to State Route 78 in the City of Escondido. The total length of this project would encompass twenty two miles. The following comments are a compilation of comments received from reviewing staff of both the City of San Diego's Development Services Department and Planning Department.

Land Use

1 According to the MND for I-15, there would be a series of sound walls erected along I-15 to mitigate for vehicle generated noise impacts on adjacent properties. These sound walls would vary in length and height depending on the amount of noise attenuation required. Both a land use and visual analysis of these sound walls proposed along I-15 presented in Chapter Three was based on questions within the Environmental Significance Checklist (CEQA) (Appendix A), which the City of San Diego believes have not been adequately answered. In particular, No. 31 states, "Will the project directly or indirectly be inconsistent with any elements of adopted community plans, policies or goals?" The answer was "no." Also, No. 50 states, "Will the project directly or indirectly affect any scenic resources or result in the obstruction of any scenic vista or view open to the public, or creation of an aesthetically offensive site open to public view?" The answer was yes, but not significant.

2 To the contrary, it is quite evident in Key View No's.1 and 4A of the visual simulations, that obstruction of both public and private views would be significant. The obstruction of public views shown in Key View No. 4A from drivers on I-15 to the west over Los Penasquitos Canyon Preserve would be significant and unmitigated, both directly and cumulatively.

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1 The questions within the Environmental Significance Checklist (CEQA)(Appendix A) were answered based on the information found within each of the community plans. Typically, community plans do not speak specifically to freeway construction, however, it is still the Department's view that the questions are answered accurately based on the information found in the plans.

2 The adverse impacts of the noise barriers depicted in Key Views 1 and 4a are predicted to be less than significant according to Federal criteria contained in the Visual Technical Study. In the case of Key View 4a, existing views of Penasquitos Canyon do not occur at this location. The southbound freeway traveler is afforded a short duration distant view to the west from Penasquitos Canyon bridge. (As with the response on visual quality, can it be stated herein that the view will remain available with the normal cone of vision for an average person traveling freeway speeds, prior to reaching the start of the proposed wall?)As the traveler continues south of the bridge in the area of the proposed noise wall, intervening topography and residential development obscure distant views as shown in existing Key View 4a. The proposed key view depicts typical views from the freeway within the limits of the proposed noise wall. Existing distant views to the west would remain.

3 There should be a discussion within the Land Use section on the urban design compatibility of this project with the affected long range Community Plans. For example, the visual impact as simulated in Key No. 4A is inconsistent with the Urban Design Guidelines in the *Ranch Penasquitos Community Plan* which states under Compatibility with Existing Development, "The design of any new construction should respect existing development with regard to preservation of views from public rights-of-way where possible, and compatibility of scale, bulk, architectural styles, building materials, color and landscaping." Also, under Building Design/Shadow Relief it states, "Large unbroken expanses of wall should usually be avoided." The project as proposed would be inconsistent with these community plan guidelines and would not be mitigated to below a level of significance. This inconsistency would carry over, as well, with the guidelines of other community plans for the communities of Scripps Miramar Ranch, Miramar Ranch North, Mira Mesa, Sabre Springs, Carmel Mountain Ranch and Rancho Bernardo.

4 Moreover, in Section 3.1 Land Use, subsection 3.1.2 Impacts, the last paragraph states, "The project still remains consistent with the general plans although some of the noise walls proposed as part of the project will be higher than the standard wall heights specified for use on private property according to the communities and cities building codes." Again, this project is inconsistent with adopted City of San Diego regulations as well as with community plan documents which should be addressed in the environmental document as such.

Land Use - Multi-Habitat Planning Area (MHPA)

5 The project would cross the City of San Diego's MHPA boundary in two main locations; Los Penasquitos Canyon (Figure 2-10) and Lake Hodges (Figure 2-21). The City has concerns regarding the project's direct and indirect impacts to these areas and others. The "Project Features Maps" in Chapter Two should be revised to include the City's MHPA boundaries where applicable (e.g., Figures 2-10, 2-19, 2-20, 2-21, and 2-22). A regional graphic showing the project's relationship to the City's MHPA should be included in the document as well.

6 Additionally, Chapter Three, Section 3.12.3 should include an analysis of the project's compliance with the City's Multiple Species Conservation Program (MSCP) Land Use Adjacency Guidelines (construction and operational noise, lighting, toxics, landscaping and drainage) for those areas near the MHPA. Without this information and adequate measures to address direct and indirect impacts to the City's MHPA, the City believes that the project, as currently proposed, would have a significant effect on the environment.

Figure 2-20 shows the limits of project grading extending beyond the existing right-of-way and into portions of the City's MHPA and Open Space. If encroachment into the City's MHPA is proposed, a MHPA boundary line adjustment should be processed with the City and wildlife agencies. Encroachment into the City's MHPA requires offsetting the impact areas with functionally equivalent habitat consistent with the criteria set forth in the Final MSCP Plan

3 Community plans do not typically speak to freeway construction. However,in several cases, the plans recommend a break between the freeway facility and residential developments to reduce noise and visual impacts. One example of this is in the Rancho Bernardo Community Plan which states, "Housing located along segments of Interstate 15 should be separated from the adverse effects of freeway traffic by horizontal and vertical breaks, as well as through site planning, landscaping, construction techniques, air conditioning and interior design." Since these breaks and design techniques were not incorporated into the residential developments, the Department is left with fewer options when considering noise abatement and aesthetic treatments.

Only one of the 6 proposed walls is located on private property. This wall would extend approximately 300 meters along the east side of I-15 between Camino del Norte and Bernardo Center Drive. While the Department is not bound by local codes, we strive for compatibility with local ordinances and guidelines. In this instance a 3.05 meter wall is needed to achieve a 5 dba noise reduction. All wall heights are subject to final design and specific details could change.

Chapter 3.16.3 Measures to Minimize Harm illustrates that we are incorporating architectural detailing on all structures where feasible and vegetation wherever possible to reduce impacts that are associated with new walls.

4 The Visual Technical Study cites relevant urban design guidelines from communities located in the corridor and factors those guidelines into predictions of viewer sensitivity, which in turn is a criterion in assessing project impacts. Although not specifically identified in the City's General Plan or individual Community Plans, mitigation requirements for noise walls and other project features are consistent with community plan policies.

5 The proposed Managed Lanes project will cross the City of San Diego's MHPA boundary in three main locations: Los Penasquitos Canyon (Figure 2-10), Green Valley Creek Bridge (Figures 2-19 and 2-20) and Lake Hodges (Figures 2-20 and 2-21). All Projects Features Maps will be revised in the final document to depict the City's MHPA boundaries where applicable. In addition, a regional graphic will be added to the final document to show the project's relationship to the City's Multiple Species Conservation Program (MSCP) and MHPA areas. Chapter Three, Section 3.12.3 and the appropriate Biological Resources sections will be revised to include an analysis of the project's compliance with the City's MSCP Land Use Adjacency Guidelines (construction and operational noise, lighting, toxics, landscaping and drainage) for those areas near and within the MHPA.

(August 1998), Section 5.4.2, which includes vegetation communities, sensitive species locations, preserve design, and wildlife movement. The City recommends, however, that the limits of project grading be revised to avoid encroachment into the MHPA. Also, if encroachment into City open space is proposed, an encroachment and removal agreement would be required.

Visual Quality

7 Overall, the visual analysis presented in Chapter Three of this document does not realistically assess the potential visual impacts that could be created through implementation of the proposed project. This analysis should be expanded to provide accurate visual simulations of each sound wall proposed along I-15 from various angles and all sides. The simulations should show freeway driver views of each wall as well as views of these walls from adjacent communities looking towards I-15, both east and west. Also, Key No. 4A should be expanded include a 180 degree view analysis of what the I-15 driver would see viewing west towards Los Penasquitos Canyon Preserve, instead of just southwest. Together with the visual simulation, there should be an in depth impact analysis/discussion of the public views that would be permanently lost with the erection of these walls, a comparison of wall bulk and scale in relation to surrounding residential neighborhoods, all tunnel effects that may be created with long and unbroken wall planes, and the potential negative aesthetic effects these walls would create in the communities of Mira Mesa, Rancho Penasquitos, Rancho Bernardo and the Via Rancho Parkway/I-15 area.

Within the Measures to Minimize Harm section for visual quality, the mitigation measures for impacts should explore the most nonobtrusive forms of sound walls that are in combination with berming and wall/berm tiering which are not evident in the "proposed view" wall simulations for "most" of the key views. The mitigation measures should also include a maintenance schedule for the proposed landscaping and an anti-graffiti program. It should be stated, however, that even with incorporation of these mitigation measures, cumulative impacts to visual quality with the erection of these sound walls would occur and which would not be fully mitigated to a level below significance.

Biological Resources

8 The potential impacts to biological resources from the proposed project are not adequately addressed within the draft environmental document. Impacts to biological resources should be covered in an inclusive section in Chapter Three as was done for the Land Use discussion. The discussions regarding wetlands, threatened and endangered species and wildlife should be included as subsections within this section. Additional information regarding impacts on sensitive habitats should be quantified and addressed.

6 The proposed Managed Lanes project will cross the City of San Diego's MHPA boundary in three main locations: Los Penasquitos Canyon (Figure 2-10), Green Valley Creek Bridge (Figures 2-19 and 2-20) and Lake Hodges (Figures 2-20 and 2-21). The type of habitat impacted within the City of San Diego's MHPA will be added to the Final MND. I-15 is a circulation element roadway that is considered a compatible use in the MHPA and therefore, provided impacts are minimized, no boundary line adjustment is required. The proposed grading is intended to visually enhance that segment of freeway (providing an earthen berm for landscaping) and provide noise attenuation for the adjacent park. The benefit-cost of this proposal will be re-examined during final design. In addition, per the letter provided to CalTrans by the City dated December 18, 2002, it has been determined that the City has no development permitting authority over this project.

All impacts to sensitive habitats within Caltrans right of way and the City's MHPA, including coastal sage scrub and wetlands will be mitigated for consistent with the City of San Diego's Final MSCP Plan and Biology Guidelines (provided by the City of San Diego). Further descriptions of proposed mitigation for impacts to sensitive habitats will be added to Chapter 3 Affected Environment, Environmental Consequences, and Measures to Minimize Harm, 3.9 Wetlands and Waters of the U.S., 3.10 Wildlife and 3.12 Threatened and Endangered Species. All mitigation ratios will be consistent with the ratios referenced for sensitive habitats in the City's Biology Guidelines.

Caltrans acknowledges that an encroachment and removal agreement would be required from the City should project grading extend into the MHPA. The proposed grading was intended to visually enhance that segment of freeway (providing an earthen berm for landscaping) and provide noise attenuation for the adjacent park. The benefit-cost of this proposal will be re-examined during final design.

7 The Visual Technical Study describes the Federal method used to depict and assess project impacts. Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key viewpoints that would most clearly represent the visual effects of the project. Key views are also required to be normative. Key View 4a is oriented within the normal cone of vision for an average person traveling at freeway speed in the location of the project feature being analyzed. A key view of the same wall from the adjacent residential community was not included because the visual impacts would not be sufficiently adverse to warrant a detailed analysis. Key Views 1 and 4a are shown with proposed walls that are not mitigated because specific designs for these areas have not yet been developed. The visual mitigation section of the DMND (section 3.16.3) contains a number of mitigation options that apply to a variety of site conditions. One or more of those options will be implemented in the final designs to mitigate adverse impacts to acceptable levels.

Tunnel effects should not occur on the project because there are no locations in which sound walls run parallel on both sides of the freeway. Noise barriers are currently not proposed in the Via Rancho Parkway/Escondido area.

9 On the Project Features Maps, areas of open space do not have the habitat included within the open space identified. For example, in Figure 2-21, the area of Lake Hodges does not show the wetlands associated with this area. The figures should be modified to accurately define these habitats in the vicinity of the proposed project. Additionally, the Project Features Maps should show the impacts to all sensitive habitats that would occur as a result of the project. The discussion in Section 3.9, Wetlands and Waters of the United States, discusses impacts to wetlands in the Lake Hodges Area. These impacts should be shown on Figure 2-21 in the same manner that impacts to coastal sage scrub are shown. All the figures should be updated accordingly to address these impacts.

10 Section 3.9, Wetlands and Waters of the United States, should provide detail on the type of wetlands that would be impacted, such as a riparian habitat, freshwater marsh, natural flood channel, etc. The City of San Diego has established different mitigation ratios based on the type of wetland impacted. The City of San Diego Biological Review References (July 2002) should be reviewed, and mitigation for impacts to wetlands or any sensitive biological resource within the City of San Diego should be consistent with these guidelines. A copy of the references is attached for your use. Also, Table 3-8 indicates that temporary/permanent wetland and waters impacts (acres) would occur in several areas of the project alignment, including Lake Hodges, Green Valley Creek and Los Penasquitos Creek. In total, 4.94 acres of temporary wetlands and waters impacts, 1.0 acres of permanent wetland impacts and 1.48 acres of permanent waters impacts would occur. All wetlands impacts should be shown on the respective "Project Features Maps" in Chapter Two supported by a detailed discussion as to why there is no feasible method of avoidance and how the proposed design minimizes wetland impacts to the maximum extent possible. A discussion of which Nationwide Permit (NWP) the project would pursue and how it qualifies should also be disclosed in the environmental document. It appears that the appropriate reissued NWP for this project would be NWP 14 (Linear Transportation Projects), which limits impacts to non-tidal areas to ½ acre. Currently, the project proposes to exceed this threshold.

11 Impacts to sensitive upland habitats are not adequately covered within the MND. These impacts should be evaluated and addressed in the MND. The MND states that impacts to Coastal Sage Scrub will be mitigated through the purchase of land in southeast San Diego County. Impacts to sensitive habitats within the City of San Diego should be mitigated for within the City itself. These mitigation measures should be detailed and should be consistent with the attached biological references. Section 3.12, Threatened and Endangered Species, should contain a discussion of the potential for Narrow Endemic Species to occur within the project area and any impacts to these species. The list of Narrow Endemic Species can be located in the City of San Diego Biological Review References.

8 Impacts to biological resources will be analyzed as three separate sections in the Final MND to include wetlands, threatened and endangered species, and wildlife. All of the above mentioned sections will be revised to include a more detailed description and analysis of both direct and indirect impacts. Please note that all technical study reports have been incorporated by reference.

9 Project Features maps will be updated to accurately delineate impacts to sensitive resources, including upland habitats and species that are adjacent to the project. Specifically, Figure 2-21 will be updated to correctly depict Lake Hodges as Open Water/Reservoir. The San Diego County Water Authority (SDCWA) is proposing to construct the Lake Hodges Inlet/Outlet project as an element of its Emergency Water Storage Project (ESP). Water levels at Lake Hodges will be maintained year round at 311 feet mean sea level (msl) by filling or withdrawing water through the proposed inlet/outlet. Maintaining the water at this elevation will inundate all riparian vegetation that currently exists within the lakebed. Construction of the Inlet/Outlet project is planned for 2004/2005. Construction of the Managed Lanes Project at Lake Hodges bridge will begin in early 2004; therefore, coinciding with the SDCWA's project.

Depicting all wetland impacts on each Project Features map is not feasible due to the separation of permanent versus temporary impacts. All impacts to each separate watercourse will be described in text and table format in Section 3.9 Wetlands and Waters of the U.S.

10 Section 3.9 Wetlands and Waters of the United States will be revised to include descriptions of each type of wetland to be impacted (with acreages), such as riparian habitat, freshwater marsh, natural flood channel, etc. in addition to type of impact (temporary vs. permanent). A table will also be provided that quantifies impacts to both U.S. Army of Corps of Engineers jurisdictional areas (both "water's of the U.S." and wetlands) and California Department of Fish and Game jurisdictional areas.

All impacts to wetland within the Department's right of way and within the City's MHPA will be consistent with the mitigation ratios referenced in the City's Biology Guidelines for wetland habitats. No properties to fully mitigate the project's wetland impacts were identified immediately adjacent to the I-15 corridor. The Department has entered discussions with the City of San Diego regarding the feasibility of doing wetland creation/restoration/enhancement work at Los Penasquitos Creek within the Los Penasquitos Canyon Preserve as described in section 3.9.3.

Avoidance and minimization measures will also be described in Chapter 3 as to how the proposed design minimizes wetland impacts to the maximum extent possible. For example, two new bridges will be built at both Lake Hodges and Green Valley Creek instead of the original proposal of widening/retrofit of the existing bridges. Widening/retrofit would cause a greater area of impact at each of the bents underneath the bridges. Constructing a new bridge eliminates the larger footprint, especially within Lake Hodges, thus reducing the permanent impacts to wetlands.

Threatened and Endangered Species

12 The proposed Measures to Minimize Harm described in Section 3.12.3 only addresses noise impacts from pile driving at Lake Hodges on the least Bell's vireo . The City recommends that all construction-related activities that have a potential to indirectly impact the vireo be limited to outside their breeding season (March 15 to September 15). Restrictions on construction-related activities should also be implemented for the California gnatcatcher (March 1 to August 15), where located within the City's MHPA (e.g., Figures 2-10, 2-20 and 2-21) in the Lake Hodges area. Measure for impacts to raptors within the City's MHPA should be included as well. Without such measures incorporated into the proposed project, the City feels that the project would have a potentially significant impact on MSCP covered, listed and sensitive species.

Section 3.12.3 also identifies the Bonita Meadows site (231 acres) near Proctor Valley in the County as mitigation for project-related biological impacts, because of its regional importance to gnatcatcher populations. The City recommends that mitigation for biological impacts within the limits of the City of San Diego, especially mitigation for those areas encroaching into the City's MHPA, open space or required easements, occur within the City limits.

Water Quality

13 The proposed project would have potential impacts on five bodies of water that either directly or indirectly flow into the City of San Diego. These bodies include Carroll Canyon Creek, Los Penasquitos Creek, Chicarita Creek, Green Valley Creek and Lake Hodges. As discussed in Chapter Three, the project has the potential for creating construction and operational-related water quality impacts to these waterbodies and downstream habitats. The environmental document should describe in as much detail as possible, with supporting graphics, the construction and post-construction Best Management Practices (BMPs) that are proposed to minimize water quality impacts under the Storm Water Management Plan (SWMP) for this project. Also, the document should identify the agency (Caltrans) who would be responsible for maintaining the post-construction BMPs.

Parks and Recreation

14 On page 57 of the draft document, it states that lighting would be installed under the Lake Hodges bridge to help eliminate tunnel effects and to improve safety underneath the proposed structure. The City's perspective on the proposed lighting is that if it is not properly designed, it would result in a significant effect on wildlife movement. The proposed design and effects of this lighting on wildlife movement under the bridge should be fully analyzed in the environmental document.

Each creek crossing of a separate water of the U.S. within the proposed project footprint would be considered a "single and complete project" as defined at 33 CFR 330.2(I). Permanent impacts to wetlands at each waterbody crossed is less than the threshold of 0.50 acre; therefore, each crossing meets the qualifications for a separate Nationwide Permit.

11 A description and analysis of impacts to sensitive upland habitats including coastal sage scrub can be found in the Natural Environment Study (NES), "California Department of Transportation Interstate 15 Corridor, Marine Corps Air Station Miramar to the City of Escondido, San Diego County, California," dated September 30, 2000. Impacts to coastal sage scrub (CSS) are quantified in Section 3.12 of the Draft MND. The NES is appended by reference in the IS/EA and MND. A more detailed description and analysis of sensitive upland habitats will be brought forward into Section 3.12.1 Affected Environment under Section 3.12 Threatened and Endangered Species.

All mitigation for impacts to CSS and the gnatcatcher were developed in coordination with the USFWS as outlined in the Biological Opinion dated May 8, 2001 and included in the Draft MND as Appendix B. Mitigation for impacts to CSS was required at a 2:1 ratio which is consistent with the City's Biology Guidelines for impacts to upland habitats (Tier II) both within the City's MHPA and outside the MHPA. In addition, Bonita Meadows lies within the County of San Diego and the eastern portion of the site falls within the MHPA.

Section 3.12, Threatened and Endangered Species of the Final MND will be revised to incorporate a separate discussion on the potential of Narrow Endemic Species to occur within the project area and any impacts to these species. All of the species listed as Narrow Endemic Species within the City's Biology Guidelines were listed by either the Service or the California Natural Diversity Database (CNDDB) as having the potential to occur within the project limits and were included in surveys conducted by the consultant in 1999.

All mitigation for impacts to CSS and the gnatcatcher were developed in coordination with the USFWS as outlined in the Biological Opinion dated May 8, 2001 and included in the Draft MND as Appendix B. Mitigation for impacts to CSS was required at a 2:1 ratio which is consistent with the City's Biology Guidelines for impacts to upland habitats (Tier II) both within the City's MHPA and outside the MHPA. In addition, Bonita Meadows lies within the County of San Diego and the eastern portion of the site falls within the MHPA.

Section 3.12, Threatened and Endangered Species of the Final MND will be revised to incorporate a separate discussion on the potential of Narrow Endemic Species to occur within the project area and any impacts to these species. All of the species listed as Narrow Endemic Species within the City's Biology Guidelines were listed by either the Service or the California Natural Diversity Database (CNDDB) as having the potential to occur within the project limits and were included in surveys conducted by the consultant in 1999.

Cumulative Impacts

15 The City of San Diego believes that there would be adverse cumulative impacts to visual quality, as discussed above, which would not be mitigated to below a level of significance and which is not identified in Chapter Four of the draft document. This would be created by the erection of sound walls along sections of I-15 that would result in a permanent loss of public views that are so important to the character and quality of life of the affected communities. Overall, the City believes that because of the cumulative impacts to visual quality and the regional scope of this twenty-two mile long project, that a Joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) is required for the project proposal, pursuant to NEPA and CEQA, respectively. The EIS/EIR should adequately examine reasonable, feasible options for mitigating or avoiding the project's contribution to this significant cumulative effect, which has not been done in this MND.

16

Again, the City appreciates the opportunity to review this document and wishes to be on the distribution list for all subsequent project documents. Should you have any questions on the above, please contact, Anne Lowry, Senior Planner, at (619) 557-7982. For questions specific to the City's MHPA, please contact Jeanne Krosch, Senior Planner, at (619) 236-6545.

Sincerely,

Lawrence C. Monserrate

Lawrence C. Monserrate, Environmental Review Manager
Assistant Deputy Director
Development Services Department

LCM/ael

Attachments: Biological References

cc: Bob Manis, Long Range Planning
Terri Bumgardner, Environmental Analysis Section
Michael Van Buskirk, Environmental Analysis Section
Jeanne Krosch, MSCP
Randy Rodriguez, MSCP
Ann French Gonsalves, Transportation Development
Labib Qasem, Transportation Development

12 Section 3.12.3 Measures to Minimize Harm will be revised to minimize all direct and indirect impact to the least Bell's vireo, coastal California gnatcatcher and breeding raptors

13 The Department will make the necessary modifications to the environmental document and add the necessary supporting exhibits to further describe the construction and post-construction Best Management Practices (BMPs) discussed in section 3.8.3 "Measures to Minimize Harm" of the MND. In addition, all of the proposed post-construction BMPs will be clearly identified on the "Project Feature Maps" of the MND.

14 Lighting that currently exists underneath the Lake Hodges Bridge consists of low, foot level lights that are directed at the hiking and riding trail. Any future design would be consistent to what currently exists underneath the bridge. In addition, lights will be proposed to run on timers, which would shut them off at a predetermined time, eliminating any potential indirect impacts to wildlife movement underneath the bridge. The proposed design of the lights and their potential effects on wildlife movement will be further addressed in Section 3.10 Wildlife in the Final MND.

15 Approximately 1.6 miles of view from the freeway would be obstructed by proposed noise walls. That means that over 92 percent of the project would not experience any of the potential adverse visual impacts that could be caused by noise walls. This condition would not result in significant cumulative effects according to our guidance in preparing visual assessments.

16 Refer to General Comment #3.

SCRIPPS RANCH PLANNING GROUP

November 21, 2002

Via Email and Regular Mail

Mr. David Nagy
Associate Environmental Planner, MS 46
Caltrans
P.O. Box 85406
San Diego, CA 92186-5406

Re: Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration for Interstate 15 Managed Lanes Project PM 10.7-31.8 (KP M18.3-50.7)

Dear Mr. Nagy:

The Scripps Ranch Planning Group (SRPG) has reviewed the Draft Initial Study for the Interstate 15 Managed Lanes Project that proposes to improve freeway capacity and transit opportunities by enhancing both the freeway and high occupancy vehicles (HOV) facilities. SRPG continues to support the need to better handle the current and future traffic needs between San Diego and Escondido. To that end, we are submitting the following observations and comments to be addressed in your environmental analysis.

1 Why are the proposed managed lanes ("Zipper Lanes") limited to either a "2+2" or "3+1" configuration and not able to be used in a "4-0" configuration?

2 Please evaluate moving Metropolitan Transit Development Board's (MTDB) Bus Rapid Transit Center (BRTC) from Hillery Drive to the currently undeveloped site immediately north of Mira Mesa Blvd. The environmental review should consider moving the BRTC for the following reasons:

1. Ensures HOV and SOV access from both the east and west;
2. Reduces traffic into Mira Mesa from Scripps Ranch to access the proposed Hillery Drive flyover;
3. Greater potential for mass transit usage;
4. Retain consistency with smart growth principles;
5. Improves pedestrian and bicycle access by tying into current bike route parallel to Interstate 15 connecting Mira Mesa and Scripps Ranch to Miramar Ranch, Rancho Penasquitos Reserve, Poway and Sabre Springs;
6. Reduction of traffic away from Mira Mesa Blvd on-ramps/off-ramps;
7. Avoidance of additional traffic impacts to Black Mountain and Hillery Drive;

1 The Transit Station is an independent action being pursued by MTDB. For further discussions regarding this transit station location MTDB should be contacted directly.

2 The Managed Lanes would operate in either a 2+2 or 3+1 lane configuration based on traffic demand. A 4+0 lane configuration would only be used in extreme emergencies for the following reasons:

1. One lane is needed for the reverse commute direction for expected traffic demand and to provide a reliable Bus Rapid Transit System.
2. A 4+0 lane configuration would require the closure of all entry points in the opposite direction. This would need to be accomplished by maintenance or emergency vehicles and personnel placing cones, signs, etc.

The Hillery Drive Direct Access Ramp will be a separate project. The issues mentioned will be addressed in a separate environmental clearance process for that project.

8. Better service to the communities of Scripps Ranch, Miramar Ranch North, Rancho Encantata, the remaining Future Urbanizing Area, Sabre Springs, East Miramar and Alliant International University;
9. Assist in accessing residential areas with employment centers and recreational areas;
10. Provide emergency use in case of fire (i.e. Pomerado Road closed due to 2002 brush fire); and
11. Could solve future traffic issues.

3 What is the basis for the statement on page 38 that market demand will encourage development of additional commercial facilities?

4 The sound and retaining walls required for noise abatement would impact community character, as it will shift appearances from suburban to urban. SRPG strongly urges using considerably more landscaping through the use of trees to minimize the impacts and to preserve the suburban character.

5 On page 64, it appears that only the west side of Interstate 15 was evaluated for noise receptors wherein the Scripps Ranch High School was not listed as such. The growing high school should have been evaluated as a sensitive noise receptor. The San Diego Unified School District approved a Master Plan for that requires the development of the West Treena Mesa site. The SRHS Master Plan has been attached for your review. Ahrens Field is immediately north the West Treena Mesa site and is also being considered by the community as a potential park. Both sites are adjacent to Interstate 15 and if evaluated, the sites would have been found to be negatively impacted.

6 Figure 3-24 lists recreation areas as having a NAC of 67 (exterior). The existing levels nearest the high school (as found on page 92) range from 64-72. Appendix E of the SRHS Master Plan shows a 65 CNEL that dissects the West Treena Mesa site. Any increases in noise could eliminate future use of the site by SRHS and the community. The projected level range in the Managed Lane environmental study is 68 to 75, which exceeds the NAC of 67. The draft initial study found that 12 of 14 modeled receptors on the west side of this segment approached or exceeded the NAC. As such, abatement measures should therefore also be reasonable and feasible. It would be expected that a proposed abatement measure (sound wall) would reduce the predicted noise level at least 5 dBA or more. Feasibility of constructing abatement would not be affected by the absence of physical constraints such as topography, driveways, ramps, cross-streets, other noise sources, or safety concerns. It would be expected that a noise abatement measure would be reasonable based on community acceptance, cost, abatement benefits, and other social, economic, environmental, legal, and technological factors.

7 Table 2-1 is incorrect regarding Segment number 2 in that 9889 Erma Road is located on the east side of 15.

8 Please update Figure 1-2A to correctly show a sixth lane will be added between Miramar Way & Pomerado Road/Miramar Road O/C.

3
This information came directly from the Scripps Miramar Ranch Community Plan, Page 20, Section D, Number 2.

4
The walls shown in figures 3-10 through 3-17 were created to determine potential impacts that would be created by the walls. All walls within the corridor would be subject to all feasible visual mitigation measures as described in Chapter 3.16.3

5
Since the Noise Study, this area was reassed and it was determined that there would be no impact due to the project. Due to the distance of this school from the facility and topography within the area the noise measurement indicates that no impact would occur. Noise measurements were taken approximately 150 meters west of the school in an existing dirt parking lot and obtained a measurement of 65 decibels.

6
The receptors that are referenced are located on the opposite side of the freeway from the school. The topography at these two locations is not similar and can not be compared. Refer to comment #5 regarding specific noise measurements at this location.

7
Thank you, this error has been corrected.

8
Figure 1-2A is meant to show existing lane configurations and, as such, should not show this lane addition.

9 Please verify that a second lane to be added to the northbound Pomerado Road/Miramar Road off-ramp

10 Figure 1-4A does not clearly show that the Intermediate Access Point for Pomerado Road/Miramar Road may not function effectively as proposed due to inability to exit managed lanes and merge safely to the off ramp. On page 20, the IAP for Pomerado Road/Miramar Road does not seem to be listed.

11 In regards to barriers discussed on page 16, will paving the dirt road along SR 163 to the South Control Yard complicate or eliminate any future expansion of either SR 163, Interstate 15, East Miramar access or Kearny Villa Road?

12 Please confirm that the Pomerado Road/Miramar Road O/C will be replaced and widened to accommodate a "flow through lane" westbound Pomerado Road to southbound Interstate 15 on ramp.

13 SRPG requests the evaluation of possibly relocating the southbound Miramar Road off ramp to connect directly with Kearny Road. It is belived by redirecting this off ramp to the existing street then the back up on Interstate 15 southbound getting off to this ramp will be significantly reduced.

14 As for anticipated disruptions listed on page 47, Scripps Ranch used to be completely served by Fire Station 37 but the coverage area was recently split when Fire Station 44 on Black Mountain was finished. The replacement of the Carroll Canyon O/C may impact the response time for emergency fire service to Scripps Ranch.

15 On pages 140 through 142, the Pomerado Road/Miramar Road O/C and Carroll Canyon Road O/C'S were not discussed. Please clarify how detours would be feasible given the traffic volume and limited alternative access to Interstate 15.

In conclusion, SRPG recommends that Caltrans fully evaluate the comments made above and incorporate appropriate changes to the final environmental document.

Sincerely

Robert Ilko, Chairman
Scripps Ranch Planning Group

Cc: City of San Diego Councilman Brian Maienschein
MTDB
Mr. Larry Carr, Caltrans (via email)

9 The northbound off-ramp to Miramar Road / Pomerado Road will be a two-lane exit from the freeway lanes.

10 Figure 1-4A has been revised to correctly show all Intermediate Access Points. The locations have been modified and one has been added to allow access from Mira Mesa / Scripps Ranch areas without the use of a Direct Access Ramp. If a Direct Access Ramp is located in the future, these Intermediate Access Ramp locations would likely need to be modified.

11 Paving the dirt road along SR-163 will not affect future expansion of SR-163, I-15, East Miramar access or Kearny Villa Road.

12 The Miramar Road / Pomerado Road Overcrossing structure will be replaced and widened to allow three through westbound lanes and one westbound auxiliary lane that exits to the southbound loop on-ramp. Currently this structure has only two westbound through lanes and one westbound auxiliary lane that exits to the southbound loop on-ramp.

13 The relocation of the southbound Miramar Road off-ramp to connect directly to Kearny Villa Road is outside the scope of this project. This problem would best be addressed as a separate project. It should be noted that adding a third westbound through lane will improve the ramp intersection AM level of service from F to E in year 2020. This will lead to reduced queuing on the off-ramp.

14 Once Miramar Road/ Pomerado Road structure is completed, Carroll Canyon Road Overcrossing will be replaced one half at a time. This structure will only accommodate one lane in each direction. In order to keep traffic operating at the Carroll Canyon Road Interchange, all left turns from / to the ramps will be prohibited. Through traffic will actually be improved on Carroll Canyon Road during this construction so emergency vehicle response times will not be diminished.

15 Discussion of detour traffic issues related to the replacement of Miramar Road/ Pomerado Road and Carroll Canyon Road Overcrossing structures has been included in text and is included in Appendix D.

November 15, 2002

Charles "Muggs" Stoll
Deputy District Director
District 11, Environmental Division
California Department of Transportation
2829 Juan Street, M.S. 46
P.O. Box 85406
San Diego, CA 92186-5406

Re: Comments on Interstate 15 Managed Lanes Project, DIS/EA October 2002

Dear Mr. Stoll:

1 As citizens of the Allegra Community on Kika Court, immediately adjacent and west of I-15, north of Scripps Poway/Mercy Road, we are very pleased to read that as part of the I-15 Managed Lane Project, our community is eligible for a sound wall as described on page 81 of the aforementioned document. The attached petitions from the community demonstrate the support of the proposed sound wall construction. The number of benefited residents would be extremely high, as the Allegra community consists of 113 single-family homes, not to mention the existing high-density apartment communities to the immediate north and south of our development.

2 It has been indicated that construction of such a sound wall may not occur for 5-10 years after project improvements have been implemented and traffic noise has steadily increased. As our community is currently impacted by increasing noise levels due to adjacent construction and development etc., and the Managed Lane Project will incrementally add to this, we would like to discuss how we can help facilitate construction of such a wall as soon as possible. In addition, as

3 this project will significantly add to or exacerbate an existing adverse condition with respect to noise, an argument can certainly be made that a DIS/EA is not an appropriate document for such a project and that a more appropriate document such as an EIR/EIS should be prepared. Project mitigation should be implemented promptly or an additional significant or adverse impact may occur.

4 Larry Carr of Caltrans has indicated that he may be able to have a temporary concrete barrier constructed to ease noise impacts to our development in the interim. If the temporary barrier is the only option, this gesture is appreciated, however our community desires a more appropriate sound wall before project construction begins. Please let us know what the best way to begin a dialogue with you would be. Constant communication during project development will benefit all of us.

Thank you and I look forward to hearing from you.

Sincerely,

Christopher G. Bender Beth A. Famiglietti

Christopher G. Bender
Beth A. Famiglietti
9843 Kika Court
San Diego, CA 92129

1 Comment Noted

2 The noise barrier is scheduled to be built at the same time or before the project improvements are completed and will be in place to abate the projected project-related noise increases.

3 The mitigated ND/FONSI is reserved for projects that have impacts that are not significant after mitigation. The Department uses the judgment and knowledge of the interdisciplinary project development team (PDT) based on the concepts of context and intensity (NEPA) and setting (CEQA) to determine the nature of impacts. With the support of specialists and the completed technical studies, the PDT concluded that all project related impacts could be minimized based upon context and intensity and that a ND/FONSI was the appropriate level document for the project. Numerous measures to minimize impacts are identified and planned as outlined in Chapter 3: Affected Environment, Environmental Consequences, and Measures to Minimize Harm and in Appendix F: Mitigation Monitoring and Reporting Record. The Department continues to support the decision that an ND/FONSI is the appropriate level document for the proposed project.

4 Building the noise barrier as part of the operational improvement project (bridge widening/addition of an auxiliary lane) under EA 2326U_ has been looked into; however the limits of work under this EA only cover part of the noise barrier. Building only a part of the barrier would be ineffective and not reasonable for inclusion in the operational project.

Budget/scope allowing, the project under EA 2326U_ may consider replacing the metal beam guard rail that extends from the south end of the bridge rail on the Los Penasquitos Creek bridge, on the west side of the freeway (the same side where the Allegra Community is located), to the Mercy Road off ramp with a concrete barrier. This project feature would provide some noise abatement along that section of the operational improvement project.

Support of Soundwall Construction on I-15 for the Caltrans "Managed Lane Project"
in the Allegra Community (Kika Court) of Rancho Penasquitos in San Diego, CA

Dear Caltrans:

We live in the Allegra community (Kika Court), in between I-15 and Mercy Road. As you are aware, our community, which consists of 113 single-family homes, has passed the Caltrans initial reasonable criteria for possible noise wall construction for the "Managed Lane Project". The following signatures have been collected to demonstrate the desire for sound wall construction in between I-15 and the Allegra Community. Thank you.

Name (please print)	Address	Signature	Date
Irene Perry	10041 Kika Court San Diego, CA 92129	Irene Perry	10 30 02
Heather Sachteir	10009 Kika Court San Diego, CA 92129	H. Sachteir	10 30 02
[illegible]	10033 Kika Court San Diego, CA 92129	YEN LE TRAN	10, 30, 02
[illegible]	10013 Kika Court San Diego, CA 92129	Mike Romig	10, 30, 02
ROBI K. ANTONY	10009 Kika Court San Diego, CA 92129	[illegible]	10, 30, 02
Jennifer Ouellet	11015 Kika Court San Diego, CA 92129	[illegible]	10 30 02
KERRI STROBL	11023 Kika Court San Diego, CA 92129	[illegible] Strobl	10 30 02
Alexandra Bulbosach	11039 Kika Court San Diego, CA 92129	Bulbosach Alexandra	10, 30, 02
Laura Birman	11043 Kika Court San Diego, CA 92129	Laura Birman	10 30 02
DeAnna Hood	11047 Kika Court San Diego, CA 92129	[illegible]	10 30 02
Nam Tran	10005 Kika Court San Diego, CA 92129	[illegible]	10, 30, 02
STEVE POMIAK	10001 Kika Court San Diego, CA 92129	[illegible]	10 30 02
Michael Sullivan	11007 Kika Court San Diego, CA 92129	[illegible]	10, 30, 02
CHESTER WANG	11019 Kika Court San Diego, CA 92129	[illegible]	10, 30, 02

Support of Soundwall Construction on I-15 for the Caltrans "Managed Lane Project"
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Name (please print)	Address	Signature	Date
Scott & Allison McClay	11005 Kika Court San Diego, CA 92129	Allison McClay	10, 25, 02
Bill & Libby DeGracias	9717 Kika Court San Diego, CA 92129	[illegible]	10 25 02
Neel and Sujani Tipnis	9723 Kika Court San Diego, CA 92129	[illegible]	10, 26, 02
Beth & Mike Byrd	9733 Kika Court San Diego, CA 92129	Beth A. Byrd	10, 26, 02
Brett Chiang	11003 Kika Court San Diego, CA 92129	[illegible]	10, 26, 02
Young Kim	11013 Kika Court San Diego, CA 92129	[illegible]	10 26 02
Yvette Herrera	11019 Kika Court San Diego, CA 92129	[illegible]	10 28 02
Roy Bell	11045 Kika Court San Diego, CA 92129	[illegible]	10, 26, 02
Brad & Brandy Maciejewski	11049 Kika Court San Diego, CA 92129	[illegible]	10, 26, 02
Reggie & Joyce Waller	11053 Kika Court San Diego, CA 92129	[illegible]	10, 26, 02
JOHN & CRYSTAL PISKOR	11057 Kika Court San Diego, CA 92129	[illegible]	10, 26, 02
Burak Ozgur	9729 Kika Court San Diego, CA 92129	[illegible]	11, 16, 02
KIM TRAN	11041 Kika Court San Diego, CA 92129	[illegible]	11, 16, 02
JAMES & RHONDA SHADLE	11091 Kika Court San Diego, CA 92129	[illegible]	11, 17, 02

Support of Soundwall Construction on I-15 for the Caltrans "Managed Lane Project"
in the Allegra Community (Kika Court) of Rancho Penasquitos in San Diego, CA

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Name (please print)	Address	Signature	Date
Allen & Kirsten Tremble	9839 Kika Court San Diego, CA 92129		10/28/02
Christopher & Beth Bender	9843 Kika Court San Diego, CA 92129	Beth Jennifer Beth Bender	10/28/02
Dwight & Cathy Carlson	9837 Kika Court San Diego, CA 92129	Cathy J Carlson	10/25/02
JOHN & SYLVIA POTTER	9845 Kika Court San Diego, CA 92129		10/26/02
RADUCU & NINA LAZARESCU	9809 Kika Court San Diego, CA 92129		10/26/02
RENATO & AURORA RAMOS	9849 Kika Court San Diego, CA 92129		10/26/02
HOA THIEU TRAN	9915 Kika Court San Diego, CA 92129		10/26/02
Keith Linneman	9911 Kika Court San Diego, CA 92129	KAL	10/26/02
Stacey Griffin	9805 Kika Court San Diego, CA 92129	Stacey Griffin	10/29/02
Atousa MONJAZEB	9817 Kika Court San Diego, CA 92129		10/30/02
David Applestein	9853 Kika Court San Diego, CA 92129		10/30/02
ENRIQUE BAUTISTA	9923 Kika Court San Diego, CA 92129		10/30/02
Maria Valinski	9919 Kika Court San Diego, CA 92129	Maria E Valinski	10/30/02
Sophaphone Phommavong	9833 Kika Court San Diego, CA 92129		10/31/02

Support of Soundwall Construction on I-15 for the Caltrans "Managed Lane Project"
in the Allegra Community (Kika Court) of Rancho Penasquitos in San Diego, CA

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Name (please print)	Address	Signature	Date
FERDI SIMBULAN	9827 Kika Court San Diego, CA 92129		11/13/02
MARCO PANATTONI	9823 Kika Court San Diego, CA 92129		11/13/02
Sandy Gomo	9819 Kika Court San Diego, CA 92129		11/13/02
Ramesh Kasavaraju	9815 Kika Court San Diego, CA 92129		11/13/02
Jule Chen	9807 Kika Court San Diego, CA 92129		11/13/02
Sujata Mohanty	9803 Kika Court San Diego, CA 92129		11/13/02
Yi Chau Hsieh	10003 Kika Court San Diego, CA 92129		11/13/02
NATE DELACRUZ	9835 Kika Court San Diego, CA 92129		11/19/02
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /

Support of Soundwall Construction on I-15 for the Caltrans "Managed Lane Project"
in the Allegra Community (Kika Court) of Rancho Penasquitos in San Diego, CA

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Name (please print)	Address	Signature	Date
Seang Chau	10023 Kika Court San Diego, CA 92129		11/18/02
Maureen McPherson	9931 Kika Court San Diego, CA 92129		11/18/02
Susan Edwards	9931 Kika Court San Diego, CA 92129		11/18/02
Sebastian Cavella	9925 Kika Court San Diego, CA 92129		11/18/02
Tony Souvannarath	9921 Kika Court San Diego, CA 92129		11/18/02
Ruben Concepcion	9917 Kika Court San Diego, CA 92129		11/18/02
Mark Smith	9909 Kika Court San Diego, CA 92129		11/18/02
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /

Support of Soundwall Construction on I-15 for the Caltrans "Managed Lane Project"
in the Allegra Community (Kika Court) of Rancho Penasquitos in San Diego, CA

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Name (please print)	Address	Signature	Date
KHAI NGUYEN	9841 Kika Court San Diego, CA 92129		3/11/02
Josef K. Cuesico	9851 Kika Court San Diego, CA 92129		11/3/02
HENRY CHAN	9719 Kika Court San Diego, CA 92129		11/12/02
Timothy Hood	10017 Kika Court San Diego, CA 92129		11/14/02
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
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	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /
	Kika Court San Diego, CA 92129		/ /

----- Forwarded by Olga Estrada/D11/Caltrans/CAGov on 11/22/2002 02:49 PM -----

"Gene Strocco" <gs3@gs3.com>
11/22/2002 02:36 PM

To: <Olga_Gonzalez-Estrada@dot.ca.gov>
cc:
Subject: Proposed I-15 Managed Lanes Project

Subject: I-15 Managed Lane Project

To whom it may concern,

I am a new homeowner in the Westwood neighborhood of Rancho Bernardo.

Specifically, I reside on Valladares Drive, which runs along the west side the I-15.

I have just been informed of the proposed I-15 Managed Lanes project and the extensive construction that will be part of this project for a number of years.

I have not received any public notification or information from Caltrans about the project. I have read a recent Union-Tribune article and a letter delivered to me yesterday by a concerned neighbor.

1 I am extremely upset and concerned about the negative impacts such a project will have on the environment, our peace and tranquility and our property values. I was especially disappointed to read that Caltrans decided they "could not justify the cost of a sound barrier" even thought Caltrans plans to work on the project 24 hours a day.

2 I believe Caltrans has a legal and moral obligation to design and build the project with the least negative impacts on the community and to mitigate those impacts whenever possible.

3 It appears that the design and construction of this project will have a severely and negative impact on the community.

Therefore, I request, the following information:

1) The project Environmental Impact Report. Including any conducted by Caltrans on the negative environmental impact on my neighborhood, specifically those residing on Valladares Drive.

4

2) Planning and scheduling information such as what specific construction will be commenced and in what location (i.e., what side of the I-15 will be worked on, the work hours planned, etc.).

5 3) Any public flyers or neighborhood information pamphlets previously drafted and delivered by Caltrans and the dates delivered

Caltrans must be aware that if this project continues without substantial mitigation measures, the citizens affected may be forced to take legal action to protect the community.

Respecfully,

Gene Strocco III

Homeowner
18108 Valladares Drive
San Diego, CA. 92127
619-987-7700

1 Refer to General Comment #1 regarding property values

2 As discussed in the draft IS/EA in Table 3-6, receptor 1195-2, located at 18107 Valladares has an existing noise level of 61 dBA and a future predicted noise level of 63 dBA. The future predicted noise level does not approach or exceed the Noise Abatement Criteria thus no traffic noise impacts occur and no abatement is considered per 23 CFR 772 and Caltrans Noise Protocol

3 Please refer to Section 3.17 – "Construction Impacts", and Appendix D of the IS/EA for a discussion on "Construction Staging and Detours", "Impacts", and "Measures to Minimize Harm"

4 All information requested is available via the web by going to http://www.dot.ca.gov/dist11/ and following the links for the Interstate 15 Managed Lanes. The information is also available at numerous public libraries, or can be viewed by visiting the District 11 office. In addition, copies are available for purchase at the district office.

5 During construction, the community will be informed of upcoming events through various public notification strategies. Including brochures and mailers, media releases, paid advertising, public information centers, public meetings, telephone hotline and a project web page.

Rec'd Caltrans Lobby
DATE 11/22/02
TIME 2:55

Tina Robinson
7943 Artesian Road
San Diego, CA 92127

November 22, 2002

Charles "Muggs" Stoll
Caltrans, District 11
P.O. Box 85406 M.S. 46
San Diego, CA 92186-5406

Dear Mr. Stoll:

While I certainly understand the need for the I-15 Managed Lanes project, I am disappointed in the quality and content of the environmental document for the following reasons:

1 The scope and scale of the project makes a fair argument that the document should be an EIR/EIS for the following reasons:

2 There are significant, unmitagable growth inducing effects per CEQA Guidelines Section 15126.2 (d) regarding the removing of an obstacle to growth. The growth in the north county is substantial, ties improvements to I-15 and would be less attractive without the construction of the project.

3 There are potential significant effects to park resources that were not addressed in the document or under Section 4(f) of the US Dept. of Transportation Act.

4 There are significant noise and visual impacts associated with park resources at the San Dieguito River Park Sikes Adobe. These constitute a constructive or indirect impact on the park resource. Additionally, there are temporary construction easements that directly impact public land used for recreation. (City owned within JPA jurisdiction used for trail and fishing and birding etc.)

Please explain why the document did not address the following issues and either explain why it didn't or rectify the inadequacy in the final document.

Why were there not visual simulations from the Sikes Adobe of the proposed retaining wall and project proximity? There's lots of simulations shown for the motorist.

Why is the Coast to Crest Trail never properly identified – it's either shown as bike and pedestrian or as hiking and equestrian but never identified as the 55- mile multi use trail that is central to the San Dieguito River Park.

5 Why is such an important trail's overhead clearance lowered? – it wouldn't be safe for equestrians.

6 Why is there no list of references? It is clear that although there was coordination with the San Dieguito River Park JPA that the San Dieguito River Park Concept Plan and the Sikes Adobe Restoration Plan were never reviewed or included in the planning process. Caltrans has done a good job dealing with the temporary trail closures but never addressed the JPA concerns about the permanent effects of the project – tunnel effect,

L30

1 Please see General comment #3

2 Please see genetal comment #4

3 See response #1 on letter to San Dieguito River Park regarding

4 See letter from San Dieguito River Valley Conservancy regarding Sikes Adobe and temporary uses of parkland

5 The existing vertical clearance will be maintained with the replacement of the existing bridges with some adjustments to the bike trail. Section 3.4.2 has been updated to reflect this.

6 A list of references has been added

The tunnel effect was addressed in the DMND section 3.4.3

noise and visual. This must be rectified through a Section 4(f) analysis and appropriate mitigation.

7 Additionally, had the Concept Plan been reviewed, it would have been clear that one of the prime goals of the San Dieguito River Park is the preservation and restoration of habitat. This is ignored in the MND/EA. Lake Hodges is recognized as a Globally Important Bird Area by the Audoban Society and within the MSCP habitat protection area, yet mitigation is proposed in a completely different corridor at least 50 miles removed. All impacts in the area supporting the birds within this corridor should be mitigated within the same wildlife corridor. This is especially important at Lake Hodges because there are significant cumulative impacts to this important corridor (identified on page 12/22 of the Biological Opinion), particularly once the San Diego County Emergency Water Storage Project fills Lake Hodges and keeps it full.

Because the bridge is so low at Lake Hodges there is little opportunity for wildlife to travel across the freeway – this will be compounded with the increased width. Since the bridges have to be reconstructed anyway, the significant cumulative effects should be mitigated by raising the bridges and extending the length of the bridges to allow free wildlife movement both north and south of the lake. This would mitigate impacts to this major east/west wildlife corridor and core gnatcatcher population and continue the linkage to the preserves east and west of I-15.

Additionally, impacts to riparian vegetation should be mitigated within the corridor. There are properties located to the west that would provide suitable habitat.

8 Additionally, the MND/EA did not adequately address the temporary bridge closure impacts on public services. There is no evidence of coordination with the Poway or San Diego Unified School Districts regarding transportation routes or with the San Diego Fire Department regarding emergency response times. How can the potential to public services be checked off as "no impact" when not justified? Also, the intersection at Rancho Bernardo Road and West Bernardo Road has been rebuilt but now there is only one right turn lane heading north from westbound Rancho Bernardo Road. Could you provide an intersection analysis that shows how this turn movement would be impacted by the bridge closure? At a minimum, the Duenda bridge crossing improvements should be staged at a different time from the Pomorado Road bridge closure. Most of the residents west of I-15 must cross the freeway for medical and grocery shopping and the intersections are very congested at peak hour.

Thank you for your attention to these comments.

Sincerely,

Tina Robinson

cc: Jeff Lewis, FHWA
Harold Peeks, FHWA

7 The MND identifies Bonita Meadows near Proctor Valley in the County of San Diego as mitigation for impacts to coastal sage scrub and the gnatcatcher. Bonita Meadows was purchased by Caltrans under the terms and conditions of the non-jeopardy Biological Opinion to offset cumulative impacts to CSS and the gnatcatcher. Bonita Meadows and its natural resources were identified as "at risk" to development. This parcel of land was purchased based on discussions with Federal Highways, the United States Fish and Wildlife Service (Service) and the California Department of Fish and Game (DFG). Bonita Meadows is located within the County of San Diego and the MSCP limits, and the eastern portion of the property falls within the MHPA, specifically, the County of San Diego, Pre-approved Mitigation Area (PAMA).

Bonita Meadows serves as mitigation for cumulative impacts to CSS and the gnatcatcher, but only mitigates for a portion of the impacts caused by the proposed project. The remaining mitigation for CSS and the gnatcatcher was compensated for by the purchase of three parcels near Lake Hodges, referred to as the Walsh Property. The Walsh Property contains a total of 81 acres of CSS, supporting nine pairs plus three individuals of gnatcatchers for a total of 12 territories. In addition, cactus wren (*Campylorhynchus brunneicapillus*) were observed within the cholla-dominated CSS of the Walsh Property. Although this parcel is outside of the City's boundaries, it is immediately adjacent to the San Dieguito River Valley Park's recently acquired Bernardo Mountain parcel and the City's MHPA conserved area that surrounds Lake Hodges. A description and an exhibit of the Walsh Property will be added to Section 3.12.3 Measures to Minimize Harm under Section 3.12 Threatened and Endangered Species.

All mitigation for impacts to CSS and the gnatcatcher were developed in coordination with the USFWS as outlined in the Biological Opinion dated May 8, 2001 and included in the Draft MND as Appendix B. Mitigation for impacts to CSS was required at a 2:1 ratio which is consistent with the City's Biology Guidelines for impacts to upland habitats (Tier II) both within the City's MHPA and outside the MHPA. In addition, Bonita Meadows lies within the County of San Diego and the eastern portion of the site falls within the MHPA.

See letter from Conservation Biology Institude regarding wildlife movement

No properties to fully mitigate for the project's wetland impacts were identified immediately adjacent the I-15 corridor. The Department, however, has an agreement with the City of San Diego to determine the feasibility of doing wetland creation/restoration/enhancement work at Los Penasquitos Creek within the Los Penasquitos Canyon Preserve (see attached letter). This site is downstream of the I-15 crossing where project impacts to Los Penasquitos Creek would occur.

8 Text has been added to address the intersection of Rancho Bernardo Road and West Bernardo Road during the closure of Highland Valley Road structure for construction. The one right turn lane from westbound to northbound is able to handle the traffic because that movement overlaps with the southbound to eastbound left turn movement.

Regarding the staging of the Duenda Road / West Bernardo Drive Overcrossing structure, text has been added to clarify that this replacement will occur after the Highland Valley Road / West Bernardo Road Overcrossing Structure is completed.

Comments

October 20, 2002

Subject: I-15 Managed Lanes Project

Ref: Draft Initial Study/Environment Assessment
And Proposed Mitigated Negative Declaration

Area of Concern: Segment 7: Carmel Mountain Road to
Camino Del Norte (pages 82 and 83)

From: Concerned Residents (names and signatures included)

To: Mr. Larry Carr, Caltrans
P. O. Box 85406, San Diego, CA 92186-5406

Dear Mr. Carr,

1 It is very exciting to see Caltrans comprehensive plans proposing the much needed improvements along I-15 by presenting the initial 400 plus pages "I-15 Managed Lanes Project" and other related documents. These comprehensive documents include a great deal of data and information regarding different aspects of project, many charts, figures, and tables. And this has been somewhat difficult to study, digest, and respond to in timely manner by the public. However, we appreciate the opportunity to review these documents and submit our comments.

Although this comprehensive project is a great solution for improving the congested I-15, however, it brings with it noticeable environmental impact concerns effecting many residents who already live alongside I-15 and have to endure the exiting high level of freeway noise (around 71 dBA as studies indicate). Which in fact, after completion of this project, additional cars that are going to be using it at higher speeds will contribute to its ever increasing noise levels.

2 As concerned residents, we believe that by expressing our concerns and ideas we can help Caltrans to develop the optimum design for keeping the noise levels within acceptable range in accordance with Title 23 Code of Federal Regulations part 772 (23 CFR 772) and NAC (5 dBA reduction) by introducing feasible and reasonable noise barriers, while expanding I-15 by additional of 4 or more lanes.

1 Comment noted

2 A 16' high barrier was considered along the right of way and was found to feasibly abate the noise for Receptor 150 and not for R151 or R1151. A barrier along the right of way is less effective as the homes are located above the freeway in this location. The most effective location for the sound barrier is along the property line of the impacted residences.

THE LAW OFFICE OF
Cynthia L. Eldred

517 Fourth Avenue, Suite 103
San Diego, California 92101
Telephone: 619.233.7366
Direct Line: 619.233.7388
Facsimile: 619.233.7390
Cellular: 619.985.4785
cindy@eldredlaw.com

Rec'd Caltrans Lobby
DATE NOV 22 2002
TIME 8:45

VIA HAND-DELIVERY

November 22, 2002

California Department of Transportation
Attn: David Nagy, Associate Environmental Planner
2829 Juan Street-Old Town, MS.46
San Diego, CA 95814-2724

Re: Comments to Draft Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration; Interstate 15 Managed Lanes Project (the "Negative Declaration")

Dear Mr. Nagy:

We represent Garden Communities RP, LLC ("Garden Communities") regarding its ownership and management of the Legacy Apartment Homes ("Legacy") in Mira Mesa.

While Garden Communities appreciates the opportunity to comment on the Negative Declaration, we question the adequacy of the length of the allotted public review period, given the complexity and scope of the project and its potential impacts upon the environment. We offer the following general and specific comments at this time, and at the same time respectfully request that the California Department of Transportation (the "Department") extend the public comment period for an additional 60 days and so notify us and all of those entities and agencies that are on the Department's notice list for the project.

1 Legacy is a 412-unit apartment complex located at the eastern terminus of Hillery Drive, abutting Interstate 15 along its western boundary. The proposed Hillery Drive Direct Access Ramp would cut directly through Legacy, obliterating an existing recreational area and dividing Legacy into two physical pieces.

It appears from Figure 2-7 of the Negative Declaration that a proposed, permanent easement would extend between two residential buildings, from one building face to the other. There are 22 residential units in each of these two buildings. In addition, there are 16 residential units in each building immediately behind these first two. We are enclosing a photograph of the two buildings, taken from the existing cul-de-sac terminus of Hillery Drive. The photograph shows the proximity of the two buildings to each other, and the inability of the separation to accommodate the proposed Direct Access Ramp ("DAR") without significant, probably unmitigable impacts upon these two buildings and the whole of Legacy.

2 At the time Garden Communities purchased the property upon which it built Legacy, Garden Communities was not informed that any local, state, or federal agency was considering the possibility of constructing any freeway facilities through the property. There was not then, nor is there now, any known property right in favor of any agency across the portion of the property shown in Figure

1 Subsequent to the Draft Circulation and in response to public comments, the DAR proposed at Hillery Drive has been removed from consideration as part of the I-15 Managed Lanes Project. Omission of this access would not impair the function of the project. Ingress and egress to the managed lanes would still be provided via the intermediate access points planned throughout the length of the project corridor.

2 The Draft EIR: General Plan/Community Plan Amendment for the Mira Mesa Market Center, SCH#97051044, as prepared by the City of San Diego in June of 1998, clearly identifies the DAR on plans contained within the document.

2-7 as impacted by the proposed extension of Hillery Drive east to Interstate 15 and the related, proposed permanent easement. According to several title insurance companies and several civil engineers who have surveyed the property, the property is not encumbered by any such right.

Residents began moving into Legacy in June 2000. Residents began moving into the two buildings most immediately impacted by the proposed DAR in April 2001. Legacy has been completely occupied since November 2001. Residents enjoy a set of common amenities and a sense of community. As a result, residents not only enjoy the recreational area that would be obliterated by the proposed DAR, but frequently travel across it in accessing amenities and neighbors.

More frightening is the prospect of a "flyover" running immediately between two multi-story residential buildings, apparently from footing to footing. We can find absolutely nothing in the Negative Declaration that evaluates any of the potential impacts of the proposed Hillery Drive DAR upon any of Legacy, let alone the two most immediately impacted buildings. If there is any such evaluation, it is impossible to locate. As such, it cannot be said to have afforded any decision maker with the sufficient evidence required by law to support the decision making body's independent judgment and analysis of the potential impacts of the project upon the environment, a consideration of alternatives, or a consideration and potential imposition of measures that might mitigate for the project's potentially significant impacts.

The failure of the Negative Declaration to adequately evaluate the project's potential, significant impacts on the environment as required under the California Environmental Quality Act and its implementing regulations make it necessary for the Department to either substantially revise and recirculate the Negative Declaration to include evaluation of and mitigation for the potential impacts upon Legacy and the surrounding Mira Mesa community, or to complete and circulate an Environmental Impact Report for the project.

The following are more specific comments that support our position:

- The Negative Declaration states at page iii that the project would have no effect on land use. However, Figure 2.7 shows that the project will require a permanent easement for the Hillery Drive DAR. Based on the figure, it appears that the easement will extend to the face of the buildings fronting the proposed access ramp. Will this roadway extension require the demolition of these building? Will parking be removed? Will any utilities have to be relocated with the addition of the access ramp? How could this access ramp not have an affect upon the existing structures?

- Legacy has been fully occupied since November 2001. The proposed Hillery Drive DAR would cut directly through the project, and yet the document does not address any of the impacts that the project would have upon this site and upon the residents' quality of life.

- The Negative Declaration does not evaluate the potential impacts of the realignment of existing roadways to connect into the Managed Lanes of the Hillery Drive DAR upon the level-of service on existing local roadways. How would traffic patterns on existing local roadways be impacted? Would roadways like the Hillery Drive extension be able to handle the increased demand due to the Managed Lanes? What would be the level-of-service on affected roadways

with and without the proposed project under the 2020 conditions? What would be the level-of-service on affected local street intersections with and without the proposed project under the 2020 conditions? Please include the traffic from transit vehicles, HOV, and paid SOV in the additional traffic analysis. How would access to Legacy near the proposed Hillery Drive DAR be impacted?

- How would the DAR's and the Intermediate Access Points ("IAP") operate in conjunction with each other? For example, how would the DAR and the IAP located at Hillery Drive operate in conjunction with each other?

- Table 2-1 lists the required easements for the project. The permanent easement that is proposed for the Hillery Drive extension is not identified in this table, yet it is shown in Figure 2-7. Please add this easement to this table. When the property was purchased this easement did not appear on title insurance reports, tentative maps, or site plans for Legacy, which is now fully occupied. The easement still does not appear on such reports, maps, and plans. Page ten indicates that no homes would be displaced as part of this project. Would the permanent easement on Hillery Drive require the displacement of residents of the apartments directly facing Hillery Drive? Would this easement remove required parking for the site on either a permanent or temporary basis?

- The Negative Declaration states at page 64 that there was a noise study conducted for the project. However, Figure 2.7 indicates that there were no noise receptors within the vicinity of Legacy (near the proposed Hillery Drive DAR). What would be the impacts of the proposed project upon the residents Legacy based on the noise level associated with the access ramp?

3 - The Negative Declaration mentions that a transit station will eventually be located by the Metropolitan Transit District on Hillery Place. How will this transit station affect on-street parking in the area and what measures will be included to ensure that users of the transit station will not park in Legacy's parking lot? Although the project is not proposing this transit center, the decision is virtually assured by placing the direct connector ramps at this location. Therefore, the analysis of the transit center traffic impacts need to be included in this document.

- Visual Impacts were not conducted for the Hillery Drive DAR. Please prepare a full visual impact for the apartment buildings that face this access ramp. This is probably the most impacted location in the whole corridor, yet these potential impacts were apparently not evaluated.

- The Negative Declaration states at pages 23 through 30 that the project requires certain design exceptions to the Department's established standards. How would these exceptions impact public safety?

4 - Although Chapter 2 of the Negative Declaration produces a general discussion of alternatives, there is no actual description and analysis of discreet alternatives to the project as a whole or to any of its components. For example, there is no discussion of possible alternatives to the Hillery Drive DAR.

3 The MTDB Transit Station is an independent action being pursued by another agency. The transit station is not dependent on the DAR to operate.

4 Through the Major Investment Study and Value Analysis process, alternatives were created that would help to reduce congestion within the corridor. These alternatives were discussed and subsequently eliminated or marked for further consideration based on their ability to meet the purpose and need for the project.

- A wrought iron fence can be seen at the left side of the enclosed photograph. The fence encapsulates and protects a vernal pool that the project sought to preserve from project impacts. The Negative Declaration does not address the potential impacts of the Hillery Drive DAR upon this resource, or, if the Negative Declaration does so, it does so without description and identification of the resource. How might the vernal pool be impacted by noise, light, vibration, exhaust, and the other factors associated with the DAR?

If you have any questions regarding our comments, please contact me at the telephone number or address provided above.

Very truly yours,

CEldred

Cynthia L. Eldred
THE LAW OFFICE OF CYNTHIA L. ELDRED

Enclosures

cc: Garden Communities
Federal Highways Administration, Attn: Jeff Lewis

November 22, 2002

California Department Of Transportation
District 11
2829 Juan Street
San Diego, California 92110

Attention: Mr. Larry Carr

Subject: INTERSTATE 15 MANAGED LANES PROJECT
SAN DIEGO, CALIFORNIA
REQUEST FOR ADDITIONAL INFORMATION,
CLARIFICATION AND CONSIDERATION

Dear Mr. Carr:

We appreciated the opportunity to meet with you on October 20, 2002, to discuss the proposed improvements planned for the Interstate 15 corridor near our properties. Since the public hearing on November 14, 2002, we have a better understanding of the components of the project. After evaluating the documents provided for our review, there are still a few items that we would like clarified. The specific wall segment that applies to our properties is Segment 8, Noise Barrier 8-4.

Pursuant to our meeting, we have prepared this correspondence to formalize our questions since your technical group manager was unable to attend. We apologize for requesting this information at a late date, but we are trying to understand the project details and unanswered questions from the November 14, and 20, 2002 meetings, before the imposed deadline for public comment on November 22, 2002.

Our review and understanding of the project is based on the following documents:

- *I-15 Managed Lanes Project, Noise Study Report,* prepared by California Department of Transportation, dated June 30, 2000.
- *Environmental Assessment/Initial Study And Proposed Negative Declaration, Interstate 15 Managed Lanes Project*, prepared by California Department Of Transportation, dated June 2002 (excerpts).
- *Reasonableness Analysis of Noise Abatement Measures, Interstate 15 Managed Lanes Project*, Exhibit 2, Noise Barrier No. 8-4, dated July 8, 2002.
- General summary of information used for the analysis of Noise Barrier No. 8-4, dated July 8, 2002.

The items discussed below are separated into the specific categories where we desire additional information or clarification. We respectfully request that you review and comment on the following:

I. CONSTRUCTION COSTS AND ASSUMPTIONS:

1 1. The analysis performed in the June 30, 2000, report concludes that Barrier No. 8-4 is feasible and reasonable. The July 8, 2002 information indicates that the same barrier remains feasible but is now considered is "not reasonable". Please explain the change in conclusion.

2 2. Are there alternative Caltrans endorsed noise barriers that would be less costly than the system considered in the July 8, 2002 study. If so, what fiscal reduction would occur with an alternative barrier.

3 3. The actual existing wall to be demolished is shorter that assumed.

It is respectfully requested that the noise barrier construction costs be re-visited considering the following alternatives:

4 Case 1. All variables remain constant except for the demolition costs. The existing stucco wall proposed to be demolished and removed is 3.5 feet to 4 feet in height rather that the assumed 6 feet.

5 Case 2. No easement or demolition costs would be necessary from a point located one property south of Receptor Station No. 179D, northward to the northern property line of the lot containing Receptor Station No. 180. Along this area the barrier would be placed within the Caltrans right-of-way, a suitable distance back from the top of the slope and away from brow ditches.

6 Case 3. An easement is granted to at no cost to Caltrans along the entire length of Barrier No. 8-4 with a corresponding elimination of all existing wall demolition costs. Areas within the Caltrans right-of-way would still be utilized for barrier placement. Some sections may require an increase in wall height to position the wall slightly down from the top-of-slope. It is presumed this may be necessary for contractor logistics to enable a backhoe to dig the wall footings.

There is a strong possibility that the easement described in Case No. 3 could be achieved. We are currently working with the overall association of Bernardo Heights to determine this possibility. We feel that by achieving this goal we should be within an acceptable percent of the protocol allowance. With respect to the other cases, we are interested to explore how these alternatives may positively affect our current "not reasonable" assessment.

1 The analysis in the Noise Study Report (June 30, 2000) used a generic noise barrier unit cost of $151/m2, which was calculated in 1998 per the Traffic Noise Analysis Protocol (Noise Protocol).

The analysis in the Reasonable/Feasible Analysis (RFA) used an updated noise barrier unit cost of $250/m2. In addition, each barrier location was reviewed and costs related to the construction of the noise barrier, which included construction/maintenance easements and removal/relocation of any existing features, were added to the total cost of the noise barrier.

Due to the differences between the generic costs used in the Noise Study Report and the updated/location specific costs used in the RFA, some of the noise barriers that were identified as reasonable in the Noise Study Report became not reasonable in the RFA.

2 The masonry block wall alternative is the least costly alternative.

3 An average 1.07m (3.5 foot) height for the existing wall has been used to recalculate the reasonableness calculations for this noise barrier.

4 Case 1: Using an average existing wall height of 3.5 feet (1.07m), the removal costs reduce to $56,710 from $96,990. This changes the cost per benefited residence to $43,454 from $45,823, but the reasonable allowance is only $23,000 per benefited residence for this barrier segment therefore the noise barrier is still not reasonable. The Reasonable/Feasible Analysis (RFA) and Exhibit 2 of the RFA have been changed to reflect this correction to the height of the existing wall.

5 **Case 2 and 3: With the above correction to the existing wall height and the complete donation of the easement for this noise barrier taken out of the reasonableness calculation the cost for building this noise barrier becomes $28,454 per benefited residence. However, this amount still exceeds the $23,000 allowance per benefited residence therefore the noise barrier is still not reasonable in these two scenarios.**

6

See Response to Comment #5

7 We are also proposing that a refinement/re-evaluation of the noise readings perhaps in future supplemental studies could also positively affect our current classification. We respectfully request your evaluation of these considerations.

On behalf of the residents of Vista de Bernardo, your continued cooperation in assisting us to understand this project is greatly appreciated. We look forward to your prompt response.

Sincerely,

David Evans
11754 Calle Vivienda
California 92128
858-487-3019

Tom Giles
11762 Calle Vivienda
San Diego, California 92128
858-613-3995

Dustin Dunn
11686 Calle Paracho
San Diego, California 92128
858-673-3851

7 A design level analysis will be completed to ensure the accuracy of the Noise Study results and to assess any new structures that have been developed in the corridor.

jeffjerilarson@aol.com
()
11/21/2002 04:40 PM

To: olga.gonzalez-estrada@dot.ca.gov, web.admin@dot.ca.gov
cc:
Subject: Caltrans web inquiry

Below is the result of your feedback form. It was submitted by
(jeffjerilarson@aol.com) on Thursday, November 21, 2002 at 16:40:36

URL: http://www.dot.ca.gov/dist11/I15managed/I-15/I-15.htm

message: My name is Jeri Larson, I live at 18037 Valladares dr.. I am urging you to consider a sound wall for our area as I15 is expanded. There are lots of people and children who live on this street and we are concerned about the noise level. Its high enough now. We really need a sound wall or the noise will be unbearable.
Also, after we first moved here, sometime in 1996, a car went over the edge and landed in the tress on the hill above our house. It was not a fun experience and I would fear that would be more common if the fwy is expanded to the edge and there is no sound wall.
Please put up a sound wall for our area.

Thank You,
Jeri Larson

Our plans indicate that the state Right of Way line (fence) is about 25 meters (82 feet) from the existing edge of shoulder of the southbound lanes in this area. An existing earth berm is located between the fence and the edge of shoulder.

The proposed plan widens the southbound lanes by about 5.5 meters (18 feet) in this area. This will maintain a separation of 19.5 meters (64 feet) from the freeway shoulder to the fence. In addition, the earthen berm will be replaced to the same height as the existing berm. This berm will act as a traffic barrier for errant vehicles and will provide some noise abatement for adjacent residents.

See response to comment L31

Appendix K References

REFERENCES

City of Escondido General Plan, City of Escondido. 1990.

KEA Environmental, Inc. 2000. Habitat Restoration and Monitoring Program for Wetlands Mitigation in Los Penasquitos Canyon Preserve Associated with the State Route 56 Construction Project.

Mira Mesa Community Plan and Local Coastal Program Land Use Plan. 1992.

City of San Diego Development Sercvices Department. April 30,1998. Mira Mesa Market Center: General Plan/Community Plan Amendment EIR.

Miramar Ranch North Community Plan. 1980.

Poway General Plan. Volume 1. 1996.

Progress Guide and General Plan, City of San Diego. 1978.

Rancho Bernardo Community Plan. 1997.

Rancho Penasquitos Community Plan. 1998.

Rick Engineering Company. 1989. Scripps Miramar Ranch Community Plan.

Sabre Springs Community Plan. 1998.

2020 and 2030 SANDAG Transportation Forecast Models

Appendix L Distribution List

Area Wide Clearinghouse
SANDAG
401 B St., Suite 800
San Diego, CA 92101

San Diego Air Pollution Control District
910 Chesapeake Dr.
San Diego, CA 92123-1096

San Diego Union-Tribune
P.O. Box 191
San Diego, CA 92112-4106

California Transportation Commission
1120 N St.
Sacramento, CA 95814

Natural Resource Conservation Service
332 S. Juniper, Suite 110
Escondido, CA 92025

Director, Office of Program Development
Federal Transit Administration, Region 9
201 Mission St., Suite 2210
San Francisco, CA 94105

Dr. Michael Hager
Director
San Diego Natural History Museum
P.O. Box 121390
San Diego, CA 92112

Regional Director
Federal Emergency Management Agency
Region 9, Bldg. 105
Presidio, CA 94129

NCCP Field Supervisor
Department of Fish and Game
4949 Viewridge Dr.
San Diego, CA 92123

General Services Administration- San Diego
880 Front St., Room 5-S-37
San Diego, CA 92188-0050

Director, Planning
U.S. General Services Administration
Region 9
525 Market St., Correspondence No. 9-PL
San Francisco, CA 94105

Metropolitan Transit Development Board
1255 Imperial Ave., Suite 1000
San Diego, CA 92101-7490

General Manager
San Diego Transit Corporation
100 16th St.
San Diego, CA 92101

Director
County Dept. of Planning & Land Use
5201 Ruffin Rd., Suite B
San Diego, CA 92123

County of San Diego
Dept. of Public Works
Transportation Planning
5555 Overland Ave., MS-0336
San Diego, CA 92123

General Manager
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3211 5th Ave.
San Diego, CA 92103

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Sacramento, CA 95814

Executive Officer
Integrated Waste Management Board
8800 Cal Center Dr.
Sacramento, CA 95826

Chair
California Air Resources Board
P.O. Box 2815
Sacramento, CA 96812

Executive Officer
State Water Resources Control Board
901 P St.
Sacramento, CA 95814

Executive Officer
Solid Waste Management Board
1020 Ninth St., Suite 300
Sacramento, CA 95814

Executive Officer
State Lands Commission
100 Howe Ave., Suite 100
Sacramento, CA 95825

Director
Dept. of Parks and Recreation
1416 Ninth St.
Sacramento, CA 95814

Director
Dept. of Conservation
1416 Ninth St.
Sacramento, CA 95814

Director
Dept. of Water Resources
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Director
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Director
City of San Diego
Development & Environmental Planning Division
1222 First Ave., MS 501
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Robin Stribley
Parks & Recreation Department
City of San Diego
202 "C" Street
San Diego, Ca 92026

Vice Chancellor
Physical Planning and Development
California State University
Attn: Contract Management
400 Golden Shore Blvd.
Long Beach, CA 90802-4275

Chief of Staff- District 1
San Diego County Board of Supervisors
1600 Pacific Hwy., Room 335
San Diego, CA 92101

San Diego Audubon Society
2321 Morena Blvd., Suite D
San Diego, CA 92110

The Honorable Mayor Susan Golding
202 "C" St., 11th Floor
San Diego, CA 92101

Councilman Juan Vargas
202 "C" St., 10th Floor
San Diego, CA 92101

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Air Pollution Control District
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San Diego, CA 92123

Executive Officer
State Air Resources Board
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Sacramento, CA 95814

Regional Water Quality Control Board
9771 Clairemont Mesa Blvd.
San Diego, CA 92124

California Highway Patrol Commander
San Diego Division
4902 Pacific Hwy.
San Diego, CA 92110

Preservation Officer
State Historic Preservation Office
1416 Ninth St.
Room 144207
Sacramento, CA 95814

State Clearinghouse
Office of Planning and Research
1400 Tenth St.
Sacramento, CA 95814

Carmel Valley Branch Library
3919 Townsgate Dr.
San Diego, CA. 92130-2584

Jeff Lewis
Federal Highway Administration
California Division
980 Ninth Street, Suite 400
Sacramento, CA 95814-2724

United States Fish and Wildlife Service
2730 Loker Ave. W
Carlsbad, CA 92008

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401 "M" St. SW
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Honorable Barbara Boxer
United States Senate
525 "B" St., Suite 990
San Diego, CA 92101

Honorable Diane Feinstien
United States Senate
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Appendix M Wetland Finding

11-SD-15-KP M17.2-M50.7
PM 10.7-31.8 (KP M18.3-51.2)
EA#s 064800, 064811, 064840, 064850, 080901,080911,
080911, 080921, 080931, 080941, 0815xx, 0810xx

WETLANDS FINDING

Pursuant to: Executive Order 11990 – Protection of Wetlands

The proposed project would impact United States Army Corps of Engineersjurisdictional wetlands at three locations in the I-15 Corridor. Following is a discussion of the impacts that are anticipated at each of the locations. In addition, Table 1A summarizes impacts to ACOE jurisdictional wetlands.

Preferred Alternative

Green Valley Creek

There are no permanent impacts to wetlands ACOE jurisdictional wetlands at Green Valley Creek. Approximately 0.36 hectare (0.89 acre) of temporary impacts to USACOE jurisdictional wetlands are anticipated. These impacts will result from demolition and reconstruction of the new bridge and the removal of the existing piers.

Los Penasquitos Creek

Los Peñasquitos Creek will have permanent impacts of about0.04 hectare (0.1 acre) of USACOE wetlands consisting of southern willow scrub and emergent wetland. Of that total, approximately 0.20 hectare (0.50 acre) are due to the addition of one pier required for widening the existing northbound structure.

San Clemente Creek

Temporary USACOE wetlands and waters impacts of less than 0.08 hectare (0.2 acre) will occur during construction at San Clemente Creek. These impacts are caused by the the temporary access needed to replace the existing culvert.

Table 1A: Wetland Impacts

Hectare/Acre

	Lake Hodges	Green Valley Creek	Los Penasquitos Creek	I-15/SR 56	San Clemente Creek
Temporary USACOE wetland impacts (hectares/acres)	0/0	0.36/0.89	0.20/0.50	0/0	0.08/0.2
Permanent USACOE wetland impacts (hectares/acres)	0/0	0/0	0.04/0.10	0/0	0/0

AVOIDANCE ALTERNATIVES:

No Build Alternative. The No Build alternative would not impact wetlands; however, it does not meet the identified transportation need. In addition, existing conditions would not be improved at Green Valley as described in the section below "Measures to Minimize Harm.

Transportation System Management Alternative. With this alternative no wetland resources would be impacted. Transportation System Management (TSM) element is an approach to solving transportation problems by improving the efficiency of the existing system. System capacity can be increased by encouraging greater ridesharing, designating HOV lanes, and by adjusting ramp meter timing. The Department promotes TSM programs; however, many of the improvements that are typically associated with the TSM alternative already exist within the corridor such as ramp metering and the HOV lanes. Any additional improvements would only result in temporary reductions in congestion and would not accommodate additional demand that will exist in 2020.. This alternative would not meet the project purpose and need.

1+1 HOV Configuration with Reversible Lanes. This variation proposed to add two lanes, one in each direction between SR-56 and SR-78, and would keep only the existing reversible lanes south of SR-56 in operation. It did not include direct access ramps because one HOV lane in each direction would be expected to be over capacity. Traffic analysis showed that excessive congestion would develop in both the northbound and southbound directions during peak commute times. The HOV lanes would become congested by the year 2006 and the buses would not be able to function as a rapid system. This alternative would have been within the existing median and would not have required wetland impacts. This alternative would not meet the project purpose and need.

ALTERNATIVES ELIMINATED FROM CONSIDERATION

Three Managed Lanes (2+1) Configuration. This alternative proposed three managed lanes in the median. It would have utilized a movable barrier to adjust the lane configurations. Two lanes would be permitted in the peak direction and one lane in the reverse-peak direction. A 3+0 configuration would have been available to handle emergencies or special events. Finally, it would be inadequate to handle traffic volumes in the southern section of the proposed project before 2015 and for the middle section of the proposed project by the year 2020. This alternative would not meet the project purpose and need. This alternative would not have a reduction from the impacts of the proposed project since outside widening of the facility would still be required to accommodate the addition of 3 lanes.

Extend existing Reversible Lanes. This alternative would have extended the existing two reversible lanes in the median from SR-56 to SR-78. Access to the facility would be restricted to selected interchanges that would have direct access ramps (DAR) in and out of the facility. It would provide some of the same traffic improvements as the 2+2 HOV Alternative (discussed in this Chapter) and the Three Managed Lane 2+1 configuration in the peak direction. This alternative would not meet the project purpose and need. This alternative would not have a reduction from the impacts of the proposed project since outside widening of the facility would still be required to accommodate the addition of 2 lanes.

2+2 HOV Alternative. This alternative proposed four HOV lanes, two in each direction from SR-163 to SR-78. The HOV lanes would be accessible from the median at locations spaced approximately 3.2 km to 4.8 km (2-3 miles) apart. It proposed to convert the existing reversible express lanes that extend from SR-163 to SR-56 to two HOV lanes. Utilizing this alternative, by the year 2020, during the AM peak traffic period, bottlenecks would occur at Miramar Road, Mira Mesa Boulevard, SR-56, Lake Hodges, and around Via Rancho Parkway. Traffic analysis showed that many interchanges in the corridor would be deficient in capacity. This would result in queues extending back onto the freeway by the year 2020. This alternative would not meet the project purpose and need. This alternative would not have a reduction from the impacts of the proposed project since outside widening of the facility would still be required to accommodate the addition of 4 lanes.

General Purpose (MIXED FLOW) LANES ALTERNATIVE. This alternative would add one, two or three general purpose (mixed flow) lanes in each direction. One variation in this alternative also converted the existing reversible lanes to general purpose lanes. This alternative would not construct the direct access ramps for use by HOV. Although this alternative (the three-lane variation) would provide some short-term congestion relief, congestion would return before 2015. This alternative would not meet the project purpose and need. This alternative would not have a reduction from the

impacts of the proposed project since outside widening of the facility would still be required to accommodate the addition of 2 to 6 additional lanes.

It should be noted that since the existing highway crosses numerous tributaries and drainages, wetland impacts are unavoidable with any project which would propose to widen the existing facility.

MEASURES TO MINIMIZE HARM

Green Valley Creek

At Green Valley Creek the original proposal was to retrofit and widen the existing bridge. This would have resulted in 0.24 hectare (0.6 acre) of permanent impacts due to the placement of an additional pier in the stream. It was determined that by demolishing the existing bridge and constructing a new one, permanent impacts would be eliminated. The new bridge design eliminates the need for piers which are currently within the stream. New piers would be placed completely outside the wetland area. During construction, the creek will be diverted through a pipe to avoid impacts to water quality which may be associated with the demolition of the existing bridge.

Los Penasquitos Creek

At Los Penasquitos Creek, a temporary bridge will be constructed across the creek to minimize construction impacts. It would be located completely outside of the wetland area and would span the creek. This bridge would avoid approximately 0.02 hectare (0.07 acre) that a standard creek crossing would have created. Additional impacts could have been avoided provided the existing bridge was replaced however, the cost of the bridge replacement was prohibitive since only outside widening was required at this location.

Additional Measures to Minimize Harm

- Any indirect impacts from construction including noise, light, vibration and exhaust will be avoided by the Department's Best Management Practices (BMP's) included in Section 3.17 of the initial study/environmental assessment.

- Environmentally Sensitive Areas (to be avoided) and Limited Use Areas (to be only used temporarily for specific purposes) would be designated on design plans to prohibit work from extending into sensitive areas. These areas will be monitored by the project biologist and temporarily fenced

during construction. ensuring disposal sites for excess dirt would be located in non-sensitive areas

- construction of two new bridges over Lake Hodges and Green Valley Creek instead of the original proposal to widen/retrofit the existing bridges which would impact a larger area near the columns underneath the bridges; and

- Temporarily fencing all ESAs during construction;

- on-site biological monitor during construction.

No properties to fully mitigate the project's wetland impacts were identified immediately adjacent to the I-15 corridor. Caltrans, however, is currently proposes to perform any required wetlands mitigation on City of San Diego property at Los Penasquitos Creek within the Los Penasquitos Canyon Preserve. This mitigation site is located approximately one mile west of Black Mountain Road within the north portion of the City of San Diego. It is also downstream of the I-15 crossing where project impacts to Los Penasquitos Creek would occur.

The proposed mitigation site is divided between the City of San Diego and County of San Diego property. The site for creation is situated within an approximate 14-acre assemblage of abandoned sewage treatment ponds that were constructed several decades ago to serve what is now the City of Poway. The mitigation site also includes a total of 0.875 acre of restoration areas (exotic species removal and follow-up native planting and seeding) within Los Penasquitos Creek floodplain adjacent to (south and southwest of) the abandoned sewage treatment ponds.

Any required mitigation will be coordinated with the resource agencies.

All impacts to wetland/waters areas identified were avoided to the maximum extent practicable.

FINDING

Based on the above consideration, it is determined that there is no practicable alternative to the proposed new construction in wetlands that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.