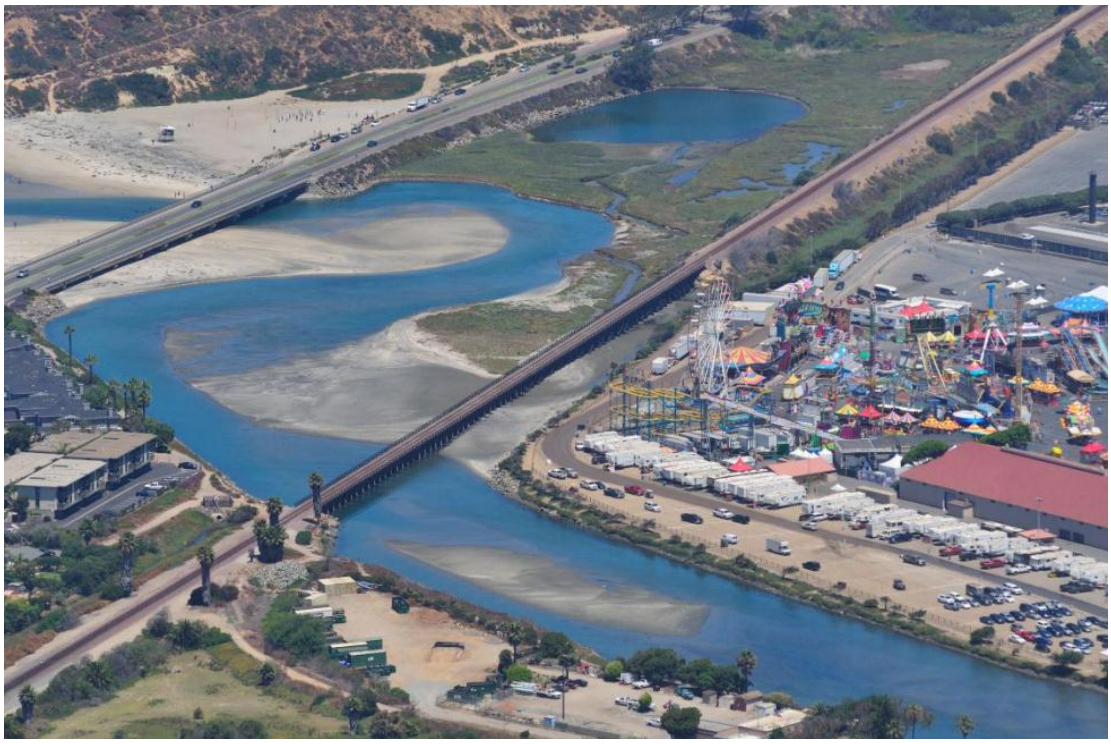
FINDING OF NO SIGNIFICANT IMPACT

San Dieguito River Bridge Replacement, Double Track, and Del Mar Fairgrounds Special Events Platform



Pursuant to 64 FR 28545 by:

Federal Railroad Administration (FRA)

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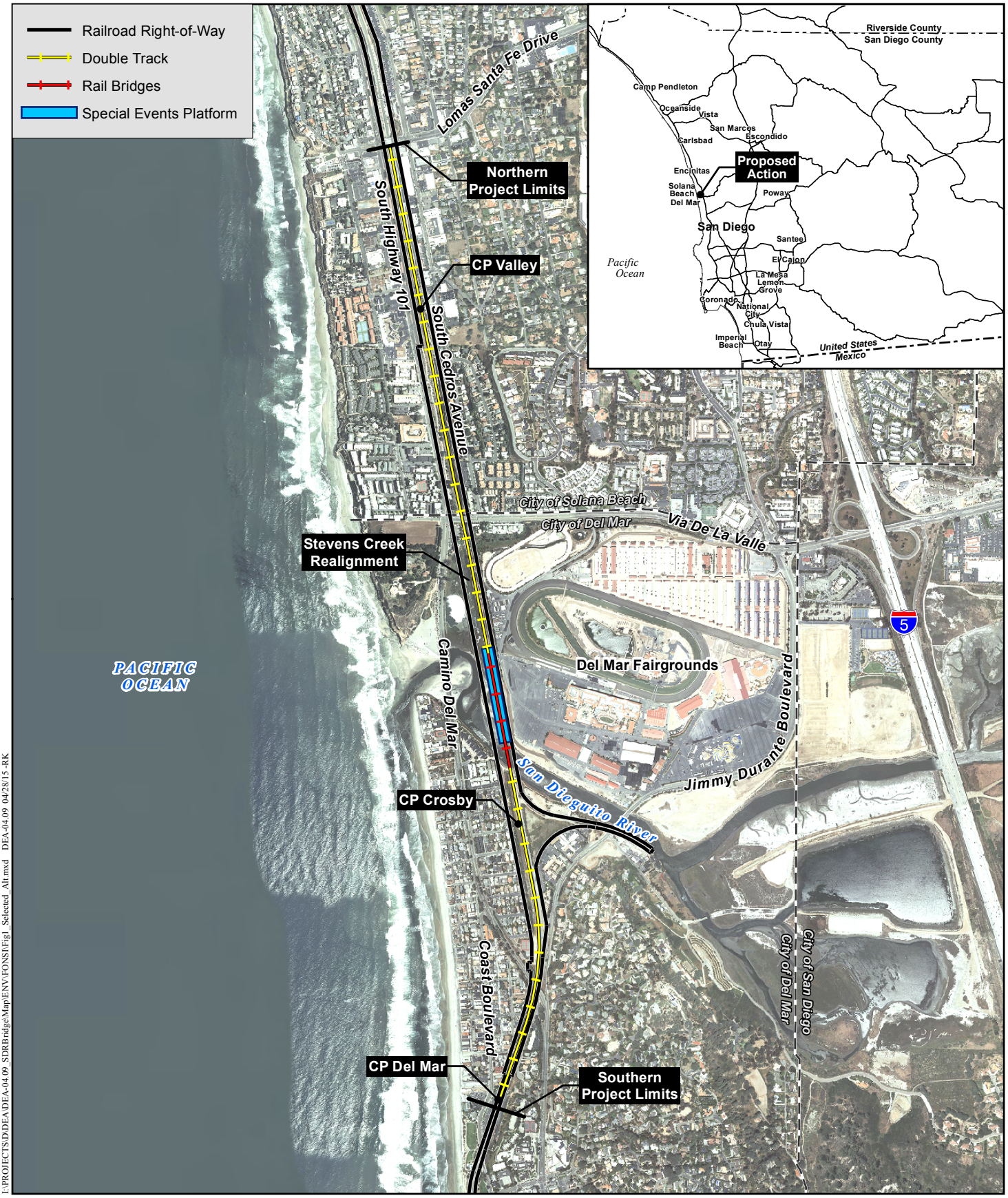
1.0 INTRODUCTION

The San Dieguito River Bridge Replacement, Double Track, and Del Mar Fairgrounds Special Events Platform Project (Proposed Action) involves the construction of rail improvements within portions of the cities of Solana Beach and Del Mar generally between mileposts 242 and 244 and would provide a direct passenger connection to the Del Mar Fairgrounds (Fairgrounds). As shown on Figure 1, *Proposed Action*, the Proposed Action site extends approximately 2.1 miles along the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor[1] between the rail undercrossing at Lomas Santa Fe Drive and Control Point (CP) Del Mar, just north of Coast Boulevard (project limits). Proposed rail improvements include: (1) construction of new double-track bridge structures over the San Dieguito River; (2) 2.1 miles of track improvements, including the addition of 1.7 miles of new double track; (3) a special events rail platform at the Del Mar Fairgrounds; and (4) other rail improvements and modifications within the project limits plus a new signal line that would extend south of CP Del Mar to reconnect an existing signal house just south of Coast Boulevard.

In 2009, the California Department of Transportation (Caltrans) and the Federal Railroad Administration (FRA) completed the Los Angeles to San Diego Proposed Rail Corridor Improvements Program Environmental Impact Report/Environmental Impact Statement (LOSSAN PEIR/EIS) to evaluate improvements to the Los Angeles to San Diego portion of the LOSSAN rail corridor. Double-tracking the LOSSAN Corridor within these project limits was identified as proposed rail improvements of the preferred alternative. FRA funded the preparation of the Preliminary Engineering and Tier 2 Environmental Assessment (EA) to analyze and document whether the Proposed Action would have any significant effects on the quality of the natural and human environments. At present, FRA has not approved or committed any funding for Project construction. The final version of the EA is available to the public on FRA's website at: http://www.fra.dot.gov/eLib/Find.

FRA acted as the lead federal agency under the National Environmental Policy Act (42 U.S.C. § 4321 et seq.) and applicable regulations and agency guidance (40 CFR Parts 1500-1508; 64 FR 28545) (collectively, "NEPA") in the development of the EA. In completing the EA, FRA has satisfied the requirements of NEPA and other applicable environmental and historic review requirements, including Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" ("Executive Order 12898"), Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800) (collectively, "Section 106"), and Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303). This Finding of No Significant Impact (FONSI) is based on the information and analysis provided in the EA pursuant to NEPA.

[1] The LOSSAN Corridor is a 351-mile-long rail corridor, stretching from San Diego in the south, up the coast to Orange County, Los Angeles County, Ventura County, and Santa Barbara County to San Luis Obispo County.



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Proposed Action

SAN DIEGUITO RIVER BRIDGE, DOUBLE TRACK,
AND DEL MAR FAIRGROUNDS SPECIAL EVENTS PLATFORM PROJECT

Figure 1

2.0 PURPOSE AND NEED

2.1 Purpose of the Proposed Action

As stated in Section 2.2, *Purpose of the Proposed Action*, in the EA the purpose of the Proposed Action is to implement incremental rail improvements within the cities of Del Mar and Solana Beach as part of the overall LOSSAN Corridor-wide improvements called for in the LOSSAN PEIR/EIS to increase the reliability, operational flexibility, and capacity of the LOSSAN rail corridor in order to add passenger and freight rail service to meet future transportation demands. The environmental impacts associated with the larger LOSSAN Corridor-wide improvements were analyzed in the PEIR/PEIS. It is not the purpose of the Proposed Action to determine how other investments along the LOSSAN Corridor would be made or evaluated should federal funding be identified in the future. SANDAG would be required to meet all the appropriate environmental review requirements for other investments along the corridor and FRA would take appropriate action to comply with NEPA at that time, if required.

Goals and objectives of the Proposed Action in support of the purpose include:

- Increase the operational capabilities of the corridor in order to facilitate additional rail services and more efficient passenger and goods movements.
- Provide a direct passenger connection between the rail services and the Del Mar Fairgrounds.
- Minimize impacts to rail operations by incorporating bridge replacement design and phased track construction techniques that do not require existing tracks be taken out of service for periods of time greater than what is practical for the North County Transit District (NCTD) to maintain regular rail service.
- Develop cost-effective double tracking strategies that utilize current railroad criteria, including NCTD, American Railway Engineering and Maintenance-of-Way Association (AREMA), California Public Utilities Commission (CPUC), Southern California Regional Rail Authority (SCRRA), FRA, Federal Emergency Management Agency (FEMA) and the Burlington Northern Santa Fe Railway Co. (BNSF).
- Design alternatives that seek first to avoid or minimize environmental impacts (e.g., wetlands, community) and then to provide mitigation for those that are unavoidable.
- Design bridge structures that do not increase the floodway and floodplain water surface elevation per FEMA “No-Rise” requirements.

2.2 Need for the Proposed Action

Capacity and Demand

As discussed in detail in Section 2.3, *Need for the Proposed Action*, in the EA, the existing LOSSAN rail corridor within the Proposed Action area is double-tracked between CP Craven (north of the Solana Beach Station) and CP Valley, and siding track is located between CP Crosby and CP Del Mar. This leaves a 1.1-mile section of single track between CP Valley and CP Crosby. The existing single track in the Proposed Action area constrains the movement of trains by creating a bottleneck for trains traveling along the rail corridor resulting in delays and reducing the attractiveness of passenger rail as a travel mode choice. Elimination of this type of delay would provide for a more consistent operating schedule for trains, greatly increasing on-time performance and reliability, as well as the movement of people and goods through the San Diego County portion of the LOSSAN Corridor.

Currently, an average of approximately 50 trains per weekday pass through the project limits, with the total number incrementally increasing to 101 per day by the year 2030 (*Infrastructure Development Plan for the LOSSAN Rail Corridor in San Diego County* 2013). The existing rail infrastructure can reasonably support future passenger and freight operations through the year 2020, but would not achieve the projected future service levels for beyond the year 2020.

In addition, a direct passenger connection between the rail services and the Del Mar Fairgrounds is needed for special events such as the San Diego County Fair and Del Mar Thoroughbred Meets (horse races), thereby encouraging use of public transportation and decreasing traffic congestion on local roads and Interstate 5 (I-5) during times of peak demand. Direct rail access to the Del Mar Fairgrounds during special events would provide patrons an alternative mode of transportation to directly reach the Fairgrounds, which could potentially reduce local traffic congestion, as well as parking demands at the Fairgrounds.

Structural and Operational Deficiencies

The existing single-track timber rail bridge that spans the San Dieguito River was built in 1916. At nearly 100 years old, this rail bridge is nearing the end of its service life. The existing bridge abutment to the south extends into the main river channel creating an obstruction. This area is subject to scour and requires additional rock slope protection to prevent undermining of the bridge abutment.

The existing rail bridge is limited to a single track without the ability to add a second track. When two trains are approaching the bridge from opposite directions, a bottleneck is formed and as a result, freight trains must wait in a double-track section at either the Solana Beach Station or the Sorrento Valley Station further to the south prior to crossing the bridge. Eliminating the bottleneck would decrease or eliminate the need for idling trains.

In addition, the existing rail bridge and tracks south of the bridge are at risk to flooding during major storm events, as they are below the 100-year FEMA floodplain elevation.

3.0 PROPOSED ACTION DESCRIPTION AND ALTERNATIVES

3.1 Proposed Action Description

The Proposed Action is described in detail in Section 3.1, *Proposed Action Description, Location, and Surrounding Land Uses*, of the EA. The Proposed Action would construct rail improvements along an approximately 2.1-mile-long portion of the LOSSAN Corridor between the rail undercrossing at Lomas Santa Fe Drive to CP Del Mar, just north of Coast Boulevard. Proposed rail improvements include: (1) construction of new double-track bridge structures over the San Dieguito River; (2) 2.1 miles of track improvements, including the addition of 1.7 miles of new double track; (3) a special events rail platform at the Del Mar Fairgrounds; and (4) other rail improvements and modifications within the project limits plus a new signal line that would extend south of CP Del Mar to reconnect an existing signal house just south of Coast Boulevard. Each of these components of the Proposed Action is briefly described below.

(1) New Double-Track Bridge Structures over the San Dieguito River

The Proposed Action would replace the existing single-track bridge with two single-track rail bridges that would be approximately 1,650 feet long. The height of the new bridges would also be taller than the existing bridge by up to eight feet to allow for 100-year flood conditions. A new bridge and associated track improvements would be constructed above the 100-year water surface elevation (WSEL) to comply with FEMA's "No-Rise" requirement. The two new rail bridges would support the proposed new double track within the project limits. Additionally, the new bridge would remove over 400 feet of the existing railroad embankment within the area of the river.

The new bridges would be constructed to allow for a pedestrian (trail) undercrossing on the south side of the San Dieguito River. The pedestrian undercrossing would provide a legal grade-separated pedestrian crossing that currently does not exist at this location, and also would accommodate a future planned trail proposed by the San Dieguito River Park Joint Powers Authority (JPA). In order to build the pedestrian undercrossing and a portion of the drainage improvements south of the river, a small encroachment (0.05 acre) onto an adjacent City of Del Mar Public Works Yard would be required. Permission to grade from the City of Del Mar would need to be obtained for this work. No expansion of the railroad right-of-way (ROW) would be necessary.

(2) Track Improvements including 1.7 Miles of New Double Track

The Proposed Action would construct 2.1 miles of track improvements within the project limits, including replacement of the existing track between the rail undercrossing at Lomas Santa Fe Drive and CP Valley, construction of a new second track between CP Valley and CP Crosby,

and replacement of the existing track between CP Crosby and CP Del Mar. The new track would include concrete ties and continuously welded rail. A total distance of approximately 2.1 miles of track would be improved, of which approximately 1.7 miles would consist of new double track.

(3) Special Events Rail Platform

A special events rail platform would be constructed adjacent to the proposed bridge structures to provide direct access to the Del Mar Fairgrounds. The platform would extend south from the northerly bridge abutment for the new track bridges and would be 1,000 feet long in order to accommodate a 10-car special events train. Two platform configuration designs were considered: side-loading and center-loading platforms. Side-loading platforms would require a minimum 16-foot-wide platform on the west and east sides of the track alignment. The center-loading platform would be constructed between the two tracks and would require a minimum width of 35 feet. Access to the elevated platform(s) would be provided via stairs and ramps (compliant with the American with Disabilities Act) from the Del Mar Fairgrounds.

(4) Other Rail Improvements and Modifications

Other improvements and modifications within the rail corridor include changes to turnouts, signals, and signal houses; provision of new crossovers; construction of retaining walls; provision of maintenance access roads; and drainage improvements[2]. The Action Alternatives may also entail the relocation within the ROW of antennas that are subject to the jurisdiction of the Federal Communications Commission (FCC).

3.2 Proposed Action Alternatives

Based on physical and operational constraints, as well as environmental effects, land acquisition demands, and development costs, three action alternative alignments were developed for detailed analysis within the EA. The Action Alternatives are defined by (1) the location of the rail alignment within the railroad ROW that would span the San Dieguito River and (2) the configuration of the proposed special events platform. The Action Alternatives include:

- East Side-Loading Alternative,
- West Side-Loading Alternative, and
- East Center-Loading Alternative.

The No Action Alternative was also included, as required by NEPA. A brief description of each alternative analyzed within the EA follows.

For the purposes of describing the proposed improvements of the Action Alternatives, the project limits are comprised of the following three segments (from north to south; refer to Figure 1):

[2] A turnout allows a train to switch from one track to an adjacent track. A crossover is a pair of switches that connects two parallel rail tracks, allowing a train on one track to cross over to the other.

- Solana Beach Trench Segment: Lomas Santa Fe Drive rail undercrossing to Via de la Valle rail undercrossing.
- San Dieguito River and Lagoon Segment: Via de la Valle rail undercrossing to the southern San Dieguito River bridge abutment.
- South of San Dieguito River Segment: south of the San Dieguito River to CP Del Mar.

The following descriptions of the Action Alternatives are summarized from Section 3.2, *Proposed Action Alternatives*, of the EA.

East Side-Loading Alternative

The East Side-Loading Alternative would consist of a double-track rail alignment that would be shifted approximately 50 feet to the east when it crosses over the San Dieguito River on two single-track bridge structures. Side-loading platforms would be constructed on each side of the track bridges north of the river.

Solana Beach Trench Segment

The existing single track from CP Valley to the Via de la Valle rail undercrossing would be realigned to create a straighter alignment, and a second track would be constructed to the west that would connect to the existing second track that continues to the north to the Solana Beach Station. The new double-track section in this segment would require excavation of the existing slopes of the trench and construction of retaining walls. Additional proposed rail improvements within this segment include a new signal system, replacement of the existing signal house, relocation of storm drain facilities, removal of the existing high-speed turnout at CP Valley and replacement with a high-speed universal crossover, a new access road west of the tracks, reconstruction of the existing maintenance access road from Highway 101 and access road west of the tracks, and relocation of storm drain facilities.

San Dieguito River and Lagoon Segment

Beginning at the Via de la Valle rail undercrossing, the double-track alignment would shift to the east approximately 50 feet and cross the San Dieguito River on two new single-track bridge structures. The 1,000-foot-long, 16-foot-wide special events platforms would be constructed on each side of the double-track bridge beginning at the northerly abutment. The bridge and platform structures would be constructed within the railroad ROW. The access ramps for the easterly platform and the single common point of egress would encroach into Del Mar Fairgrounds property. The existing embankment north of the bridge would be widened to the east, which would also encroach onto the Fairgrounds property. Additionally, at the southerly bridge abutment, a small encroachment (0.05 acre) onto an adjacent City of Del Mar Public Works Yard would be required to accommodate a future planned trail proposed by the San Dieguito River Park JPA. This encroachment could be accomplished by a letter of permission to grade because the improvements within this area would be constructed as part of public facility requested by the City of Del Mar and the JPA.

This alternative also proposes to realign a portion of Stevens Creek, which currently runs parallel to the east side of the railroad track embankment and outfalls into the San Dieguito River. A portion of the creek would be filled and the creek would be realigned to flow under the railroad track embankment in a box culvert. A new low-flow channel would be excavated west of the railroad embankment to convey low flows to the lagoon west of the tracks.

Additional proposed rail improvements within this segment include a permanent access road parallel to the tracks to the east with access provided from the Del Mar Fairgrounds, new signals to control train movements, a new signal house on the east side of the tracks, and drainage improvements. In addition, a low-flow drainage channel would be constructed on the east side of the railroad ROW that would continue under the proposed rail bridges and into the river on the west. The existing protrusion and revetment at the southerly bridge abutment would be removed. The bank would be graded to provide a smooth shoreline and to decrease local scour. New revetment would be installed to protect the pedestrian path and bridge abutment.

South of San Dieguito River Segment

The double-track alignment would continue to the south from the new track bridges following a straight alignment. Following the previous segment, this segment would also be shifted east of the existing railway. The double-track alignment would continue on a curve to the west and converge as it approaches the existing double-track alignment at the Camino Del Mar undercrossing. The new double track would closely follow the existing alignment to CP Del Mar.

The existing access road parallel to the west side of the tracks would be reconstructed. A permanent track crossing would be constructed just north of Camino Del Mar to allow maintenance vehicles to access both sides of the track. Access roads along the west side of the ROW and access to the ROW from the wye (a generally triangular-shaped wetland area just south of the San Dieguito River to the east) and Jimmy Durante Boulevard also would be retained.

Other proposed rail improvements and/or modifications within this segment include retaining walls; a high-speed turnout at CP Del Mar; removal of the existing turnout, signal, and signal house at CP Crosby; a new signal system with a new signal house just north of CP Del Mar; and replacement of the existing underground signal system from CP Del Mar to an existing signal house just south of Coast Boulevard. Drainage improvements would include construction of a drainage channel on the east side of the tracks north and south of the wye, and construction of a concrete channel to collect runoff from the ROW.

West Side-Loading Alternative

Proposed improvements under the West Side-Loading Alternative would be the same as those described above for the East Side-Loading Alternative, except that the alignment would shift to the west instead of the east and Stevens Creek would not be realigned. Under the West Side-Loading Alternative, the track alignment would begin to shift to the west at the Via de la Valle rail undercrossing and cross the San Dieguito River on the two new single-track bridge

structures. The 1,000-foot-long special events platforms would be constructed on each side of the track bridges beginning at the northerly abutment. Due to the shift to the west, the existing embankment north of the bridge would be widened to the west, which would extend approximately 40 feet into the lagoon. Impacts to Stevens Creek would be necessary to allow access to remove the existing embankment. Other rail improvements under the West Side-Loading Alternative would be similar as those described above for the East Side-Loading Alternative.

East Center-Loading Alternative

Beginning at the Via de la Valle rail undercrossing, the track alignment for the East Center-Loading Alternative would shift to the east approximately 55 feet and cross the San Dieguito River on two new single-track bridge structures. A single 1,000-foot-long, 35-foot-wide special events platform would be constructed in between the two track bridge structures beginning at the northerly abutment. The existing embankment north of the new bridges would be widened to the east, which would also encroach onto the Fairgrounds property. Other rail improvements under the East Center-Loading Alternative would be similar as those described above for the Proposed Action.

No Action Alternative

The No Action Alternative is included and analyzed to provide a baseline for comparison with impacts from the action alternatives, and also to satisfy to federal requirements for analyzing "no action" under NEPA (40 CFR 1502.14(d)). Under the No Action Alternative, no improvements to the portion of the LOSSAN rail corridor within the project limits would occur.

3.3 Alternatives Considered but Not Carried Forward for Detailed Evaluation

Alternatives that were initially considered, but not carried forward for detailed evaluation in the EA include (1) a 750-foot-long special events platform, and (2) locating the special events platform further east, on the Fairgrounds property.

750-foot-long Special Events Platform

Under this alternative, a 750-foot-long special events platform would be constructed instead of the 1,000-foot-long platform proposed under the Proposed Action. This alternative would be feasible to construct, but it would not accommodate the planned special events trains, which may include up to 10 passenger cars plus engine(s), at the platform. Additionally, reducing the length of the platform would not avoid or minimize a substantial effect of the Proposed Action or either of the Action Alternatives. Accordingly, this alternative was not carried forward for detailed evaluation.

Special Events Platform Constructed on Fairgrounds Property

This alternative would include locating the special events platform on the existing Fairgrounds property to minimize impacts to waters of the U.S. and native habitat within San Dieguito Lagoon and Stevens Creek. An initial evaluation of this proposed platform location revealed

that it would not be feasible to construct the special events platform that far east because it would require sharp curves in the alignment in order to shift the track. The necessary curves would cause a reduction in operating speeds in order to achieve the minimum required clearances at the Via de la Valle undercrossing. This alternative was therefore not carried forward for detailed evaluation.

3.4 Selected Alternative

After careful consideration of the environmental analysis and associated environmental effects of the Action Alternatives and No Action Alternative and Project's purpose and need, FRA identified the East Side-Loading Alternative as the Preferred Alternative. The East Side-Loading Alternative would result in fewer environmental impacts, primarily those to biological resources. FRA finds that the East Side-Loading Alternative would best achieve the Proposed Action's purpose and need with the least number of environmental effects, and is thus the Selected Alternative.

4.0 SUMMARY OF ENVIRONMENTAL EFFECTS

Based on the analysis contained in the EA, included by reference with its appendices in this FONSI in its entirety, FRA has concluded that the Selected Alternative (East Side-Loading Alternative), including the proposed mitigation measures for adverse impacts, would have no foreseeable significant impact on the quality of the natural and human environments. Environmental effects of the Selected Alternative are summarized in this section.

4.1 Air Quality

As discussed below, air quality impacts associated with criteria pollutants, greenhouse gases (GHGs), and Mobile Source Air Toxics (MSAT) emissions would not be adverse under the Selected Alternative.

General Conformity (Criteria Pollutants) During Construction

Emissions during each construction year of the East Side-Loading Alternative are projected to be below the *de minimis* limits for nonattainment and maintenance criteria pollutants in each of the three years, and would not exceed 10 percent of the San Diego Air Basin (SDAB) inventory. Therefore, no significant adverse effects would occur associated with construction of the Selected Alternative.

Greenhouse Gases During Construction

GHG emissions during each year of construction of the Selected Alternative are anticipated to be below 25,000-metric tons per year (tpy) of CO_2e, and no adverse effects would occur during the three years of construction.

Mobile Source Air Toxics Emissions During Construction

MSAT emissions would be emitted from heavy-duty equipment during construction. Because the construction-related emissions of diesel exhaust would occur for up to three years, well

below the exposure threshold of 24 hours per day, seven days per week, 365 days per year for 70 years, construction activities would not result in long-term chronic lifetime exposure to diesel exhaust from heavy-duty diesel equipment. Therefore, air quality impacts related to exposure of sensitive receptors to substantial MSAT concentrations associated with construction under the Selected Alternative would not be adverse.

Operational Impacts

Operation of the Selected Alternative employs system enhancements that would result in some beneficial reductions in emissions in localized areas by decreasing rail congestion and locomotive idling time along the corridor. The Selected Alternative would also help reduce future traffic levels and shuttle bus use associated with events at the Del Mar Fairgrounds, including the racing meets and San Diego County Fair. Implementation of the Selected Alternative would not result in an increase in criteria pollutants for which the SDAB is currently designated as a maintenance area or non-attainment under federal National Ambient Air Quality Standards (NAAQS). The reduction in vehicle emissions from carbon monoxide (CO) and locomotive emissions of nitrogen oxides (NOx), an ozone precursor under the Selected Alternative's would result in net reduction in CO and NO_X emissions and therefore be in a beneficial impact. In addition, the Selected Alternative's regional operational emissions are consistent with general conformity requirements.

Finding

Operation of the Selected Alternative would result in beneficial long-term impacts to air quality. FRA finds that the Selected Alternative would not result in any significant impacts to air quality or GHG emissions.

4.2 Water Quality

As discussed below, water quality impacts associated with construction (i.e., erosion/ sedimentation, construction-related hazardous materials [e.g., fuels, etc.], demolition-related debris generation, and disposal of extracted groundwater [if required]) and operation and maintenance (i.e., generation of urban contaminants from sources including rail operations [e.g., metals and oil and grease, trains], use of the special events platform [e.g., trash and debris generation], and embankment revegetation [e.g., sediment and oxygen demanding materials, such as plant debris]) would not be significant under the Selected Alternative.

Short-term Construction Impacts

All construction activities would be subject to a National Pollutant Discharge Elimination System (NPDES) Construction General Permit. Any construction-related potential water quality impacts from the Selected Alternative would be avoided or minimized by conforming with the conditions of the NPDES permit. In addition, specific conformance requirements include implementing a Storm Water Pollution Prevention Plan (SWPPP), an associated Construction Site Monitoring Program (CSMP), employee training, and minimum Best Management Practices (BMPs). Implementation of construction BMPs would minimize or avoid construction-related water quality impacts.

Long-term Operation and Maintenance Impacts

Potential long-term erosion and sedimentation impacts are considered minor, based on the fact that developed areas would be stabilized through the installation of structures (such as rail facilities, access roads, and associated storm drain systems) and compaction/ revegetation of embankments and other applicable areas. It should also be noted that the existing treatment BMP facilities and activities at the Del Mar Fairgrounds would not be affected by implementation of the Selected Alternative. Any minor long term water quality impacts would be avoided or minimized through conformance with the NPDES Phase II Permit and implementation of required BMPs.

Finding

FRA finds that the Selected Alternative would not result in significant impacts related to water quality.

4.3 Noise and Vibration

Construction of the Selected Alternative would generate noise and vibration at or above levels established by the FTA as being likely to cause an adverse community reaction (i.e., at some points during the approximately three-year construction period, construction noise levels would be annoyingly loud, and vibration annoyingly noticeable, to some residents near the tracks). However, as discussed below, noise and vibration impacts associated with construction and operation of the Selected Alternative would not be significant.

Construction-related Noise

Residents located west of the railroad tracks to the south of the San Dieguito River would likely experience an adverse noise impact during construction of the new bridges over the San Dieguito River, especially during the pile-driving stage of construction. Similarly, residences east of the tracks just south of Via de la Valle would experience an adverse noise impact during pile driving associated with the realignment of Stevens Creek under the railroad embankment in that area. Additionally, nighttime construction activities associated with construction of the double track could result in adverse impacts to residences along the project limits. However, as described in the EA, these adverse impacts are not significant under NEPA because of the limited number of residences affected, the temporary duration of the loudest generator of noise impacts (i.e., pile driving), and the limited amount of nighttime construction that would occur. The Project proponent has committed to implementing certain avoidance, minimization, and mitigation measures that could be used to reduce construction noise described further in Section 7.0*, Environmental Commitments*.

Construction-related Vibration

One of the potential sources of vibration impacts is associated with the vibratory roller used during construction. At the closest residence, the vibration level is expected to be 69 vibration velocity decibels (VdB), which is below the 80 VdB threshold for infrequent events, which is the appropriate threshold since as vibratory rollers do not pass by the same location more than a

few times a day. Therefore because the vibration resulting from the vibratory roller will not exceed the threshold at the nearest residence, no adverse impacts would occur. The greatest construction vibration effects associated with bridge and platform construction would be caused by a vibratory pile driver. The maximum vibration level of the vibratory pile driver at the nearest residence would be 79 VdB, which is above the 72 VdB threshold for frequent events, which is the appropriate threshold as this pile driver would have many events in a given period. This would result in potentially adverse construction vibration levels to approximately 13 single-family residences and a multi-family building. Supports for the Stevens Creek culvert would also be installed using a vibratory pile driver, which would result in a maximum level of 73 VdB. This level is above the 72 VdB criterion, and therefore impacts to nearby residences would be adverse. However, even though the impacts are likely to be adverse, similar to noise impacts, the adverse vibration impacts are not significant under NEPA because of the limited number of residences affected and the temporary duration of anticipated vibration. The Project proponent has committed to implementing certain avoidance, minimization, and mitigation measures that could be used to reduce construction noise described further in Section 7.0*, Environmental Commitments*.

Operational Noise

Following the completion of construction, the continuing increase in train operation levels, coupled with the new alignment of the railroad tracks, would generate noise level increases of approximately one decibel (dBA) at some residences along the railroad tracks. More specifically, south of the Camino Del Mar overcrossing and east of the tracks along Grand Avenue, this one-dBA increase would affect approximately a dozen single-family homes and one multi-family building. Noise levels would also increase by one dBA at two single-family homes on the east side of the tracks, north of the Camino Del Mar overcrossing and east of Jimmy Durante Boulevard. A one-dBA increase at residences compared to the No Action Alternative is near the FTA's threshold between "No Impact" and "Moderate Impact." This approximately one-dBA increase would not constitute a significant impact under NEPA because of the relatively low number of residences affected and because a one-dBA increase, which is barely perceptible to the average person, is at the lowest end of the range for a "Moderate Impact."

Noise associated with operations of the special events platform would not result in adverse impacts. The FTA screening distance for a train passenger platform is 200 feet for an adverse noise impact, and the closest residences to the proposed platform would be approximately 435 feet away (south of the platform, across the San Dieguito River). Regardless, additional analysis was conducted to assess potential noise impacts resulting from noise generated by patrons using the proposed rail platforms. The modeled noise level at the nearest residence would be 47 dBA, which is below the 50 dBA threshold. Accordingly, this noise level would not be considered an impact pursuant to FTA guidance.

Operational Vibration

The Selected Alternative would result in increases in ground-borne vibration following construction. However, the resulting vibration levels would remain below the FTA's ground-borne vibration impact criterion (72 VdB for frequent events). Therefore, operational vibration impacts would not be considered adverse.

Finding

FRA finds that the Selected Alternative would not result in significant noise or vibration impacts. Although not required to mitigate significant impacts, the Project Proponent has committed to implement the additional measures identified in Section 7.0.

4.4 Biological Resources

As discussed below, the Selected Alternative would result in short-term temporary, long-term temporary, and permanent impacts to vegetation communities and potential jurisdictional areas within the project area. The Selected Alternative, however, would not result in direct impacts to federally listed species. The increase in human activity and temporary nighttime lighting would also potentially result in adverse indirect impacts to biological resources. However, no significant impacts would occur to biological resources with implementation of the avoidance, minimization, and mitigation measures identified in Section 7.0, *Environmental Commitments*, of this FONSI.

Sensitive Vegetation Communities

Construction of the Selected Alternative would result in impacts to 6.01 net acres of sensitive vegetation communities/habitats, including 1.44 acres of short-term temporary impacts, 1.99 acres of long-term temporary impacts, and 2.58 acres of permanent impacts (refer to Section 4.5, *Biological Resources*, of the EA for additional details). Temporary impacts to sensitive vegetation communities would be mitigated through a combination of on-site re-establishment, off-site enhancement and/or preservation, and off-site establishment or re-establishment. Permanent impacts would be mitigated through off-site enhancement and/or preservation, and/or off-site establishment or re-establishment, as identified in Section 7.0, *Environmental Commitments*. In addition, as part of the Selected Alternative, 0.04 acre of Arundo-dominated riparian, 0.7 acre of Diegan coastal sage scrub, 0.07 acre of non-native vegetation, 0.3 acre of disturbed habitat, and 0.2 acre of urban/developed would be converted to 1.31 acres of southern coastal salt marsh. This conversion of Arundo-dominated riparian, non-native vegetation, disturbed habitat, and urban/developed to southern coastal salt marsh would be a beneficial effect of this alternative, and no mitigation for the loss of these vegetation communities/habitat types would be required. As such, the Selected Alternative would not result in significant impacts to sensitive vegetation communities.

Potential Jurisdictional Areas

The Selected Alternative would result in impacts to potential federally regulated waters of the U.S. under the jurisdiction of the United States Army Corps of Engineers (USACE) and coastal wetlands under the jurisdiction of the California Coastal Commission (CCC). Specifically, the

Selected Alternative would impact 3.22 net acres of potential USACE jurisdictional areas, including 1.28 acres of short-term temporary impacts, 1.94 acres of long-term temporary impacts, and 0.44 net acres of permanent impacts. Additionally, this alternative would impact 4.36 net acres of CCC coastal wetlands, including 1.42 acres of short-term temporary impacts, 1.96 acres of long-term temporary impacts, and 0.98 net acres of permanent impacts. The Selected Alternative is subject to the California Coastal Act of 1976, as amended (CCA). Refer to Section 4.8, *Land Use*, of this FONSI for a discussion of the Selected Alternative's compliance with the CCA. A permanent loss of waters of the U.S. or coastal wetlands would be considered an adverse impact. However, implementation of the biological resources avoidance, minimization, and mitigation measures identified in Section 7.0, *Environmental Commitments*, would ensure that no net loss of jurisdictional functions and values would occur. In addition, as stated above, the project would provide a beneficial conversion of 0.04 acre of Arundo-dominated riparian, 0.7 acre of Diegan coastal sage scrub, 0.07 acre of non-native vegetation, 0.3 acre of disturbed habitat, and 0.2 acre of urban/developed to 1.31 acres of jurisdictional southern coastal salt marsh. As such, the Selected Alternative would not result in significant impacts to potential jurisdictional areas.

Federally Listed Endangered Species

As described in the EA, the Selected Alternative would not result in direct impacts to federally listed endangered species, including the western snowy plover and California least tern.

Indirect Effects

Potential indirect effects from the Selected Alternative to biological resources include those that may result from increased human activity and increased nighttime lighting. Increases in human activity in an area may result in degradation of sensitive vegetation communities/habitat types through mere human presence and through human activity associated with construction (i.e., noise, movement of construction equipment, removal of vegetation [causing habitat fragmentation], etc.). The Selected Alternative would, however, occur along an existing, active rail corridor that already fragments habitat. Nonetheless, there would be an increase in human activity within the corridor during construction, and much of that would be within or adjacent to the sensitive San Dieguito Lagoon and River environment. Following construction, there would be potential for adverse impacts to sensitive vegetation communities/habitats from litter associated with the use of the special events rail platform and ramps at the Del Mar Fairgrounds. Therefore, the increase in human activity would potentially result in adverse indirect impacts to biological resources. In addition, it is expected that nighttime lighting would occur during construction of the Selected Alternative. Nighttime lighting during construction could introduce a concentrated amount of light in adjacent habitat areas. Accordingly, indirect effects associated with nighttime lighting could potentially be adverse. Potential indirect impacts would be addressed by the avoidance, minimization, and mitigation identified in Section 7.0, *Environmental Commitments*, of this FONSI.

Finding

FRA finds that the Selected Alternative would have no adverse effect on threatened or endangered species and no significant impacts to biological resources would occur with implementation of the avoidance, minimization, and mitigation measures identified in Section 7.0, *Environmental Commitments*. SANDAG has committed to addressing indirect affects by the avoidance, minimization, and mitigation identified in Section 7.0, *Environmental Commitments*, of this FONSI.

4.5 Hydrology and Floodplain

As discussed below, impacts related to hydrology and floodplain during construction (i.e., drainage alteration are associated with excavation, grading and construction of proposed facilities and groundwater extraction/disposal [dewatering]) and operation (i.e., long-term drainage alteration, generation of increased runoff rates and amounts from construction of new impervious surfaces [with corresponding effects related to storm drain capacity, associated flooding and erosion], hydromodification, floodplain hazards [such as floodplain encroachment/modification and related flood hazards], scour, and sea level rise).

Drainage Alteration During Construction

Implementation of the Selected Alternative would result in a number of alterations to existing local drainage patterns associated with the construction of proposed facilities, addition or modification of storm drain facilities, and the proposed relocation of Stevens Creek. None of these activities would result in significant impacts to local drainage patterns or directions because the Selected Alternative has been designed to maintain overall drainage patterns.

Groundwater Extraction/Disposal

Shallow groundwater is anticipated to be encountered during construction of the Selected Alternative. The presence of shallow groundwater in proposed development areas may necessitate extraction and disposal (dewatering) operations to facilitate excavation and grading. Potential impacts to local groundwater resources from dewatering operations would be minor and, if required, dewatering would also be subject to applicable NPDES requirements. Impacts would not be significant.

Drainage Alteration During Operation

While changes to local drainage patterns would occur as a result of (and during) proposed construction, they would be long-term (permanent) in duration and would thus also be associated with the operational phase of the project. However, similar to the impacts resulting from drainage alternative during construction, these impacts would not be significant. No additional drainage alteration would occur during project operation, and no substantial operational impacts to drainage alteration would result from implementation of the Selected Alternative.

Runoff Rates and Amounts

Implementation of the Selected Alternative would result in a slight increase of impervious surface area, with a corresponding minor increase in post-development runoff rates and amounts. Specifically, such effects would be limited through proposed design measures to limit new impervious surfaces, including the use of pervious materials for applicable structures (e.g., track bed improvements and access/maintenance roads) and provision of unlined channels where feasible. As a result, new impervious surfaces would be limited to an area of approximately one acre associated predominantly with the special events platform. The overall increase associated 100-year storm flow within the alignment would increase by approximately 2.1 cubic feet per second (including local increases and decreases within the described drainage basins), with virtually all of this additional runoff draining directly into the San Dieguito River and Lagoon from the platform (and therefore not adversely affecting storm drain capacity, associated flooding potential, or erosion hazards). In comparison, the Wye exhibits an excess capacity of approximately 500,000 cubic feet during a 100-year storm, so the proposed increase in a 100-year storm flow would be nominal. The proposed design would also include energy dissipation structures (e.g., riprap aprons) at applicable outlet locations to regulate runoff rates and provide erosion control.

Hydromodification

Based on the nature of the proposed design under the Selected Alternative, the Drainage Study/ Storm Water Management Plan (SWMP) concludes that: "The project does not increase the unmitigated peak flow to any outlet…This project is therefore considered exempt from the Hydromodification Management Plan (HMP) requirements." No impacts associated with hydromodification would occur.

Floodplain Hazards

The proposed realignment of Stevens Creek would not change the flow characteristics for a 5- or 10-year storm event (with no associated increase in water surface elevations or lateral extent of the floodplain), and would not increase the potential for upstream flooding during 50- and 100-year storm events. Stevens Creek has no net sediment contribution to the San Dieguito River under existing conditions and the Selected Alternative. As a result, no significant impacts related to sediment loading in the San Dieguito River or areas west of the alignment are anticipated from the realigned Stevens Creek.

In comparison to the existing bridge, the proposed new rail bridge would provide longer spans over the San Dieguito River with fewer impediments to flows. The proposed bridge would pass the 50- and 100-year flood flows without overtopping, and would provide adequate freeboard (two feet or more) to accommodate the passage of drift (debris) for a 50-year storm event. The proposed bridge also would not raise the 50- or 100-year floodplain water surface elevations above existing floodplain levels or result in any adverse flooding effects to neighboring properties.

Scour

At the proposed railroad bridge, the maximum 100-year storm velocity for the Selected Alternative would be the same as for the existing railroad bridge (10 feet per second [fps]), while the minimum elevation reached by scour would be minus 12.6 feet mean sea level (MSL), compared to minus 13.3 feet MSL for the existing bridge (a reduction in scour depth of 0.7 foot). Accordingly, no adverse impact would occur.

Sea Level Rise

Based on the location of the proposed railroad bridge near the coast, the potential future rise in sea level was assessed for related effects to bridge hydraulics and scour. The analysis assumed sea level increases of approximately 16 inches by 2050 and 55 inches by 2100, based on modeling conducted by the California State Coastal Conservancy. It was concluded that the bridge hydraulics based on the HEC-RAS model are not affected by the long-term sea level rise. With respect to related scour effects, the hydrologic/hydraulic analysis notes that a rise in sea level would generally be expected to lower flow velocities, and therefore would "…reduce the channel bed scour at the bridge crossings." From the described assessments, no adverse effects to bridge hydraulics or scour would result from sea level rise.

Finding

FRA finds that the Selected Alternative would not result in significant impacts to hydrology or floodplain.

4.6 Energy

As discussed below, energy impacts related to construction and operation of the Selected Alternative would not be significant, but rather, overall beneficial with regards to energy consumption.

Construction

Construction of the Selected Alternative would require a short-term increase in energy use, primarily associated with fuel consumption for construction equipment. Energy usage during construction would be minimized with implementation of the avoidance and minimizations measures identified in Section 7.0, *Environmental Commitments*, in this FONSI.

Operation

While post-construction operational energy use would require the continued use of diesel fuel to operate trains, and other energy (i.e., electricity) to operate other proposed improvements, the addition of the proposed double track would reduce idling of trains forced to stop on the existing single track; therefore, the Selected Alternative could result in decreased idling and associated fuel consumption. Lighting of the proposed rail platform, however, would result in a slight increase in electricity usage.

The proposed special events platform would potentially result in fewer automotive vehicle trips to the Del Mar Fairgrounds, thereby reducing gasoline consumption associated with such

vehicle trips. Annual events at the Fairgrounds, including the San Diego County Fair and Del Mar Thoroughbred Meets, result in traffic congestion that entails idling associated with long waits to access the Fairgrounds; therefore, operation of the special events platform would reduce the amount of automotive traffic and idling, thereby also reducing gasoline consumption. Operations of the Selected Alternative would be beneficial with regards to energy consumption.

Finding
FRA finds that the Selected Alternative would not result in significant energy impacts.

4.7 Aesthetics

As discussed below, the Selected Alternative would not result in significant temporary (construction-related) or permanent impacts associated with aesthetics.

Temporary Impacts
Construction activities would contrast with existing conditions, and may include exposed soil, stockpiled dirt, debris from demolished structures, scaffolding, temporary barriers, and heavy construction equipment. Additional erosion control, storm water management practices, and vegetation removal/re-establishment also may introduce visual elements, such as gravel bags, fiber rolls, silt fences, and irrigation lines. In addition, the required equipment staging areas may be visible. While they would result in changes to visual environment, the visual impacts caused by construction would be temporary in nature. Visual disruptions would be removed upon completion of the construction period for each phase. No associated adverse visual impacts would occur during construction.

Permanent Impacts
Implementation of the Selected Alternative would result in a project that would be substantially similar in many ways to the existing condition. Although the double tracking would add 1.7 miles of additional track with up to 1,650 feet supported by new elevated structures, and the rail and track bed would be up to eight feet higher in elevation at places, the new structure color and form would have less contrast with background views. Additionally, the concrete supports of the new rail bridge would be wider spaced and parallel to each other, resulting in a more visually open overall structure compared to the existing wood structure.

Pole-mounted lighting, railings, and the stairs/ramps associated with the special events platform would introduce new visual features with a moderate visual impact. However, the visual impacts could be minimized by incorporation of architectural detailing and enhanced design features such as non-reflective paint colors similar to the background colors for the pole-mounted lights. Although not required to avoid an adverse visual impact, SANDAG would incorporate architectural design elements into the design of the proposed rail bridges, rail platforms, and retaining walls. Such design measures are identified minimization measures in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

In addition to a new double-track rail bridge and rail platform, the Selected Alternative would construct approximately 2.1 miles of track improvements within the Project limits. Track improvements would include the replacement of existing track and addition of a second track. Such improvements would not substantially change the existing visual character or quality of the Selected Alternative area because railroad tracks are very low profile visual elements that are more or less surface improvements, and track improvements would occur within in an existing railroad corridor where tracks already occur. Similarly, other rail facilities, including turnouts, signals, signal houses, crossovers, and access roads, already occur along the rail corridor and the replacement, relocation, or provision of additional rail features with similar types would not substantially change the visual character or quality of the visual environment. The Selected Alternative would also construct drainage channels parallel to the railroad tracks, but these drainage channels would be visually compatible with the existing visual environment, particularly because other linear drainage and water courses are located in the immediate vicinity.

The Selected Alternative would require relatively large amounts of grading to accommodate the proposed double track and new rail bridge, resulting in trenches, fill slopes (i.e., berms), and retaining walls. The retaining walls in the northern portion of the Project site would not be highly visible from surrounding areas because they would be below grade within the trench. Most views of the walls would be blocked due to the below grade location and intervening structures and vegetation. The retaining walls in the southern portion of the Project site would be up to 14 feet high and would be visible from surrounding roadways, notably from Jimmy Durante Boulevard and Grand Avenue. While they would represent new visual features along the railroad corridor, they would not substantially contrast with existing visual elements because they would be constructed in a developed area with similar materials, colors, and surfaces. The proposed berms would be similar in height to the existing berm, and would be revegetated with native species following construction. As a result, the change in landforms within this portion of the Selected Alternative site would not be noticeably different than the existing condition. Consequently, no adverse visual impacts related to landform alteration would occur.

Finding

FRA finds that the Selected Alternative would not result in significant visual impacts.

4.8 Land Use

As discussed below, the Selected Alternative would not result in significant impacts to existing and planned land use; would be consistent with State, regional, and local plans and the CCA; and would not adversely impact parks or recreational facilities.

Existing and Planned Land Use

The proposed improvements overall would be compatible with existing and planned land uses and zoning designations. Improvements would occur along an existing, active railway and although minor encroachments would occur outside of the ROW, such encroachments would occur to existing land uses that are already adjacent to the railway. Specifically, some improvements would encroach within: (1) portions of the Del Mar Fairgrounds due to

construction staging, the special events platform, realigned Stevens Creek, and the rail embankment; and (2) a small portion of a parcel containing a parking/storage area of the City of Del Mar Public Works Yard located just south of the San Dieguito River on the east side of the railway bridge to accommodate a future planned trail proposed by the San Dieguito River Park JPA. This encroachment could be accomplished by a letter of permission to grade from the Del Mar Fairground and the City of Del Mar. In addition, no new land uses would be introduced. Temporary and permanent use areas would not preclude development of planned land uses, nor would they conflict with applicable land use and/or zoning designations.

Consistency with State, Regional, and Local Plans

The Selected Alternative would be consistent with State, regional, and local land use plans, including the North County Multiple Habitat Conservation Program, Multiple Species Conservation Program, City of Del Mar Community Plan, City of Solana Beach General Plan, Del Mar Fairgrounds Master Plan, and San Dieguito River Park Concept Plan.

Coastal Zone

The Selected Alternative is located entirely within the California coastal zone, as established by the CCA and therefore, has the potential to affect coastal resources protected by the Coastal Zone Management Act of 1972 (CZMA). The Selected Alternative would not result in adverse impacts related to public access, recreation, the marine environment, land resources, development, or industrial development within the coastal zone. Although the Selected Alternative's impacts to coastal wetlands would not be considered an allowable use under the CCA, by not constructing the Selected Alternative, impacts on public access, air quality, and energy conservation would be inconsistent with other policies listed in Chapter 3 of the CCA, and would be more adverse than the Selected Alternative's wetland habitat impacts (as mitigated). Using the "conflict resolution" provision of Section 30007.5 of the CCA, it is concluded that the Selected Alternative would, on balance, be most protective of coastal resources. CCC concurred with this conclusion in a letter to Rob Rundle, Principal Regional Planner, SANDAG dated January 15, 2015. Therefore, the Selected Alternative is, on balance, consistent with the enforceable policies of Chapter 3 of the CCA.

Parks and Recreational Facilities

The Selected Alternative would not adversely impact parks or recreational facilities in the vicinity. As discussed above, the Selected Alternative would encroach onto the Del Mar Fairgrounds, but such encroachments would not negatively affect access to, or use of, the Fairgrounds; instead, this impact would create a new seasonal access point to the Fairgrounds.

Finding

FRA finds that the Selected Alternative would not result in significant land use impacts.

4.9 Socioeconomics

As discussed below, the Selected Alternative would not have a significant impact related to (1) community character, cohesion, commerce, and access; (2) property acquisition and relocation;

or (3) environmental health and safety risks to children. The Selected Alternative would not result in any disproportionately adverse impacts to low-income or minority populations.

Community Character, Community Cohesion, Commerce, and Access

Community aspects evaluated to determine socioeconomic impacts include community character, cohesion, commerce, and access.

While some improvements would extend outside of the ROW, including (1) platform ramps and stairs to the Del Mar Fairgrounds, (2) some grading and drainage improvements within the Fairgrounds, and (3) the proposed realignment of Stevens Creek, no ROW acquisition would occur because easements and/or maintenance agreements would be obtained in coordination with the property owners. In addition, the width of the rail ROW would not increase. None of the proposed improvements would change existing land uses, introduce new or create greater physical barriers within the community, or further impede access to community facilities or businesses. Thus, the Selected Alternative would not disrupt or divide existing neighborhoods and would not further divide the established community beyond the existing condition.

The character of the Selected Alternative area would not change upon implementation of the Selected Alternative because the proposed rail improvements would occur within an existing, active railroad corridor and would not change land uses. The replacement, relocation, or provision of additional rail features with similar types would be compatible with the existing character.

The Selected Alternative would not displace any businesses or eliminate jobs in the community. Construction of the Selected Alternative would generate construction-related jobs during the approximately three-year construction period. These jobs are expected to be filled by the general labor pool within San Diego County. The proposed improvements also would provide a direct connection to the Fairgrounds, which could benefit local and regional commerce, particularly for events held at the Fairgrounds. Additionally, the proposed rail improvements are intended to increase the reliability and capacity of the LOSSAN rail corridor in order to facilitate additional passenger and freight rail services resulting in more efficient movement of people and goods, which could foster the local and/or regional economies.

The Selected Alternative would provide a more convenient rail connection to the Fairgrounds. Currently, there is no direct passenger connection between the rail services and the Fairgrounds. Rail passengers must use the Solana Beach Station, approximately one mile to the north, and transfer to a shuttle bus or taxi (or take a long walk) to reach the Fairgrounds. Access ramps at the special events platform, compliant with the ADA standards, would provide equal access for all, including elderly and handicapped rail patrons, between the railroad and Fairgrounds. This direct connection would have a beneficial effect on the community because it would provide an alternative mode of transportation to directly reach the Fairgrounds, thereby improving access and connectivity between the community and this major activity center.

The Selected Alternative would not impede public access to, or impact the continued use of, other community or recreational facilities. Local businesses would not be impacted because the proposed improvements would occur mostly within the railroad ROW. Proposed improvements that would extend outside of the ROW (as identified above) would not impede access to local businesses during or after the construction period. Additionally, the Selected Alternative would not result in property acquisitions, displace any businesses or residents, or eliminate jobs in the community.

Property Acquisition and Relocations

As stated above, the Selected Alternative would not result in property acquisitions or require residential or business relocations. Although some proposed improvements would encroach onto adjacent properties outside of the railroad ROW, easements and/or maintenance agreements would be obtained in coordination with the property owners.

Environmental Justice and Environmental Health and Safety Risks to Children

The population within the study area is predominately white and has a much higher income distribution than the region as a whole. As described in Section 4.10 of the EA, no minority or low income populations were identified within the Selected Alternative area. Therefore the Selected Alternative would not disproportionately affect minority or low-income populations.

The closest school is located approximately 0.5 mile away from the project limits. This is considered too far away for there to be substantial environmental health and safety risks to children from localized construction or operational impacts. There are existing residences in the vicinity of the Selected Alternative where children likely reside. However, construction of the proposed improvements as well as the increase in commuter and freight rail activity contemplated as part of the Selected Alternative would have a negligible effect on potentially hazardous air emissions in the vicinity of nearby homes and schools along the rail corridor. Therefore, no adverse impacts related to environmental health and safety risks to children would occur.

Finding

FRA finds that the Selected Alternative would not result in significant impacts related to socioeconomics.

4.10 Section 4(f) and 6(f) Resources

As discussed below, the Selected Alternative would not result in a significant impact to Section 4(f) resources. Additionally, impacts would not occur to Section 6(f) resources.

Several Section 4(f) resources are located between 60 and 3,000 feet away from the Selected Alternative site No Section 4(f) resource would be permanently incorporated into the Selected

Alternative.[3] In addition as described in the EA, the Selected Alternative would not substantially impair any activities, features, or attributes of the nearby 4(f) resources and would not cause a constructive use of any of the 4(f) resources due to proximity impacts. Therefore, no 4(f) resources would be impacted, and the Selected Alternative would not result in a permanent or temporary use of any 4(f) resource.

Similarly, no Section 6(f) resources would be impacted by the Selected Alternative.

Finding
FRA finds that there is no use of 4(f) resources; and that therefore, no uses to Section 4(f) resources would occur. Additionally, no impacts to Section 6(f) resources would occur.

4.11 Public and Health Safety

As discussed below, the Selected Alternative would not result in significant public health and safety impacts during construction (including exposure to recognized environmental conditions [RECs] from nearby properties of potential environmental concern, former land use, current land use, hazardous building materials, and construction materials) or operation (including hazardous waste/materials being transported along this corridor).

Construction Impacts
The potential for encountering soil and/or groundwater contamination within the project limits from these RECs is anticipated to be low because listed facilities of potential environmental concern within the Selected Alternative area that have had documented cases of unauthorized releases of hazardous materials or waste have been closed and are not located in close proximity.

Areas generally north of Via de la Valle and adjacent to the railroad, as well as south of the San Dieguito River generally within the vicinity of the Selected Alternative, were previously used for agricultural purposes. It is possible that pesticides, herbicides, and/or fertilizers were applied to soils and/or stored in this area. Storage and application of such substances causes a potential environmental concern associated with on-site soils. Although the land that contained former agricultural uses appears to have been out of agricultural production for several decades, there is still a potential for soils to be contaminated. Contaminated soil encountered associated with temporary (construction-related) excavations could result in potential safety impacts for construction personnel. Potential impacts would be addressed by the avoidance and minimization measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

[3] As described in the EA, while the Del Mar Fairgrounds is publically owned by the State of California, its primary uses for commercial purposes and not as a recreational resource, including horse races, the San Diego County Fair, and other commercial trade shows and functions. FRA finds therefore that it is not a recreational property protected by Section 4(f).

The project limits and the adjoining rail corridor have been used for railroad operations for over 100 years. Chemicals associated with railroad materials, construction, maintenance, and operations could have potential temporary impacts for construction personnel due to exposure to these chemicals. Due to the presence of wooden railroad ties within the project limits and adjoining railroad track, the potential exists for creosote-treated railroad ties to be present. Equipment and materials often historically used in association with railroads, such as lead and acid-containing batteries, ballast materials containing steel slag with potential regulated heavy metal concentrations, and railroad lubricators utilizing petroleum products, may also have been used along rail corridor. In addition, herbicides were often historically sprayed on railroad ROW to prevent the growth of vegetation between railroad tracks. Soil may have been impacted by these materials. Potential impacts would be addressed by the avoidance and minimization measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

Asbestos-containing building materials and lead-based paint may be associated with structures or infrastructure within the Selected Alternative area. Additionally, wooden infrastructure may be treated with chemical preservatives to prevent rotting due to mold, mildew, and insects, which may leach from the wood into surrounding soil. Construction of the Selected Alternative could have potential temporary impacts for construction personnel due to exposure to these materials, if encountered. Potential impacts would be addressed by the avoidance and minimization measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

Construction would require the use of construction-related hazardous materials (e.g., fuels and lubricants), which have the potential to result in adverse impacts due to accidental discharges associated with storage, vehicle operations (i.e., refueling), or maintenance. These potential impacts would be associated primarily with water quality effects on downstream receiving waters. Through implementation of standard construction operating procedures and permanent and construction storm water BMPs, potential impacts associated with the use of hazardous substances during construction would be avoided.

Operational Impacts

The Selected Alternative would improve public health and safety by replacing an approximately 100-year-old rail timber bridge with a new rail bridge using more durable materials to provide a more sustainable structure that could withstand the marine environment and provide long-term reliability. The existing tracks on the existing rail bridge and south of the bridge are below the 100-year floodplain elevation. The proposed new rail bridge and associated track improvements would be constructed to accommodate the 100-year water surface elevation to alleviate flood effects and associated public safety concerns. The proposed special events rail platform would be designed pursuant to applicable standards and safety features to address associated public safety issues. Similarly, the rail alignment of the track improvements would be designed in accordance with applicable design standards to address safe movement of trains at appropriate design speeds within the project limits.

Finding
FRA finds that the Selected Alternative would not result in any significant public health and safety impacts. SANDAG has committed to implementing certain avoidance, minimization, and mitigation measures described further in Section 7.0*, Environmental Commitments*.

4.12 Cultural and Paleontological Resources

As discussed below, the Selected Alternative would not result in significant impacts to cultural (including archaeological and historic) or paleontological resources.

Archaeological Resources
No archaeological resources were identified within the Area of Potential Effect (APE) during the records search or field survey. California's Native American Heritage Commission (NAHC) was contacted for a records search of their sacred lands files to determine if any traditional cultural properties are located within or adjacent to the APE. The results of the search indicated that no sacred lands are recorded in the Selected Alternative area. In addition, letters were mailed to the local Native American representatives recommended by the NAHC in an effort to determine if there are Traditional Cultural Properties, sacred sites, resource collecting areas, or any other areas of concern within the Selected Alternative area that were not encountered during the records search. No responses from local tribes or individuals were received. The Selected Alternative would not impact recorded archaeological sites in the vicinity; therefore, impacts to archaeological resources are not expected to occur as a result of the Selected Alternative.

Historic Resources
Two historic resources were identified within the APE during a records search. During a field survey, it was determined that these two resources had been previously destroyed as part of previous rail improvements. However, one historic resource that was not identified during the records search, a segment of the former Santa Fe Railroad (SDI-16385H), which includes the existing San Dieguito River Bridge (Bridge 243.0), was previously recorded in other areas of San Diego. This resource was evaluated for eligibility to the National Register of Historic Places (NRHP), in compliance with Section 106 of the National Historic Preservation Act (NHPA). The segment of the Santa Fe Surf Line in the Selected Alternative area, including the existing bridge, is recommended ineligible for inclusion in the NRHP. The California State Historic Preservation Office (SHPO) was consulted as required by Section 106 of the NHPA. FRA sent a letter to SHPO on April 16, 2015 to initiate consultation. Based on the consultation, SHPO concurred with the determination that this segment of the former Santa Fe Railroad is not eligible for the NRHP and no historic properties will be affected by the proposed project by letter on May 21, 2015.

Paleontological Resources
Construction activities would be expected to encounter underlying formations designated as having moderate to high paleontological resource sensitivity, including Old Paralic Deposits (high sensitivity), Del Mar Formation (high sensitivity), and Torrey Sandstone (moderate

sensitivity). Impacts to these formations could result in the destruction of unique or significant paleontological resources. Potential impacts would be addressed by the avoidance, minimization, and mitigation measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

Finding

FRA finds that the Selected Alternative would not result in a significant impact to archaeological or historical resources. At the request of SHPO, the project proponent will ensure an archeological monitor is present during construction. FRA also finds that the Selected Alternative would not result in a significant impact to paleontological resources with the implementation of the avoidance, minimization, and mitigation measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

4.13 Geology and Soils

As discussed below, no conditions that would preclude development of the Selected Alternative have been identified, and construction of the Selected Alternative is considered feasible from a geotechnical perspective. According, impacts related to geology and soil would not be significant.

Temporary Excavation/Slope Instability

Slope instability associated with temporary (construction-related) excavations could result in associated potential safety impacts for construction personnel (e.g., from caving). Implementation of the Selected Alternative would include conformance with related geotechnical recommendations (as identified in Section 7.0, *Environmental Commitments*), along with applicable Occupational Safety and Health Administration (OSHA) and California Division of Occupational Safety and Health (Cal/OSHA) regulatory/technical standards to ensure excavation stability. Potential concerns related to slope instability from short-term surficial effects, such as erosion and sedimentation would be addressed through the implementation of appropriate construction BMPs in conformance with applicable regulatory standards. No adverse impacts related to slope instability would occur as a result of construction of the Selected Alternative.

Excavation/Generation of Oversize Materials

While it is anticipated that most or all surficial and geologic materials expected to be encountered during construction would be subject to excavation and ripping with standard methods and equipment, such activities could potentially generate oversize materials. The generation of such oversize rock fragments could pose potential development hazards if improperly handled or placed. Specifically, the presence of oversize materials in engineered fills can result in effects such as differential settlement, with associated impacts to overlying structures or pavement. Implementation of the Selected Alternative would incorporate appropriate measures to address potential effects related to the generation of oversize materials, pursuant to applicable industry/regulatory standards and subsequent detailed

geotechnical analysis during the final design stage. No adverse impacts related to excavation of oversize materials would occur as a result of construction of the Selected Alternative.

Ground Surface Rupture

No known active faults or designated earthquake fault zones are located within or adjacent to the project limits. Based on these conditions, implementation of the Selected Alternative would generally not be subject to seismic ground rupture hazards and/or related effects. The Selected Alternative would incorporate appropriate design and construction measures to accommodate projected seismic loading, pursuant to applicable industry/regulatory standards and subsequent detailed geotechnical analysis during the final design stage. No adverse impacts related to ground surface rupture are expected to occur as a result of the Selected Alternative.

Landslides and Embankment/Slope Instability

Landslides or indications of deep-seated slope instability have not been mapped or observed along the project alignment. Based on the presence of potentially liquefiable soils within the vicinity of the Selected Alternative site, the potential for seismically induced lateral spreading is considered high at the embankment, bridge abutment, and platform sites. The Selected Alternative would incorporate appropriate design and construction measures to address liquefaction and related effects, pursuant to applicable industry/regulatory standards and existing/subsequent (during the final design stage) geotechnical analyses. No adverse impacts related to landslides and embankment/slope instability are expected to occur as a result of the Selected Alternative.

Tsunamis

While portions of the San Dieguito River Valley/Lagoon are within a mapped tsunami inundation zone, no associated substantial adverse impacts are expected to occur based on the following considerations: (1) it is generally believed that the wide continental margin off the San Diego coast acts to diffuse and reflect the wave energy of remotely generated tsunamis; (2) the largest recorded historical tsunami to reach the San Diego coast was 4.6 feet high and was generated by the 1960 earthquake in Chile; and (3) due to the noted conditions and the locations of potential seismic sources capable of generating tsunamis, the potential for associated substantial adverse effects to occur during the estimated design life of the Selected Alternative (100 years) is considered low. Additionally, the Selected Alternative would replace the existing nearly 100-year-old wooden trestle bridge over the San Dieguito River with a new, higher bridge constructed from modern materials that are more likely to withstand a tsunami than the existing bridge. No adverse impacts related to tsunamis are expected to occur as a result of the Selected Alternative.

Settlement

Considering the nature of alluvial materials in the vicinity of the Selected Alternative site, the likelihood of ground subsidence is considered to be relatively high. This issue would be addressed with associated geotechnical recommendations (as identified in Section 7.0, *Environmental Commitments*) along with applicable industry/regulatory standards and

subsequent detailed geotechnical analysis during the final design stage. No adverse impacts related to settlement are expected to occur as a result of the Selected Alternative.

Corrosive Soils

Soils in the vicinity are considered corrosive due to chloride content. Implementation of the Selected Alternative would comply with associated geotechnical recommendations (as identified in Section 7.0, *Environmental Commitments*), along with applicable regulatory/technical requirements from other standards to address associated potential impacts related to corrosive soils. No adverse impacts related to corrosive soils are expected to occur as a result of the Selected Alternative.

Finding

FRA finds that the Selected Alternative would not result in a significant impact related to geology and soils with implementation of the avoidance, minimization, and mitigation measures identified in Section 7.0, *Environmental Commitments*.

4.14 Transportation

As discussed below, construction and operation of the Selected Alternative would not result in significant impacts related to transportation.

Construction Impacts

During the construction period of the Selected Alternative, rail operations within the project limits would be maintained, except for up to three weekends, during which absolute work windows (AWWs) might be established. During these AWWs, rail service would be interrupted, but they are known well in advance and passenger rail operators would provide alternative means for rail service through the project limits, as well as provide advanced notifications (via media) of such temporary closures. No temporary road closures or detours are anticipated, and access to nearby businesses and residences would be maintained. Short-term impacts to traffic flow would be avoided or minimized through implementation of a traffic management plan (TMP). Construction staging would occur within the Fairgrounds parking area in the western portion of the Fairgrounds property, but would not adversely affect access, operations, or special events at the Fairgrounds. Therefore, no construction-related transportation impacts are anticipated.

Operational Impacts

Implementation of the Selected Alternative would also not result in adverse operational impacts to transportation. Conversely, the Selected Alternative is anticipated to improve transportation circulation within the vicinity of the Selected Alternative. As described in Section 2.2*, Need for the Proposed Action*, of this FONSI, the existing single-track segments within the Selected Alternative area constrain movement of trains by creating a bottleneck. Only a single train can travel the stretch of single track at any one time, causing other trains to have to wait at either end of the project limits. This results in delays and reduces the attractiveness of passenger rail. Double track eliminates the delays currently associated with trains waiting at a passing track for others to clear a single-tracked section. Elimination of this type of delay would provide for more

consistent operating schedule for trains, increasing on-time performance and reliability. A passenger platform at the Del Mar Fairgrounds would provide direct access for special events, thereby encouraging use of public transportation and decreasing traffic congestion on local roads and I-5 during times of peak demand. In addition, the proposed railroad tracks, bridge replacement, and special events platform would be above all roadways crossings, would not affect traffic at nearby intersections, and would not create any new parking lots. Therefore, no adverse operational impacts associated with transportation are anticipated.

Finding

FRA finds that the Selected Alternative would not result in significant impacts related to transportation.

4.15 Public Utilities

As discussed below, construction and operation of the Selected Alternative would not result in significant impacts regarding public utilities.

Construction Impacts

Utility conflicts could potentially occur during the construction period of the Selected Alternative. Most of the proposed rail improvements would occur within the railroad ROW and as such, utility conflicts are expected to be low because utilities are generally sited to avoid active rail corridors. If any utility conflicts within or outside the rail ROW are identified during the final design of the Selected Alternative, such conflicts would be avoided through coordination with the applicable utility provider to protect systems in place or arrange for temporary or permanent relocation of existing utility lines or facilities. Therefore, no adverse construction impacts to public utilities are anticipated.

Operational Impacts

The proposed special events rail platform at the Del Mar Fairgrounds would result in incremental increases in demand for electrical and solid waste disposal services. The proposed platform would include lighting, a public address system, and trash receptacles that would require a need for corresponding utility services. Lighting would be of the lowest illumination possible for providing safety and security to humans in the area. Lighting and the public address system would be used only when the rail platform is open during special events at the Fairgrounds. The resulting increase in demand for electricity services associated with the platform would be nominal. Similarly, trash receptacles would be provided at the platform and would only be available for rail customers utilizing the platform during special events at the Fairgrounds. The amount of solid waste generated by platform operations would be negligible, the disposal of which would be easily accommodated at regional landfills. The negligible amount of generated solid waste would not adversely affect landfill capacities. Accordingly, operation of the special events rail platform at the Del Mar Fairgrounds would not result in adverse impacts to public utilities.

Rail operations (other than at the platform) would not create any increased demand for public utility services. A negligible, short-term increase in demand for water associated with the on-site restoration/re-establishment of native habitat and revegetation of graded slopes would occur. These areas would be irrigated until the vegetation is established, which can take three to five years. The temporary nature of the required water service and the relatively minor amount required for irrigation purposes would not create a considerable demand for water or new water services. Therefore, no operational public utilities impacts are anticipated.

Finding

FRA finds that the Selected Alternative would not result in significant impacts related to public utilities.

4.16 Use of Other Natural Resources

As discussed below, construction and operation of the Selected Alternative would not result in significant impacts related to the use of other natural resources (i.e., mineral resources, agricultural and forestry resources, fossil fuels, and construction materials [such as concrete, aggregate, and steel]).

Mineral Resources

The Selected Alternative would not adversely impact mineral resources. The project limits are located within areas designated by the California Geological Survey as Aggregate Mineral Resource Zone Categories 1 and 3 (MRZ-1 and MRZ-3). The MRZ-1 designation includes areas with no significant mineral deposits or a low likelihood for such occurrence, while the MRZ-3 category generally indicates the occurrence of known or inferred mineral deposits, the significance of which cannot be evaluated from available data. Based on these designations, the lack of known previous mineral-related activities (e.g., exploration and production), and the fact that the alignment and surrounding areas are not designated or zoned for mineral resources, no adverse impacts to aggregate minerals would result from the Selected Alternative. Similarly, due to local geologic conditions and the lack of historic mining/exploration activities, the potential for recoverable deposits of mineral types other than aggregate (e.g., metals and petroleum) to occur within the alignment or surrounding areas is considered low, and no associated adverse impacts would result from the Selected Alternative.

Agricultural and Forestry Resources

The Selected Alternative would not adversely impact agricultural and forestry resources. The project limits are located primarily within an existing rail ROW, with additional portions of the site and surrounding areas consisting of urban development or open space associated with the San Dieguito River Valley and Lagoon. No active agricultural uses or forestry resources, such as wooded areas or timberland, are located within or adjacent to the project limits. The project limits and surrounding areas are designated as Urban and Built-Up Land or Other Land under the California Department of Conservation (CDC) Important Farmland Inventory. These categories generally do not encompass criteria such as physical or chemical soil characteristics that are required for viable agricultural use, and are not considered “Important Farmland” under

associated guidelines. The project limits and vicinity also do not include any areas designated or zoned for agricultural or forestry use or protection. Therefore, implementation of the Selected Alternative would not result in adverse impacts to agricultural or forestry resources or operations.

Fossil Fuels and Construction Materials

Implementation of the Selected Alternative would entail the use of fossil fuels and construction materials such as concrete, aggregate, and steel to construct and operate the proposed facilities. Associated potential effects would be minor, however, based on the relatively small scale and/or short-term duration of such use. In addition, these minor impacts to fuel and construction resources would be somewhat balanced by the fact that local and regional residents would benefit from the improved quality of transit opportunities to be provided by the Selected Alternative.

Finding

FRA finds that the Selected Alternative would not result in significant impacts related to mineral resources, agricultural and forestry resources, fossil fuels, and construction materials (such as concrete, aggregate, and steel).

4.17 Solid Waste Disposal

As discussed below, construction and operation of the Selected Alternative would not result in significant impacts related to solid waste disposal.

Construction Impacts

Construction waste would include wooden infrastructure associated with removal of the existing San Dieguito River Bridge, as well as railroad track, ties, ballast, soil, and other debris. Construction waste materials would be recycled to the extent practical, with the balance disposed of at appropriate receiving facilities in accordance with applicable regulations.

Operational Impacts

Operation of the Selected Alternative would result in a minor increase in domestic municipal solid waste generation within the City of Del Mar. The proposed special events platform at the Del Mar Fairgrounds would contain trash receptacles, which would be maintained by NCTD. Trash collected on the platform would also not represent a new stream of solid waste; rather, it would represent a new location for solid waste that would have otherwise been collected at the Fairgrounds or at passengers' homes. Landfill capacities in the region are considered adequate, and the Selected Alternative's contribution would be negligible. Therefore, no impacts related to solid waste disposal due to operation of Selected Alternative would occur.

Finding

FRA finds that the Selected Alternative would not result in significant impacts related to solid waste.

5.0 CUMULATIVE EFFECTS

Under CEQ regulations, cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions take place over a period of time" (40 CFR 1508.7).

Six projects were included in the cumulative analysis contained in the EA; five are located in the vicinity of the Selected Alternative, and the other project consists of other rail improvements along the San Diego County portion of the LOSSAN Corridor. The five in the Selected Alternative area include a lagoon restoration project, a bridge replacement, an office development, the Del Mar Fairgrounds Master Plan, and the I-5 North Coast Corridor project.

Cumulative impacts associated with the issues of air quality, noise, biological resources, and aesthetics were analyzed in detail in Section 4.15, *Cumulative Impacts*, of the EA. As further detailed in the EA, the Selected Alternative would not contribute to substantial cumulative impacts related to these environmental issues. Implementation of the measures identified in Section 7.0, *Environmental Commitments*, would avoid or minimize the Selected Alternative's incremental contribution to cumulative impacts associated with these environmental resource topics. The analysis in the EA determined that the Selected Alternative would not contribute to cumulative impacts with respect to water quality, hydrology and floodplain, energy, land use, socioeconomics, public health and safety, cultural and paleontological resources, and geology and soils.

6.0 PUBLIC INVOLVEMENT

Consultation and Coordination with Public Agencies

SANDAG (on behalf of FRA) has consulted with numerous public agencies and local governments (cities of Del Mar and Solana Beach) regarding the Proposed Action and also provided outreach to Tribal Governments. SANDAG's outreach to and coordination with public agencies has included the USACE, CCC, U.S. Fish and Wildlife Service (USFWS), San Diego Regional Water Quality Control Board (RWQCB), 22nd District Agricultural Association (22nd DAA), and San Dieguito River Park JPA. SANDAG has consulted with representatives from, and made presentations to, the City Councils of the cities of Del Mar and Solana Beach, which together encompass the entire area where the Proposed Action would occur.

The NAHC was contacted for a records search of their sacred lands files to determine if any traditional cultural properties are located within or adjacent to the APE. The results of the search indicated that no sacred lands are recorded in the Proposed Action area. Consultation with local Native American tribes was recommended, and a list of Native American contacts was provided. Letters were mailed to the local Native American representatives recommended by

the NAHC in an effort to determine if there are Traditional Cultural Properties, sacred sites, resource collecting areas, or any other areas of concern within the Proposed Action area that were not encountered during the records search. No responses from local tribes or individuals were received.

Additional coordination with the regulatory agencies will occur during the permitting phase of the project.
SHPO was consulted as required by Section 106 of the NHPA. FRA sent a letter to SHPO on April 16, 2015 to initiate consultation. Based on the consultation, SHPO concurred with the determination that no adverse effects would occur to cultural or historical resources (letter dated May 21, 2015).

The California Coastal Commission was consulted on this project. Based on these consultations, a letter was received on January 15, 2015 stating that the Commission had conceptually approved of the project through their approval of the North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program in August 2014, with the understanding that a subsequent coastal certification request will be made in a later design stage.

Public Participation
A public scoping meeting was held in the vicinity of the Proposed Action on January 22, 2013 in the City of San Diego at Del Mar Hills Elementary School, located at 14085 Mango Drive, to give the community an opportunity to provide input and comments regarding the scope of the EA.

SANDAG formed a Technical Working Group comprised of representative stakeholders in November 2012. The Technical Working Group regularly meets, and SANDAG shares information about the environmental review and design process. SANDAG has also implemented a public involvement plan that entails (in addition to the scoping meeting and Technical Working Group) hosting informational public meetings (as described below), providing informational presentations to affected and interested parties or organizations, and disseminating and maintaining web-based media, such as an informational website, eNews information series, and social media outlets.

Two informational public meetings were held: one on October 30, 2013 in Del Mar at the Powerhouse Community Center (located at 1658 Coast Boulevard) and one on November 18, 2014 in Solana Beach at Santa Fe Christian School (located at 838 Academy Drive). The meetings were an open house format with various topical stations and display boards. The purpose of the meetings was to provide the general public the opportunity to learn more about the ongoing development and design of the Action Alternatives and proposed rail components of the Proposed Action, as well as the environmental review process.

Public Comment Period

The EA was released by SANDAG for a 30-day public comment period between October 31, 2014 and December 1, 2014. The EA was made available on the Keep San Diego Moving website (www.keepsandiegomoving.com/Lossan/Lossan_san_dieguito_double_track.aspx). During the public comment period, comment letters were received from the 22nd DAA, City of Del Mar, San Dieguito River Park JPA, and Southern California Edison. Additionally, written and oral public comments were received at the informational public meeting held on November 18, 2014. Public comments raised common community concerns about the Proposed Action regarding the following:

- Indirect impacts to biological resources from increased human activity, noise, lighting, and invasive species;
- Visual impacts related to visual character and potential view blockage;
- Special events platform (the need, platform alternatives, length, and impacts);
- Coastal access;
- Noise and vibration impacts; and
- Hydrology impacts related to floodplain elevations and scour.

This FONSI addresses these community concerns that were raised during the public comment period of the EA, as discussed below.

Indirect Impacts to Biological Resources

Section 4.5, *Biological Resources*, of the EA discusses potential indirect effects to biological resources and includes a discussion of such effects relative to increased human activity, colonization of invasive plants, presence of nuisance animals, increased nighttime lighting, decreased water quality, and increased fugitive dust. The EA concludes that there is potential for the Proposed Action to result in adverse indirect impacts to biological resources due to increased human activity and lighting.

As discussed in Section 4.5, *Biological Resources*, of this FONSI, although the Proposed Action would occur along an existing, active rail corridor that already fragments habitat, there would be an increase in human activity within the corridor during and after construction, and much of that would be within or adjacent to the sensitive San Dieguito Lagoon and River environment. One particular adverse effect of human activity is noise that would occur near habitat where sensitive animal species could occur. The Proposed Action would, however, occur within a transportation corridor that already experiences noise from trains and also from vehicular traffic on adjacent roadways (e.g., Camino del Mar and Jimmy Durante Boulevard). Therefore, noise is not expected to adversely affect sensitive species.

There would also be potential for adverse impacts to sensitive vegetation communities/habitats from litter associated with the use of the special events rail platform and ramps at the Del Mar Fairgrounds. Indirect effects associated with litter and trash are not expected to occur during construction because SANDAG standard construction specifications require proper disposal of trash. Maintenance of the special events platform, including emptying trash receptacles and

general litter removal, would be conducted by NCTD as part of their normal operational procedures. It should be noted that the platform would only be in use during special events at the Fairgrounds; trains would not regularly stop at the platform, and access to the platform would be restricted when it is not in use. Potential indirect impacts would be addressed by the avoidance, minimization, and mitigation identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI that addresses indirect effects, including those associated with litter and trash.

It is expected that nighttime lighting would occur during construction of the Proposed Action. The special events rail platform at the Del Mar Fairgrounds would include nighttime lighting for the purposes of safety and security; however, lighting would only occur when the special events platform is used. Because the platform is adjacent to the San Dieguito River environment, the EA concludes that indirect effects to biological resources associated with nighttime lighting could potentially be adverse. Potential indirect impacts would be addressed by the avoidance, minimization, and mitigation measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI that addresses indirect effects, including those associated with lighting.

As discussed in Section 4.5, *Biological Resources*, of the EA, adverse effects from invasive plant species are not expected to occur. During construction, impacted areas would be cleared of vegetation, which could allow the spread of invasive plant species into these cleared areas and then into nearby native habitat. The cleared areas, however, would either be permanently impacted by the placement of rail infrastructure, would be converted to a native vegetation community/habitat, or would be revegetated with native species or re-established to native habitat post-construction. Until that occurs, hydroseed application used for temporary erosion control would be in accordance with Executive Order (EO) 13112; therefore, no invasive plant species would be seeded or planted.

Additionally, Section 4.5, *Biological Resources*, of the EA concludes that no adverse indirect effects to biological resources would occur due to nuisance animals because standard practice prohibits construction workers from bringing pets to the work site. Operation of the Proposed Action is not expected to result in the introduction of any nuisance animals to the rail corridor. Indirect effects related to decreased water quality and fugitive dust to biological resources also would not be adverse with implementation of BMPs and dust abatement measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

<u>Visual Impacts</u>

As discussed in Section 4.8, *Aesthetics*, in the EA, implementation of the Proposed Action would result in a project that would be substantially similar in many ways to the existing condition. Changes to the existing visual character would include a new bridge structure in virtually the same location as the existing condition, but with wider spans that would result in a more visually open structure compared to the existing structure. Although the new rail bridge would be higher than the existing bridge (by up to eight feet at some locations), the increase in

height would not be highly noticeable from public viewpoints and would not block views of coastal resources. The potential height increase in the bridge profile of eight feet would not create a highly evident change in the overall viewshed from nearby public viewpoints. A rail bridge currently exists at this location, and the proposed new double track bridge would not represent a new visual element in landscape. As shown in Figure 4.8-5 of the EA, the new bridge would not obstruct ridgeline or skyline views.

The EA concludes that lighting, railings, and the stairs/ramps associated with the proposed special events platform would introduce new visual features with a moderate visual impact. However, the visual impacts would be minimized by incorporation of architectural detailing and enhanced design features such as non-reflective paint colors similar to the background colors for the pole-mounted lights. Such design measures are identified as avoidance and minimization measures in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI.

Special Events Platform

With regard to the need for a special events platform, Section 2.3, *Need for the Proposed Action*, in the EA discusses that a direct passenger connection between the rail services and the Del Mar Fairgrounds is needed for special events to provide patrons an alternative mode of transportation to directly reach the Fairgrounds, which could potentially reduce local traffic congestion, as well as parking demands at the Fairgrounds. Direct rail access to the Del Mar Fairgrounds is also needed to meet the current and future demand to get to the Fairgrounds during special events, as well as improve the customer experience by having direct access to this major activity center in San Diego County. The special events platform is proposed to meet this identified need for the Proposed Action.

Platform alternatives (other than the side-loading or center-loading designs) were initially considered, but were not carried forward for detailed evaluation due to operational, engineering, and/or environmental constraints. As discussed in Section 3.4, *Alternatives Considered but not Carried Forward for Detailed Evaluation*, in the EA, these platform alternatives included (1) a 750-foot-long special events platform, and (2) locating the special events platform further east, on the Fairgrounds property. A 750-foot-long platform was not carried forward because it would not accommodate the planned train service to the platform and would not minimize or avoid a substantial environmental impact of the Proposed Action. The length of the special events platform is dictated by planned rail operations for special events at the Fairgrounds. Trains providing service for special events at the Fairgrounds would consist of up to 10 passenger cars plus one or more engines. This train configuration requires a platform that would be 1,000 feet long. It should be noted that shorter trains would stop at the northern end of the platform. The platform would only be in use during special events at the Fairgrounds. Trains would not regularly stop at the platform, and access to the platform would be restricted when it is not in use. Constructing the platform on the Fairgrounds was not carried forward because it would not be feasible to construct the platform further to the east. A platform on the Fairgrounds property would require sharp curves in the rail alignment in order to shift the track and would cause an

unacceptable reduction in operating speeds in order to achieve the minimum required clearances at the Via de la Valle undercrossing. Additionally, the encroachment into the Del Mar Fairgrounds that would be necessary to accommodate the platform would not be acceptable to the 22nd DAA, the State agency that owns and operates the Fairgrounds. Environmental impacts associated with the platform were evaluated in the EA as part of the Proposed Action. Indirect effects related to litter and lighting are discussed above under *Indirect Impacts to Biological Resources*. As discussed in detail in Section 4.4, *Noise*, in the EA, noise associated with operations of the special events platform would not result in adverse impacts. The FTA screening distance for a train passenger platform is 200 feet for an adverse noise impact, and the closest residences to the proposed platform would be approximately 435 feet away (south of the platform, across the San Dieguito River). Due to community concerns, additional analysis was conducted to assess potential noise impacts resulting from noise generated by patrons using the proposed platform. The FTA guidance states that in order for the platform passenger noise level to be less than adverse, it must be below the threshold of 50 dBA at the noise sensitive receiver. There are three potential noise sources associated with the platform: (1) trains (including train braking, idling locomotive engines, and accelerating locomotive engines), (2) human speech/communications on the platform, and (3) PA systems. Although a PA system is not currently proposed for regular use at the special events platform, it is possible that one would be provided and thus, was factored into the analysis. When all of these noise sources are considered together, the modeled noise level at the nearest residence would be 47 dBA. This noise level would not be considered an impact pursuant to FTA guidance, as it would not be above the threshold of 50 dBA.

Regarding air quality impacts associated with the platform, the Proposed Action would also help reduce future traffic levels associated with events at the Del Mar Fairgrounds, including the racing meets and San Diego County Fair. Currently, visitors to the Fairgrounds that arrive via the train must disembark at Solana Beach Station and ride a shuttle bus from the station to/from the Fairgrounds. The proposed special events platform would reduce or potentially eliminate the need for these shuttles. In addition, the increased ease of use and accessibility offered by a platform leading directly from the tracks to the Fairgrounds would encourage more visitors to the Fairgrounds and races to take a train to/from these events. The reduced shuttle bus and personal vehicle use that would potentially result from the operation of the Del Mar Fairgrounds special events platform would reduce net criteria pollutant and GHG emissions.

Coastal Access

The Proposed Action would not interfere with, or change, existing coastal access points. The proposed improvements would not affect the existing rail crossings within the vicinity of the Proposed Action; they would remain open and continue to serve as public access to the coast. In addition, the Proposed Action (specifically, the new rail bridges) would be designed to allow for a pedestrian (trail) undercrossing on the south side of the San Dieguito River. The pedestrian undercrossing would provide a legal grade-separated pedestrian crossing that currently does not exist at this location. The provision for this additional crossing would improve coastal access.

A future segment of the Coast to Crest Trail, called the "Reach the Beach Trail," is planned to be located adjacent to the Del Mar Fairgrounds and Camino Del Mar on both sides of the railroad track. This future trail is planned to traverse under the railroad tracks to allow access to the beach from the east. The Proposed Action would not preclude the future construction (by others) of the future Reach the Beach Trail. The conceptual alignment of the Reach the Beach Trail is shown on Figure 4.9-6 in the EA (which reflects the conceptual alignment identified in both the *Park Master Plan for the Coastal Area of the San Dieguito River Valley Open Space Park* and the *Reach the Beach Trail Segment of the Coast to Crest Trail Feasibility Study*). The trail alignment is only conceptual at this stage and is not an approved or adopted trail alignment. Additionally, no easements have been recorded for this future trail alignment. A grade-separated Coast to Crest Trail crossing is also identified in the *North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program* (PWP-TREP) as a community enhancement project (DM#1). The PWP-TREP does not identify a specific alignment or location for this rail crossing, but only identifies this grade-separated crossing exclusively for bicycles and pedestrians to occur in the general proximity of the Del Mar Fairgrounds. Once a final alignment and design are prepared by the San Dieguito River Park JPA, environmental review and resource agency approval would be required for this future trail segment.

The proposed special events platform would only provide a direct passenger connection between the rail services and the Del Mar Fairgrounds during special events. It would not provide a new coastal access point to the beach. As discussed in Section 2.3, *Need for the Proposed Action*, in the EA, as well as the PWP-TREP (page 4-6), the proposed platform is intended to provide seasonal access for special events at the Fairgrounds. The platform would only be in use during special events at the Fairgrounds, and access to the platform would be restricted when it is not in use. Therefore, it would not be beneficial to construct a connection to the beach from the platform because year-round coastal access would not be provided. This connection would also result in additional impacts to wetlands and biological resources.

Noise and Vibration Impacts

As concluded in Section 4.4, *Noise*, in the EA, construction of the Proposed Action would generate noise and vibration at or above levels established by the FTA as being likely to cause an adverse community reaction (i.e., at some points during the approximately three-year construction period, construction noise levels would be annoyingly loud, and vibration annoyingly noticeable, to some residents near the tracks). Residents located west of the railroad tracks to the south of the San Dieguito River would likely experience an adverse reaction during construction of the new bridges over the San Dieguito River, especially during the pile-driving stage of construction. Similarly, residences east of the tracks just south of Via de la Valle would experience an adverse reaction during pile driving associated with the realignment of Stevens Creek under the railroad embankment in that area. Additionally, nighttime construction activities associated with construction of double track could result in adverse impacts to residences along the project limits. These adverse impacts are not assessed as being significant under NEPA because of the limited number of residences

affected, the temporary duration of the loudest generator of noise impacts (i.e., pile driving), and the limited amount of nighttime construction that would occur. The avoidance and minimization measures identified in the EA and in Section 7.0, *Environmental Commitments*, of this FONSI include potential strategies to reduce construction noise.

Regarding operational noise impacts, the EA concluded that noise levels due to train operations and the new alignment of the railroad tracks would increase by approximately one dBA at some residences along the railroad corridor. This approximately one-dBA increase would not constitute a significant impact under NEPA because of the relatively low number of residences affected and because a one-dBA increase, which is barely perceptible to the average person, is at the lowest end of the range for a "Moderate Impact" per FTA guidance. As discussed above under *Special Events Platform*, noise levels generated by passengers at the platform would not adversely impact nearby residences.

Hydrology Impacts

The proposed new rail bridge would provide longer spans over the San Dieguito River with fewer impediments to flows. As discussed in Section 4.6, *Hydrology and Floodplain*, in the EA, the proposed new rail bridge would pass the 50- and 100-year flood flows without overtopping, and would provide adequate freeboard (two feet or more) to accommodate the passage of drift (debris) for a 50-year storm event. The proposed new rail bridge also would not raise the 50- or 100-year floodplain water surface elevations above existing floodplain levels or result in any adverse flooding effects to neighboring properties.

Regarding scour associated with the proposed new rail bridge and the Camino Del Mar Bridge, the hydrologic/hydraulic analysis prepared for the project (and summarized in the EA) concluded that general scour depths at both bridges would be reduced and no adverse scour effects would occur due to the Proposed Action.

7.0 ENVIRONMENTAL COMMITMENTS

SANDAG will secure all required permits, which may include a combination of some or all of the following permits/certifications/consultations:

- Individual Permit pursuant to Section 404 of the Clean Water Act (CWA), or qualification under a Nationwide Permit(s) pursuant to Section 404 from the USACE;
- CWA Section 401 Certification from RWQCB;
- CWA Section 402 NPDES Permit from the State Waters Resources Control Board (SWRCB);
- Rivers and Harbors Act Section 10 Permit from the USACE;
- General Bridge Act of 1946 Bridge Permit from the U.S. Coast Guard;
- Rivers and Harbors Act Section 9 Permit from the U.S. Coast Guard; and
- Coastal Zone Management Act, Coastal Act Consistency Certification from CCC.

FRA has identified the following commitments and avoidance, minimization, and mitigation measures as a practicable means to avoid and minimize impacts of the Selected Alternative on the environment. Additional measures may also be implemented as necessary.

Air Quality

1. Air quality control measures will be implemented per SANDAG Standard Specifications that are part of all the SANDAG construction contracts to effectively reduce emissions during construction. The Standard Specification will include (but are not limited to) application of soil stabilizers (water) to disturbed areas, termination of soil disturbance during high wind events, and covering material stock piles.

Water Quality

1. Potential water quality and stormwater runoff impacts will be avoided and/or minimized through conformance with the applicable regulatory requirements, including the National Pollutant Discharge Elimination System Construction General, Groundwater, and Phase II Permits, as well as applicable requirements of the State Porter-Cologne Act/Basin Plan. Preliminary avoidance and/or minimization measures to provide such regulatory conformance are identified in the Drainage Study/Storm Water Management Plan and in the regulatory permits/acts themselves. These preliminary measures will be further defined as appropriate during final design and the regulatory conformance/permitting process. SANDAG will implement BMPs identified in the above permit(s) as necessary to comply with regulatory requirements in effect at the time the project goes to construction and to protect water quality.

Biological Resources

1. SANDAG will designate a qualified biologist who will be responsible for overseeing compliance with all prescribed mitigation measures for biological resources during vegetation clearing and construction activities within and adjacent to areas of native vegetation communities/habitat types and USACE and CCC jurisdictional areas. The biologist will be familiar with the habitats, plants, and animals in the San Dieguito Lagoon and River area, and will maintain communications with the Resident Engineer (RE) to ensure that issues related to biological resources are appropriately and lawfully managed. The biologist will review final construction plans; designate sensitive areas to be avoided that may need temporary, protective fencing; and monitor all construction activities (particularly during major activities such as vegetation removal) within and adjacent to native vegetation communities/habitat types and USACE and CCC jurisdictional areas. The biologist will monitor the installation of BMPs and temporary fencing to ensure that all avoidance and minimization measures are properly constructed and maintained. The biologist will immediately notify the RE to halt any associated

activities that are not in compliance with the Proposed Action's mitigation measures and will contact SANDAG within 24 hours of that notification. The project biologist will submit weekly mitigation compliance reports to SANDAG during initial clearing and grading activities and will provide a final report documenting compliance with avoidance and minimization measures within 60 days of the completion of each stage of construction. Annual compliance reports will also be prepared and submitted to SANDAG.

2. Temporary impacts to sensitive vegetation communities will be mitigated through a combination of on-site re-establishment, off-site enhancement and/or preservation, and off-site establishment or re-establishment. Permanent impacts will be mitigated through off-site enhancement and/or preservation, and/or off-site establishment or re-establishment. The final mitigation for the Proposed Action will be determined during required permit processing by, as applicable, the USACE and RWQCB.

3. Temporary impacts to sensitive jurisdictional areas will be mitigated through on-site re-establishment. Permanent impacts will be mitigated, at established mitigation ratios, through off-site establishment or re-establishment as identified in Section 4.5 of the EA. The final mitigation for the Proposed Action will be determined during required permit processing by, as applicable, the USACE and RWQCB.
4. Native vegetation in the temporary impact footprint will be trimmed at the surface rather than uprooted to the maximum extent practicable. Where only trimming occurs (no uprooting), the plants are expected to regenerate, so no vegetation re-establishment (as prescribed in the following bullet) will be required.

5. Re-establishment will be conducted in temporarily impacted sensitive vegetation community/habitat type areas as prescribed in the LOSSAN PEIR/EIS MMRP. The following sensitive vegetation communities/habitat types will be re-established: southern coastal salt marsh, coastal and valley freshwater marsh, southern willow scrub (disturbed), alkali marsh, brackishwater estuary, intertidal beach, saltpans, sandbar, mud flats, and Diegan coastal sage scrub. Re-establishment is defined as manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former resource.

   Where a non-native (and non-sensitive and non-jurisdictional) vegetation/habitat type is impacted (e.g., non-native grassland), the most appropriate native plant palette will be used to revegetate the impacted area. The revegetated non-native areas will not be counted as native vegetation for any future transportation-related activity.

   A re-establishment plan will be prepared, and approval of the plan will be obtained from the USACE prior to implementation. The details of the plan will be determined during permit processing (under the CWA, Rivers and Harbors Act, and General Bridge Act of 1946, as required) and may include, but not be limited to, the following types of information as listed in the LOSSAN PEIR/EIS MMRP: specification of parameters for

maintenance and monitoring, performance standards for plant growth, measures to preserve topsoil and prevent erosion, and remedial measures to be taken if the performance standards are not met. The plan will include the use of native seed and propagules collected on site to the fullest extent practicable, and if not feasible to be collected on site, from within the same Level III or IV ecoregion to the extent practicable as approved by a qualified biologist. Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources. All seeding and planting will occur during the period November through February following completion of construction.

6. A mitigation plan outlining the details and implementation schedule for all enhancement, preservation, and establishment or re-establishment will be prepared and submitted to the USACE for review and approval prior to any construction activity. The details of the mitigation plan will be determined during permit processing (under the CWA, Rivers and Harbors Act, and General Bridge Act of 1946, as required) and may include types of information listed in the LOSSAN PEIR/EIS MMRP, as detailed in the previous paragraphs.

7. A worker education/awareness program will be developed. Each employee (including temporary contractors and subcontractors) will receive awareness training prior to his/her involvement in any construction activity. The program will inform workers about biological resources in the Proposed Action area, their sensitivity, and the potential for impacts that could occur to these resources during construction. The workers will be informed about the legal protections for these resources, any features designed to reduce impacts (e.g., temporary fencing), and the individual(s) to whom they should direct questions or report possible violations. As part of the program, workers will be directed to place all trash (including food) in sealed containers, and those containers will be regularly emptied/removed.

8. Operation of the Proposed Action, particularly use of the special events rail platform and ramps at the Del Mar Fairgrounds, could lead to litter ending up in the San Dieguito Lagoon and River. Covered trash receptacles will be placed at all areas where passengers will exit the train or enter the ramps at the Del Mar Fairgrounds. Signs will be posted at these receptacles identifying the potential threat to wildlife from trash and the importance of disposing of trash in the provided receptacles (i.e., no littering). The trash receptacles will be emptied frequently during special events at the Fairgrounds (as necessary to prevent any overflow of the receptacles) and also following the last train stop of the day.

9. Nighttime lighting during construction in the vicinity of native vegetation communities/habitat types will be minimized to the maximum extent practicable. Any nighttime lighting deemed necessary will be selectively placed, shielded, and directed

away from all native vegetation communities/habitat types to the maximum extent practicable.

10. Avoidance and minimization measures for nighttime lighting impacts from the special events rail platform at the Del Mar Fairgrounds will include shielding lights and directing them downwards towards the platform and away from adjacent habitat. In addition, lights will be of the lowest illumination possible for providing safety and security to humans in the area.

Hydrology and Floodplain

1. The following avoidance and minimization measures will be implemented during construction to minimize construction-related impacts to drainage alteration and groundwater extraction/disposal:
    - Proposed construction, modification, and/or relocation of storm drain facilities will incorporate applicable recommendations from the Drainage Study/SWMP and the Hydrologic/Hydraulic Technical Studies prepared for the Proposed Action, including the design, location, and dimensions of such facilities.
    - The location, design, and installation of new or modified storm drain facilities will be coordinated with engineering (or other appropriate) staff at the 22nd DAA, the City of Solana Beach, and/or the City of Del Mar (as appropriate) to ensure proper function and compatibility with existing storm drain systems.
    - Construction-related dewatering activities (if required) will comply with applicable regulatory requirements, including the appropriate NPDES Groundwater Permit.
2. The following avoidance and minimization measures will be implemented during construction to minimize operational impacts associated with hydrology and floodplain hazards:
    - The proposed design will include permeable surfaces wherever feasible, including the use of pervious materials for track bed improvements and access/maintenance roads, and unlined drainage channels.
    - The proposed design will incorporate appropriately designed and sized energy dissipation devices (e.g., rip rap aprons) at all pertinent locations, including outlets to unlined channels.
    - The design, location, and dimensions of the proposed railroad bridge and seasonal platform will incorporate applicable recommendations from the Drainage Study/SWMP, the Hydrologic/Hydraulic Technical Studies, and geotechnical evaluations prepared for the Proposed Action. Specifically, this will include: (1) appropriate heights and dimensions for the bridge and platform; (2) appropriate design and dimensions for pier, bank and abutment scour protection; and (3) location of the bridge abutments outside of the river channel.

- The design, location, and dimensions of facilities related to the proposed relocation of Stevens Creek will incorporate applicable recommendations from the Drainage Study/SWMP, the Hydrologic/Hydraulic Technical Studies, and geotechnical evaluations prepared for the Proposed Action. Specifically, this will include appropriate locations and dimensions of the proposed box or arched culvert and associated low-flow channel.

Energy

1. Construction equipment and vehicles will be properly tuned and maintained.

2. Idling times of construction equipment will be minimized, to the extent practical.

3. To the extent feasible, construction traffic will be routed and scheduled to reduce congestion and related energy impacts caused by idling vehicles along local roads during peak travel times.

Aesthetics

1. Architectural design elements will be incorporated into the design of the proposed rail bridge, rail platforms, and retaining walls that will be consistent with other new rail structures and retaining walls within the San Diego segment of the LOSSAN Corridor. Specifically, architectural details, such as shadow lines and shaped architectural elements, will be incorporated into the design of the proposed rail bridge and rail platforms in an effort to reduce the bridge and platform profile. Enhanced design features such as non-reflective paint colors may also be incorporated into the design of the pole-mounted lights on the platforms. Surface treatments and textures may also be incorporated into the design of retaining walls to break up the surface plane and provide visual interest.

Public Health and Safety

1. For subsurface excavation activities, if soil contamination is suspected or encountered, a Soil and Groundwater Management Plan to address encountering areas of potential environmental concern, and a site-specific Health and Safety Plan will be prepared. The Soil and Groundwater Management Plan, if required, will address the notification, monitoring, sampling, testing, handling, storage, and disposal of contaminated media or substances that may be encountered during construction activities.

2. Prior to improvements to or demolition of existing structures, surveys will be conducted to evaluate the presence, locations, and quantities of hazardous building materials (asbestos and lead-based paint). Suspect materials will be sampled and analyzed, and if present, appropriate abatement actions will be implemented in accordance with applicable regulatory requirements.

3. Wastes and potentially hazardous waste within the project limits, including trash, debris piles, and equipment, will be removed and disposed of and/or recycled at appropriate facilities off site in accordance with applicable regulatory requirements.

Cultural and Paleontological Resources

1. Prior to and for the duration of ground disturbances during the construction period, archaeological resources training will be provided to key personnel or supervisors. Training materials will be prepared by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. The actual training, however, may be conducted by any member of the cultural resources team, and may be delivered to the construction crew in person or via a PowerPoint presentation or training video. The training will describe appropriate measures for treatment and protection of cultural resources in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties; include a discussion of applicable laws and penalties under the law; and include samples or visual representations of artifacts that might be found in the vicinity of the Proposed Action. The training will outline the steps that must be taken in the event that cultural resources are encountered during construction of the Proposed Action.

2. A Paleontological Monitoring Plan will be prepared and implemented. The Paleontological Monitoring Plan will likely include the following types of measures in accordance with standard construction practices in southern California, with detailed requirements to be determined during the plan preparation and approval process:

    - A Qualified Paleontologist will be present at pre-grading meetings to consult with grading/excavation contractors regarding the potential location and nature of paleontological resources and associated monitoring/recovery operations. A Qualified Paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or a related field, and who has knowledge of local paleontological resources and documented experience in field identification and collection of fossil materials.

    - A Qualified Paleontologist or Paleontological Monitor (working under the direction of the Qualified Paleontologist) will be on site to monitor for paleontological resources during all original grading/excavation activities involving previously undisturbed areas of the Old Paralic Deposits, Del Mar Formation, and/or Torrey Sandstone. A Paleontological Monitor is defined as an individual with at least one year of experience in field identification and collection of fossil materials.

- If paleontological resources are discovered, the Qualified Paleontologist (or Paleontological Monitor) will implement appropriate salvage operations, potentially including simple excavation, plaster-jacketing of large and/or fragile specimens, or quarry excavations for richly fossiliferous deposits. The Qualified Paleontologist and Paleontological Monitor will be authorized to halt or divert construction work in salvage areas to allow for the timely recovery of fossil remains.

- Paleontological resources collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged pursuant to accepted industry methods.

- Prepared fossils, along with copies of pertinent field notes, photos and maps, will be deposited in an approved scientific institution with paleontological collections.

- A final report will be prepared by the Qualified Paleontologist to describe the results of the mitigation program, including field and laboratory methods, stratigraphic units encountered, and the nature and significance of recovered paleontological resources.

Geology and Soils

1. Potential impacts related to the stability of manufactured slopes and excavations may be addressed through efforts such as: (1) limiting cut slopes in formational materials to maximum grades of 1.5: 1, and limiting fill slopes to maximum grades of 2:1; (2) using properly engineered fill as outlined above for ground acceleration; (3) implementing appropriate over-excavation, placement of base materials (e.g., crushed rock or compacted gravel), and benching for widening of existing embankments; (4) providing appropriate drainage and landscaping to control erosion (as well as other related BMPs, refer to Section 4.3 of the EA); (5) conducting field inspections during construction to verify the condition (e.g., degree of weathering) of formational materials proposed for cut slopes; and (6) conforming with applicable OSHA and Cal/OSHA standards to provide stability for temporary excavations and ensure worker safety.

2. Potential impacts related to oversize materials may be addressed through efforts such as off-site removal/disposal, selective burial in deeper fills, and/or crushing to achieve appropriate size for use as fill.

3. Potential impacts related to seismic ground acceleration may be addressed through measures such as: (1) incorporation of applicable seismic design criteria from sources including the IBC/CBC and/or Greenbook; (2) proper fill composition (including non-corrosive and non-expansive material), moisture content, placement (e.g., removal of vegetation and other deleterious material and scarification of

placement areas), and compaction parameters; (3) appropriate foundation design and implementation, including properly placed cast-in-drilled-hole (CIDH) piles of appropriate diameter and depth for deep foundations to support bridge abutments, piers, platform(s), and ramps; (4) reinforced concrete and masonry; and (5) appropriate structure and utility design.

4. Potential liquefaction and seismically-induced (dynamic) settlement effects may be addressed through efforts such as: (1) conformance with applicable seismic design criteria as noted above for ground acceleration; (2) removal and recompaction or replacement of materials susceptible to liquefaction and/or seismic settlement with properly engineered fill in applicable areas; (3) use of CIDH piles to extend foundations below liquefiable layers for applicable facilities (as described above for ground acceleration); and (4) use of positive surface drainage and/or subdrains in appropriate areas to avoid saturation of surficial deposits.

5. Potential non-seismic settlement (subsidence) impacts may be addressed through: (1) establishing settlement monuments approximately every 200 feet along the alignment of finished widened embankments and abutments; and (2) conducting related settlement monitoring twice per week during construction and weekly thereafter, with railroad construction to be delayed until it is determined by the geotechnical engineer that adequate settlement has occurred (i.e., such that additional future settlement would be minimal).

6. Potential impacts related to proposed retaining (soil nail and cast-in-place) wall instability may be addressed through implementing applicable geotechnical recommendations related to wall design (including appropriate foundations/footings, settlement considerations and loading capacities), locations, composition (including appropriate reinforcement), backfill (including use of non-expansive, non-corrosive and properly engineered fill), drainage/waterproofing, and construction methodology (e.g., proper installation of soil nails).

7. Potential impacts related to corrosive soils may be addressed through efforts including: (1) removal of unsuitable soils and replacement with non-corrosive fill; (2) use of Type II/V cement for concrete (along with other related geotechnical recommendations related to water and rock content); (3) using other corrosion-resistant construction materials (e.g., coated steel) as applicable; and (4) installing cathodic protection devices.

Noise and Vibration

1. SANDAG will implement potential general noise reduction strategies for construction noise impacts including the following measures:

- Construct noise barriers, such as temporary walls or berms, between noisy activities and residences.
- Combine noisy operations so they occur in the same time period. The total noise level produced will not be substantially greater than if the operations were performed separately.
- Avoid nighttime construction when feasible. When nighttime work is necessary, either use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with spotters.
- Implement noise-deadening measures for truck loading and operations.
- Monitor and maintain equipment to meet noise limits.
- Minimize the use of generators to power equipment.

2. Although not required to avoid a significant impact, vibration monitoring will be provided at the nearby residential locations when a pile driver is used within 325 feet of a residence. If the vibration levels exceed a level of 72 VdB, the power level of the pile driver could be reduced, or vibration shielding provided via a trench or alternative method, to reduce vibration impacts.

9.0 CONCLUSION

FRA finds that the San Dieguito River Bridge Replacement, Double Track, and Del Mar Fairgrounds Special Events Platform Project, as presented and assessed in the attached Tier 2 EA, satisfies the requirements of FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999) and NEPA (42 USC 4321), including any identified avoidance, minimization, and mitigation measures outlined within, and has determined that the Proposed Action would have no foreseeable significant impact on the quality of the human or natural environment provided it is implemented in accordance with the commitments identified in this FONSI. As the project sponsor, SANDAG is responsible for ensuring all environmental commitments identified in Section 9.0 above are fully implemented. This FONSI is based on the Tier 2 EA, which was independently evaluated by FRA and determined to adequately and accurately discuss the purpose, need, and environmental impacts of the Proposed Action, and the appropriate avoidance, minimization, and mitigation measures necessary to avoid and/or minimize any significant effects on the environment. The EA provides sufficient evidence and analysis for FRA to determine that an Environmental Impact Statement is not required for the Proposed Action, as presented.

Sarah Feinberg
Administrator
Federal Railroad Administration

1/5/2016
Date

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