

**U.S. Department of Transportation
Federal Railroad Administration**

**Record of Decision
Los Angeles to San Diego, California (LOSSAN)
Proposed Rail Corridor Improvements**

This Record of Decision (ROD) records the decision of the Federal Railroad Administration (FRA), an operating administration of the U.S. Department of Transportation, with regard to the Los Angeles to San Diego (LOSSAN) Proposed Rail Corridor Improvements proposed by the California Department of Transportation (Department), at the initial programmatic phase of environmental review. In making this decision, FRA considered the information and analysis contained in the Draft and Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for LOSSAN rail corridor improvements, as well as public and agency comments. This ROD has been drafted in accordance with the Council on Environmental Quality's (CEQ) regulations implementing the National Environmental Policy Act (NEPA) (40 CFR § 1505.2) and FRA Environmental Procedures (64 Fed. Reg. 28545, May 26, 1999). Specifically, this ROD:

- States FRA's decision on the proposed LOSSAN rail corridor improvement options.
- Provides background on the proposed LOSSAN rail corridor improvements and the NEPA tiering process.
- Describes FRA's role in the LOSSAN rail corridor improvements program.
- Describes the factors considered by the FRA in making this decision.
- Identifies the alternatives considered by the FRA.
- Summarizes environmental benefits and adverse impacts.
- Summarizes the comments received on the Final Program EIR/EIS.
- Discusses measures to minimize environmental harm.
- Describes compliance with other federal regulations.
- Describes some initial next steps in the tiered environmental review process.

1. Decision

The LOSSAN Program EIR/EIS is the first programmatic phase of a tiered environmental review process and the FRA, in cooperation with the Department, is making initial and broad decisions on the proposed LOSSAN corridor improvements. The Department is the agency of California state government serving as the State lead agency in compliance with the California Environmental Quality Act (CEQA) (Cal PRC § 21000 et seq.). As Federal co-lead agency for the Program

EIR/EIS, FRA has worked jointly with the Department to carry out the analyses and evaluations included in the Draft and Final Program EIR/EIS. The FRA makes the following decisions:

1. To select the Rail Improvements Alternative and to reject the No Project/No Action (No Project) Alternative; and
2. To retain, for further consideration in the tiered environmental reviews to be prepared subsequent to the Program EIR/EIS, the conceptual projects, station and alignment options for the LOSSAN corridor evaluated in detail in the Final Program EIR/EIS.

The Program EIR/EIS has been prepared to allow the lead agencies to consider a future program of improvements to the LOSSAN rail corridor and to provide information to decide between the No Project and the Rail Improvements Alternative. All site-specific alignment decisions would be made during project-level environmental review based upon site-specific analysis.

Project-level analysis, engineering refinement, and documentation will be necessary for all alignment options that are identified and selected through this program environmental review prior to permitting and construction. As described in the EIR/EIS, these requirements would include site-specific field studies and biological resource surveys, as well as agency coordination, specific measures to avoid or minimize impacts, and approved project mitigation plans. More detailed project-level study, additional refinement of the alignments and/or station locations, and further public and agency input are needed to make decisions among conceptual alignment options.

Project-level reviews will describe site-specific environmental impacts and will identify specific mitigation measures to address those impacts. These reviews will assess the site characteristics, size, nature, and timing of proposed specific projects to determine whether the impacts are potentially significant and whether impacts can be avoided or mitigated. Because the Program EIR/EIS does not assess future actions to implement LOSSAN rail corridor improvements at specific locations, the Department and FRA cannot predict site-specific impacts with certainty and cannot determine more specific mitigation measures appropriate for mitigating those impacts. Consequently, the Program EIR/EIS identifies design practices and mitigation strategies, which are an array of actions that can be applied at the project-level to avoid, minimize, or mitigate the types of environmental impacts anticipated as a result of implementation of the LOSSAN rail corridor improvements. To minimize potential future environmental harm from implementation of LOSSAN rail corridor improvements, the Department and FRA adopt the design practices and mitigation strategies in the Mitigation Monitoring and Reporting Plan (MMRP) included as Appendix A.

2. Introduction

The Los Angeles to San Diego travel corridor links California's three most populous counties, Los Angeles, Orange and San Diego. Travel along this corridor is served largely by Interstate 5 (I-

5) and the Los Angeles to San Diego (LOSSAN) rail corridor¹. The rail corridor is used by Amtrak intercity passenger rail service, Metrolink and Coaster commuter rail services, and Burlington Northern and Santa Fe Railway (BNSF) freight service, and loosely parallels I-5 from Los Angeles Union Station through Orange County to San Diego's Santa Fe Depot.

Intercity rail service, as defined in the EIR/EIS, refers to the passenger rail service, operated by Amtrak and jointly funded by Amtrak and the Department and known as the Pacific Surfliner. This service provides daily passenger service between San Diego, Los Angeles, Santa Barbara, and San Luis Obispo (and intermediate communities between these cities). Commuter rail refers to the services provided by Metrolink in Los Angeles, Orange and north San Diego Counties, and Coaster in San Diego County. Since three services regularly utilize the corridor, the expansion plans of each service, and those of BNSF (the freight operator), must be taken into account when considering improvements along the rail corridor.

Southern California's existing transportation network is currently operating at or near its design capacity, which results in congestion. Building additional capacity is both expensive and increasingly problematic. This condition results in highway and railroad travel delays, has a negative impact on the region's economy, and can result in environmental impacts and the reduction of the quality of life. Improvements to the LOSSAN rail corridor would help meet the Southern California region's transportation demands of today, as well as help to address the expected increase in intercity travel demand rising out of the growth in population over the next 20 years and beyond.

At the beginning of the EIR/EIS process, the Department and FRA determined that the appropriate initial CEQA and NEPA document for the proposed LOSSAN rail improvements would be a programmatic EIR/EIS, because of the comprehensive nature and scope of the corridor improvements proposed and the conceptual stage of planning and decision-making. The programmatic level of environmental review allows for the broadest disclosure of impacts, and has provided the opportunity for the Department, the FRA, and the public to consider alternatives and different conceptual corridor alignments and station options. Analyzing a proposed large-scale transportation system at the conceptual planning stage also provides the best opportunity to identify broadly applicable design practices and mitigation strategies to avoid and minimize impacts.

The Department partnered with the California High-Speed Rail Authority (Authority) in its examination of the LOSSAN corridor. The Authority is the state agency responsible for the proposed statewide high-speed train (HST) system extending from Sacramento, the Bay Area, through the Central Valley to Los Angeles and San Diego. While this electrified, grade-separated system is proposed to run only as far south as either Anaheim or Irvine within the LOSSAN corridor (and for a short section near downtown San Diego), LOSSAN passenger rail service is important to the Authority in its role as a feeder network to the statewide system, and the conventional rail improvements proposed by the Department would strengthen the corridor's

¹ While the LOSSAN corridor is officially the "Los Angeles - San Diego - San Luis Obispo" Rail Corridor, the area of the corridor studied and described in this document is that portion between Los Angeles Union Station and San Diego Santa Fe Depot, and within this document, use of the term "LOSSAN" refers to that section only.

ability to serve that role. The Authority and FRA completed programmatic environmental review of the HST system in 2005.

The LOSSAN Program EIR/EIS is the first phase of a tiered environmental review process, and was prepared for the first and programmatic-level of review and consideration of early policy decisions on LOSSAN rail corridor improvements. The Program EIR/EIS was developed to make two levels of decision:

1. To decide whether to pursue LOSSAN rail corridor improvements in order to help meet Southern California's increasing demand for transportation, versus doing nothing; and
2. To determine which, if any, of the conceptual corridors, alignments, and station options evaluated in the Program EIR/EIS can be eliminated from consideration and which to select for further consideration in the tiered environmental reviews to be prepared subsequent to the Program EIR/EIS, if the rail improvements are pursued.

NEPA requires that an agency consider the environmental effects of its actions at the earliest point in time when the analysis is meaningful, and it is within the agency's discretion to fashion an environmental process appropriate to the type of decisions it is considering. The Program EIR/EIS shapes the parameters for the site-specific environmental documents to support second-tier project decisions. The tiered project-level environmental reviews will fully describe site-specific environmental impacts of a range of improvement options within the LOSSAN corridor and at station locations, and will define specific mitigation measures to address those impacts.

Pursuant to the requirements of NEPA and CEQA, a comprehensive public and agency involvement effort was conducted as part of the Program environmental process. Public and agency involvement was accomplished through a variety of means, including the following: scoping process that included a series of public and agency scoping meetings; consultation meetings with federal and state resource agency staff representatives throughout the environmental process; informational meetings with interest groups, elected officials and agencies; presentations and briefings to a broad spectrum of interest groups; the Department's Division of Rail website (www.amtrakcalifornia.com), presenting information about the proposed project and study evaluations; noticed public meetings and workshops; public circulation of the Draft Program EIR/EIS; and posting on the Department's website; public information sessions and public hearings on the Draft Program EIR/EIS, as well as written comments received during the public comment period from August 27, 2004 to November 27, 2004; and public circulation of the Final Program EIR/EIS.

As part of the agency involvement in the environmental process, key federal and state agencies participated in an interagency group comprised of representatives from U.S. Environmental Protection Agency (USEPA), U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), California Coastal Commission, and the California Department of Fish and Game (CDFG). The interagency group met periodically during the Draft Program EIS/EIR development to discuss major issues from the perspective of each of their agencies and to provide input to the lead agencies and consultant team to help focus the analysis and streamline the review process. Additionally, regional transportation entities participated in regular project meetings, updates and presentations throughout the EIR/EIS process, including the San Diego

Association of Governments (SANDAG), Orange County Transportation Authority (OCTA), Southern California Association of Governments (SCAG), and Los Angeles County Metropolitan Transportation Authority (MTA).

The announcements of the availability of the Draft and Final Program EIR/EIS and the Department's website listed the nine libraries across the region having a hard copy of the documents available for review. Participating libraries were located in the following cities: Sacramento, Los Angeles, Norwalk, Anaheim, Irvine, San Clemente, Oceanside, Escondido, and San Diego.

The US Environmental Protection Agency published a Notice of Availability in the Federal Register for the Draft Program EIR/EIS on August 27, 2004, and for the Final Program EIR/EIS on November 9, 2007.

3. FRA's Role in the LOSSAN Rail Corridor Improvements Program

The FRA is serving as the lead Federal agency, working with the Department as the lead state agency, for the preparation of this joint State/Federal environmental review. The Department envisions seeking possible future federal financial support for the LOSSAN rail corridor improvements program that might be provided through the FRA. FRA is also serving as lead Federal agency for the environmental review of the Authority's proposed California HST system. The FRA and the U.S. Department of Transportation have several loan and loan guarantee programs that might be potential sources of future financial assistance.

4. Purpose and Need for the Proposed Action

The purpose of the proposed Rail Improvements in the LOSSAN corridor is to develop a faster, safer, and more reliable passenger rail system that provides added capacity in response to increased travel demand through the year 2020 between Los Angeles, Orange, and San Diego Counties (between Los Angeles Union Station and San Diego Santa Fe Depot).

As stated in the current State Rail Plan and the LOSSAN Corridor Strategic Plan, the Department has described its overall objectives and policies for intercity rail improvements. These objectives and policies include the following.

- Increase the cost-effectiveness of State-supported intercity passenger rail systems.
- Increase capacity on existing routes.
- Reduce travel times to attract additional riders and to provide a more attractive service.
- Improve the safety of State-supported intercity rail service.

In addition to the policies set forth in the State Rail Plan, minimizing impacts to natural resources (e.g., wetlands, wildlife habitat) and human communities are also important objectives of the Department regarding any improvement within the rail corridor.

The capacity of Southern California's intercity transportation system is insufficient to meet existing and future demand, and the current and projected future congestion of the system will continue to result in deteriorating air quality, reduced reliability, and increased travel times. The intercity rail system has not kept pace with the tremendous increase in population and tourism in the state. The interstate highway system and passenger rail system serving the intercity travel market are currently operating at or near capacity and will require large public investments for maintenance and expansion in order to meet existing demand and future growth over the next 20 years and beyond. Simply stated, the need for improvements to the corridor relates to the following issues.

- Future growth in travel demand for passenger trips between Los Angeles, Orange and San Diego Counties, as population increases from 16.6 million (2003) to 19.3 million by 2020, and trips rise from 36 million in 1997 to approximately 47 million by 2020.
- Rail capacity constraints that will result in congestion and travel delays. Roughly 41 percent of the corridor is currently single-tracked, causing delays for passenger and commuter rail services as well as freight movements.
- Unreliability of travel stemming from congestion and delays, weather conditions, accidents and other factors that affect the quality of life and economic well-being of residents, businesses, and tourism in Southern California. The proposed corridor improvements would increase on-time performance for rail services and reduce delay for both automobiles and trains.
- Increasing frequency of accidents on intercity highways and passenger rail lines in congested travel corridors, and the potential for accidents at at-grade crossings as highway and rail traffic volumes increase. While rail is already one of the safest modes of transportation, improvements such as new grade separations and pedestrian crossings will reduce accidents and improve safety.
- Poor and deteriorating air quality and pressure on natural resources as a result of expanded highway construction, motor vehicle use and congestion. Moving passengers by rail produces significantly less pollution per passenger mile than by automobile and can help reduce air pollution. Mitigating and reducing the impacts of rail service and protection of important coastal and environmental resources was a substantial consideration in the evaluation of proposed improvements.

5. Factors Considered in Making This Decision

The analysis in the Final Program EIR/EIS confirms that the capacity of southern California's intercity transportation system is insufficient to meet existing and future demand, and the current and projected future congestion of the system will continue to result in deteriorating air quality, reduced reliability, and increased travel times. The intercity transportation system has not kept pace with the tremendous increase in the population and tourism in the southern part of the state. The interstate highway system and passenger rail system serving the intercity travel market are currently operating at or near capacity, and will require large public investments for maintenance

and expansion to meet existing demand and future growth over the next 20 years and beyond. The need for improvements serving intercity travel within southern California is described further in the Final Program EIR/EIS.

As described in the Final Program EIR/EIS, the purpose and objectives of the LOSSAN Rail Improvements Alternative, which is identified as the Preferred Alternative, is to provide a faster, safer and more reliable passenger rail system that adds capacity and helps to serve travel demand between Los Angeles, Orange and San Diego Counties in a manner sensitive to and protective of southern California's unique natural resources.

The need for passenger rail improvements is directly related to the expected growth in population and resulting increases in intercity travel demand in southern California over the next 20 years and beyond. As a result of this growth in travel demand, congestion is expected to grow on the LOSSAN corridor as well as regional highways. In addition, there will be effects on the economy and quality of life from diminishing reliability of the transportation system as travel demand increases. Air quality in and around southern California's metropolitan areas continues to be impaired and would worsen with more congestion.

The evaluation of the Final Program EIR/EIS also indicates that taking no action under the No Project Alternative would not increase the travel capacity, safety and reliability as population continues to grow, and would fail to meet the purpose and objectives of the program which can be met by the Rail Improvements Alternative. The No Project Alternative would result in environmental impacts but would not offer travel improvements compared to the Rail Improvements Alternative.

The evaluation of the Final Program EIR/EIS indicates that the Rail Improvements Alternative is more effective in meeting the program objectives within the time frame needed than the No Project Alternative. The Rail Improvements Alternative would result in transportation capacity improvements, as compared to the No Project Alternative. In addition to meeting the program objectives, the Rail Improvements Alternative would also provide environmental benefits in the form of improved travel conditions (including mobility, safety, reliability, travel times, and connectivity and accessibility), decreased erosion and stability problems along the existing rail corridor on sensitive coastal bluffs, and the potential for aesthetic improvements as well as long-term improvement in lagoon hydrological conditions in areas of existing rail bridge crossings of coastal lagoons. Despite the potential for adverse environmental impacts, given the environmental benefits it would provide, the Rail Improvements Alternative is the environmentally preferable alternative.

6. Alternatives Considered

The Department and FRA developed and evaluated alternatives through an iterative process that included considering work done by others², independent planning and feasibility studies, scoping processes, and a LOSSAN Strategic Plan. Alternatives were evaluated against the Department

² Work done by others included technical studies and alternative screening processes associated with the California High-Speed Rail Authority's Program EIR/EIS, 2005. Refer to Chapter 2 of the LOSSAN Final Program EIR/EIS for more detail.

objectives for the LOSSAN corridor, described above in Section 4 (cost-effectiveness, increased capacity and reliability, reduced running times, and improved safety). The alternatives were also identified and refined to address existing environmental and community impacts along the rail corridor, and to minimize new impacts.

6.1 Alternatives Eliminated Based on Previous Studies

The following technologies and corridors in the LOSSAN region were eliminated from further consideration during previous studies, prior to detailed programmatic environmental review.

- *Dedicated High-Speed Rail:* The FRA and the California High-Speed Rail Authority (Authority), in conjunction with the Department, initially investigated the potential of utilizing the LOSSAN corridor for a dedicated, high-speed train (HST) system. Based on that work, the Department concluded that a dedicated HST corridor with separate tracks for HST and conventional rail service was impracticable in the severely constrained LOSSAN corridor. The HST alternative would create significant operational conflicts with existing, conventional passenger and freight rail in the corridor, and significant environmental impacts in the narrow LOSSAN right-of-way which traverses sensitive natural areas along the southern California coast. Separately, FRA and the Authority selected a corridor from Los Angeles to Ontario and then along the I-15 to San Diego for the dedicated statewide HST system. Conventional rail was therefore determined to be the only practicable rail technology within the LOSSAN corridor south of Irvine (except where the HST system would rejoin the LOSSAN corridor at lower speeds close to San Diego).
- *Other Corridors in the LOSSAN Region:* The Department and FRA considered but eliminated the following alternative corridors in the LOSSAN region for either HST or conventional rail.
 - Interstate 5 Freeway – Eliminated due to the need for extensive aerial and tunnel construction due to freeway curves, highly constrained right-of-way, commercial and residential property impacts, and impacts to sensitive ecological areas and coastal views.
 - Pacific Electric Corridor (Los Angeles to Orange County) – Eliminated because this corridor would not provide sufficient accessibility and connectivity, would not serve the major hubs of Irvine or Anaheim, and would be incompatible with local land uses.
 - San Joaquin Corridor (SR 73) (Orange County to Oceanside) – Eliminated due to need for extensive tunneling, failure to meet basic connectivity and accessibility objectives, severe right-of-way constraints and high construction impacts and costs.

6.2 LOSSAN Corridor Rail Improvements Considered but Eliminated During Scoping

After the Department determined that conventional rail technology was the only practicable alternative to meet its stated objectives in the LOSSAN corridor, a number of improvements to the

existing rail infrastructure were identified. Various alignment and station options were eliminated from further consideration based on scoping and numerous public and agency workshops.

After the initial definition of alignment and station options, the Department determined that the creation of a LOSSAN Corridor Strategic Plan would enhance the EIR/EIS process. This planning effort was conducted from a corridor-wide perspective to meet the following objectives.

- Provide an additional opportunity for public outreach, beyond that provided as part of the Draft Program EIR/EIS process.
- Foster better communication and understanding among stakeholders at all levels.
- Provide an opportunity to screen out design and alignment options at key locations, so as to focus the remaining EIR/EIS work on the most promising alternatives.
- Develop short- and long-term visions for the corridor, contemplating a program of projects for the next 20 years.

The strategic planning process resulted in the further elimination of some alignment options, and the addition or refinement of others. Table 1 summarizes the rail improvement alignment alternatives that were eliminated either during initial scoping or later during the Strategic Plan process. These alternatives are described in detail in Section 2.3.2 of the Final Program EIR/EIS.

**Table 1
LOSSAN Corridor Rail Improvements Alternatives Eliminated**

Alignment	Reason for Elimination							Environmental Concerns
	Construction	Environment	Incompatibility	Right of Way	Connectivity/Accessibility	Revenue/Ridership	Train Performance	
San Juan Capistrano								
At-grade double-tracking in existing rail alignment		P	P	P				Historic resources
Downtown Cut-and-Cover Tunnel	P		P					
Dana Point/San Clemente								
At-grade double-tracking in existing rail alignment	P		P					
Short Trench	P	P	P				S	Beach aesthetics & access
Long Trench	P	P	P	S				Beach aesthetics & access
Long Single Tunnel (no station in San Clemente)	P					S		
Inland Bypass	P	P	S		P	P	P	Natural resources
Encinitas								
At-grade double-tracking in existing rail alignment	P		P					
Long Trench	P							
Del Mar								
At-grade double-tracking in existing rail alignment	P		P	P				
Trench in Bluffs	P	P	P	S				Beach aesthetics & access
Camino del Mar Tunnel #2		P	S	P				New crossing of lagoon
<p>Notes:</p> <p>Reason: Primary (P) and Secondary (S) reasons for elimination.</p> <p>Construction: Includes engineering and construction complexity, cost and sub-optimal systems operations influence (i.e., slow train speeds).</p> <p>Environment: Includes any factor that can be assigned to the environmental disciplines studied as part of the EIR/EIS.</p> <p>Incompatibility: Incompatibility with current or planned local land use.</p> <p>Right-of-Way: Includes lack of available rights-of-way, extensive right-of-way needs, and high cost.</p> <p>Connectivity/Accessibility: Includes limited connectivity with other existing or future transportation modes (highway and/or transit systems).</p> <p>Ridership/Revenue: The alignment or station would have a negative effect on the revenue or ridership for the system.</p> <p>Train Performance: Includes impacts to reliability, running time improvement, and ability to accommodate freight.</p> <p>Environmental Concerns: Notes on specific environmental areas of concern.</p>								

6.3 Alternatives Considered in the Program EIR/EIS

No Project Alternative

The No Project Alternative represents the LOSSAN region's transportation system (highway and conventional rail) as it would be after implementation of programs or projects that are currently programmed and funded for implementation and expected to be in place by 2020. This financially constrained level of infrastructure improvement (which includes federal, state, regional and local funding) was analyzed together with the growth in population and transportation demand that is projected to occur by 2020. Improvements that have been approved and funded in the State Transportation Improvement Program (STIP), Regional Transportation Plans (RTPs), and intercity passenger rail plans were considered part of the No Project Alternative.

Rail Improvements Alternative

Improvements along the existing 125-mile-long LOSSAN conventional-rail corridor were identified through scoping and several screening processes involving agencies, regional transportation organizations, and the public. Potential rail improvements included various alternative alignments, improvements to existing stations, new stations, and design options including at-grade rail, tunnels, and trenches. Grade separations of roadway and rail corridors were also evaluated along the corridor). The conceptual rail improvements were developed and refined to address existing environmental and community impacts along the present-day LOSSAN corridor, and to minimize new ones.

The alignment and design options considered for the LOSSAN corridor are detailed in Section 2.5 of the Final Program EIR/EIS. Key differences among the options are addressed, including both operational and environmental factors. The final options carried through the Program analysis include the following general characteristics.

- In many sections of the LOSSAN corridor, two design options were carried forward (e.g., an at-grade double-track option and a trench or tunnel option). Some sections include two different alignments and one or more design options (e.g., two separate alignments, one with a trench design and the other with a tunnel design; or two different tunnel alignments).
- There are three corridor sections in which only one alignment/design option was carried through to detailed evaluation in the Program EIR/EIS: Union Station-to-Fullerton (fourth at-grade track), Camp Pendleton (at-grade double tracking), and Highway 52-to-Santa Fe Depot (at-grade double tracking with short trench near depot).
- Some alignment options would require new stations along the corridor, while most would utilize existing stations where improvements and/or additional parking would be developed.
- A number of existing at-grade crossings of the LOSSAN rail corridor are proposed to be grade separated (under or over roadways) as part of the Rail Improvements Alternative. For corridor sections where tunnels or trenches are proposed, existing grade crossings would also be eliminated.
- Nearly all alignment options carried forward are within or adjacent to existing transportation corridors (rail or roadway), reducing potential for additional impacts and land-use conflicts.

- Any alignment or design option within a corridor section between Los Angeles and San Diego could be implemented without limiting the options in adjacent sections. In other words, the selection of one of the final options carried forward for any given section would allow any of the other options in adjacent sections to be implemented at the same time or at a future time, including the No Project alternative.

6.4 Preferred Program Alternative – Rail Improvements

The conventional rail improvements described below in Table 2 were evaluated in the Program EIR/EIS as the Rail Improvements Alternative, which would result in a fully double-tracked rail corridor (with four tracks between LA Union Station and Fullerton) from Los Angeles, through Orange County, to San Diego. The alignment options were developed and analyzed at a programmatic level. Conceptual designs were developed for all alignment options, including horizontal alignment, profile, and general infrastructure cross sections. The relation of each of the alignment options to other existing transportation facilities was also a key aspect of the conceptual designs.

Table 2
Summary of Final Rail Improvements Options

Alignment Sections and Station Locations	Description of Rail Alignments and Improvements
Union Station To Fullerton Station 4 th Main Track	Construction of fourth main track at-grade in existing rail corridor between Commerce and Fullerton.
Fullerton Station To Irvine Station Double Tracking	Double track (with two alternatives, shown below)
A. AT-GRADE Double Tracking	Grade separations at street intersections between Walnut Ave. in Orange and E. 17 th Street in Santa Ana. At-grade curve straightening between Batavia Street and Walnut Ave. Improvements would be in existing rail corridor ROW, except for the curve realignment.
B. Double tracking in TRENCH	Fully grade-separate existing rail corridor in a covered trench (same alignment as above), including curve straightening.
Stations Fullerton	Existing station. Proposed improvements include bypass tracks, platform reconfiguration, and additional parking.
Anaheim	Existing station. Proposed improvements include bypass tracks and additional parking.
Santa Ana	Existing station. Proposed improvements include bypass tracks and additional parking.
Irvine	Existing station. Proposed improvements include bypass tracks and additional parking.
San Juan Capistrano Double Tracking	
A. TUNNEL along I-5 between Hwy 73 and Avenida Aeropuerto	Double-tracking in a tunnel running the length of the City of San Juan Capistrano under Interstate 5; tunnel runs under Trabuco Creek and San Juan Creek.
B. AT-GRADE and Open/Cut and Cover TRENCH along east side of Trabuco Creek	Double-tracking at grade and in an open/cut and cover trench along the east side of Trabuco Creek, west of the existing rail alignment.
Stations San Juan Capistrano	New station would be constructed with the At-Grade/Open Trench option along Trabuco Creek. New station would be below-grade in open trench. No station would be included in San Juan Capistrano for the I-5 tunnel option.

Table 2
Summary of Final Rail Improvements Options (continued)

Alignment Sections and Station Locations	Description of Rail Alignments and Improvements
Dana Point/San Clemente Double Tracking	
A. Dana Point Curve Realignment; San Clemente - SHORT TUNNEL	Double-tracking and straightening existing curve at Dana Point in existing rail corridor; double-tracking via a short tunnel that follows Interstate 5 between Palm Drive and San Onofre State Beach, north of the power plant. The short tunnel alignment leaves the Interstate 5 corridor at Avenida Palizada, turns toward the coast and runs underneath residential, industrial and vacant areas, connecting with the existing rail corridor just south of Camino Capistrano.
B. San Clemente - LONG TWO-SEGMENT TUNNEL; Double Tracking (crosses San Mateo and San Onofre Creeks)	Double-tracking via a long, two- segment tunnel following Interstate 5 from San Onofre State Beach to Avenida Aeropuerto in San Juan Capistrano. This option precludes the need for curve realignment at Dana Point. This tunnel would have the same alignment as the one-segment long tunnel above except in a one-mile stretch near Avenida Pico, it would veer to the east edge of I-5 and daylight into an open trench for about 1,000 feet. The existing rail corridor along the coast between southern San Clemente city limits to approximately Avenida Aeropuerto in San Juan Capistrano would be removed from service (or at least not be further improved from its existing condition).
Stations San Clemente	The tunnel options would eliminate the need for a train station downtown; a new below-grade station would be constructed along the tunnel alignment where the tunnel transitions to a trench.
Camp Pendleton Double Tracking	
	Construction of an at-grade second main track, in portions of this section (about six miles) that are not already double-tracked or will be under the rail improvements included in the No Build Alternative. New double tracking would cross San Mateo, San Onofre, and Santa Margarita Creeks.
Oceanside/Carlsbad Double Tracking	
A. Carlsbad - AT-GRADE; double tracking	Double-tracking through Carlsbad in existing rail alignment at grade. Alignment crosses San Luis Rey, Buena Vista, Aqua Hedionda, and Batiquitos Lagoons
B. Carlsbad -TRENCH; double-tracking	Double-tracking through Carlsbad in existing rail alignment in trench. Alignment crosses San Luis Rey, Buena Vista, Aqua Hedionda, and Batiquitos Lagoons
Stations Oceanside	Existing station. Proposed improvements include parking expansion.
Encinitas/Solana Beach Double Tracking	
A. Encinitas - AT-GRADE; Double Tracking	Double-tracking primarily at-grade, with a short trench segment for the rail corridor on either side of Birmingham Drive. This option would include reconfiguring the street intersection at Birmingham Drive and San Elijo Avenue, and close Chesterfield Drive at San Elijo Avenue. Another grade separation would occur at Leucadia Boulevard where the tracks would be depressed. Pedestrian undercrossings would be placed along the route. Alignment crosses San Elijo Lagoon.
B. Encinitas - SHORT TRENCH; Double Tracking	Double-tracking in same alignment as at-grade option above, but with an additional covered trench under Encinitas Boulevard and a transitional open trench about 1,500 feet either side of Encinitas Boulevard. Alignment crosses San Elijo Lagoon.
Stations Solana Beach	Existing station. Proposed improvements include platform modifications and parking expansion.

Table 2
Summary of Final Rail Improvements Options (concluded)

Alignment Sections and Station Locations	Description of Rail Alignments and Improvements
Del Mar Double Tracking	
A. TUNNEL under Camino Del Mar; crosses San Dieguito and Los Penasquitos Lagoons	Double-tracking via a tunnel underneath Camino Del Mar. Tunnel would begin at Jimmy Durante Boulevard, and daylight at Carmel Valley Road where tracks would then connect with the existing alignment across Los Penasquitos Lagoon. The existing rail track on the bluffs would be removed from service.
B. TUNNEL along Interstate 5	Double-tracking via a tunnel that would run under Interstate 5 and daylight along the southern boundary of San Dieguito Lagoon. Tracks would reconnect with the existing rail at-grade near the Del Mar race track. The existing rail track on the bluffs would be removed from service.
I-5/805 Split To Hwy 52 Double Tracking	
A. Miramar Hill TUNNEL	Double-tracking via a tunnel through Miramar Hill.
B. Interstate 5 TUNNEL	Double-tracking via a tunnel under Interstate 5.
Stations UTC (Only applies to Miramar Hill Tunnel)	New station, proposed only with the Miramar Hill tunnel option. Station would be constructed underground.
Hwy 52 To Santa Fe Depot Curve realignment and Double Tracking	Double-tracking in existing rail corridor for full length of section. An existing curve just south of Highway 52 would be straightened, requiring two new bridges over wetlands in San Clemente Canyon. New bridges would also be constructed over Tecolote Creek and San Diego River. Tracks could be placed in a short trench between Sassafras Street and Cedar Street.
Stations Santa Fe Depot	Existing station. Proposed improvements include bypass tracks and parking expansion.

Based upon an analysis of the information provided in the Program EIR/EIS, the Department and FRA have identified the Rail Improvements Alternative (Build alternative) as the preferred alternative for the future development of the Los Angeles to San Diego portion of the LOSSAN corridor.

The lead agencies have determined that all the projects and alignment options listed in Table 2 should be carried forward for project-level analysis prior to making alignment option decisions. The environmental analysis in the Program EIR/EIS does demonstrate some key differences in potential benefits and impacts among various alignment and design options. However, because of the programmatic nature of the studies and the need for further, site-specific design and field studies, the lead agencies determined that it would be premature to eliminate any of the final options at the Program level.

7. Summary of Potential Beneficial Effects

The potential environmental, transportation, and land use beneficial effects of the Rail Improvements Alternative are summarized below.

The Rail Improvements Alternative would benefit the transportation system in southern California by:

- Providing faster, more frequent, and more reliable travel between southern California's major metropolitan hubs
- Providing superior point-to-point travel times during peak period, approximately two hours or less between downtown Los Angeles to downtown San Diego.
- Increasing safety due to improvements to rail infrastructure.
- Increasing connectivity to existing travel modes.
- Offering greater opportunities to help meet demand service and capacity with minimal expansion of infrastructure.
- Eliminating delays at existing at-grade crossings where the Rail Improvements Alternative would provide grade separation.

The Rail Improvements Alternative would benefit the environment by:

- Using existing transportation corridors to minimize the impacts on southern California's landscape.
- Reduce or eliminate existing stability and erosion problems in sensitive coastal bluff areas between San Clemente and Del Mar by removing existing rail service from bluffs.
- Using existing rail corridor or new tunnels to minimize impacts to ecological resources.
- Balancing earthwork within sections to avoid and/or minimize impacts to sensitive areas from excavation and fill materials.
- Reducing or minimizing in-water footprint of lagoon crossing structures by using longer-span bridges.
- Providing for potential improvement of coastal lagoon tidal flows by using more compatible crossing structures.
- Improving aesthetics by removing sections of existing rail infrastructure/service from beaches and coastal bluff areas.
- Avoiding and/or minimizing potential impacts to cultural, park and recreational to the greatest extent possible.
- Reducing existing train noise in locations where grade separations eliminate horn and crossing gate noise at existing grade crossings.

The Rail Improvements Alternative would provide land use benefits by:

- Being highly compatible with local and regional plans that support rail systems and transit oriented development .
- Using existing transportation corridors to avoid new land use conflicts in areas where no transportation corridors now exist.

- Reducing or eliminating existing land-use barriers and other conflicts along existing LOSSAN corridor, by moving rail infrastructure into covered trenches or tunnels.
- Meeting the need for improved modal connectivity with existing local and commuter transit systems.
- Providing or improving multi-modal transportation hubs that link with local and regional airport, transit, and highway facilities.

8. Summary of Potential Adverse Environmental Impacts

Potential adverse environmental impacts from the Rail Improvements Alternative are identified in the Final Program EIR/EIS and are summarized in the following sections. Temporary and construction related impacts are also addressed in each appropriate resource topic.

Traffic and Circulation

Under the Rail Improvements Alternative, traffic congestion is projected to improve slightly on the intercity highway segments in the region, most notably along I-5 at Balboa Avenue (in San Diego) and at Tamarack Avenue (in the City of Carlsbad). The level of service (LOS) on other roadways in the region would not be substantively affected.

No significant changes in LOS would occur within the station areas compared with the No Project Alternative, except at the proposed San Juan Capistrano station where LOS would degrade from LOS E to LOS F without further improvements to local roads. No significant impacts would occur to public transportation or goods movement in the region.

The construction of the Rail Improvements would result in short-term impacts of increased traffic in areas affected by the construction process for the duration of the construction in that area. In a few areas there would be temporary closures of local roadways, that in turn would result in increased traffic on nearby roads and longer travel routes for some travelers.

While localized increases in traffic and congestion near LOSSAN station areas and during construction are significant at the programmatic level of analysis, mitigation strategies have been identified that can reduce this impact below the level of significance.

Air Quality

Modeling was done to determine the maximum amount of train traffic that could be sustained within the LOSSAN corridor by 2020 with and without the Rail Improvements Alternative. By 2020 under the Rail Improvements Alternative, the number of locomotive miles traveled in the LOSSAN corridor would increase approximately 16 percent over No Project, with passenger rail miles increasing 10 percent and freight rail miles increasing 20 percent. Emissions of all pollutants would increase over No-Project levels by about 17 percent, including diesel particulate matter (DPM), based on present-day locomotive standards.

Vehicular emissions in localized hotspots around stations would increase somewhat due to increased traffic. If the alignment options that maximize grade separation of the rail corridor are implemented (e.g., tunnels), a decrease in vehicular emissions would occur along roadways where roadway traffic is forced to idle at train crossings.

Construction of the proposed improvements would cause temporary increases in pollution burdens in the project area, due to increased emission sources such as construction equipment, work-force travel to and from project sites, and fugitive dust from construction activities.

While potential localized increases in vehicle-generated air pollution are considered significant at the program level, mitigation strategies have been identified that can reduce this impact to a less than significant level.

Increases in long-term locomotive emissions, as well as short-term construction emissions, are considered significant at the program level. Mitigation strategies have been identified that would substantially lessen construction and operational emissions; however, sufficient information is not available at the program level to conclude that mitigation will reduce these impacts to less-than-significant levels.

Noise and Vibration

The Rail Improvements Alternative could create long-term noise impacts along the rail corridor from train operations by creating intermittent increased noise due to increased speeds and frequency of train traffic. At the program level of analysis, only the rail section between Fullerton and Irvine (20 miles) is expected to incur potentially high noise impacts attributable to this alternative.

Existing noise impacts would be reduced or eliminated in sections of the corridor where tunnel options were implemented, or where existing at-grade crossings were grade separated. Substantial noise decreases would occur at these locations by eliminating the need for warning horns and bells at crossings. Noise impacts at some tunnel portal areas would increase over existing conditions where they are near sensitive receptors.

Construction of the Rail Improvements Alternative would cause temporary noise impacts in active construction zones and could affect residential, commercial and institutional uses along the rail corridor. Noise sources would include heavy construction equipment, tunnel boring machines, truck or rail traffic associated with muck hauling, and pile driving.

Significant noise impact from operations will not occur along the entire LOSSAN corridor. Rather, the impact would be localized, because certain areas along the proposed alignments have no sensitive receptors, and because trains speeds are slower in some places leading to lower noise impact ratings. Construction impacts on noise would be localized and would migrate along the corridor with active construction sites. While both the construction and operational noise impacts are considered significant at the program level, mitigation strategies have been identified that can reduce this impact to a less than significant level.

The Rail Improvements Alternative could cause an increase in ground-borne vibrations when the trains pass by an area. At the program level, it is estimated that up to 40 miles of the rail corridor could be subject to high vibration impacts, depending on site-specific soil conditions. Construction activities can also cause some short-term ground-borne vibration. While vibration impact is considered significant at the program level, mitigation strategies have been identified that can reduce this impact to a less than significant level.

Energy

The Rail Improvements Alternative would have an increase in operational (direct) energy consumption associated with increased number of locomotive miles within the LOSSAN corridor. The number of locomotive miles in the corridor would increase approximately 16 percent over No Project levels; therefore, there would be a corresponding increase of approximately 16 percent in operational (direct) energy usage associated with the Rail Improvements Alternative, as compared with the No Project Alternative.

The Rail Improvements Alternative would decrease the likelihood of delays along the corridor, which would decrease the energy consumption from idling locomotives. The proposed double tracking would also decrease locomotive idling time at existing LOSSAN stations as rail service increases. The grade separations that would occur with many of the proposed improvement options would also contribute to an increase in fuel efficiency and a reduction in energy consumption from idling automobiles and trucks at grade crossings. However, these potential energy savings could not be quantified at the program level.

Construction of the Rail Improvements Alternative would result in one-time non-recoverable energy consumption costs associated with construction of at-grade, underground and elevated track, stations, and support facilities. Details regarding energy conservation practices have not been specified for the Rail Improvements Alternative, which has not been designed in detail, nor have construction methods and staging been planned at this time. Given the scope and scale of the improvements proposed, however, it is anticipated that the construction-related energy requirement would be substantial.

Mitigation strategies have been identified to reduce operational and construction-related energy use associated with the Rail Improvements Alternative. Nonetheless, the required energy usage is considered significant at the program level.

Land Use, Communities, Property and Environmental Justice

Overall, the proposed Rail Improvements Alternative would be highly compatible with local and regional plans that support rail systems and transit-oriented development. Because nearly all alignment options are within or adjacent to existing transportation rights-of-way, the Rail Improvements Alternative generally would have a low potential for new land use-related impacts. Some of the alignment options would have a beneficial effect, compared to the No-Project Alternative, by reducing or eliminating existing land use impacts along the LOSSAN rail corridor. The Rail Improvements Alternative would also provide improved intermodal connectivity with existing local and commuter transit systems.

Potential property impacts would be relatively low for much of the Rail Improvements Alternative because most alignment options would either be accommodated within the existing right-of-way of the LOSSAN rail corridor, or would involve deep tunnels that would avoid property impacts. In most areas, commercial and industrial uses are located along the rail corridor, and these uses buffer residential development from the railroad. However, potentially high impacts would occur in the few areas where new right-of-way would be needed, existing curves would be straightened, or the existing right-of-way would be widened (see Section 3.6.3.B of the Final Program EIR/EIS). It is estimated that a total of 50 or fewer residential units could be affected by the Rail Improvements Alternative, and between 25 and 45 acres of non-residential property could be affected, depending on the alignment option.

The specific locations of public facilities and emergency services (such as schools, parks, fire and police stations, hospitals and medical clinics) were not identified for this program-level assessment. However, construction of various alignment options under the Rail Improvements Alternative would be expected to create some temporary access disruptions and create some barriers to access to and from public facilities, and cause an impediment to emergency response times in the vicinity of construction. It is also expected that the Rail Improvements Alternative would have some long-term, beneficial effects on access to public facilities and on emergency response times, particularly in areas where the rail corridor would be grade separated.

Potential impacts to communities and neighborhoods were assessed on the basis of whether or not an alignment option would divide an existing residential neighborhood where no division exists under current conditions. There are locations where the existing rail tracks divide residential communities that have developed around the rail corridor. Some improvement options would add a second track within the rail right-of-way in these areas (e.g., the at-grade options between Fullerton and Irvine, and in Carlsbad). Double-tracking may exacerbate the existing barrier effect in these areas, but no new barrier would be created.

In other areas, some alignment options would reduce the existing barrier effect of the LOSSAN rail corridor. For example, in Encinitas, the at-grade improvement option would add pedestrian crossings to alleviate existing impacts of the rail corridor. Other options would involve tunnels or covered trenches where existing tracks would be removed and placed underground, either within the LOSSAN corridor alignment or within another transportation corridor such as I-5. In these cases, any existing barrier effect of the rail would also be reduced or eliminated entirely, resulting in an improvement compared to the No-Project Alternative.

There are two areas where alignment options would introduce an above-ground rail corridor into residential areas where there currently is no rail corridor. The Trabuco Creek at-grade and trench option in San Juan Capistrano would add rail in a new area; however, the creek itself creates a barrier in this area, so the rail would not add a new barrier. Similarly, the northern end of the I-5 tunnel in the Del Mar area would add rail infrastructure near residences at the south end of the San Dieguito Lagoon, although the rail structure would be elevated along the edge of the residential area and so would not divide an existing community.

Considering the Rail Improvements Alternative overall, it is not expected that the alternative would result in disproportionate impacts on minority populations or low-income populations. The location of the alignment options within existing transportation corridors greatly reducing the potential for new impacts to any established populations along the corridor. Nearly all of the alignment options evaluated under the Rail Improvements Alternative would be located within or adjacent to existing transportation corridors, which would serve to reduce the potential for significant adverse impacts generally. Project-level reviews would include more detailed analysis, including additional consideration of the potential for disproportionate localized impacts on Environmental Justice communities.

The identified mitigation strategies in the Final Program EIR/EIS will substantially lessen or avoid land use impacts; however, sufficient information is not available at the program-level to conclude with certainty that mitigation will reduce this impact to a less than significant impact in all circumstances.

Aesthetics and Visual Resources

The Rail Improvements Alternative would introduce new visual elements in some areas, particularly where elevated structures and tunnel portals would be located in lagoon environments or residential areas. Improvement to existing stations would have low aesthetic impacts in most cases. New stations are proposed as part of three alignment options, but two of those would be below-grade in a trench and one would be underground so visual impacts would be minimized. Significance of visual impacts along the corridor is dependent on the sensitivity of the landscape and compatibility with existing visual features, but at least some changes would occur in highly scenic areas along the corridor and are expected to be significant.

Design options involving tunnels or covered trenches would minimize visual impacts and, in some cases, would reduce existing visual effects of the existing rail line, particularly along coastal bluffs and beaches.

Construction would create temporary visual changes, including the presence of construction equipment along the corridor, dismantling of old structures and erection of new structures, and light and glare impacts from nighttime construction. Newly disturbed soils along the corridor would create a temporary visual contrast until those areas are weathered and revegetated.

While mitigation strategies and context-sensitive structure design would substantially avoid and lessen impacts to aesthetics and visual resources, it is uncertain without site-specific information that visual impacts can be mitigated to a less-than-significant level over the entire LOSSAN corridor.

Public Utilities

The Rail Improvements Alternative could cause conflicts with existing utilities along the corridor. However, the location of the proposed improvements within existing rail and other transportation corridors reduces the corridor-wide potential to affect utility operations.

Alignment options cross 21 high-voltage transmission lines, 19 of which are in the section between Union Station and Irvine. Impacts to these facilities are likely to be low because the electrical infrastructure was developed around the existing, operating rail corridor. Alignment options cross natural gas pipelines in 44 locations, but these lines are situated such that construction activities would have low or no impacts in most locations. Between Union Station and Fullerton, potential conflicts could be higher and would require some excavation and re-casement of pipeline sections. Five wastewater outfalls are intersected by various alignment options, and would be a high impact due to relocation costs and potential for service disruption.

Potential conflicts with major utility infrastructure is considered significant at the program level but mitigation strategies have been identified that can reduce this impact to less than significant.

Hazardous Materials and Wastes

Two hazardous materials/hazardous waste sites were identified within the LOSSAN corridor study area through a standard environmental database search. One NPL/Superfund site, the El Toro Marine Corps Air Station, was identified in the northern limits of the City of Irvine, within the study area of the Fullerton Station to Irvine Station rail segment and within the study area of the Irvine Station. One solid waste landfill was identified south of Highway 52 in the Rose Canyon area, within the study area of the Highway 52 to Santa Fe Depot rail segment.

Impacts to hazardous waste sites are potentially significant at the program level, but mitigation strategies and design practices have been identified that can reduce these impacts to less than significant.

Cultural and Paleontological Resources

The Rail Improvements Alternative could impact prehistoric or historic archaeological resources and traditional cultural properties, as well as historic properties and resources, by causing physical destruction or damage during construction. The Rail Improvements Alternative could also impact paleontological resources as a result of construction, including grading, cutting, tunneling, erecting pylons for elevated track, and due to station construction. While mitigation strategies have been identified that will substantially lessen or avoid these impacts, sufficient information is not available at the program level to conclude with certainty that mitigation will reduce this impact to a less than significant level in all circumstances.

Geology and Soils

Seismic hazards evaluated include ground shaking and ground failure. The Rail Improvements Alternative could cause risks to workers and public safety due to the collapse or toppling of facilities, either during construction or after completion, due to strong earthquakes. The Rail Improvements Alternative also could create risks to public safety from automobile accidents or the interruption of automobile circulation, if strong earthquakes cause a derailment. LOSSAN corridor facilities could sustain damage due to secondary hazards (settlement) over soft or filled ground.

The Rail Improvements Alternative could cause risks to workers and public safety due to ground rupture along active faults, either during construction or after completion. It could also create

secondary public safety risks caused by damage to highways, or interruption of these transportation services, in the event of train derailment caused by ground rupture along active faults.

The Rail Improvements Alternative could also cause risks to workers and public safety due to the failure of natural or construction cut slopes. The Rail Improvements Alternative alignment could cross areas with hard, unfractured bedrock that will be difficult to excavate using methods other than blasting, which may pose a safety risk. Faulted materials that may be present can result in instability in the face of a tunnel area, another hazard. Coastal bluff areas along the LOSSAN corridor in San Clemente, Dana Point and Del Mar have high slope instability due to the fragility of the bluffs. Alignment options in these areas could reduce potential impacts by precluding further construction along the bluffs and placing new rail infrastructure into tunnels instead.

While the above impacts are considered significant at the program level, mitigation strategies have been identified that can reduce these impacts to a less than significant level.

Hydrology and Water Quality Impacts

Potential impacts on hydrology and water resources which may result from the proposed Rail Improvements Alternative include potential encroachment on or location in a floodplain, potential impacts to water quality, potential increased or decreased runoff and stormwater discharge due to changes in the amount of impervious surface, potential impacts on groundwater from dewatering or reduction of groundwater recharge, or impediments to tidal flow at lagoon crossings.

The various rail alignment options cross between 205 and 315 acres of floodplains, depending on alignment options selected. These impacts are expected to be low overall, because many of the proposed improvements would be within the existing LOSSAN corridor, or would be in deep tunnels that would avoid surface floodplains.

The Rail Improvements Alternative could cross up to 25 streams and rivers, 13 of which are impaired waters, and would cross six coastal lagoons which are also classified as impaired. Natural tidal flows in the lagoons are constrained by existing rail and highway crossing structures. There is a potential for improving these hydrologic conditions if the existing earth-fill embankments were replaced by causeway structures and/or bridge spans were lengthened to reduce the amount of impediment to tidal flows.

There would not be a significant increase in the amount of impervious surface because most of the alignment options are within the existing rail corridor or in tunnels. This would minimize the amount of increased stormwater runoff. Additional paved parking at rail stations would increase the potential for runoff.

Groundwater impacts and the need for dewatering during construction are expected to be low for at-grade or tunnel improvements, and medium for trenched sections.

Potential hydrology and water quality impacts related to construction could result from ground-disturbing activities at shafts, portals, and staging areas; generation of spoils; construction

vibration and noise; and potential ground surface settlement from trenching/tunneling and excavation. These impacts would be temporary, and would abate as construction is completed and revegetation or surface stabilization measures are put in place.

Hydrology and water quality impacts are considered significant at the program level. Mitigation strategies have been identified that can reduce these impacts substantially. However, sufficient information is not available at the program level to conclude with certainty that mitigation will reduce these impacts to a less-than-significant level in all circumstances.

Biological Resources and Wetlands

The Rail Improvements Alternative impact to biological resources was assessed based on an estimated construction disturbance zone which included the maximum permanent footprint of the rail improvements and area of indirect impacts. The maximum footprint of the proposed improvements would be less than 50 feet in width. Based on this footprint, it was determined that construction-related impacts and indirect impacts (such as noise) could likely occur within 200 feet (100 feet either side of the centerline). Biological resources were inventoried in a much wider corridor (between 1,000 feet and 1 mile, depending on the sensitivity of the resource), but impact zones were then narrowed to provide a more realistic estimate of temporary and permanent impacts to those resources.

Temporary construction impacts could include disturbance or removal of vegetation or displacement of wildlife within the rail alignment, access roads, staging areas, and spoils handling areas. In lagoon areas and where bridge work is required across rivers and streams, in-water work could cause turbidity and sedimentation, disturbance or removal of underwater features (rocks, earthen fill), or vibration or noise impacts to aquatic life from pile driving activities. Indirect impacts could include disturbance to wildlife from noise generated by construction equipment or lighting during nighttime construction work.

Permanent, direct impacts could include wildlife mortality, permanent displacement or removal of habitat within the footprint of the physical improvements. Permanent, indirect impacts could include noise from train operation and horns, shadow effects from elevated infrastructure over plant and wildlife areas, mortality of state or federally list species due to increased train speed or frequency, or leaking cargo containers or accidents where toxic materials could be spilled in sensitive areas. Biological resources in the coastal lagoons of northern San Diego County are particularly sensitive, and contain a number of special-status species.

The number and extent of biological resources potentially affected by the Rail Improvements Alternative would vary with alignment options. At the program level, within the 200-foot-wide corridor evaluated for potential temporary and permanent impacts, it was estimated that up to 28 acres of sensitive vegetation could be impacted. Non-wetland waters in the potential impact zone range from 12,564 to 15,541 linear feet, and wetlands potentially affected range between 20 and 27 acres. Depending on the rail improvements selected, between 36 and 46 different special-status plant and wildlife species were identified as potentially occurring within the study area for the Rail Improvements options.

Impacts to biological resources would be reduced where alignment options are within existing, disturbed transportation corridors or in tunnels. At the same time, the coastal lagoon environments present sensitive areas with a high concentration of unique resources. The proposed Rail Improvements Alternative is considered to have a significant effect on biological resources and wetlands. At the program level of analysis, it is not possible to know precisely the location, extent and particular characteristics of all potential, adverse impacts to these resources. Mitigation strategies have been identified that would reduce these impacts. However, sufficient information is not available at the program level to conclude with certainty that mitigation would reduce this impact to a less-than-significant level in all circumstances.

Public Parks, Recreation, and Section 4(f) / 6(f) Resources

The Rail Improvements Alternative could result in impacts to parks and recreation resources, including publicly owned parks, wildlife and waterfowl refuges, historic sites of national, state or local significance, and other recreational resources covered by either section 4(f) of the Department of Transportation Act (49 U.S.C. § 303(c)) or section 6(f) of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. § 4601-8).

The Rail Improvements Alternative could result in direct impacts to lands containing publicly owned parks and recreational resources by causing use of such lands for the placement of rail facilities, and could result in indirect impacts to these resources due to construction activities or rail operations which adversely affect the use of publicly owned parks and recreational resources. There are up to 33 locations along the various alignment options where Section 4(f) and 6(f) resources are within 150 feet of the proposed alignments, constituting a high potential impact. These resources include local and regional parks, state beaches, and ecological reserves primarily associated with coastal lagoons. The majority of construction in the areas of these resources would take place within the operating LOSSAN rail corridor, where these uses have developed around the existing rail right-of-way.

At the program level it is not possible to know precisely the location, extent and particular characteristics of impacts to park resources, or to determine what if any use of 4(f) or 6(f) resources would occur. Due to this uncertainty, for the purposes of system-wide review at the programmatic level, this impact is considered significant. While mitigation strategies have been identified that would substantially lessen or avoid these impacts, sufficient information is not available at the program level to conclude with certainty that mitigation would reduce this impact to a less than significant level in all circumstances.

Cumulative Impacts

Implementation of the Rail Improvements Alternative could lead to local and regional cumulative effects related to:

- Local traffic circulation and congestion in the areas of rail construction;
- Air quality within the two-basin study area (in combination with the air quality impacts of other projects identified for the cumulative impact assessment);
- Noise and vibration;

- Energy consumption (related to transportation projects construction and operation)
- Community and neighborhood cohesion and property loss;
- Community/neighborhood impacts (in combination with other transit and roadway projects these localized impacts could contribute to cumulative impacts);
- Land use impacts to various property types, neighborhoods, and communities (in combination with other transportation projects);
- Visual resources and regional aesthetics;
- Public utilities and future land use opportunities (because of right-of-way needs, extensive utility relocation, and property restrictions associated with construction of multiple linear facilities and other future projects in the study area);
- Cultural and paleontological resources;
- Geology and soils related to slope stability in various proposed locations of cut and fill and areas susceptible to slope failure, and related to subsidence if other projects under construction in the area also needed to dewater from the same drainage basin;
- Hydrologic resources, particularly those associated with coastal lagoons where I-5 widening and rail improvements could occur within similar timeframes
- Sensitive biological resources and wetlands; and
- Parklands and recreational resources.

While identified mitigation strategies will substantially lessen or avoid cumulative effects, sufficient information is not available at the program-level to conclude with certainty that mitigation will reduce the Rail Improvement's contribution to cumulative effects in all circumstances. The potential for cumulative effects will increase in areas of multiple project development in the LOSSAN region. Depending on project funding, permitting and other prerequisites, there is potential for overlapping development schedules for the Rail Improvements Alternative and (1) California HST system, (2) the I-5 North Coast Corridor project (freeway widening), (3) various lagoon and habitat restoration projects, and (4) potential extension of the San Diego trolley service in the University City area. Coordination among project sponsors where feasible will help to minimize cumulative impacts in the region.

Project-level cumulative impacts assessments will ensure that reasonably foreseeable projects in each project's vicinity (at the time of project-level assessment) are accounted for in the identification of impacts. At the project level, a more detailed project design will enable coordination with other projects such as the I-5 North Coast Corridor project or lagoon restoration work. Based on funding timeframes, environmental review status, planned construction schedules, and required in-service dates of various projects, the feasibility of combining or coordinating data collection, construction timeframes, and mitigation design and monitoring programs can be more accurately assessed, and opportunities for reducing potential cumulative impacts may be identified.

Growth-Inducing Effects

The proposed Rail Improvements Alternative would not introduce a new rail corridor into the region. Based on population and employment forecasts for the LOSSAN region, the number of passenger trains in the LOSSAN corridor is projected to nearly double between 2005 and 2020, increasing

from an average of about 70 trains per weekday in 2005 to about 125 trains per weekday in 2020 without the proposed Rail Improvements. During this same time period, freight trains in the corridor are projected to increase from approximately 45 to 98 per day between Union Station and Fullerton (then traveling east out of the LOSSAN region), with approximately 6 per day between Fullerton and San Diego. Under the Rail Improvements Alternative, passenger trains would increase approximately 10 percent over the No-Project levels, and freight trains south of Fullerton would double.

The increases in passenger and freight trains on the LOSSAN corridor are projected to occur as a result of increased population and employment in the region. The population in the LOSSAN region (defined as Los Angeles, Orange, and San Diego counties) is projected to increase 23 percent between 2000 and 2020, from 13.8 million to 18.6 million. The growth of the region, and the resultant increased demand for passenger and freight service, would occur with or without the proposed rail improvements. Therefore, the Rail Improvements Alternative would not create growth, and would not have any discernible effect on projected growth in the LOSSAN region. The project would help to accommodate the existing and projected intercity travel demand between Los Angeles and San Diego by increasing the capacity and reliability of the existing rail service.

There are several stations that could be added to the system as part of certain rail improvement alignment options. These include potential new stations in San Juan Capistrano (Trabuco Creek option only), San Clemente, and University Towne Centre (Miramar Tunnel option only). These potential station sites are in developed, mixed-use commercial/residential areas. The presence of a new rail station could increase the rate of development, or change the types of establishments that develop. Overall, the impacts of such changes would be small, given the existing and planned land uses in these suburban areas.

The Rail Improvements Alternative could be implemented incrementally by any one of several owners or rail operators within the LOSSAN rail corridor over the next 15 to 20 years any one of which could be project sponsors for future project-level analysis, permitting and implementation of proposed rail improvements. The construction period for any particular improvement project could vary from approximately one year or less (for short distances of at-grade double tracking) to multiple years (for long tunnels). Because individual projects within the corridor would be phased, it is expected that each construction effort would be of a size allowing workers to be readily drawn from the available regional work force. It is unlikely that any phase would require an influx of workers from outside the region, so no increase in housing or public services would be required to accommodate the work force. No significant growth in employment is expected to result from construction of the proposed project.

The Rail Improvements Alternative is not expected to have a significant growth-inducing impact on the LOSSAN region or in localized areas. Some growth-related impacts may occur on a local level around expanded or new stations. Mitigation is expected to reduce these impacts.

9. Mitigation

The Department and FRA have identified design practices and mitigation strategies, to avoid or minimize adverse effects on the environment that would result from the implementation of the Rail

Improvements Alternative and these are described in detail in the EIR/EIS. All practicable means to avoid or minimize environmental harm from the selected alternative have been identified. Because no decisions are made at this stage to advance specific projects for construction, the Department and FRA have not adopted specific mitigation measures. To minimize potential future harm from implementation of the proposed Rail Improvements Alternative, future project-level environmental analysis and documentation will review and prescribe the design practices and mitigation strategies described in the Department's adopted Mitigation Monitoring and Reporting Plan included as Appendix A.

Chapter 3 of the Final Program EIR/EIS describes program-level mitigation strategies to minimize or mitigate adverse environmental impacts. The monitoring and enforcement program is to apply this plan during the project-level environmental compliance process. Some mitigation strategies may cause other adverse environmental impacts at the same time that they mitigate impacts addressed in the Program EIR/EIS. Future tiered project-level environmental reviews will determine appropriate site-specific mitigation measures.

Design Practices

The project sponsors for individual rail improvement projects would likely employ design practices identified in the Final Program EIR/EIS as the improvements are developed further in the project-level environmental review, final design and construction stages. These practices would be applied to avoid and minimize potential adverse environmental impacts. Design practices are incorporated in the Mitigation Monitoring and Reporting Plan and are illustrated below.

- Existing transportation corridors would be used for the rail improvements. Nearly 90 percent of the proposed Rail Improvements Alternative alignments are either within or adjacent to a major existing transportation corridor (existing railroad or highway rights-of-way). This will help reduce impacts to land use, biology, cultural resources, hydrology/water quality, aesthetic resources, public utilities, and Section 4(f) and 6(f) resources.
- Alignment refinements during project-level design will avoid or minimize potential impacts to hazardous sites and materials, cultural resources, and geologic hazards.
- Expansion at existing stations of parking and efficient design of ingress and egress to new or expanded parking areas will minimize increases in air emissions in and around station areas. For new stations, efficient design that minimizes train, bus, and automobile idling time will also minimize increases in emissions.
- Where the alignment options are in a tunnel or trench section or grade separated from the roadway, operational noise impacts will be greatly reduced.
- Implement designs that will have the least impact on lagoons and stream crossings including, but not limited to, maintaining open surface crossings (bridged), infrastructure setbacks, erosion control measures, sediment controlling excavation/fill practices, and other Best Management Practices.
- Designs for new or expanded crossings of coastal lagoons will not increase the in-water structure footprint.

- Use or reuse of excavated materials within the confines of the project and avoidance or minimization of any additional impact on sensitive areas from placement of excess material.

10. Compliance with Other Federal Regulations

Section 4(f) and 6(f) Approvals

LOSSAN rail improvement project evaluations and findings under sections 4(f) [49 U.S.C. § 303(c)] and 6(f) [16 U.S.C. § 4601-8] would be prepared as part of project-level environmental reviews of individual rail improvement projects, if a US DOT administration has a major action for a project.

Section 404 of the Clean Water Act

The US Environmental Protection Agency (USEPA) and US Army Corps of Engineers (USACE) have participated in the development of both the Draft and Final Program EIR/EIS. Future project-level environmental review will include further consultation with USEPA and USACE regarding the Clean Water Act leading to USACE permit applications.

Endangered Species Act

Preparation of the Program EIR/EIS involved informal consultation and information sharing with the US Fish and Wildlife Service (USFWS) of the U.S. Department of Interior (DOI). Project-level environmental review would involve consultation with USFWS, as needed, for potential impacts on federally listed plant and wildlife species, including the preparation of a biological assessment or assessments, and biological opinions for each phase of project implementation. Formal consultation under Section 7 of the Endangered Species Act for project study areas of concern would accomplish the following steps identified by DOI: 1) identifying the conservation needs of each listed species with the potential to be impacted by the proposal; 2) identifying the threats to each listed species' conservation related to the proposed action; 3) identifying species conservation or management units and the threats affecting those units; 4) identifying species' conservation goals framed within the context of the Rail Improvements Alternative; and 5) developing conservation/management unit strategies. The project-specific lead agencies would prepare Biological Assessments to address the affected conservation/management units identified.

11. Comments Received on the Final Program EIR/EIS

One comment letter was received and addressed by the Department, and is included in Appendix B. Five letters of comment were received by FRA and the Department regarding the LOSSAN Final Program EIR/EIS. Substantive comments made in those letters to FRA are addressed below (and may also be addressed separately by the Department).

U.S. Environmental Protection Agency

EPA submitted comments on the Final Program EIR/EIS focused on the issues summarized below.

Responsibility and Timing for Future, Tier 2 Project Improvements: EPA commented that, while the Final Program EIR/EIS describes subsequent studies required for future project-level analysis, it

does not identify the specific timeframes, responsible parties, and specific coordination required for implementing these Tier 2 actions. The ROD should identify the responsible parties for implementing Tier 2 studies, the owners/operators for each section of the corridor, and the timing of future studies. The most likely and reasonably foreseeable rail improvement projects in the corridor should be identified.

Mitigation Measures and Design Practices: This design practices and mitigation strategies from the Final Program EIR/EIS should be collated in a stand-alone document for future use, and include timing and responsible parties for each mitigation measure.

Interagency Coordination: ROD should make clear who responsible parties will be for future coordination with agencies, and with other projects in the region. Clarify how coordination among all agencies can be done for all construction projects in lagoons, so impacts are reduced to “one time in, one time out”.

Cumulative Impacts: ROD should clarify that cumulative impacts will need to be re-assessed at the project-level.

Aquatic and Biological Resources and Hydrology: EPA reiterated that future project proponents will need to demonstrate that the proposed project is the least environmentally damaging practicable alternative (LEDPA), and obtain Clean Water Act authorization from the USACE. EPA also asked that the ROD confirm mitigation measures and design practices to be used in the lagoon areas, such as future hydrological modeling during project-level analysis, and possible opportunities for removing or reducing existing earthen fill.

Relationship to High-Speed Rail Project: Clarify where this project and the high-speed rail project will be in the same corridor, what the impacts will be, and how to coordinate LOSSAN rail improvements with high-speed rail to reduce potential impacts.

Water Quality and Air Quality Tier 2 Studies: Fully consider alternatives for providing access to surface parking; address parking surface expansion amounts, locations and general measures to minimize effects of storm-water runoff. Identify the parties responsible for conducting project-level air quality studies including health risk assessments. Additional studies will need to be done addressing PM_{2.5}, densities of sensitive receptors, and possible no-idle or no-stop zones.

Response

Responsibility and Timing for Future, Tier 2 Improvements: There are numerous owners and rail operators within the LOSSAN rail corridor region, any of whom could be project sponsors for future project-level analysis, permitting and implementation of proposed rail improvements. The table below shows the owners and operators for each LOSSAN section.

County/Corridor Section (North to South)	Owner	Operators on this Section
Los Angeles		
Union Station (MP 0) to	Los Angeles County	Amtrak

County/Corridor Section (North to South)	Owner	Operators on this Section
Redondo Junction	Metropolitan Transportation Authority	Metrolink
Redondo Junction to Orange County (Line)	Burlington Northern Santa Fe Railway (BNSF)	Amtrak Metrolink BNSF
Orange		
Orange County Line to Fullerton Junction (MP 165.4)	BNSF	Amtrak Metrolink BNSF
Fullerton Junction to Orange County Line	Orange County Transportation Authority (OCTA)	Amtrak Metrolink BNSF
San Diego		
Orange/San Diego County Line to City Limits Del Mar/San Diego (MP 245.6)	North County Transit District (NCTD)	Amtrak Metrolink ³ Coaster BNSF
Del Mar/San Diego to Santa Fe Depot (MP 267.5)	San Diego Metropolitan Transportation Development Board (MTDB)	Amtrak Coaster BNSF

It is not possible at this time to determine which entities would sponsor what future improvements, nor is it known when and how much funding for rail improvements will become available and from what sources. Neither the Department nor FRA can estimate with any confidence what improvements may be given priority and therefore when project-level studies would commence. Chapter 3.17 of the Final Program EIR/EIS outlines general next steps that should be undertaken, including project definition based on operational and environmental considerations, and cost-benefit prioritization of improvements in the corridor. It also outlines consultation and coordination needs for project-level work. The document also sets forth program-level mitigation strategies and subsequent analysis needed for each resource area, which would be part of the project-level efforts for each improvement or set of improvements in the future.

Because any number of entities and agencies could serve as future project sponsor or state or federal lead agency, it would be speculative and beyond the authority of either the Department or the FRA to assign responsibility for these future actions at this time. However, the coordination and consultation needs, mitigation strategies, and subsequent analysis requirements in the EIR/EIS have been reviewed by all owners and operators in the corridor, in addition to agencies and entities having jurisdiction along the corridor. There is no reason to believe that future project sponsors or lead agencies would abandon this extensive “roadmap” for project-level work; particularly as doing so could jeopardize Tier 2 permits and implementation.

³ Metrolink service is operated to Oceanside.

Mitigation Measures, Design Practices, and Interagency Coordination The program-level mitigation strategies and design practices have been collected into the stand-alone Program Mitigation, Monitoring and Reporting Plan (MMRP) provided in Appendix A. The general timing of when mitigation measures would be implemented is indicated as design, construction, and/or operation phase. As described above, to assign responsibility for these mitigation measures to specific parties at this time would be speculative and beyond the authority of either the Department or FRA. Future project sponsors, along with lead agencies and resource agencies, would be responsible for refining mitigation at the project-level and implementing them in the design, construction or operational phase of the project(s).

Cumulative Impacts: This ROD states that the cumulative impacts assessment will be followed by cumulative impacts evaluations during project-level studies.

Aquatic and Biological Resources and Hydrology: The Program EIR/EIS confirms that future project sponsors will need to demonstrate that their project(s) are the LEDPA, and will need to obtain authorizations under the Clean Water Act. The MMRP (Appendix A) includes the design practices and mitigation measures to address future hydrology analyses and potential improvement of conditions within the lagoon environments.

Relationship to High-Speed Rail Project. If both the Rail Improvements and the proposed HST project are implemented in the LOSSAN region in the future, HST facilities would be developed within the LOSSAN corridor between Union Station and Irvine or Anaheim, possibly sharing tracks (at reduced speeds) with existing and future passenger rail service in the LOSSAN corridor. The preferred high-speed rail alignment to San Diego would also use the LOSSAN right-of-way between University Towne Centre (University City) and downtown San Diego. Use of the existing rail corridor in these areas will minimize impacts, and will serve to consolidate two major transit facilities in these areas of shared use. The need for coordination between the Authority, the Department, and all other owners, operators and jurisdictions along the corridor is addressed under Cumulative Impacts in Section 3.17 of the LOSSAN Final Program EIR/EIS. The Authority has made similar coordination commitments in the HST Program EIR/EIS.

Tier 2 Studies: As detailed in the Subsequent Analysis sections of Chapter 3 of the Final Program EIR/EIS, project-level studies may include additional air quality, health risk assessment, water quality and hydrologic modeling studies, among many others. Potential runoff impacts due to expanded paved parking at LOSSAN stations were addressed qualitatively at the Program level; project-level station design and traffic circulation studies will provide quantification of those potential impacts. Mitigation strategies at the program level are included in the MMRP; these will also be refined during project-level reviews. As indicated previously, it is not feasible to determine at this time what party or parties would be responsible for project-level studies, including any future health risk assessments for the corridor.

US Army Corps of Engineers

The USACE commented that the Tier 2 rail improvements will require a Section 404 permit, and that the Program document does not contain sufficient information to determine the LEDPA. Of particular concern is the sensitive aquatic species in the various lagoons in San Diego County, and

they ask for Tier 2 strategies for project-level analyses. They also state that the Program document does not support USACE permitting, and requested coordination efforts with the Corps and other agencies during Tier 2.

Response

It is acknowledged in the Program EIR/EIS and in this ROD that project-level studies must support Section 404 permitting including LEDPA determinations, and more site-specific information must be developed before permit applications can be filed. Coordination with the USACE and other agencies would occur during project-level studies by future project sponsors and lead agencies. Coordination issues and strategies for the lagoon areas are outlined in Section 3.17 of the Program EIR/EIS, and in the Subsequent Analysis discussions in Sections 3.12 and 3.13.

California Coastal Commission (CCC)

The CCC comments are similar to those of EPA, requesting information on responsible parties and timeframes for project-level implementation. The CCC also requested that FRA and the Department take a lead in coordinating with SANDAG to ensure proper coordination of no-project and rail improvement activities. They requested a framework of timeframes and commitments for upcoming projects, particularly coordination of the rail improvements with the I-5 North Coast Corridor project. They encourage the evaluation of feasibility of coordinating construction through lagoons. They also state that the LEDPA will need to be determined during project-level reviews and that Coastal Development permits will likely be required for portions of the Rail Improvements Alternative during project-level efforts.

Response

See response above to EPA comments regarding timeframes, funding, and responsible parties for project-level implementation. These cannot be determined with any accuracy at this time, and funding availability is not certain at this time. The Department will coordinate with SANDAG on projects and funding within the LOSSAN corridor and wider region, as a matter of course. As stated by the CCC, the Department is highly motivated to coordinate construction and mitigation of both the rail improvements and the I-5 corridor work, but whether or not funding for both projects will be available in similar timeframes, making such coordination possible, is not known at this time. As acknowledged previously, site-specific work to support permits will occur during project-level reviews.

National Marine Fisheries Services (NMFS)

NMFS states that consultation must be completed for project-level reviews of the rail improvement alternative, and encourages formation of a committee to coordinate various projects within essential habitat areas including the lagoons of northern San Diego (particularly I-5 and rail projects). Tier 2 studies must include assessment of impacts to Essential Fish Habitat, and consultation under Section 7 of the Endangered Species Act.

Response

All applicable site-specific impact assessments, as well as formal agency consultation, will occur during project-level reviews, and will be the responsibility of the future project lead agencies. As

stated in previous responses, coordination of the I-5 and rail projects will be done to the extent feasible, dependent on funding availability and development timing.

US Fish and Wildlife Service (FWS)

Responsible Parties, Project Timing, and Mitigation Measures: Similar to EPA's comments, the FWS requested information on project timing, responsible parties, strategies for coordinating "one time in, one time out" construction in lagoon areas, and a summary of all Program-level mitigation measures. FWS also requests information on which rail projects are most likely in the foreseeable future.

LEDPA and Compliance with Clean Water Act: FWS states that project-level studies must demonstrate that the proposed project(s) is the LEDPA, and is in compliance with applicable provisions of the Clean Water Act.

Relationship to High-Speed Rail: FWS asked for clarification of where and how the proposed high-speed rail project would intersect with the LOSSAN corridor.

Response

See responses above to EPA, USACE and CCC comments regarding responsible parties, project timing, potential for coordinating construction of all projects in lagoon areas, mitigation measures (contained in Appendix A), LEDPA determinations, compliance with the Clean Water Act, and the relationship of the rail improvements to the high-speed rail system proposal.

12. Conclusion

The need for Rail Improvements in the LOSSAN corridor is based on the expected growth in population and resulting increases in intercity travel demand in southern California over the next twenty years and beyond. The existing rail corridor is constrained, resulting in travel delays, safety issues, and unreliability. These problems will increase as travel demand in the region continues to grow. As a result of projected growth in travel demand there will be, increases in travel delays from the growing congestion on southern California's highways. In addition, there will be effects on the economy and quality of life from deteriorating reliability of the transportation system as travel demand increases. The intercity highway system, commercial airports, and passenger rail serving the southern California travel market are currently operating at or near capacity, and will require very large public investments for maintenance and expansion in order to meet existing demand and future growth.

The evaluation and findings indicate that the Rail Improvements Alternative would help meet projected needs for intercity travel in 2020, improve travel time and reduce congestion, thus creating beneficial effects to not only travel demand but to the environment.

The evaluation and findings of the Final Program EIR/EIS also indicate that taking no action under the No Project Alternative would not meet the future intercity travel needs nearly as well as the Rail Improvements Alternative, because the rail corridor will continue to be congested and unreliable, discouraging the traveling public from using the rail service. The No Project Alternative would result

in environmental impacts but would not offer travel improvements compared to the Rail Improvements Alternative.

The Program Level EIR/EIS has been prepared to allow the lead agencies to consider a future program of improvement to the LOSSAN rail corridor and to provide information to decide between the No Project and the Rail Improvements Alternative. All site-specific alignment decisions would be made during project-level environmental review based upon site-specific analysis.

Project-level analysis, engineering refinement, and documentation will be necessary for all alignment options that are identified and selected through this Program environmental review prior to permitting and construction. As described in the PEIR/EIS, these requirements would include site-specific field studies and biological resource surveys, as well as agency coordination, specific measures to avoid or minimize impacts, and an approved mitigation plan.

Based on the factors outlined above and as informed by the analysis presented in the Draft Program EIR/EIS, public and agency comments, and additional analysis described in the Final Program EIR/EIS, the FRA selects the Rail Improvements Alternative.. The alignment and design options carried through the Program EIR/EIS are expected to be evaluated at the project level prior to further advancement of any of those options. More detailed project-level study, additional refinement of the alignments and/or station locations, and further public and agency input are needed to make decisions among conceptual alignment options.

Jo Strang
Acting Deputy Administrator
Federal Railroad Administration

Date:  MAR 18 2009

Attachment:  Appendix A – Mitigation Monitoring and Reporting Plan