

XpressWest Reevaluation Summary

1.0 Introduction

The DesertXpress Enterprises, LLC XpressWest High-Speed Train Project (Project) (formerly known as the DesertXpress Project) consists of the construction and operation of a fully grade-separated, dedicated, passenger-only high-speed rail system along an approximately 170-mile corridor connecting Apple Valley, California to Las Vegas, Nevada. In accordance with the National Environmental Policy Act (NEPA), its implementing regulations, and the Federal Railroad Administration (FRA) Procedures for Considering Impacts to the Environment (Environmental Procedures), FRA began the environmental review for the Project in 2006 with the publication of a Notice of Intent to initiate an Environmental Impact Statement (EIS). The Project was originally evaluated in the following documents (collectively referenced as the DesertXpress EIS):

- March 2009 *Draft Environmental Impact Statement (EIS) and 4(f) Evaluation for the proposed DesertXpress High-Speed Passenger Train* (DesertXpress DEIS)
- April 2010 *Supplemental Draft Environmental Impact Statement and 4(f) Evaluation for the proposed DesertXpress High-Speed Passenger Train* (DesertXpress SEIS)
- March 2011 *Final Environmental Impact Statement and Final Section 4(f) Evaluation for the Proposed DesertXpress High-Speed Passenger Train Victorville, California to Las Vegas, Nevada* (DesertXpress FEIS)

FRA served as the Lead Federal Agency for the environmental review of the Project. The Federal Highway Administration (FHWA), Surface Transportation Board (STB), Bureau of Land Management (BLM), and the National Parks Service (NPS) were Cooperating Agencies. On July 8, 2011, FRA issued the *Record of Decision DesertXpress High-Speed Passenger Train* (DesertXpress ROD) approving the Project. The California and Nevada Divisions of FHWA also signed a ROD for the Project on November 18, 2011.

In January 2019, DesertXpress Enterprises, LLC submitted Project modifications, including a refined alignment between Apple Valley and Las Vegas (with a greater proportion within the Interstate 15 [I-15] freeway median), modified station sites in Apple Valley¹ and the Las Vegas area, and other changes to ancillary facilities. Based on the nature of the Project modifications, FRA determined that a reevaluation is appropriate.

FRA's Environmental Procedures provide:

If major steps toward implementation of the proposed action have not occurred within the time frame, if any, set forth in the final EIS, or within five years from the date of approval of the final EIS, a written reevaluation of the adequacy, accuracy, and validity of the final EIS shall be prepared, and a new or supplemental EIS prepared, if necessary.

FRA documents this process in a reevaluation. A reevaluation is not a NEPA document as defined in the CEQ regulations and is not required to undergo public review. Reevaluations are instead used to document an agency's decision whether a supplemental EIS is required.

¹ Although the modified Project would relocate the Victorville Passenger Station (the modified Dale Evans Station) to within the Town of Apple Valley, it would serve the purpose of the original Victorville Passenger Stations considered in the DesertXpress EIS.

In February 2019, FRA initiated this Reevaluation. Based on anticipated permits and licenses needed for construction and operation of the Project (identified in Table 1 below), FRA invited the participation of the Cooperating Agencies previously involved in the NEPA process and continue to have a permit or authorization to participate in the reevaluation process. These agencies include:

- FHWA – California and Nevada Divisions
- BLM – Barstow, Needles, and Las Vegas Field Offices
- STB
- US Army Corps of Engineers (USACE) – Los Angeles District

Specific roles and responsibilities of each Federal agency, including permitting agencies, are further described below.

Table 1: Federal Permits or Approvals Anticipated for Action Alternatives

Agency	Permit or Approval
Federal Railroad Administration	Regulations related to high-speed train operation and safety ¹
Bureau of Land Management	Right-of-Way (ROW)
Federal Highway Administration	<ul style="list-style-type: none"> • Concurrence for Highway ROW Occupancy and/or Disposal • Access Justification Report or Access Modification Report • Concurrence on Project Design Elements Related to Highway Operations
Surface Transportation Board	Authority to Construct and Operate Railroad
U.S. Army Corps of Engineers	<ul style="list-style-type: none"> • Section 404 Permit (waters of the United States) • Section 401 Certification
U.S. Fish and Wildlife Service	Section 7 Biological Opinion
Federal Aviation Administration	14 Code of Federal Regulations Part 77 and Part 157 ²

¹ FRA has no federal action related to this Project.

² Although not a Federal action, this regulation requires the Federal Aviation Administration to opine on the Project's impact on the safe and efficient use of navigable airspace.

FRA has held regular Cooperating Agency meetings to review the Project modifications as well as solicit input on the NEPA reevaluation process and any information pertinent to Cooperating Agencies' areas of jurisdiction. The Nevada Department of Transportation (NDOT), California Department of Transportation (Caltrans), and Federal Aviation Administration have not been designated as Cooperating Agencies, but these agencies participate in the Cooperating Agency meetings because:

- Project modifications place the rail alignment within the NDOT and Caltrans rights-of-way (ROW).
- The Federal Aviation Administration must review the Project for consistency with 14 Code of Federal Regulations Part 77, and because of the Project's proximity to existing and proposed airport facilities in Nevada.

Concurrently with the preparation of this Reevaluation, FRA has informally consulted with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Endangered Species Act, and with the Consulting Parties (listed in Section 3.7) in accordance with Section 106 of the National Historic Preservation Act (Section 106).

Based on the findings of this Reevaluation, FRA determines the Project modifications would not result in substantial changes in the evaluation of impacts described in the DesertXpress EIS. Therefore, a supplemental EIS is not required for the Project modifications.

This Reevaluation summarizes (1) modifications to Project scope, design, affected environment, impacts, mitigation, and other applicable requirements since publication of the 2011 DesertXpress EIS and DesertXpress ROD, and (2) whether the environmental impacts or mitigation are different from those previously analyzed in the DesertXpress EIS. This document relies on the following Attachments, listed below and incorporated by reference:

- Attachment A: Summary of Project Modifications
- Attachment B: Resource Impacts Analysis Report²
- Attachment C: Traffic and Transportation Technical Report
 - Attachment C1: Traffic and Transportation Supporting Information
- Attachment D: Cultural Resources Technical Report
- Attachment E: Hydrology and Water Quality Technical Report
- Attachment F: Air Quality Technical Report
- Attachment G: Noise and Vibration Technical Report
- Attachment H: Biological Resources Technical Report
 - Attachment H1: California Natural Diversity Database Sensitive Vegetation Communities List
 - Attachment H2: California Natural Diversity Database Special-Status Plants List
 - Attachment H3: California Native Plant Society Rare and Endangered Plants List
 - Attachment H4: U.S. Fish and Wildlife Service Information for Planning and Consultation Special-Status Plants List
 - Attachment H5: California Natural Diversity Database Special-Status Animals List
- Attachment I: Mitigation Measure Summary

2.0 Project Modifications

Since 2011, there have been several modifications to the Project. Changes to the Project footprint and facilities that have occurred since the DesertXpress ROD are summarized in Attachment A, Summary of Project Modifications. In Attachment A, Project features are identified and summarized as “**Unchanged**” (Project features unchanged from those evaluated in the DesertXpress EIS) or “**Modified**” (Project features assessed in the DesertXpress EIS but modified in terms of footprint or design). This Reevaluation focuses on the high-speed rail alignment, stations, and ancillary facilities listed below:

- **Alignment.** The alignment refers to the six-segment rail alignment between Apple Valley and Las Vegas. The modified rail alignment would be located primarily within the I-15 freeway median with portions following the east side of the I-15 freeway.
- **Stations.** Passenger stations include the Dale Evans Station in Apple Valley and the Warm Springs Station in Las Vegas. These facilities would be constructed on undeveloped land. Although stations were analyzed previously, the current footprints of the modified stations were not evaluated in the DesertXpress EIS.

² The Resource Impacts Analysis Report addresses the following environmental topics and provides an analysis of the Project’s cumulative impacts: land use, community, and environmental justice; growth; farmlands and grazing lands; utilities/emergency services; visual resources; paleontological resources; geology and soils; hazardous materials; and energy.

- **Operations Maintenance Storage Facility (OMSF).** The OMSF includes a lead track, loop tracks, storage tracks, and maintenance and storage buildings. The OMSF is co-located with the Dale Evans Station in Apple Valley. Although OMSF sites were analyzed previously, the footprint of this facility was not previously evaluated in the DesertXpress EIS.
- **Ancillary Facilities.** Ancillary facilities include temporary construction areas, negative shoulders³, roadway reconstruction areas, utility corridors, electrical substations, paralleling sites, emergency crossovers, and a maintenance of way (MOW) facility. The Project includes footprint for ancillary facilities that were not previously evaluated in the DesertXpress EIS.

3.0 Summary of Environmental Consequences

To determine whether Project modifications would result in substantial changes to the evaluation of environmental impacts described in the DesertXpress EIS, FRA reassessed each of the resources analyzed in the DesertXpress EIS based on a 15-percent design for the Project modifications. The 15-percent design results in a conservative estimate of the modified Project footprint and, therefore, the analysis in this Reevaluation conservatively estimates the modified Project impacts. Key design refinements from the 30-percent design (including a side-running rail alignment between Apple Valley and Barstow and revised electrical utility corridors identified through coordination with Southern California Edison) are evaluated in this Reevaluation to provide a comprehensive environmental analysis.

FRA determined that desktop review was appropriate for the following environmental topics: land use, community, and environmental justice; growth; farmlands and grazing lands; utilities/emergency services; visual resources; paleontological resources; geology and soils; hazardous materials; energy; cumulative impacts for all resource topics. Changes to the affected environment for these resources would be unlikely to occur or were easily assessed using publicly available resources. In contrast to the topics discussed in technical reports, impacts of the modified Project on these topics was provided primarily in qualitative terms. The Resource Impacts Analysis Report (Attachment B) documents the evaluation of these resource areas.

The remaining resource areas are included in individual reports (Attachment C through Attachment H) that contain focused, quantitative analysis. Mitigation measures were evaluated for each resource topic to determine if new or modified mitigation measures would be required to address the modified Project's environmental impacts as discussed in Section 4.0, Changes in Mitigation Measures.

3.1 LAND USE, COMMUNITY, AND ENVIRONMENTAL JUSTICE COMMUNITIES

The evaluation of land use, community, and environmental justice impacts to support this Reevaluation considered changes to the Project footprint, existing land uses, community demographics, and local land use designations. Consistent with the DesertXpress EIS analysis, local land use designations were considered even though the Project would be exempt from local land use regulations.⁴

³ Negative shoulders consist of areas where the Project would require slight widening of the I-15 freeway to accommodate an alignment in the I-15 freeway median.

⁴ STB issued a declaratory order on June 25, 2007 regarding STB's authority under 49 U.S.C. 10901. In general, STB has exclusive jurisdiction over construction and operation of interstate railroads. STB's declaratory order determined that the Project falls under STB's jurisdiction because the Project alignment would connect California and Nevada. Under STB's jurisdiction, the Project would be exempt from state and local land use and environmental requirements.

Since preparation of the DesertXpress EIS, BLM adopted the Desert Renewable Energy Conservation Plan (DRECP) Land Use Plan Amendment (LUPA), which focuses on streamlining renewable energy development and conserving desert ecosystems within land managed by BLM across seven counties in southern California. To meet the DRECP goals and objectives, BLM implements Conservation and Management Actions (CMAs) to establish desired outcomes on land under BLM management. CMAs include actions to maintain, restore, or improve land health, and cover a variety of resource topics listed in Section 3.1.1 of Attachment B. Coordination with BLM is ongoing to determine whether the modified Project would traverse land under BLM management covered by the DRECP and would thus be subject to CMAs listed in the DRECP LUPA. An additional mitigation measure (Mitigation Measure LU-3) describing the additional coordination has been added to ensure adherence to CMAs in areas where the Project would traverse land under BLM management protected by the DRECP.

The modified alignment would reduce the Project's land use impacts relative to the DesertXpress EIS. For example, the 2011 Preferred Alternative considered in the DesertXpress EIS would have traversed residential areas between Apple Valley and Barstow, as well as commercial areas between Barstow, California and Las Vegas, Nevada. However, the modified alignment is located within the I-15 freeway ROW, which would eliminate the need to convert residential or commercial land uses to a transportation use, resulting in fewer land use impacts relative to the DesertXpress EIS.

Since publication of the DesertXpress EIS, changing demographics have resulted in a greater number of environmental justice communities within the Project corridor. Specifically, minority populations have increased along the I-15 freeway corridor. The modified alignment would remain primarily within the I-15 freeway ROW, avoiding division or other direct impacts to nearby communities. Furthermore, the DesertXpress EIS concluded that impacts to land uses, communities, and environmental justice communities would be minimized or avoided through mitigation measures developed in the DesertXpress EIS to address noise, dust, traffic, visual resources, and utilities. The type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.2 GROWTH

The evaluation of growth impacts to support this Reevaluation included construction-period and operational employment projections. The overall economic setting, population projections, and employment estimates for the Project vicinity have not substantially changed since the publication of the DesertXpress EIS. Although the modified Project would require marginally less construction activity than considered in the DesertXpress EIS, construction would still introduce a substantial amount of temporary jobs to the Project region. The modified Project would not substantially change the amount of permanent employment required for Project operation. Mitigation measures developed in the DesertXpress EIS would still apply to minimize or avoid the Project growth effects, and the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.3 FARMLANDS AND GRAZING LANDS

The farmlands and grazing lands evaluation to support this Reevaluation considered newly designated farmlands and grazing lands not evaluated in the DesertXpress EIS, as well as new Project footprint that would encounter previously unevaluated farmlands or grazing lands. Review of farmlands in the modified Project vicinity did not reveal the presence of new designated farmland; however, grazing land

designations in the modified Project vicinity have changed since publication of the DesertXpress EIS. Since the modified Project alignment would be primarily within the I-15 freeway ROW, design modifications would avoid impacts on farmlands and grazing lands outside the I-15 freeway ROW identified by the DesertXpress EIS. Where the modified Project would place ancillary facilities (such as electrical substations) and stations outside of I-15 freeway ROW, mitigation measures developed in the DesertXpress EIS would still apply to minimize impacts to farmlands and grazing lands. Therefore, mitigation measures developed in the DesertXpress EIS would minimize or avoid impacts to farmlands and grazing lands, and the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.4 UTILITIES/EMERGENCY SERVICES

The evaluation of utilities and emergency services to support this Reevaluation considered changes to the Project footprint, updated ridership assumptions, and the capacity of local utility providers. Although the Project modifications would relocate the station sites and maintenance facility originally analyzed in the DesertXpress EIS, these modified facilities would remain of a similar size and scope to facilities considered in the DesertXpress EIS. Additionally, the modified Project would incorporate design guidelines provided in the 2011 DesertXpress Highway Interface Manual to allow for emergency vehicles to cross portions of the Project alignment located within the I-15 freeway ROW at access-controlled emergency crossovers. Thus, modified Project facilities would not require greater utility or emergency services than the facilities evaluated in the DesertXpress EIS. As the modified Project ridership would not increase beyond the estimates established in the DesertXpress EIS, the Project demands on utility and emergency services would similarly remain unchanged (refer to Section 3.14, Energy, for a focused discussion of energy demands). Utility providers in the Project vicinity would still maintain sufficient capacity to supply the modified Project. Mitigation measures developed in the DesertXpress EIS would minimize or avoid impacts on utility and emergency services, and the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.5 TRAFFIC AND TRANSPORTATION

As outlined in Attachment C, the traffic and transportation analysis to support this Reevaluation considered the following factors:

- **Updated ridership estimates.** Ridership refers to the number of passengers that would utilize the Project to travel between Las Vegas and Apple Valley. Ridership estimates for the modified Project allow for quantification of future traffic volumes created by riders accessing the station sites.
- **Modified station sites.** Evaluation of the modified station sites considered potential impacts to adjacent intersections and roadway segments that were not evaluated in the DesertXpress EIS.
- **Updated analysis years.** The DesertXpress EIS evaluated traffic conditions for the Project opening year (2013) and a future buildout year (2030) to account for an increase in ridership over time. The analysis to support this Reevaluation identified a modified opening year (2023) and a modified buildout year (2042).

Relative to the DesertXpress EIS, the Project modifications would result in similar traffic impacts. Unlike the previous Victorville Station sites considered in the DesertXpress EIS, the Dale Evans Station and OMSF site would avoid impacting nearby intersections. However, the Dale Evans Station and OMSF would result in a traffic increase along a segment of the I-15 freeway. The Warm Springs Station would

result in similar intersection impacts as originally identified for the Las Vegas Station sites at different intersection locations than were evaluated in the DesertXpress EIS. Mitigation measures developed in the DesertXpress EIS would minimize or avoid these impacts through implementation of roadway improvements. These mitigation measures would be revised to address the specific traffic impacts resulting from the modified station sites. With implementation of these revised mitigation measures, the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.6 VISUAL RESOURCES

The visual resource evaluation to support this Reevaluation considered Project modifications and newly designated areas of visual sensitivity. Construction and operation of the modified Project would include fewer elevated trackway structures than previously considered, and thus would reduce the alignment visibility in these portions of the corridor. Additionally, the modified alignment would result in fewer visual impacts than those analyzed in the DesertXpress EIS because it would be constructed adjacent to the I-15 freeway or within the I-15 freeway median. Relocated stations and the OMSF would remain in a similar visual setting and of a comparable size to the stations and OMSF evaluated in the DesertXpress EIS. New ancillary facilities would be collocated with existing facilities of a similar nature, and previously evaluated ancillary facilities would not change substantially in size or location. Aesthetic treatments and mitigation measures developed in the DesertXpress EIS would still apply to the modified Project during construction and operation. Thus, the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.7 CULTURAL RESOURCES

The evaluation of cultural resources considered archaeological resources, ethnographic resources, and historic built environment (architectural) resources. Concurrently with the preparation of this Reevaluation, FRA reinitiated consultation in accordance with Section 106 of the National Historic Preservation Act, and its implementing regulations.

For this Reevaluation, FRA made a preliminary identification of cultural resources potentially impacted by the modified Project based on records searches, tribal consultation, and pedestrian and reconnaissance field surveys. This approach is consistent with the approach FRA used to evaluate impacts to cultural resources in the DesertXpress EIS. The modified Project would encounter new archaeological resources and historic built environment resources that were not previously evaluated in the DesertXpress EIS. Cultural resources identified within the modified Project footprint are of a similar type and quality as the resources originally evaluated in the DesertXpress EIS. FRA prepared a Cultural Resources Technical Report (CRTR) to document this evaluation.

During preparation of the DesertXpress EIS in 2011, FRA, the Cooperating Agencies, and the State Historic Preservation Offices, with input from the Project sponsor and Native American tribes, developed a Programmatic Agreement (PA) in compliance with Section 106 to identify the process for formal determination of cultural resources eligibility. For NEPA purposes, survey work was conducted to identify potentially affected resources, and the DesertXpress EIS included an assumption of resource eligibility to inform the evaluation of impacts to these resources. This preliminary identification and evaluation of effects was conditioned on execution of a PA. The PA was executed in 2011 and established numerous requirements intended to ensure appropriate treatment of historic resources during Project construction. The PA also stipulated protocols for how and when formal eligibility

determinations would be made. The PA expired in 2018, as the Project did not proceed to final design and construction.

In 2019, FRA reinitiated the Section 106 consultation to identify potential cultural resources associated with the modified Project. The Consulting Parties listed below are participating in the Section 106 consultation.

- Advisory Council on Historic Preservation
- California and Nevada State Historic Preservation Officers
- Federally recognized Native American tribes with an interest in the Project area
- Federal agencies (BLM, FRA, STB, FHWA, and USACE)
- NDOT
- Caltrans

FRA has prepared draft technical reports for the identification and evaluation of historic archeological and built environment resources. The final reports will be used to document compliance with Section 106. Based on the information in the draft technical reports, FRA has determined the Project modifications would not result in substantial changes in the evaluation of cultural resource impacts of the DesertXpress EIS.

In accordance with 36 CFR Part 800, FRA will continue to advance the Section 106 process in consultation with the appropriate parties. FRA intends to resolve any adverse effects to historic archeological and built environment resources through a Memorandum of Agreement or PA, depending on completion of the Section 106 process.

3.8 HYDROLOGY AND WATER QUALITY

As discussed in Attachment E, the hydrology and water quality assessment to support this Reevaluation considered changes in the duration of the construction period, changes in floodplain maps in the Project vicinity, new Project footprint across hydrologic resources, and regulatory updates regarding the definition of jurisdictional Waters of the U.S. (WOTUS). The modified Project would change the location of hydrological and water quality impacts. However, since the modified Project would be of the same general size, location, and scope as evaluated in the DesertXpress EIS, the overall magnitude of impacts to water quality, drainage patterns, stormwater runoff, and groundwater availability would not change relative to the DesertXpress EIS evaluation.

The modified Project footprint would encounter new floodplains areas designated after the publication of the DesertXpress EIS. Notably, the Warm Springs Station would be located within a new 100-year floodplain area not evaluated in the DesertXpress EIS. Mitigation measures identified in the DesertXpress EIS require raising the elevation of structures within floodplains and avoiding the placement of construction materials within floodplains. These measures adequately reduce impacts associated with newly encountered floodplain areas. Other mitigation measures developed in the DesertXpress EIS avoid impacts on water quality, drainage patterns, flood flows, stormwater runoff and groundwater availability. Thus, the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

The final Navigable Waters Protection Rule became effective on June 22, 2020. Notably, ephemeral features that flow only in direct response to precipitation are no longer jurisdictional WOTUS. As discussed in Attachment E, by removing the jurisdictional status of ephemeral features, this regulatory

update eliminated the Project's impact to WOTUS. However, the environmental analysis conducted in the DesertXpress EIS and this Reevaluation evaluates effects to hydrology, water quality, drainage patterns, and stormwater runoff to aquatic resources throughout the Project area regardless of WOTUS jurisdiction.

3.9 GEOLOGY AND SOILS

The analysis of geology and soils impacts to support this Reevaluation considered where the Project modifications would require new footprint and could therefore encounter previously unevaluated geologic and soil features. Where new geologic features or hazards, such as ground fissures, could have formed since the DesertXpress EIS, mitigation measures developed in the DesertXpress EIS would adequately address such impacts. Assessment of the modified Project footprint determined that previously unevaluated footprint areas overlap areas subject to the same geologic and soil hazards evaluated in the DesertXpress EIS. Thus, mitigation measures developed in the DesertXpress EIS would adequately minimize or avoid geology and soil impacts. The type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.10 PALEONTOLOGICAL RESOURCES

The paleontological resource evaluation to support this Reevaluation considered areas where the Project modifications overlaps geologic units that could contain paleontological resources. Assessment of Project modifications determined the modified Project footprint entirely overlaps geologic units assessed in the DesertXpress EIS. Thus, mitigation measures developed in the DesertXpress EIS would minimize or avoid the modified Project impacts on paleontological resources, and the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.11 HAZARDOUS MATERIALS

The hazardous materials evaluation to support this Reevaluation considered sites of environmental concern,⁵ unidentified hazardous materials, buildings constructed before 1980 that may contain lead-based paint or asbestos, and naturally occurring asbestos and erionite. As the Project modifications would not increase the scope or intensity of construction, the use of hazardous materials during construction was not considered as source of previously unevaluated impacts.

The Project vicinity remains mainly undeveloped with the same limited areas of industrial activity that could result in the release or spill of hazardous materials. The modified Project may encounter previously unevaluated sites of environmental concern, but such sites would be unlikely to result in new types or higher quantities of hazardous materials than those considered in the DesertXpress EIS. As the Project would remain of a similar overall scope as considered in the DesertXpress EIS, the severity and location of impacts from unidentified hazardous materials and buildings constructed before 1980 would be unlikely to change. This Reevaluation also reviewed naturally occurring hazardous materials (asbestos and erionite) that were not considered in the DesertXpress EIS. This investigation determined that the presence of naturally occurring asbestos and erionite was unlikely to occur within the Project vicinity. Thus, mitigation measures developed in the DesertXpress EIS would minimize or avoid the modified

⁵ Sites of environmental concern consist of sites where spills or releases of hazardous materials have occurred.

Project hazardous material impacts, and the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.12 AIR QUALITY AND GLOBAL CLIMATE CHANGE

As outlined in Attachment F, the air quality and global climate change technical analysis to support this Reevaluation evaluated emissions generated during construction and operation of the modified Project. Relative to the DesertXpress EIS analysis, the modified Project would require less construction activity because the overall Project footprint would be smaller. The modified Project would also require fewer miles of elevated track (viaduct) and would eliminate tunneling, which would reduce the intensity of construction activities from that assumed in the DesertXpress EIS. As a result, air quality and global climate change impacts during construction would be reduced relative to the effects identified in the DesertXpress EIS.

The operational air quality and global climate change analysis considered the following factors:

- **Emissions resulting from electricity demand to power trains.** An analysis of energy needs under the Project modified operating plan determined that less electricity would be required to power the trains when compared to the DesertXpress EIS analysis. This reduction would reduce offsite emissions from power plants generating electricity used by the Project.
- **Mode-shift from passenger vehicles.** The DesertXpress EIS originally concluded that the Project would reduce automobile trips between Apple Valley and Las Vegas by providing a less emission-intensive travel alternative. Because the modified Project would still provide an alternative mode of non-automobile travel along the I-15 freeway corridor, it would reduce vehicle miles traveled along this corridor and associated automobile emissions.
- **Localized toxic air contaminant emissions.** The Project modifications do not include new sources of toxic air contaminant emissions.
- **Carbon monoxide hotspots.** Carbon monoxide concentrations under the Project modifications would not exceed carbon monoxide concentrations quantified and disclosed in the DesertXpress EIS; thus, the modified Project would not result in new carbon monoxide hotspots.

Given the above, the modified Project would generate fewer criteria pollutants and GHGs during construction and operation relative to the DesertXpress EIS. Therefore, the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS. The DesertXpress EIS concluded that the Project would not exceed *de minimis* thresholds and therefore a general conformity determination would not be required. As the air quality analysis (Attachment F) indicates the Project modifications would reduce the Project emissions in comparison to the DesertXpress EIS, the Project modifications would still not exceed the *de minimis* threshold.

3.13 NOISE AND VIBRATION

As outlined in Attachment G, the noise and vibration analysis evaluated construction and operation of the modified Project. New noise impact locations were identified due to the following factors:

- **Changes in affected environment.** Decreases in highway traffic noise levels relative to the DesertXpress EIS analysis would increase the relative magnitude of operational noise in the communities of Barstow, Yermo, and Las Vegas.

- **Modified Project footprint.** Changes in the Project footprint would result in additional noise impact locations where the alignment would be located closer to existing residences, primarily along the east side of the I-15 freeway in Las Vegas.
- **Modified operating plan.** The Project's updated operating plan proposes larger trainsets with more frequent headways, which would potentially increase operational noise.

The DesertXpress EIS included mitigation measures to reduce operational noise impacts generated by passing trains – primarily the installation of noise barriers to shield noise-sensitive land uses such as residential areas. The noise analysis (Attachment G) identified revised noise barrier locations to mitigate and reduce noise from train operation. Therefore, the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.14 ENERGY

The energy analysis to support this Reevaluation considered electricity and energy consumed during construction and operation of the modified Project. The reduced Project footprint and shortened construction period indicates that the modified Project would likely require less energy during construction relative to the DesertXpress EIS. During operation, changes to the Project modified operation plan would not result in substantial changes to the modified Project peak-period or overall energy demand. Finally, the modified Project would continue to reduce vehicle miles traveled and associated energy consumption along the I-15 freeway corridor due to the transportation mode shift from automobiles to the Project. Thus, the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

3.15 BIOLOGICAL RESOURCES

As described in Attachment H, the biological analysis to support this Reevaluation is informed by on-going coordination with the USFWS. Concurrently with the preparation of this Reevaluation, FRA submitted a letter to the USFWS on July 20, 2020 seeking concurrence that the Project modifications do not require reinitiation of formal consultation under Section 7 of the Endangered Species Act. As described in the letter, FRA determined this approach was appropriate because impacts on species listed as threatened or endangered and critical habitat have been substantially reduced, and no new impacts would occur as a result of the Project modifications that were not previously addressed in the Biological Opinion issued for the Project on April 26, 2011. FRA will continue to coordinate with USFWS, as appropriate.

In addition to the Section 7 consultation process, the biological analysis to support this Reevaluation considered the following factors:

- **Changes in affected environment.** Reassessment of the modified Project with a focus on new areas of footprint to determine if new/different biological resources are present from those originally evaluated in the DesertXpress EIS.
- **Regulatory updates.** Regulatory updates that have occurred since publication of the DesertXpress EIS may have changed the assignment, designation, and protection status of biological resources within the Project footprint and vicinity.
- **Modified Project footprint.** Biological resource impacts that may occur in the new Project footprint.

Field surveys conducted within the modified Project footprint established that the biological environment has not changed substantially since the publication of the DesertXpress EIS. The modified

Project would generally reduce impacts to biological resources relative to the DesertXpress EIS. The placement of the entirety of the rail alignment and a greater portion of ancillary facilities within the I-15 freeway ROW would reduce biological resource impacts compared to the DesertXpress EIS. Mitigation measures developed in the DesertXpress EIS and modified Biological Opinion would still apply and would minimize or avoid impacts to biological resources.

In 2016, BLM designated new management regions (Areas of Critical Environmental Concern [ACEC]), which overlap the modified Project footprint. Each ACEC has a 'disturbance cap' establishing the maximum allowable acreage of permanent infrastructure or disturbance within the ACEC. The modified Project's impacts to ACECs were determined by quantifying the total permanent Project footprint within each ACEC on land under BLM management outside of the I-15 freeway ROW.

3.16 CUMULATIVE IMPACTS

The evaluation of cumulative impacts for this Reevaluation considered impacts from the Project modifications in combination with current, planned, and reasonably foreseeable projects in the Project vicinity. Overall, the modified Project's contributions to cumulative impacts would be unchanged or reduced because of the modified Project's reduced footprint and location within the I-15 freeway ROW. Review of present and reasonably foreseeable projects within the Project vicinity did not identify new information that would substantially affect the cumulative impacts conclusions or assessment conducted in the DesertXpress EIS. Furthermore, the mitigation measures developed in the DesertXpress EIS to reduce Project impacts would still apply to the modified Project to reduce contributions to cumulative effects. Thus, the type and magnitude of impacts resulting from the Project modifications would be comparable to those identified in the DesertXpress EIS.

4.0 Changes in Mitigation Measures

This Reevaluation updated and modified mitigation measures (Attachment I) developed in the DesertXpress EIS to address changes in the affected environment and Project modifications since publication of the DesertXpress EIS.

This Reevaluation resulted in minor revisions to several mitigation measures to apply to modified Project features. For instance, Mitigation Measure HYD-8: Minimize Impact of OMSF2 on Water Resources, has been revised to apply to the Dale Evans Station and OMSF site since the OMSF2 is no longer under consideration. Some mitigation measures were removed entirely in cases where the modified Project would completely avoid impacts addressed by such measures. For example, Mitigation Measure GEO-11: Tunneling has been removed because the modified Project no longer includes tunnels.

Mitigation measures pertaining to the following resource topics required greater revision than mitigation measures addressing other topics:

- **Land Use, Community, and Environmental Justice.** Mitigation Measure LU-3 was added to ensure adherence to CMAs in areas where the Project would traverse land managed by BLM protected by the DRECP.
- **Traffic and Transportation.** Mitigation measures pertaining to traffic were revised to address the traffic impacts at the modified station sites.
- **Noise and Vibration.** Mitigation measures pertaining to noise were revised to address noise impacts at new noise sensitive areas.

- **Biological Resources.** Relocation of the alignment within the I-15 freeway ROW would avoid some biological resources impacts, thus eliminating the need for several mitigation measures identified in the DesertXpress EIS.⁶

Mitigation measures developed in the DesertXpress EIS, with the revisions described above and provided in Attachment I, would avoid or minimize the modified Project impacts. Consistent with the DesertXpress EIS, implementation of certain mitigation measures could require the acquisition or easements beyond the public ROW, which could be subject to additional environmental analysis.

⁶ Mitigation measures provided in the Biological Opinion for the Project will be revised through the Section 7 consultation with the USFWS, as discussed in Section 3.15.

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