3.7 Jurisdictional Waters and Wetland Resources

3.7.1 Introduction

This section identifies potential jurisdictional waters and wetlands within the Tier 1/Program EIS/EIR Study Area and evaluates the effects of the No Build Alternative and Build Alternative Options on these resources. Wetlands provide wildlife habitat, but they can be further classified in terms of their level of wildlife/biological habitat and hydrologic and water quality function. Wetlands are defined by soil characteristics, hydrology, and dominance of vegetation adapted to wet environments.

This service-level evaluation also focuses on wetlands and aquatic habitats associated with waters of the U.S. and waters of the state. Waters of the U.S. are defined in the Clean Water Act (CWA) and include waters such as those used in interstate or foreign commerce; interstate waters including wetlands; interstate waters such as lakes, rivers, and streams; impoundments of waters defined as waters of the U.S.; tributaries to the previously listed waters; and wetlands adjacent to the previously listed waters. Wetlands fed by or that feed into waters of the U.S. are considered jurisdictional waters and are protected under Section 404 of the CWA. Waters of the U.S. are also summarized in Section 3.9, Floodplains, Hydrology, and Water Quality.

Information contained in this section is summarized from the *Biological and Wetland Resources Technical Memorandum* (Appendix G of this Tier 1/Program EIS/EIR).

3.7.2 Regulatory Framework

In accordance with NEPA (42 USC Section 4321 et seq.), CEQ regulations implementing NEPA (40 CFR Parts 1501-1508), FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999) and CEQA, FRA identified jurisdictional waters and wetlands within the Tier 1/Program EIS/EIR Study Area and evaluated the potential impacts on those resources as a result of implementing the Build Alternative Options.

Federal

Clean Water Act

The CWA, as amended, serves as the primary federal law protecting the quality of the nation's surface waters, including wetlands. The CWA prohibits any discharge of pollutants into the nation's waters unless specifically authorized by a permit. The CWA (33 USC Section 1251 et seq.) defines waters of the U.S. as follows:

- All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide
- All interstate waters, including interstate wetlands
- All other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce
- All impoundments of waters otherwise defined as waters of the U.S.
- Tributaries to the foregoing types of waters
- Wetlands adjacent to the foregoing waters (33 CFR Part 328.3 – the term adjacent means bordering, contiguous, or neighboring)

The applicable sections of the CWA are further discussed below:

- Section 303 identifies and sets pollutant standards (total maximum daily load [TMDL]) for impaired waterbodies. TMDLs are the maximum amount of a pollutant that can be present in the waterbody and establishes restrictions for discharges to the waterbody.
- Under Section 401, activities that may result in a discharge into waters of the U.S. must obtain certification from the state in which the discharge would originate or from the interstate water pollution control agency with jurisdiction over affected waters. Project sponsors must obtain a 401 Water Quality Certification from the State Water Resources Control Board (SWRCB).
- Under Section 402, discharges, including, but not limited to, construction-related stormwater discharges to surface waters are regulated through the National Pollutant Discharge Elimination System (NPDES) program. Project sponsors must obtain an NPDES permit from the SWRCB.

- Under Section 404, the United States Army Corps of Engineers (USACE) and U.S. EPA regulate the discharge of dredged and fill materials into the waters of the U.S., including wetlands. Project sponsors must obtain a permit from USACE for discharges of dredged or fill materials into jurisdictional aquatic resources.

Executive Order 11990, Protection of Wetlands

EO 11990 states that federal agencies should ensure that their actions "minimize the destruction, loss or degradation of wetlands and to preserve and to enhance the natural and beneficial values of wetlands" in carrying out their responsibilities.

Presidential Wetland Policy, 1993; Reaffirmation of the Presidential Wetland Policy, 1995

The premise of this policy is for an improved federal wetlands regulatory program: "a goal of no net loss of the Nation's remaining wetlands and increasing the quality and quantity of the Nation's wetlands."

United States Department of Transportation Order 5660.1A, Order on Preservation of the Nation's Wetlands

USDOT Order 5660.1A requires agencies within USDOT to assess their effects on wetlands and associated wildlife and directs them to evaluate alternatives and measures that avoid and minimize effects on wetlands.

State

Section 1600 et seq. (Lake and Streambed Alteration)

Section 1600 et seq. requires notifying the California Department of Fish and Wildlife (CDFW) prior to any project activity that might (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

If after this notification CDFW determines that the activity may substantially affect fish and wildlife resources, a Lake or Streambed Alteration Agreement needs to be obtained.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act provides authority for the SWRCB and Regional Water Quality Control Board (RWQCB) to regulate discharges to waters of the state, including wetlands.

Waters of the state include all waters of the U.S. and any other waters within the state, regardless of their federal jurisdiction. It also provides for implementation of portions of the CWA by the SWRCB, including the development of basin plans with identified beneficial uses, issuance of Section 401 certifications, and issuance of Section 402 NPDES permits.

Impacts on waters of the state are authorized through the issuance of Waste Discharge Requirements, which require documenting compliance with state water quality standards, including watershed plans, designated beneficial uses, and the TMDL program. Issuance of a Section 401 Water Quality Certification generally incorporates the waste discharge requirements for effects on waters of the state. However, those surface resources lacking CWA jurisdiction are regulated under the waste discharge requirement process.

As defined in Division 7, Chapter 2, Section 13050(e) of the California Water Code, waters of the state include "any surface or groundwater, including saline waters, within the boundaries of the state." In practice, waters of the state are delineated as any aquatic resource with an ordinary high water mark or that meets the description of wetlands as described above. Waters of the state include all waters of the U.S. and any isolated aquatic resources.

Regional

County General Plans

Applicable elements of the general plans for the four counties that the Build Alternative Options are located in, which include Los Angeles, Orange, Riverside, and San Bernardino, are summarized in the *Biological and Wetland Resources Technical Memorandum* (Appendix G of this Tier 1/Program EIS/EIR).

Local and Tribal Governments

Regulations from cities, local agencies, and tribal governments would be identified in the Tier 2/Project-level analysis once site-specific rail infrastructure improvements and station facilities are known.

3.7.3 Methods for Evaluating Environmental Effects

The methodology for the jurisdictional waters and wetlands evaluation consists of a service-level quantitative assessment, not a detailed evaluation of individual jurisdictional waters or wetlands. The quantification compares relative effects among the Build Alternative Options. A detailed Tier 2/Project-level analysis would be completed as part of future NEPA and CEQA analyses and would identify permitting requirements for construction.

The methodology for this evaluation consists of using existing data to identify jurisdictional and wetland resources that could be present within the Tier 1/Program EIS/EIR Study Area for each Build Alternative Option and evaluating the potential level of effect that each Build Alternative Option could have if constructed. Each Build Alternative Option is compared with other Build Alternative Options within the same geographical sections, as well as with the No Build Alternative.

Tier 1/Program EIS/EIR Study Area

This service-level evaluation is limited to a desktop evaluation of the data sources described in Section 3.7.3. The Tier 1/Program EIS/EIR Study Area was combined with GIS overlays to identify potential jurisdictional waters and wetlands resources that could be affected by the Program. These potential jurisdictional waters and wetland resources were identified on a broad scale using available mapping information. A detailed description of the Tier 1/Program EIS/EIR Study Area is provided in Section 3.1, Introduction to Environmental Analysis.

For this evaluation, the estimated number and acreage of potential jurisdictional waters and wetlands were compared for each of the Build Alternative Options. The detailed footprints associated with each of the Build Alternative Options considered will not be determined until additional studies are conducted in the Tier 2/Project-level analysis. Therefore, the number and acreages associated with these resources within the Tier 1/Program EIS/EIR Study Area provide an estimate of the magnitude of potential effects. The intensity of an effect as a result of the route alternatives are characterized as negligible, moderate, or substantial compared with the No Build Alternative.

In a Tier 2/Project-level analysis, impacts would be analyzed quantitatively using more detailed analytical methods, such as field surveys, mapping of jurisdictional waters and wetland resources, and use of GIS overlays of jurisdictional waters and wetland resources with the defined Project footprint to quantify impacts. In addition, a Tier 2/Project-level analysis would include a more detailed impact analysis of wetland areas, including field surveys and a jurisdictional wetland delineation to determine which areas meet U.S. EPA and USACE regulatory criteria and definition of a wetland and the types and boundaries of those wetland areas. As part of the Section 404 permitting process, additional coordination with USACE would be required to determine which wetland areas are jurisdictional or non-jurisdictional.

Data Sources

Online GIS data available from United States Fish and Wildlife Services (USFWS), CDFW, and a variety of other sources were used to identify jurisdictional waters and wetland resources with potential to occur within the Tier 1/Program EIS/EIR Study Area. Specifically, the following resources were reviewed:

- **Waters of the U.S.:** To identify waters of the U.S., the USFWS National Wetland Inventory (NWI) maps (USFWS 2018) and National Hydrography Data (United States Geological Survey [USGS 2016]) were consulted.
- **Wetlands:** For this evaluation, the USFWS NWI database (USFWS 2018) was used to identify locations of potential wetland areas within the Tier 1/Program EIS/EIR Study Area. The NWI maps are based on a classification system known as the Cowardin System, which classifies the types of ecosystems related to water resources. Typical wetland classifications in the Arid West include riverine, freshwater pond, and freshwater forested/shrub. According to the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008), three criteria must be satisfied to classify an area as a wetland: (1) hydrophytic vegetation; (2) hydric soils; and (3) wetland hydrology.

Related Resources

This evaluation incorporates data and evaluation from related resources to contribute to the assessment of effects on jurisdictional waters and wetland resources. These related resources are identified in Table 3.7-1.

Table 3.7-1. Related Resource Inputs for Jurisdictional Waters and Wetland Resources

Resource	Input for Biological Assessment
Land Use and Planning (Section 3.2)	Land uses that correlate to terrestrial or aquatic habitats, such as open space and conservation areas, were identified. Habitat conservation plans, etc. were identified.
Floodplains, Hydrology, and Water Quality (Section 3.9)	Freshwater resources that may provide aquatic habitat and/or support threatened and endangered species were identified.

3.7.4 Affected Environment

The Program Corridor crosses a large geographic area within Southern California, spanning approximately 144 miles from its western terminus in Los Angeles to its eastern terminus in Coachella. The topography crossed by the Program Corridor ranges from relatively flat, urban landscapes in the Western Section of the Program Corridor to hilly canyons in the central portion, and flat, low desert habitat in the east. Elevations within the Program Corridor range from 300 feet above mean sea level at the western terminus in Los Angeles up to 600 feet in Corona, 1,000 feet in Colton, and 2,600 feet in Beaumont (highest elevation), and down to 75 feet below mean sea level at the eastern terminus in Coachella (lowest elevation).

The Program Corridor traverses four major geographic regions: the Los Angeles Basin from Los Angeles to Corona, the Inland Empire from Corona to Redlands, the Peninsular Range from Redlands to Banning, and the northwestern Sonoran Desert from Banning to Coachella.

The Program Corridor occurs within an existing railroad corridor that traverses areas that have predominately been heavily modified for urban purposes, especially in the Western Section of the Tier 1/Program EIS/EIR Study Area, although some areas occur in or adjacent to lands that are in a natural condition. Much of the Tier 1/Program EIS/EIR Study Area from Los Angeles to Redlands is urbanized, offering limited habitat value for most plant and wildlife species.

Jurisdictional Waters

Six rivers, 26 named drainages, and 1 named lake are located within the Tier 1/Program EIS/EIR Study Area. Table 3.7-2 provides a summary of these waterbodies located within each of the Build Alternative Options. In addition to the named waterbodies, numerous unnamed ephemeral washes also traverse the Tier 1/Program EIS/EIR Study Area. The descriptions and maps for waterbodies in the Tier 1/Program EIS/EIR Study Area are included as part of Appendix G of this Tier 1/Program EIS/EIR.

Build Alternative Option 1 (Coachella Terminus)

Most waterbodies located within the Western Section of Build Alternative Option 1 are characterized as creeks, washes, and channels. Rivers, lakes, and ponds are also present within the Western Section. For the Eastern Section of Build Alternative Option 1, the majority of the waterbodies are also characterized as creeks, washes, and channels. Similar to the Western Section, there are a limited number of rivers within the Eastern Section. Table 3.7-2 provides a summary of waterbodies located within the Build Alternative Options.

Table 3.7-2. Summary of Waterbodies (Build Alternative Options 1, 2, and 3)

Waterbody Type	Number of Waterbody Types within Western Section	Number of Waterbody Types within Eastern Section	Total Number of Waterbody Types
Rivers	4	3	7
Streams/creeks	7	10	17
Washes/channels	7	6	13
Lakes/ponds	1	0	1
Reservoirs	0	0	0

Source: USFWS 2018

Build Alternative Option 2 (Indio Terminus)

Waterbodies within Build Alternative Option 2 are the same as Build Alternative Option 1.

Build Alternative Option 3 (Indio Terminus with Limited Third Track)

Waterbodies within Build Alternative Option 3 are the same as Build Alternative Option 1.

Wetlands

Figure 3.7-1 shows the NWI-mapped wetlands located within the Tier 1/Program EIS/EIR Study Area. The following section describes potential wetlands associated with waters of the U.S. and waters of the state within the Western and Eastern Sections of the Tier 1/Program EIS/EIR Study Area for each of the Build Alternative Options.

Build Alternative Option 1 (Coachella Terminus)

The largest wetland areas located within the Western Section of Build Alternative Option 1 are mainly composed of riverine wetlands. Other wetland types such as freshwater forested/shrub wetlands, freshwater pond wetlands, lake wetlands, and freshwater emergent wetlands are also present within the Western Section. For the Eastern Section of Build Alternative Option 1, the largest wetlands areas are mainly comprised of riverine wetlands. Similar to the Western Section, other wetland types such as freshwater forested/shrub wetlands, freshwater pond wetlands, and freshwater emergent wetlands are also present within the Eastern Section. Table 3.7-3 provides a summary of potential wetlands within Build Alternative Option 1.

Table 3.7-3. Summary of Wetland Types (Build Alternative Option 1)

Wetland Type	Number and Area of Wetland Types within Western Section	Number and Area of Wetland Types within Eastern Section	Total Number and Area of Wetland Types
Freshwater emergent wetland	6 (2.15 acres)	5 (4.43 acres)	**11** **(6.58 acres)**
Freshwater forested/shrub wetland	43 (31.04 acres)	8 (78.31 acres)	**51** **(109.35 acres)**
Freshwater pond	21 (25.61 acres)	29 (67.39 acres)	**50** **(93.00 acres)**
Lakes	7 (24.80 acres)	0 (0.00 acres)	**7** **(24.80 acres)**
Riverine	114 (150.07 acres)	122 (347.30 acres)	**236** **(497.37 acres)**

Source: USFWS 2018

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Figure 3.7-1. National Wetland Inventory-Mapped Wetlands within the Tier 1/Program EIS/EIR Study Area

(Page 1 of 6)

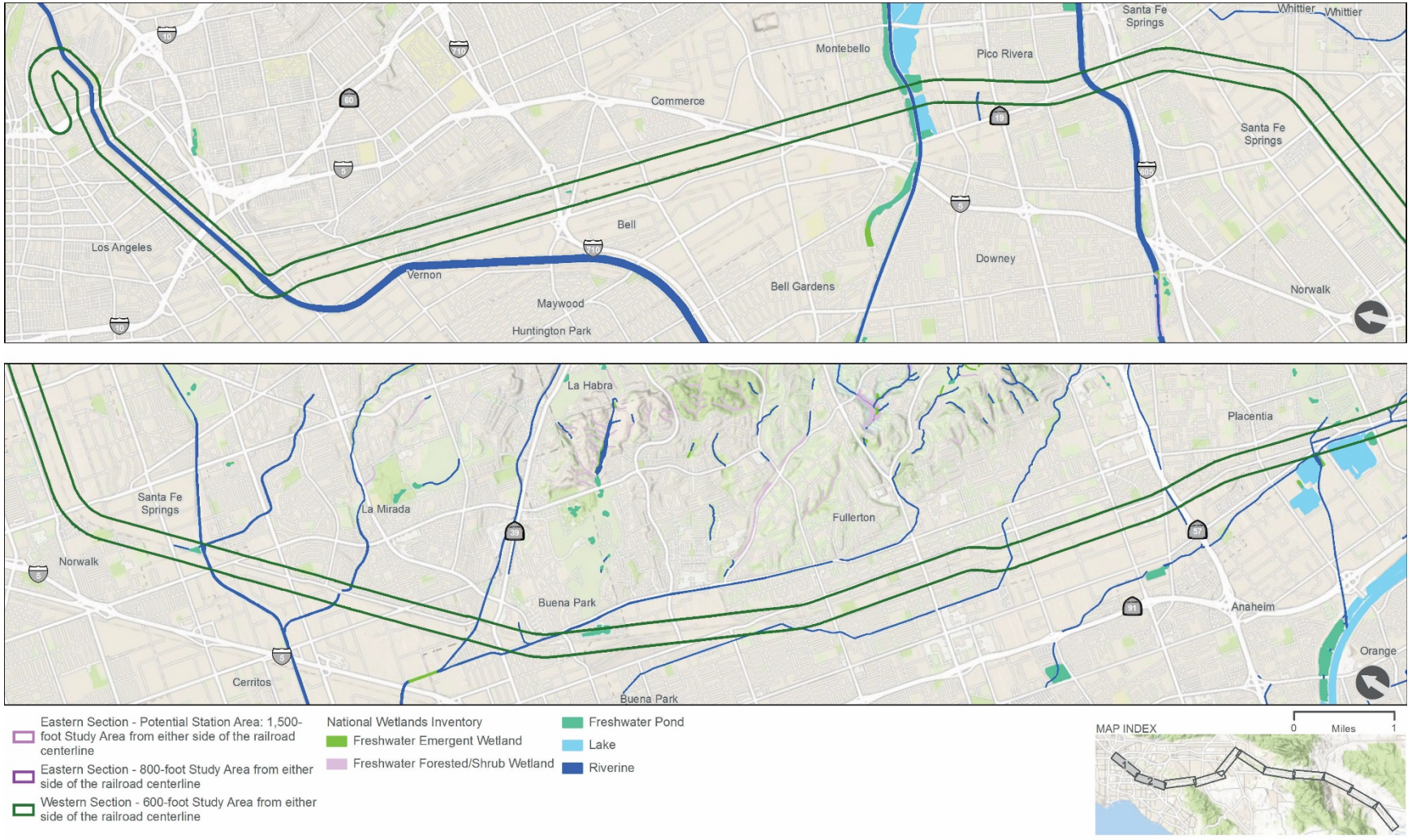

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Figure 3.7-1. National Wetland Inventory-Mapped Wetlands within the Tier 1/Program EIS/EIR Study Area

(Page 2 of 6)

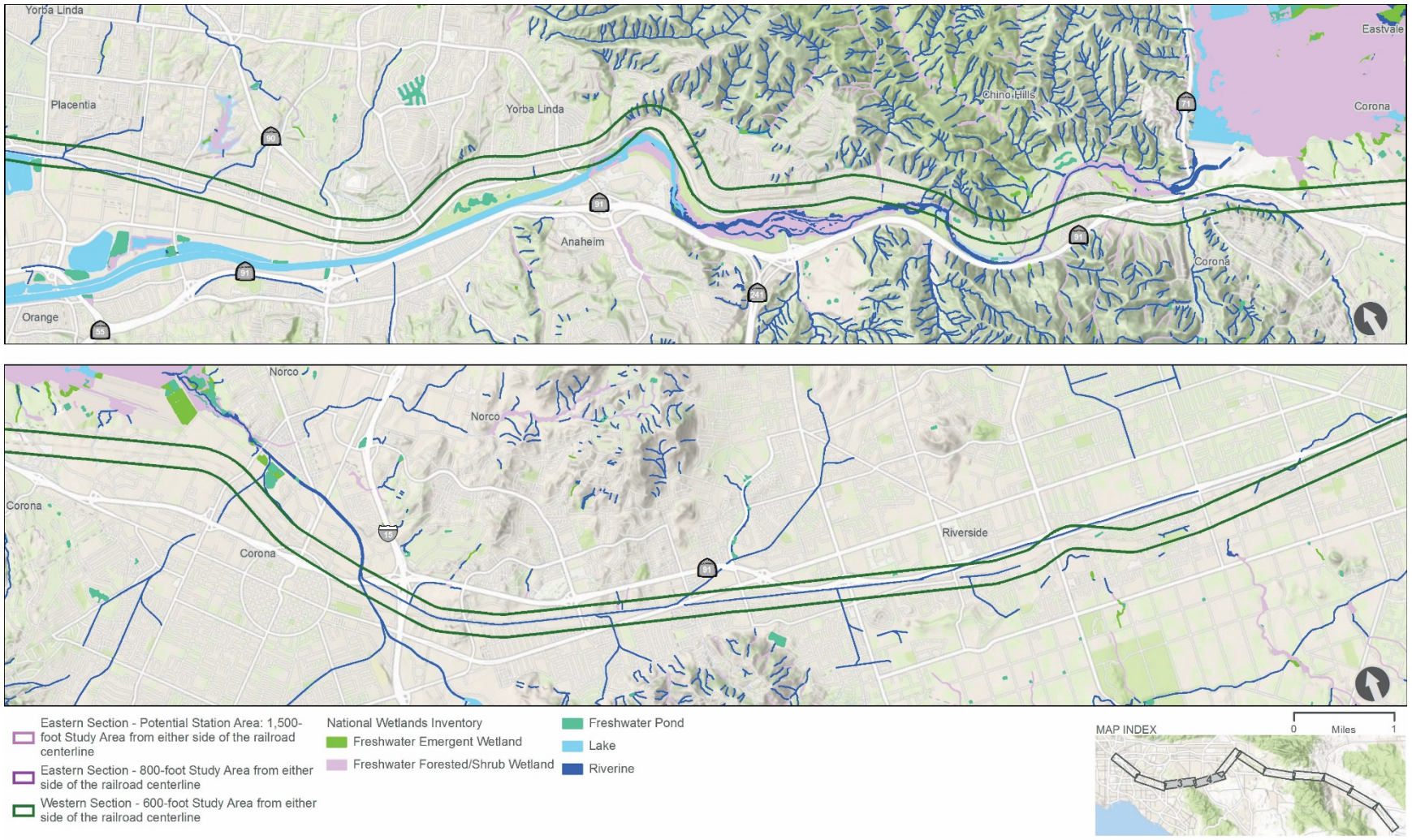

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Figure 3.7-1. National Wetland Inventory-Mapped Wetlands within the Tier 1/Program EIS/EIR Study Area

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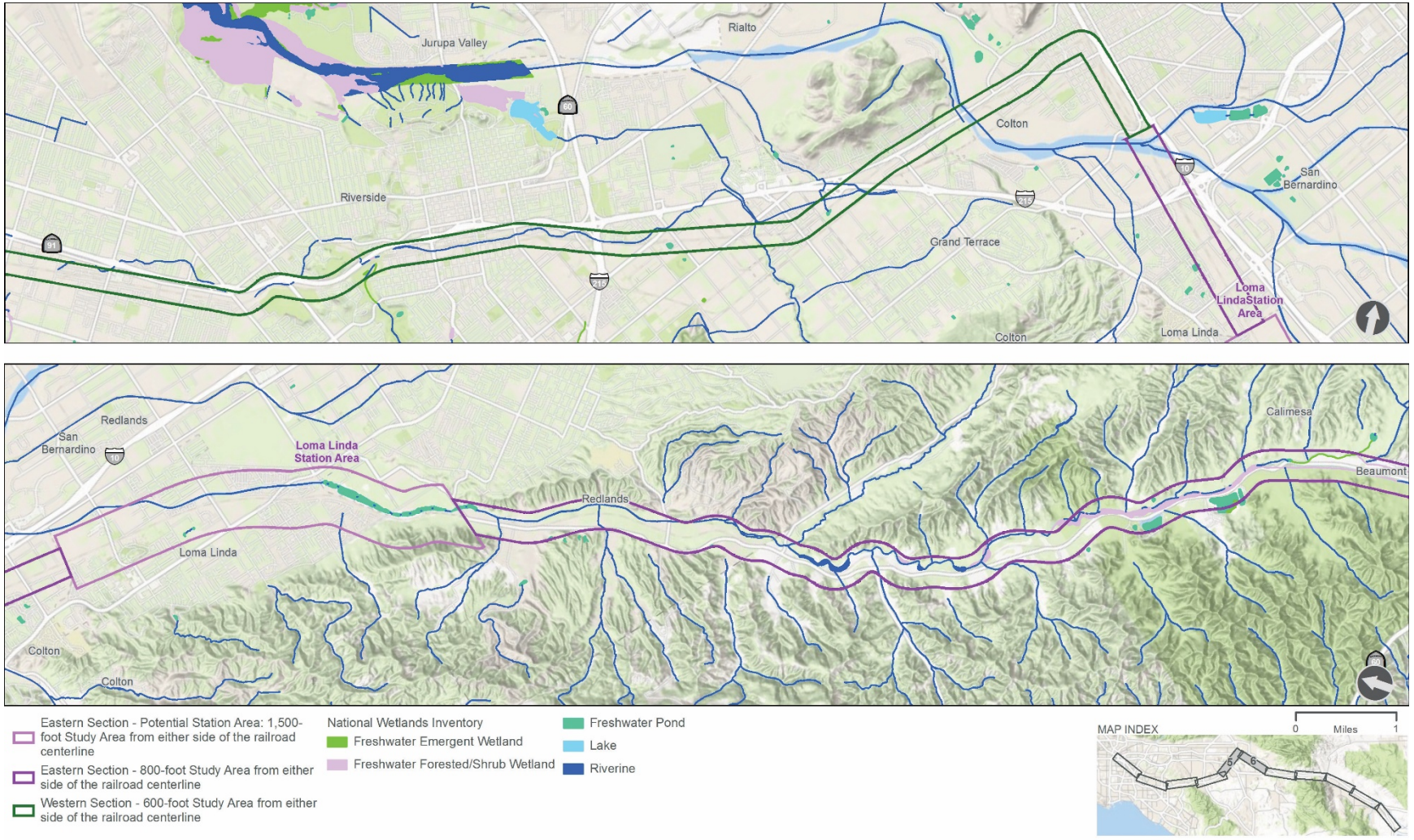

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Figure 3.7-1. National Wetland Inventory-Mapped Wetlands within the Tier 1/Program EIS/EIR Study Area

(Page 4 of 6)

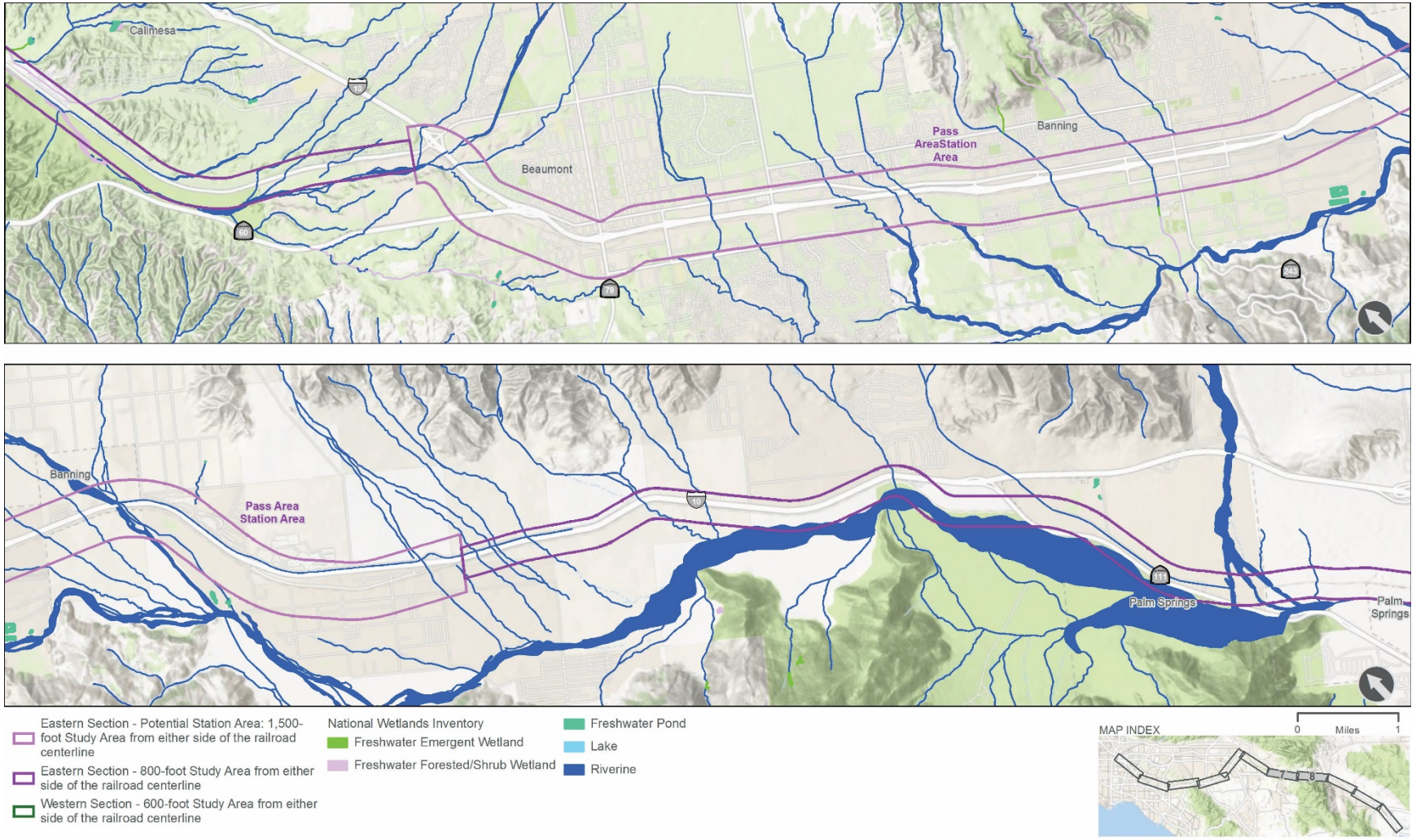

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Figure 3.7-1. National Wetland Inventory-Mapped Wetlands within the Tier 1/Program EIS/EIR Study Area

(Page 5 of 6)

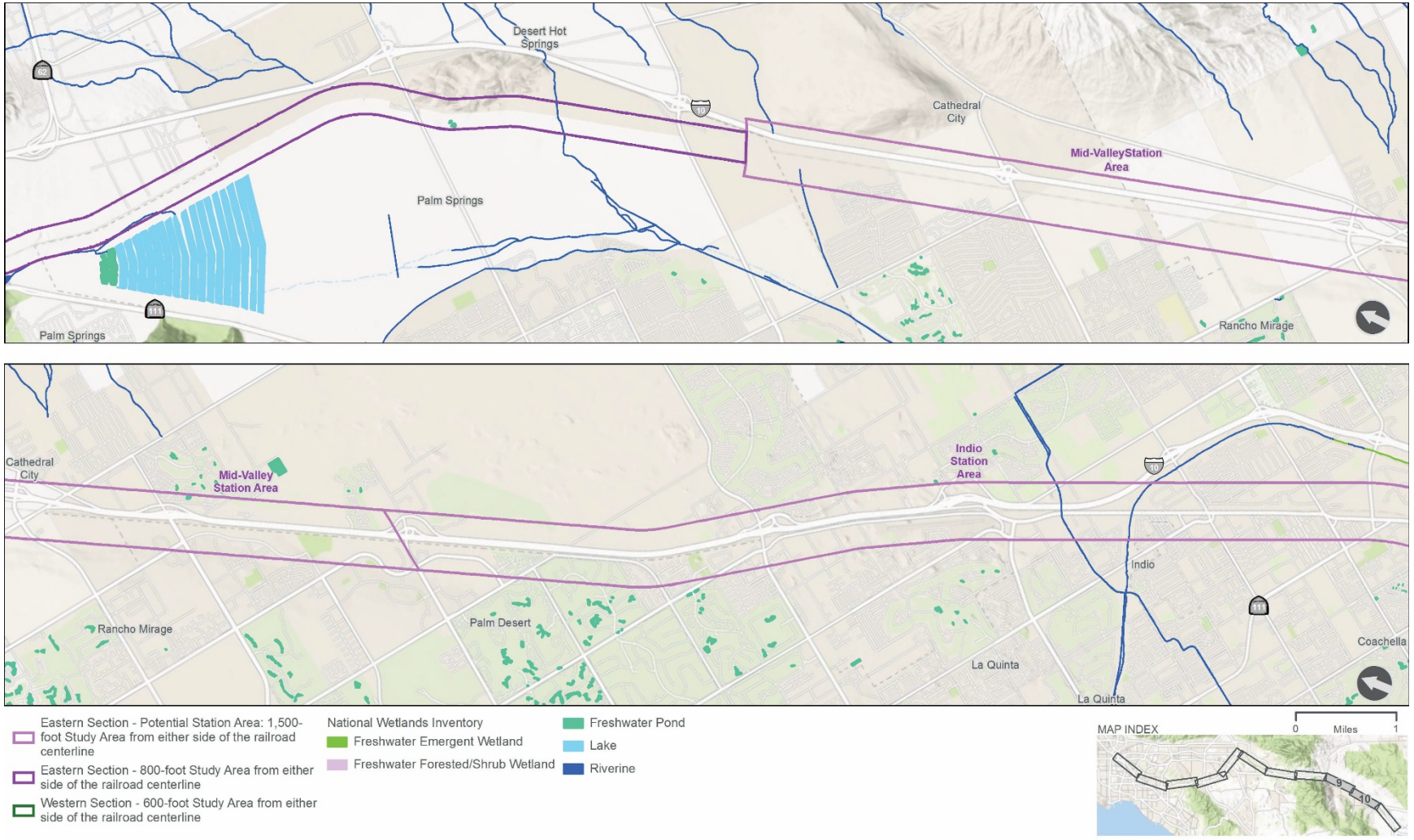

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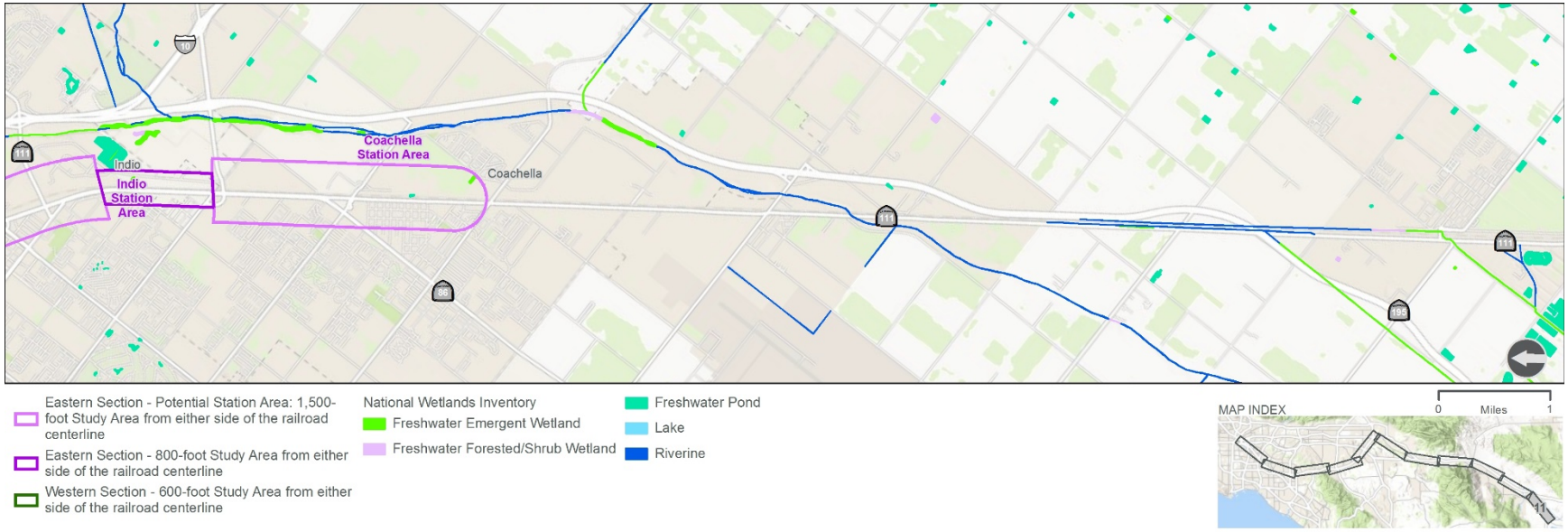
Figure 3.7-1. National Wetland Inventory-Mapped Wetlands within the Tier 1/Program EIS/EIR Study Area

(Page 6 of 6)



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Build Alternative Option 2 (Indio Terminus)

The types of wetland areas that could be impacted by Build Alternative Option 2 are the same as for Build Alternative Option 1. Table 3.7-4 provides a summary of potential wetlands within Build Alternative Option 2.

Table 3.7-4. Summary of Wetland Types (Build Alternative Options 2 and 3)

Wetland Type	Number and Area of Wetland Types within Western Section	Number and Area of Wetland Types within Eastern Section	Total Number and Area of Wetland Types
Freshwater emergent wetland	6 (2.15 acres)	4 (3.51 acres)	**10** **(5.66 acres)**
Freshwater forested/shrub wetland	43 (31.04 acres)	8 (78.31 acres)	**51** **(109.35 acres)**
Freshwater pond	21 (25.61 acres)	28 (66.99 acres)	**49** **(92.60 acres)**
Lakes	7 (24.80 acres)	0 (0.00 acres)	**7** **(24.80 acres)**
Riverine	114 (150.07 acres)	122 (347.30 acres)	**236** **(497.37 acres)**

Source: USFWS 2018

Build Alternative Option 3 (Indio Terminus with Limited Third Track)

As shown in Table 3.7-4, the types of wetland areas that could be impacted by Build Alternative Option 3 are the same as for Build Alternative Option 2.

3.7.5 Environmental Consequences

Overview

Effects as a result of implementing the Build Alternative Options can be broadly classified into construction and operational effects. Long-term or permanent effects and short-term or temporary effects on jurisdictional waters and wetland resources would be anticipated as a result of constructing any of the Build Alternative Options. Most effects on jurisdictional waters or wetlands would occur during construction when the ground is disturbed and when there could be temporary disturbance of wetland areas and functions.

Effects could result from vegetation clearing, site grading, and filling for construction access to permanent facilities. These activities could decrease soil permeability, infiltration, water storage capacity, and vegetation regrowth, which may reduce wetland functions. Regulations require that these areas be revegetated and returned to natural conditions following construction.

Additionally, fuel oils, chemicals, or concrete leachate could be spilled during construction activities. An increase in sediment loading and turbidity from grading and filing activities could contribute sediment-laden runoff into wetlands and degrade water quality. Invasive species could be introduced and spread as a result of disturbance, thus undermining the function of wetland vegetation. After construction is complete, operational effects on waters of the U.S. and waters of the state would be short term but recurring from maintenance of structures that cross waters of the U.S. and waters of the state.

Operational or long-term effects would include the permanent placement of fill of wetlands and wetland buffers for the permanent rail structures and support infrastructure. In addition, permanent effects on wetlands that could persist throughout operation include the following:

- Permanently removing wetland area and function, including wetlands buffer areas
- Generating runoff from new pollution-generating impervious surfaces (roadway modifications, station infrastructure, and maintenance facilities), potentially increasing pollutant loads to wetlands
- Potentially spilling fuel, oil, or chemical spills at stations or maintenance facilities

No Build Alternative

The No Build Alternative, as described in Chapter 2, Program Alternatives, is used as the baseline for comparison. The No Build Alternative would not implement the proposed Program associated with this service-level evaluation. Therefore, the No Build Alternative is anticipated to have no effect on jurisdictional waters or wetland resources.

Build Alternative Options 1, 2, and 3

Jurisdictional Waters and Wetland Effects

CONSTRUCTION

Western Section. Although the Western Section contains areas that could be considered jurisdictional waters or wetlands, the Western Section of the Program Corridor would utilize existing rail infrastructure, and no additional track improvements, station improvements or new stations would be required to accommodate the proposed service. When compared with the No Build

Alternative, short-term/temporary effects on jurisdictional waters or wetland resources would be considered negligible because no additional construction activities would occur within the Western Section under Build Alternative Options 1, 2, and 3.

Eastern Section. The Eastern Section of Build Alternative Option 1 would require infrastructure improvements such as sidings, additional main line track, wayside signals, drainage, grade-separation structures, and stations to accommodate the proposed service; however, the location of these improvements has not yet been identified. Construction activities associated with the Eastern Section could include vegetation removal; ground clearing; placement of fill material; new, replaced, or extended culverts; and station facility development. These type of construction activities could result in short-term/temporary effects associated with the temporary disturbance of wetland areas and functions.

Waterbodies that may run parallel to the Eastern Section route, such as San Timoteo Creek, could be affected by longer stretches of cut, fills, or diversions required to construct ballast, embankments, drainage slopes, or other railway or station infrastructure components. Waterbodies adjacent to the Eastern Section route may also be relocated or even truncated to accommodate the new railway and station infrastructure. The placement of fill required for major infrastructure, such as sidings, spurs, yards, and stations, could further increase effects within jurisdictional waters and wetland areas. Effects on jurisdictional waters, including wetlands, in the Eastern Section are anticipated to be unavoidable given the number of waterways and drainages. However, effects on jurisdictional waters, including wetlands, would be minimized through regulatory compliance with Sections 401 and 404 of the CWA. Jurisdictional waters that run perpendicular to the rail line would be affected for the length and width of the culvert(s) required to allow water flows to pass beneath the rail line, plus any erosion or scour control constructed within the watercourse.

In some locations, effects could be further minimized by using a bridge structure to clear-span the watercourse. Effects on wetlands would be dependent on the placement of new rail infrastructure (tracks, ballast, embankments, stations, etc.) in relation to wetlands. In addition, avoidance of NWI-mapped wetlands identified for the various station area study areas (Figure 3.7-1) would help minimize effects on those resources. Regulatory agencies like USACE and RWQCB have rules and guidance that require no net loss of wetland functions and values when such resources may be impacted. It is anticipated that regulatory compliance with Section 401 and 404 of the CWA would require avoidance, minimization, or compensatory mitigation that would meet the goal of no net loss of wetland functions and values. Therefore, effects associated with the Eastern Section of Build Alternative Option 1 on jurisdictional waters and wetland resources would be moderate when compared with the No Build Alternative.

Site-specific short-term/temporary and long-term/permanent effects would be considered at the Tier 2/Project-level analysis once details for the needed rail and station infrastructure are known.

Overall, as compared with Build Alternative Option 1, implementation of Build Alternative Option 2 could potentially have a lesser effect on jurisdictional waters and associated wetlands because Build Alternative Option 2 contains fewer locations of jurisdictional waters and fewer acres of wetlands. However, while the acres of jurisdictional waters and wetlands differs between Build Alternative Option 1 and Build Alternative Option 2, the magnitude of effects would be similar and would be considered of moderate intensity when compared with the No Build Alternative. When compared with Build Alternative Options 1 or 2, Build Alternative Option 3 may have slightly reduced effects on jurisdictional waters and wetlands due to a smaller footprint associated with a shorter route alignment, reduced station options, and reduced third track rail infrastructure. However, the magnitude of effects would be similar for Build Alternative Option 3 and would be considered moderate when compared with the No Build Alternative.

OPERATION

Western Section. Under Build Alternative Options 1, 2, and 3, passenger train frequencies proposed as part of the Program would consist of the addition of two daily round-trip intercity diesel-powered passenger trains operating the entire length of the Program Corridor between Los Angeles and Coachella. During operation, existing maintenance activities that would occur within the ROW along the Western Section route would be in areas where the natural ecosystem has already been disturbed and the Program Corridor is heavily trafficked. Effects associated with the Western Section of Build Alternative Options 1, 2, and 3 on jurisdictional waters and wetland resources would be similar and negligible when compared with the No Build Alternative.

Eastern Section. Operational effects are anticipated to be limited to maintenance of culverts, bridges, embankments, and station areas. Efforts during the design phase to avoid wetlands would help to minimize potential operational effects because fewer jurisdictional waters and/or wetlands would be in proximity to a future rail line or station area. In addition, maintenance BMPs would be developed and implemented for future station areas to ensure that maintenance materials such as oils, lubricants, and fuels are handled in an appropriate regulatory manner and kept away from sensitive areas such as waterbodies or wetlands. Operational/long-term effects associated with the Eastern Section of Build Alternative Options 1, 2, and 3 would be similar and moderate when compared with the No Build Alternative.

3.7.6 NEPA Summary of Potential Effects

Table 3.7-5 summarizes the qualitative assessment of potential effects (negligible, moderate, or substantial) under NEPA for each of the Build Alternative Options. This service-level evaluation uses the Tier 1/Program EIS/EIR Study Area to determine the types of resources that may be affected and, more importantly, the relative magnitude of resources that may be affected. For jurisdictional waters and wetland resources, the level of intensity for effects is based on volume of habitat or wetlands potentially affected and that most wetland effects can be mitigated through wetland replacement or wetland mitigation banks. Specific mitigation measures to avoid and minimize effects would be analyzed at the Tier 2/Project-level phase.

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Table 3.7-5. NEPA Summary of Effects on Jurisdictional Waters and Wetland Resources

Alternative Options	Total Number and Acreage of Wetlands	Freshwater Emergent Wetland (acres)	Freshwater Forested/ Shrub Wetland (acres)	Freshwater Pond (acres)	Lake (acres)	Riverine (acres)	Potential Intensity of Effect: Western Section	Potential Intensity of Effect: Eastern Section
No Build Alternative[a]	0 (0.00 acres)	0	0	0	0	0	Construction: None Operation: None	Construction: None Operation: None
Build Alternative Option 1 (Coachella Terminus)	355 (731.10 acres)	6.58	109.35	93.00	24.80	497.37	Construction: Negligible Operation: Negligible	Construction: Moderate Operation: Moderate
Build Alternative Option 2 (Indio Terminus)	353 (729.78 acres)	5.66	109.35	92.60	24.80	497.37	Construction: Negligible Operation: Negligible	Construction: Moderate Operation: Moderate
Build Alternative Option 3 (Indio Terminus with Limited Third Track)	353 (729.78 acres)	5.66	109.35	92.60	24.80	497.37	Construction: Negligible Operation: Negligible	Construction: Moderate Operation: Moderate

Notes:

[a] The No Build Alternative, as identified, includes existing and potential expansion of roadway, passenger rail, and air travel facilities within the Tier 1/Program EIS/EIR Study Area; however, for the service-level evaluation, identifying levels of effect from potential expansion of those facilities is speculative and would be dependent on Tier 2/Project-level analysis.

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3.7.7 CEQA Summary of Potential Impacts

Based on the information provided in Section 3.7.4 and 3.7.5, and considering the CEQA Guidelines Appendix G Checklist questions for jurisdictional waters and wetland resources, the Build Alternative Options are considered to have a potentially significant impact on jurisdictional waters and wetland resources when reviewed on a Program-wide basis.

Placing the infrastructure improvements and new stations largely within or along the existing ROW reduces the potential for significant impacts on these resources. However, because the precise sites for rail infrastructure and station facilities have not been selected, some jurisdictional waters and wetland resources may be significantly impacted. At the programmatic level of analysis, it is not possible to precisely know the location, extent, and characteristics of impacts on these resources. Proposed programmatic mitigation strategies discussed in Section 3.7.8 will be applied to reduce these impacts on jurisdictional waters and wetland resources.

Table 3.7-6 describes the CEQA significance conclusions for the Build Alternative Options; the proposed programmatic mitigation strategies that could be applied to reduce, avoid, or minimize the potential impacts; and the significance determination after mitigation strategies are applied. The identification and implementation of additional site-specific mitigation measures necessary for Project implementation will occur as part of the Tier 2/Project-level analysis.

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Table 3.7-6. CEQA Summary of Impacts for Jurisdictional Waters and Wetland Resources

Impact Summary	Mitigation Strategy	Significance with Mitigation Strategy
Would the Program have a substantial adverse effect on federally or protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		
Construction		
Western Section – No Impact. No construction impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level because no physical improvements are proposed within the Western Section under Build Alternative Option 1, 2, or 3.	Not applicable	Not applicable
Eastern Section – Potentially Significant. Potential construction impacts on wetlands depend on the location of infrastructure improvements and station locations, which are currently unknown. Some construction impacts, like placement of fill, would be considered permanent and subject to permitting by USACE and mitigation of impacts. Construction activities could impact water quality by creating debris and pollutants like concrete waste and sediment. Due to the variety of construction techniques and numerous waterways and drainages in the Tier 1/Program EIS/EIR Study Area, specific impacts and associated BMPs to minimize or reduce impacts cannot be determined at this time for Build Alternative Option 1, 2, or 3. The Tier 2/Project-level analysis would identify and mitigate impacts on waters of the state and waters of the U.S., including wetlands.	BIO-1, BIO-5, HWQ-1, HWQ-2	**Less than Significant.** Mitigation Strategies BIO-1, BIO-5, HWQ-1, and HWQ-2 would minimize, reduce, or avoid potential impacts on wetlands by identifying resources during Tier 2/Project-level analysis and by providing a program for avoiding, replacing, or compensating for temporary or permanent impacts on wetlands.
Operation		
Western Section – No Impact. No operational impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level because no physical improvements are proposed within the Western Section under Build Alternative Option 1, 2, or 3.	Not applicable	Not applicable

Impact Summary	Mitigation Strategy	Significance with Mitigation Strategy
Eastern Section – Potentially Significant. Potential operational impacts on wetlands depend on the location of infrastructure improvements and station locations, which are currently unknown. Some operational impacts could result in an increase in pollutants, such as fuel and oils, that could enter surface waterways. The Tier 2/Project-level analysis would identify and analyze any impacts on waters of the state and waters of the U.S., including wetlands during operational activities under Build Alternative Option 1, 2, or 3.	HWQ-3, HAZ-2	**Less than Significant.** Mitigation Strategies HWQ-3 and HAZ-2 would minimize, reduce, or avoid potential impacts related to violating water quality standards and waste discharge requirements by requiring compliance with applicable regulations. During Tier 2/Project-level analysis, site specific BMPs would be identified and implemented to protect potentially impacted wetlands.

Notes:
BMP=best management practice; EIR=environmental impact report; EIS=environmental impact statement; U.S.=United States; USACE=United States Army Corps of Engineers

3.7.8 Avoidance, Minimization, and Mitigation Strategies

The environmental planning and review process typically involves considerations of avoidance, minimization, and compensatory mitigation with regard to waters of the U.S. and waters of the state. Measures to avoid, minimize, and provide compensatory mitigation for unavoidable impacts follow USACE rules and guidance, with the goal of no net loss of wetland functions and values. Avoidance, minimization, and mitigation strategies would be considered in evaluating impacts related to waters of the U.S. and waters of the state. Avoidance and minimization of effects will be incorporated when feasible. If effects cannot be avoided or minimized, mitigation strategies will be implemented.

Identified below are proposed programmatic mitigation strategies for further consideration in the Tier 2/Project-level analysis. Examples of programmatic mitigation strategies for wetland resources include those designed to avoid effects and impacts, when possible, and minimize effects and impacts where complete avoidance is not feasible, particularly to jurisdictional waters. In addition to those mitigation strategies proposed below, mitigation for unavoidable effects and impacts on wetland resources (if identified in the Tier 2/Project-level analysis) could include in-lieu fees and on- or off-site mitigation such as habitat or vegetation restoration or payment into a conservation bank. Coordination with USACE, RWQCB, USFWS, and CDFW would occur to develop Project-specific mitigation measures during the Tier 2/Project-level analysis after design details are known. Proposed programmatic mitigation strategies, consistent with state and federal regulations, include, but are not limited to, the following:

Mitigation Strategy BIO-1: During the Tier 2/Project-level analysis, a preliminary biological resource screening shall be performed as part of the environmental review process to determine whether the specific rail infrastructure or station facility proposed has any potential to impact biological resources. If the specific rail infrastructure or station facility proposed has no potential to impact biological resources, no further action will be required. If the specific rail infrastructure or station facility proposed has the potential to impact biological resources, a qualified biologist shall conduct a biological resources assessment report to document the existing biological resources within the Tier 2/Project-level study area. The report shall include, but not be limited to, analysis and recommendations on the following topics:

- Special-status species
- Nesting birds
- Wildlife movement
- Sensitive plant communities and critical habitat
- Jurisdictional waters

- Applicable habitat conservation plans
- Other biological resources identified as sensitive by local, state and/or federal agencies

Pending the results of the biological resources assessment, design alterations; further technical studies (e.g., protocol surveys); and/or consultations with the United States Fish and Wildlife Service, California Department of Fish and Wildlife, and other local, state, and federal agencies may be required. If the specific rail infrastructure or station facility proposed cannot be designed without complete avoidance, the lead agency shall coordinate with the appropriate resource agency to obtain regulatory permits and implement Project-specific mitigation prior to any construction activities.

Mitigation Strategy BIO-5: Prior to initiation of construction activities (including staging and mobilization), all personnel associated with Project construction shall attend worker environmental awareness program training, conducted by a qualified biologist, to aid workers in recognizing special-status resources that may occur in the Tier 2/Project-level study area. The specifics of this program shall include, but not be limited to, the following:

- Identification of the sensitive species and habitats
- Description of the regulatory status and general ecological characteristics of sensitive resources
- Review of the limits of construction and mitigation measures required to reduce impacts on biological resources within the work area
- Preparation of a fact sheet conveying this information shall for distribution to all contractors, their employers, and other personnel involved with construction of the Project
- Employee documentation associated with worker environmental awareness program attendance and acknowledgment

Mitigation Strategy HAZ-2: During Tier 2/Project-level analysis, a site-specific hazardous materials management program shall be prepared for the specific rail infrastructure or station facilities proposed. The hazardous materials management program shall provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project construction and operation, including the proper disposal of waste materials. The hazardous materials management program shall include, but should not be limited to, the following:

- A description of hazardous materials and hazardous wastes used (29 Code of Federal Regulations 1910.1200)

- A description of handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste (29 Code of Federal Regulations 1910.120)
- Preparedness, prevention, contingency, and emergency procedures, including emergency contact information (29 Code of Federal Regulations 1910.38)
- A description of personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility (29 Code of Federal Regulations 1910)
- Instructions on keeping Safety Data Sheets for each on-site hazardous chemical (29 Code of Federal Regulations 1910.1200)
- Identification of the locations of hazardous material storage areas, including temporary storage areas, which shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank (29 Code of Federal Regulations 1910.120)

Mitigation Strategy HWQ-1: During Tier 2/Project-level analysis, additional floodplain hydrology documentation shall be conducted to determine if the siting of specific rail infrastructure or station facility proposed would encroach into a floodplain. If the siting of specific rail infrastructure or station facilities requires encroachment into a floodplain, a floodplain assessment shall be conducted to evaluate the impacts of specific designs on water surface elevations and flood conveyance and evaluate potential flooding risk. Any project that would result in floodplain encroachment shall coordinate with the governing agency or local jurisdiction. Any additional requirements that may be needed shall be determined in coordination with the applicable regulatory agencies.

Mitigation Strategy HWQ-2: Based on the results of the Tier 2/Project-level analysis and recommendations, the construction of specific rail infrastructure or station facility proposed shall comply with the provisions of the National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order Number 2009-0009-DWQ, National Pollutant Discharge Elimination System Number CAS000002) and any subsequent amendments (Order Number 2010-0014-DWQ and Order Number 2012-0006-DWQ). These provisions shall include, but are not limited to, the following:

- Construction activities shall not commence until a waste discharger identification number is received from the State Water Resources Control Board Stormwater Multiple Application and Report Tracking System.

- Identification of good housekeeping, erosion control, and sediment control best management practices shall be utilized during construction activities.
- A stormwater pollution prevention plan shall be prepared.
- A rain event action plan shall be prepared.
- A notice of termination shall be submitted to the State Water Resources Control Board within 90 days of completion of construction and stabilization of the site.

These requirements, and any additional approvals, shall be determined in coordination with the governing agencies or local jurisdiction before construction on a project commences.

Mitigation Strategy HWQ-3: Based on the results of the Tier 2/Project-level analysis and recommendations, the operation of specific rail infrastructure or station facility proposed shall comply with the provisions of the applicable Regional Water Quality Control Board Municipal Separate Storm Sewer System Program. These provisions shall include, but are not limited to, the following:

- Low impact, site design, and source control best management practices shall be identified to be utilized during operational activities.
- A water quality management plan shall be prepared that will be implemented and maintained throughout the life of a project and used by property owners, facility operators, tenants, facility employees, and maintenance contractors.

These requirements, and any additional approvals, shall be determined in coordination with the governing agencies or local jurisdiction before operation on a project commences.