California High-Speed Rail Authority

Fresno to Bakersfield Section: Locally Generated Alternative

Supplemental Record of Decision for the Locally Generated Alternative

October 2019

CALIFORNIA High-Speed Rail Authority

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.

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ACRONYMS AND ABBREVIATIONS

Authority	California High-Speed Rail Authority
BA	Biological Assessment
BETP	Built Environment Treatment Plan
BMP	best management practices
BNSF	BNSF Freight Railway Network
BO	Biological Opinion
CEQA	California Environmental Quality Act
C.F.R.	Code of Federal Regulations
DOT	U.S. Department of Transportation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FRA	Federal Railroad Administration
F-B LGA	Fresno to Bakersfield Locally Generated Alternative
GHG	greenhouse gas
HSR	high-speed rail
in/sec ppv	inches per second peak particle velocity
LEDPA	least environmentally damaging practicable alternative
MMEP	Mitigation Monitoring and Enforcement Plan
MOA	Memorandum of Agreement
MOIF	maintenance of infrastructure facility
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
PA	Programmatic Agreement
ROD	Record of Decision
SHPO	State Historic Preservation Officer
SR	State Route
STB	Surface Transportation Board
Supplemental FOE	*Fresno to Bakersfield Section Supplemental Section 106 Findings of Effect, Locally Generated Alternative*
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USSOI	United States Secretary of the Interior
VERA	Voluntary Emission Reduction Agreement

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY
SUPPLEMENTAL RECORD OF DECISION
CALIFORNIA HIGH-SPEED RAIL
FRESNO TO BAKERSFIELD SECTION LOCALLY GENERATED ALTERNATIVE (F-B LGA)

1. INTRODUCTION

1.1 Decision

This document is the California High-Speed Rail Authority's (Authority) Supplemental Record of Decision (ROD), under the National Environmental Policy Act (NEPA) for the California High-Speed Rail (HSR) Fresno to Bakersfield Section Locally Generated Alternative (F-B LGA) Project (Project). The Authority is the NEPA federal lead agency under what is commonly referred to as NEPA Assignment. More specifically, the environmental review, consultation, and other actions required by federal environmental laws for this Project are being or have been carried out by the State of California pursuant to 23 United States Code (U.S.C.) 327 and a Memorandum of Understanding effective July 23, 2019, and executed by the Federal Railroad Administration (FRA) and the State of California. This Supplemental ROD approves the F-B LGA as described in the Fresno to Bakersfield Section Final Supplemental Environmental Impact Statement (EIS) dated October 2019. As set forth in this Supplemental ROD, the F-B LGA best serves the purpose and need for this project and minimizes economic, social, and environmental impacts. The Authority proposes to construct and operate the Project after receiving the required approvals from the appropriate federal agencies. These agencies include the federal cooperating agencies—the U.S. Army Corps of Engineers (USACE), the U.S. Bureau of Reclamation (Reclamation), and the Surface Transportation Board (STB). Other federal agencies with specific review or permitting roles include the U.S. Environmental Protection Agency (EPA) and the U.S. Fish and Wildlife Service (USFWS).

To comply with NEPA and the California Environmental Quality Act, the Authority, and FRA issued a joint Draft Supplemental Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the F-B LGA in November 2017. The joint Draft Supplemental EIR/EIS is one document that covers both state and federal environmental requirements. However, this Supplemental ROD contains only the decision of the Authority under its assigned responsibilities for NEPA. On the signature page, the 2017 Draft Supplemental EIR/EIS stated that "FRA plans on issuing a single document that consists of the Final Environmental Impact Statement and Record of Decision pursuant to 49 U.S.C. § 304a unless it is determined that statutory criteria or practicability considerations preclude issuance of such a combined document." As noted above, FRA assigned its responsibilities as NEPA lead agency to the Authority on July 23, 2019, pursuant to 23 U.S.C. 327. The Authority has determined that issuance of a combined document is legally permissible and practicable. The Authority as NEPA lead agency, therefore, is issuing a combined Supplemental ROD and Final Supplemental EIS.

This Supplemental ROD is specific to the segment of the Fresno to Bakersfield Section from just north of Poplar Avenue in Shafter to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield). This decision document outlines all new and relevant information used by the Authority, as the lead federal agency, for approval of the F-B LGA as the Preferred Alternative from just north of Poplar Avenue to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield) (Figure 1). This Supplemental ROD only addresses the F-B LGA and has no effect on the portions of FRA's June 2014 ROD for the Fresno to Bakersfield Section that apply to the HSR Project from the Downtown Fresno Mariposa Street Station Alternative to just north of Poplar Avenue. The Authority considered the May 2014 Project and the F-B LGA in the Final Supplemental EIS. In making its decision, the Authority considered the information and analysis contained in the Final Supplemental EIS and its associated administrative record, information presented in the Fresno

to Bakersfield Section Final EIR/EIS (May 2014), and consideration of input received from the public and other agencies. The Authority also considered public and agency comments received during the public comment period for the Draft Supplemental EIR/EIS. Although the Final Supplemental EIS evaluates impacts, and proposed mitigation, if necessary, of the HSR alignment all the way to Oswell Street to disclose impacts of the HSR system as it might extend to the southeast beyond the F Street Station (Figure 1), this Supplemental ROD does not cover that portion (i.e., the portion between the intersection of 34th/L Streets and Oswell Street) of the alignment. Any alignment to the southeast of the station (from the intersection of 34th Street and L Street and Oswell Street) will be approved, if at all, following environmental evaluation of the Bakersfield to Palmdale Section, which the Authority anticipates completing in the future. Accordingly, the Authority will include mitigation measures for impacts related to the alignment southeast of the F Street station as part of a decision on the Bakersfield to Palmdale Project Section.

The Authority has prepared this Supplemental ROD in accordance with the NEPA Assignment Memorandum of Understanding (MOU) dated July 23, 2019, the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [C.F.R.] 1505.2 and 1506.10) and FRA's Procedures for Considering Environmental Impacts (64 Federal Register 28545, May 26, 1999), as modified by 78 Federal Register 2713 (January 14, 2013) (FRA Environmental Procedures). Specifically, this Supplemental ROD:

- Provides background on the NEPA process leading to the Final Supplemental EIS, including a summary of public involvement and agency coordination.
- States and reaffirms the Project's purpose and need.
- Summarizes the process that led to the development of the LGA for study in the Draft Supplemental EIR/EIS and Final Supplemental EIS.
- Discusses agency roles and responsibilities.
- Identifies the alternatives considered but not carried forward in the Final Supplemental EIS.
- Describes the project south of Shafter approved in the 2014 ROD and identifies the LGA as the Preferred Alternative for the Draft Supplemental EIR/EIS and Final Supplemental EIS.
- Identifies the Environmentally Preferable Alternative
- Summarizes environmental benefits and adverse effects.
- Discusses other relevant laws and guidance, including Section 106, Section 4(f), Section 7, Clean Water Act, and U.S. Department of Transportation (DOT) Environmental Justice Order.
- Addresses General Conformity pursuant to the Clean Air Act.
- Discusses the measures to avoid and minimize environmental harm and requires a monitoring and enforcement program for all mitigation measures.
- Presents the Authority's Decision, determinations, and findings on the F-B LGA and identifies and discusses the factors that were balanced by the Authority in making its decision.

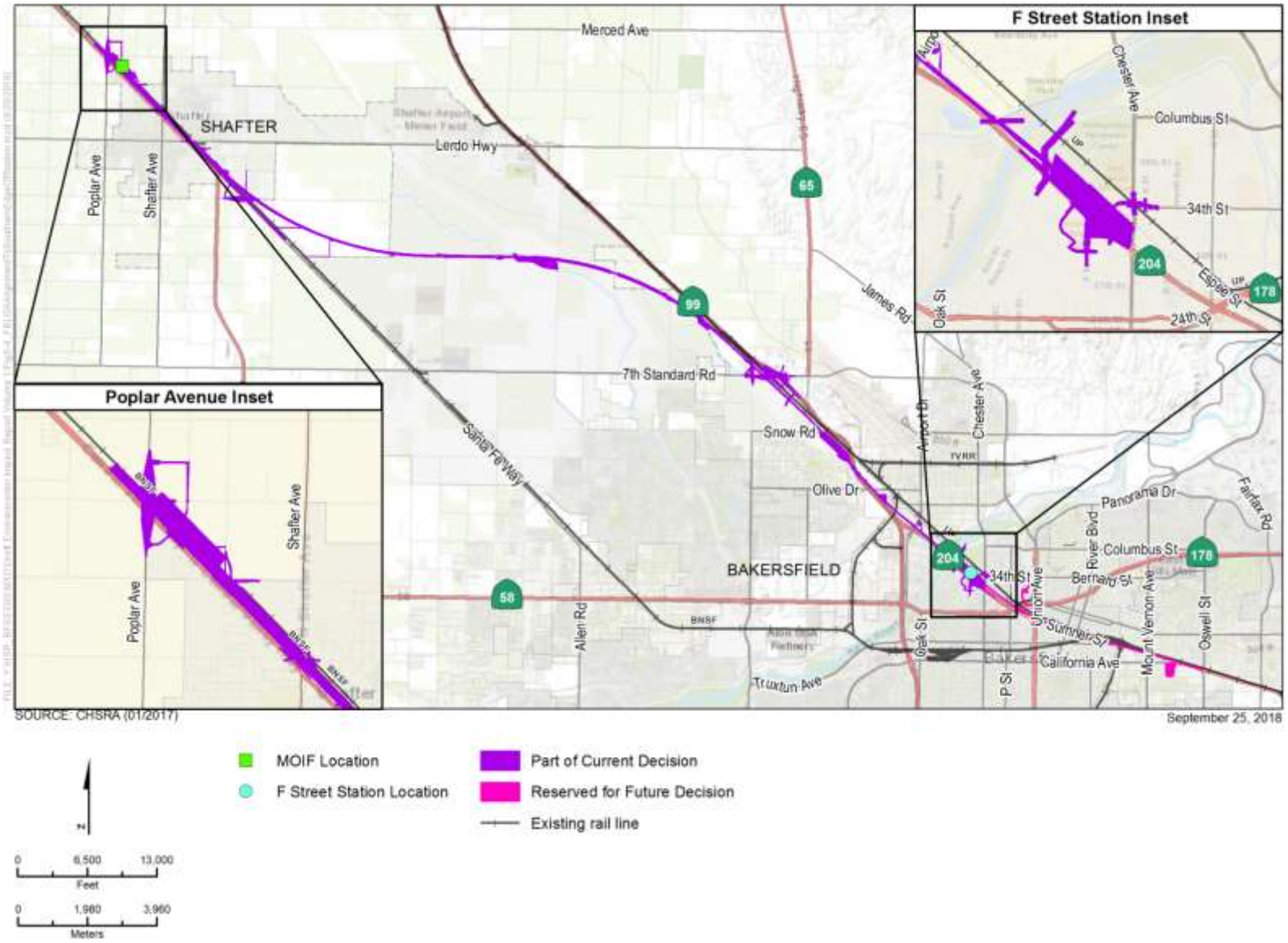

Figure 1 Preferred Alternative

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1.2 Purpose and Need

As established in the 2005 Statewide Program EIR/EIS, the purpose of the California HSR System is to provide a reliable high-speed electric-powered train system that links the major metropolitan areas of California, delivering predictable and consistent travel times. A further objective is to provide an interface with commercial airports, mass transit, and the highway network and to relieve capacity constraints of the existing transportation system as increases in intercity travel demand in California occur, in a manner sensitive to and protective of California's unique natural resources.[1]

The F-B LGA implements the portion of the Fresno to Bakersfield Section of the California HSR System from just north of Poplar Avenue to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield). As part of the California HSR System, the F-B LGA will provide the public with electric-powered HSR service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the south San Joaquin Valley, and that connects the northern and southern portions of the system. The F-B LGA supports the purpose and need of the Project.

1.3 Background

1.3.1 California HSR System

The Authority is responsible for planning, designing, constructing, and operating the California HSR System. Its state statutory mandate is to develop a HSR system that coordinates with the state's existing transportation network, which includes intercity rail and bus lines, regional commuter rail lines, urban rail and bus transit lines, highways, and airports.

The California HSR System will provide intercity, high-speed service on more than 800 miles of track throughout California, connecting the major population centers of Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego, as shown on Figure 2. The Authority and FRA prepared two programmatic (Tier 1) EIR/EIS documents to select preferred alignments and station locations to advance for project-level analysis in Tier 2 EIR/EISs. See Chapter 1 of the F-B LGA Final Supplemental EIS for a detailed description of the HSR System and the history of Tier 1 documents. The HSR System will use state-of-the-art, electrically powered, high-speed, steel-wheel-on-steel-rail technology, including contemporary safety, signaling, and automatic train-control systems that will incorporate positive train control infrastructure and be compliant with the requirements of 49 C.F.R. Part 236 Subpart I, with trains capable of operating up to 220 miles per hour.

The Authority plans two phases of California HSR System development. The *California High-Speed Rail Program 2018 Business Plan* describes in detail how the California HSR System will be implemented and recognizes current budgetary and funding realities. The California HSR System Phase 1, as approved through Tier 1 decisions, has been divided into eight individual sections for site-specific, second-tier analysis. The Authority and FRA defined HSR Project Sections such that they would have independent utility or independent significance (i.e., be usable even if later sections of the HSR system are not completed). Following the Tier 1 decisions, the Fresno to Bakersfield Section is one of the eight individual sections undergoing Tier 2 environmental review.

[1] Authority and FRA. 2005. *Final Program EIR/EIS for the Proposed California High-Speed Train System*. Sacramento, CA, and Washington, DC. August 2005.

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Figure 2 Statewide HSR System

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1.3.2 Development of the Fresno to Bakersfield Section Locally Generated Alternative

Following the completion of a programmatic review of the California HSR System in 2005, the Authority and the FRA initiated project-level EIR/EISs for eight independent project sections of the California HSR System, including the Fresno to Bakersfield Section. The Authority published a Notice of Preparation on September 29, 2009, and the FRA published a Notice of Intent in October 2009. Following public scoping, the Authority and the FRA published a Fresno to Bakersfield Section Draft EIR/EIS in August 2011. Based on public and agency comments, the Authority and the FRA developed new alignment alternatives and analyzed their potential impacts in a Revised Draft EIR/Supplemental EIS published for public review in July 2012. On April 18, 2014, the Authority and the FRA published the *Fresno to Bakersfield Section California High-Speed Train Final Project Environmental Impact Report/Environmental Impact Statement*. These documents are available for review by contacting the Authority at (916) 324-1541.

In the Fresno to Bakersfield Section Final EIR/EIS, the Authority and FRA identified a Preferred Alternative consisting of portions of the "BNSF Alternative" in combination with the "Corcoran Bypass," "Allensworth Bypass," and "Bakersfield Hybrid" alternatives. On May 7, 2014, the Authority under CEQA only certified the Fresno to Bakersfield Section Final EIR/EIS and approved the Preferred Alternative south from Fresno to 7th Standard Road, the northern city limits of the city of Bakersfield. Based on an analysis of potential project impacts and substantive agency and public comments including comments filed after issuance of the Final EIS, FRA issued a ROD on June 27, 2014 approving the Preferred Alternative in its entirety, consisting of the BNSF Alternative with Kings/Tulare Regional Station East Alternative in combination with the Corcoran Bypass, Allensworth Bypass, Bakersfield Hybrid, and Bakersfield Hybrid Station.

On June 5, 2014, the City of Bakersfield filed a state lawsuit challenging the Authority's May 7, 2014, approvals under CEQA. The City claimed, among other things, that the Preferred Alternative identified in the Fresno to Bakersfield Section Final EIR/EIS would severely affect the City's ability to utilize existing city assets, including its corporation yard, senior housing, and parking facilities at the Rabobank Arena, Theatre and Convention Center; would render unusable one of the city's premier health facilities; and would affect the Bakersfield Commons project, a retail/commercial/residential development.

Out of a Settlement Agreement signed December 19, 2014, between the City of Bakersfield and the Authority, it was agreed to develop and study the F-B LGA to address concerns and meet the Authority's design requirements. The F-B LGA described and analyzed in the Fresno to Bakersfield Section Draft Supplemental EIR/EIS evolved from this mutual cooperation and subsequent public input.[2] The Authority has also collaborated with the City of Shafter and Kern County in developing the F-B LGA.

The F-B LGA, as described and evaluated in the Draft Supplemental EIR/EIS, provides a 23.13-mile alternative alignment to the Preferred Alternative identified in the Fresno to Bakersfield Section Final EIR/EIS between the city of Shafter and the city of Bakersfield.[3] The F-B LGA station (F Street Station) will be located at the intersection of State Route (SR) 204 and F Street. A maintenance of infrastructure facility will be located along the F-B LGA north of the city of Shafter between Poplar Avenue and Fresno Avenue.

[2] Although the Authority Board certified the Fresno to Bakersfield Section Final EIR/EIS, which evaluated the alignment from the Fresno HSR Station to the Bakersfield Truxtun Avenue HSR Station, the Authority Board only approved a portion of the alignment extending from downtown Fresno to approximately 7th Standard Road.

[3] The Draft Supplemental EIR/EIS compares the F-B LGA to the complementary portion of the Preferred Alternative that was identified in the Fresno to Bakersfield Section Final EIR/EIS. That portion consists of the portion of the BNSF Alternative from Poplar Avenue to Hageman Road and the Bakersfield Hybrid from Hageman Road to Oswell Street (the "May 2014 Project").

1.4 Description of the Preferred Alternative

The basic purpose and need of the F-B LGA is to implement the portion of the Fresno to Bakersfield Section of the California HSR System from just north of Poplar Avenue to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield). As part of the California HSR System, the F-B LGA will provide the public with electric-powered HSR service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the south San Joaquin Valley, and that connects the northern and southern portions of the system. The F-B LGA supports the purpose and need of the Project.

Prior to the publication of the Draft Supplemental EIR/EIS, the USACE and EPA concurred (on May 5, 2017, and May 22, 2017, respectively[4]) that, based upon the analyses in the documents submitted as part of the Clean Water Act Section 404 and NEPA integration process, and the biological assessment of ecosystems impacts and cultural and community impacts, the Preferred Alternative contains the preliminary LEDPA (see Appendix A), consistent with USACE's permit program (33 C.F.R. Part 320-331) and EPA's Section 404(b)(1) Guidelines (40 C.F.R. 230-233). Table 1 lists key NEPA milestones in the F-B LGA environmental process.

Table 1 Summary of Major NEPA Milestones

Milestone	Date
404/408/NEPA Integration USACE Concurrence	May 5, 2017
404/408/NEPA Integration EPA Concurrence	May 22, 2017
Notice of Availability Published and Circulation of Draft Supplemental EIS/Draft Section 4(f) Evaluation	November 2017
Public Hearing Opportunity to Receive Public Comment: Bakersfield	December 19, 2017
City of Bakersfield Concurrence with Section 4(f) findings	September 12, 2018

[4] Letter from Michael S. Jewell, Chief, Regulatory Division of USACE to Mark McLoughlin, Authority. Sacramento, CA. May 5, 2017.

Letter from Connell Dunning, Transportation Team Supervisor, Environmental Review Office of EPA to Stephanie Perez-Arrieta, FRA and Mark McLoughlin, Authority. San Francisco, CA. May 22, 2017.

2. AGENCY ROLES AND RESPONSIBILITIES

The Authority is the NEPA lead agency, pursuant to NEPA Assignment. For the Draft Supplemental EIR/EIS, FRA was the NEPA lead agency and the Authority was the CEQA lead agency. The STB, Reclamation, and the USACE are NEPA cooperating agencies.

2.1 Federal Railroad Administration

The FRA's responsibilities for environmental review, consultation, and other actions required by applicable federal environmental laws, including NEPA, for the proposed Project have been carried out by the Authority, acting on behalf of the State of California pursuant to 23 U.S.C. 327 and the MOU dated July 23, 2019, and executed by the FRA and the State of California. Under this MOU, FRA has assigned federal environmental review responsibilities for the Project to the State of California. The Authority performs as the federal lead agency in this program, known as NEPA Assignment.

As required by law, the FRA has retained responsibility for making air quality conformity determinations under the Clean Air Act. During the development of the 2014 Fresno to Bakersfield Section Final EIR/EIS, the FRA found the Fresno to Bakersfield Section of the HSR System with the May 2014 Project to be in conformance on June 27, 2014, and issued a conformity determination per its requirements. Construction of the Fresno to Bakersfield Section with the F-B LGA, instead of the May 2014 Project, will also exceed the conformity thresholds for certain pollutants; however, emissions will be slightly lower than those estimated for the May 2014 Project and will be offset by a Voluntary Emission Reduction Agreement (VERA). A VERA with the San Joaquin Valley Air Pollution Control District will be implemented to offset construction emissions. Pursuant to FRA correspondence dated October 18, 2019, the FRA confirmed that the General Conformity determination did not need to be re-opened for the F-B LGA and the General Conformity determination for the Fresno to Bakersfield Section was still applicable (Appendix C).

FRA has authority over railroad safety under 49 U.S.C. 20103. As such, FRA may exercise certain regulatory authority over the Project. FRA also administers certain grant funds provided to the Authority under the American Recovery and Reinvestment Act of 2009 and oversees the Authority's compliance with a grant agreement for the HSR system.

2.2 Surface Transportation Board

The STB has authority over construction and operation of new rail lines (49 U.S.C. 10901). As the STB explained in its June 13, 2013, decision authorizing construction of the 65-mile section of the California HSR System between Merced and Fresno (Docket No. FD_35724_0), 49 U.S.C. 10501(a)(2)(A) gives the STB jurisdiction over transportation by rail carrier in one state, as long as that intrastate transportation is carried out "as part of the interstate rail network." The STB determined that the California HSR System will be constructed as part of the interstate rail network. The STB therefore concluded that it has jurisdiction over the California HSR System. The STB has participated as a cooperating agency in this environmental review process. Following completion of this process, the STB may adopt the Authority's EIS (or conduct additional review as appropriate) and issue a separate ROD authorizing the Project.

2.3 U.S. Bureau of Reclamation

Reclamation may issue rights of entry permits for pedestrian surveys and ground-disturbing investigations, such as geotechnical investigations, or other information-gathering activities. It may grant temporary construction permits for the relocation of facilities and equipment such as pipes, canals, and pumps. If the facilities are relocated outside of Reclamation's ownership, the Authority will acquire any needed land rights necessary for future operations and maintenance needs and/or relocated Reclamation features. After construction, the Authority will transfer to Reclamation necessary land rights. Reclamation will grant or transfer land rights as appropriate to the Authority. The HSR alignment crosses Bureau of Reclamation lands and facilities, one of

which is the Friant-Kern Canal. Impacts on Bureau of Reclamation facilities within the F-B LGA project footprint are analyzed in the Final Supplemental EIS.

2.4 U.S. Army Corps of Engineers

USACE is responsible for issuing permits under the Clean Water Act Section 404 (33 U.S.C. 1344) (Section 404) and the Rivers and Harbors Act Section 14 (33 U.S.C. 408) (Section 408). USACE is required to comply with NEPA and issue its own NEPA decision before it can issue a permit under Section 404 or Section 408.

As a first step in project permitting, the Authority, FRA, USACE, and EPA executed an MOU (NEPA/404/408 MOU) in November 2010. The MOU outlines a process to integrate the requirements of NEPA with the requirements of Section 404 and Section 408. The purpose of the MOU is to ensure the analysis underlying the EIS documents for each California HSR System section is sufficient to support USACE's preliminary LEDPA determination and for USACE to issue a NEPA decision.

Consistent with the MOU and NEPA Assignment, the Authority initiated the Clean Water Act Section 404 permitting process with USACE on April 30, 2015. As part of this process, the Authority prepared a Wetland Delineation Report (April 2017) and submitted it to USACE for issuance of a preliminary jurisdictional determination, which USACE issued on June 1, 2017. A jurisdictional determination and issuance of a permit for the discharge of fill material into waters of the United States associated with construction of the Project will be part of the Clean Water Act Section 404 permit process administered by USACE.

As noted above, USACE has concurred that the overall project purpose allows for a reasonable range of practicable alternatives to be analyzed and is acceptable as the basis for the USACE 404(b)(1) alternatives analysis. Pursuant to NEPA, Section 404, and Section 408, USACE and EPA issued letters concurring that the Preferred Alternative contains the preliminary LEDPA. The Section 404 process will continue with the submittal of a permit application to USACE and development of a mitigation plan. The Section 408 process will continue with USACE's evaluation of potential project impacts on flood protection facilities. USACE will issue a NEPA decision after a preliminary review of impacts on facilities under its jurisdiction.

2.5 U.S. Fish and Wildlife Service

Concurrently with the NEPA process, the Authority initiated the federal Endangered Species Act Section 7 (16 U.S.C. 1536) consultation process, pursuant to 50 C.F.R. Part 402. Section 7 of the federal Endangered Species Act requires federal agencies to consult with USFWS and/or the National Marine Fisheries Service, depending on the type of species or habitat affected, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered fish, wildlife, or plant species or result in the destruction or adverse modification of designated critical habitat for any such species. Impacts associated with threatened and endangered species, including critical habitat, occupied habitat, and suitable habitat for special-status species, is addressed through a coordination process that is outlined under Section 7 of the federal Endangered Species Act. For the F-B LGA, the Authority is only required to consult with the USFWS.

Because the Project may affect threatened or endangered species, the Authority prepared a Biological Assessment (BA) for the Project and consulted with USFWS, as required. The Authority's informal and formal Section 7 consultation with USFWS has been ongoing and was instrumental in scoping the biological resource analysis for the Draft Supplement EIS and Final Supplement EIS, as well as for the BA, which describes the project impacts. The Authority and FRA developed and submitted a Draft BA to USFWS May 9, 2018, which evaluated direct, indirect, and cumulative effects of the Project on federally listed, threatened, endangered, or proposed listed species and their designated habitat. The USFWS previously issued a Biological Opinion (BO) on the California High-Speed Train System: Fresno to Bakersfield Section Project, Fresno, Tulare, Kings, and Kern Counties (Service File Number 08ESMF00-2012-F-0247) on February 28, 2013 (2013 FB-BO). The 2013 FB-BO analyzed the project's effects on federally

listed species under several potential project alignments. On May 9, 2018, the Authority, on behalf of the FRA, requested reinitiation of formal consultation with the USFWS for the portion of the Fresno to Bakersfield Section that is the subject of this Supplemental ROD. Following USFWS review and additional consultation and coordination, USFWS issued a BO for the F-B LGA Project on July 27, 2018. In the BO, USFWS determined that these revisions to the Fresno to Bakersfield Section do not change its jeopardy determination provided in the 2013 FB-BO. USFWS provided new text and minor amendments to the 2013 FB-BO in its July 27, 2018, letter.

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3. ALTERNATIVES CONSIDERED

3.1 Alternatives Previously Considered and Not Carried Forward for Study in the Draft Supplemental EIR/EIS

As described above, the Authority worked with the City of Bakersfield and other stakeholders to develop the F-B LGA to respond to the litigation filed by the City of Bakersfield, although the Authority retained full independent discretion over all aspects of the F-B LGA Project. The Authority performed an extensive screening process for potential alternatives, including a no-action alternative, to study in the Draft Supplemental EIR/EIS. The many potential alternatives considered, including alternatives proposed during the comment period, but eliminated from detailed study, are summarized in Standard Response FB-LGA-Response-GENERAL-01: Alternatives in Chapter 18 of the Final Supplemental EIS, Responses to Comments. The Authority incorporated the consideration of the no-action alternative presented in the 2014 Fresno to Bakersfield Section Final EIR/EIS into the Draft Supplemental EIR/EIS. The Authority finds that each potential alternative discussed in the Standard Response and not carried forward into the Final Supplemental EIS for detailed study, including the no-action alternative, was appropriately eliminated. Such potential alternatives either failed to adequately meet the project purpose and need/project objectives, failed to offer a substantial environmental advantage to the alternatives studied in the Draft Supplemental EIR/EIS, or were deemed to not be feasible from a cost, technical, or engineering perspective. The Authority therefore finds all such alternatives to be infeasible.

3.2 May 2014 Project

The Draft Supplemental EIR/EIS compares the F-B LGA to the complementary portion of the 2014 Preferred Alternative that was identified in the Fresno to Bakersfield Section 2014 Final EIR/EIS. That portion is known as the "May 2014 Project." The May 2014 Project consists of a portion of the BNSF Alternative from Poplar Avenue to Hageman Road and the Bakersfield Hybrid from Hageman Road to Oswell Street. The May 2014 Project alignment runs primarily at grade as it follows the BNSF corridor and SR 43 through Shafter and SR 58 into Bakersfield. It parallels the F-B LGA until approximately Beech Avenue, where it diverges from the F-B LGA, parallels the BNSF right-of- way in a southeasterly direction, and then curves back to the northeast to parallel the BNSF tracks toward Kern Junction. After crossing Truxtun Avenue, the alignment curves to the southeast to rejoin the F-B LGA and parallel the Union Pacific Railroad (UPRR) tracks and Edison Highway to its terminus at Oswell Street. The May 2014 Project begins at grade but elevates through Shafter for a distance of about 4 miles between North Shafter Avenue and Cherry Avenue and in Bakersfield at Country Breeze Place and continues as an elevated structure all the way to the project terminus at Oswell Street. Refer to Section 2.4.2 and Section 2.4.3.10 (page 2-72) of the Fresno to Bakersfield Section 2014 Final EIR/EIS for more detail associated with the BNSF Alternative and Bakersfield Hybrid, which comprise the May 2014 Project (Authority and FRA 2014).[5]

The May 2014 Project Station would be built at the corner of Truxtun and Union Avenues/SR 204 adjacent to the Amtrak station. The entire site would be approximately 24 acres, with 15 acres designated for the station, bus transit center, short-term parking, and park-and-ride areas.

Approximately 4.5 of the 24 acres would support three parking structures with a total capacity of approximately 4,500 cars. An additional 460 parking spaces would be provided in surface lots covering a total of approximately 4.5 acres of the station site. The balance of the supply needed to accommodate the full year 2035 parking demand (8,100 total spaces) would be identified as a part of a comprehensive parking strategy developed in coordination with the City of Bakersfield. Refer to Section 2.4.4.3 (page 2-80) of the Fresno to Bakersfield Section Final EIR/EIS for more

[5] California High-Speed Rail Authority and U.S. Department of Transportation USDOT Federal Railroad Administration (Authority and FRA). 2014. *California High-Speed Train Project Final EIR/EIS: Fresno to Bakersfield Section, Volume 1, Report.* April 2014. Sacramento, CA.

detail associated with the May 2014 Project Station. Figure 2-43 (page 2-87) of the Fresno to Bakersfield Section Final EIR/EIS depicts the conceptual layout of the May 2014 Project Station.

A maintenance of infrastructure facility (MOIF) would be located along the May 2014 Project alternative just north of the City of Bakersfield and 7th Standard Road. The MOIF would be sized and outfitted to support the maintenance of infrastructure requirements for 75 miles of HSR system track in either direction. Regional maintenance machinery servicing storage, materials storage, and maintenance and administration would be offered at the MOIF. Refer to Section 2.2.8.1 (pages 2-15 and 2-16) of the Fresno to Bakersfield Section Final EIR/EIS for more detail associated with the May 2014 Project MOIF.

3.3 Fresno to Bakersfield Section Locally Generated Alternative

This section provides a detailed description of the F-B LGA. The F-B LGA will traverse urban downtown areas in the cities of Shafter and Bakersfield. The alignment will be located generally adjacent to the BNSF corridor through the city of Shafter. It will then traverse the area between the BNSF and UPRR corridors, and then continue adjacent, or nearly adjacent, to the UPRR corridor through the community of Oildale and the city of Bakersfield. The height of the at-grade profile of the F-B LGA may vary to accommodate slight changes in topography and to provide clearance for stormwater culverts and structures to allow water flow and occasional wildlife movement. The F-B LGA, as described and evaluated in the Draft Supplemental EIR/EIS, will consist of the following characteristics and elements:

- The total length of the alignment will be 23.13 miles, including:
  - 10.52 miles on embankment or at grade
  - 0.43 mile on bridges
  - 0.31 mile on steel truss
  - 1.97 mile on retained fill
  - 9.90 miles on viaduct
- No length of alignment will be below grade or in a trench.
- The average height of the viaduct will be 60 feet above existing ground and the maximum height of the viaduct will be 73 feet in the vicinity of Weill Park in Bakersfield.
- Straddle bents will be constructed in various locations where center support columns cannot be used in order to avoid constraints, such as roadways. Figure 2-9 of the Draft Supplemental EIR/EIS shows the straddle bent design that will be implemented as part of the F-B LGA.
- The alignment will cross several existing railroads, including various BNSF and UPRR tracks.
- The alignment will cross one major waterway, the Kern River, within the city of Bakersfield.
- The alignment will cross seven canals.
- The F-B LGA will include 43 road crossings, including 41 undercrossings and 2 overcrossings. Of these road crossings, 12 will be in the city of Shafter, 30 will be in the city of Bakersfield; and one (7th Standard Road) will be co-located in the cities of Shafter and Bakersfield.
  - The F-B LGA will cross 12 roads in the city of Shafter, as described below:
    - One overcrossing at Poplar Avenue
    - 11 undercrossings at the following locations: Fresno Avenue; W Shafter Avenue; Central Avenue; Mannel Avenue; E Lerdo Highway; Riverside Street; Cherry Avenue; Driver Road; Zachary Avenue; Zerker Road; and Verdugo Lane
  - The F-B LGA will cross 30 roads in the city of Bakersfield, all of which will be undercrossings at the locations listed below:

        - Fruitvale Avenue; Snow Road; Knudsen Drive; SR 99; State Road (first undercrossing); SR 99 on- and off-ramps; Olive Drive; State Road (second undercrossing); State Road (third undercrossing); Airport Drive; SR 99 northbound on-ramp; SR 99 northbound off-ramp; 32nd Street; Chester Avenue; 30th Street; M Street; O Street; Q Street; SR 178; Sumner Street (first undercrossing); Union Avenue; Sumner Street (second undercrossing); Baker Street; Beale Avenue; Truxtun Avenue; Ogden Street; Chamberlain Avenue; Mt. Vernon Avenue; Exchange Street; and Webster Street
    - One overcrossing (7th Standard Road) will be co-located in the cities of Shafter and Bakersfield. The existing roadway will be reconstructed as a viaduct over the F-B LGA. The existing interchange of 7th Standard Road/SR 99 will be modified, including the addition of a new westbound to southbound on-ramp.
- The F-B LGA will require 10 road closures: Madera Avenue (Shafter); Gold's Avenue (Shafter); Orange Avenue (Shafter); Mendota Street (Shafter); Golden State Frontage Road South (Bakersfield); Golden State Frontage Road North (Bakersfield); H Street (Bakersfield); 24th Street (Bakersfield); Miller Street (Bakersfield); and Haley Street (Bakersfield).
- The F-B LGA will require multiple roadway modifications in the cities of Shafter and Bakersfield. These modifications will generally include adding protective barriers, curbs, sidewalks and medians. In some cases, the roadway traffic network will be modified where crossings are closed, and new crossings are constructed.

Refer to Section 2.4 of the Draft Supplemental EIR/EIS for a detailed description of and figures depicting the F-B LGA.

The Authority and FRA co-hosted a Community Open House for the F-B LGA in November 2015. The Draft Supplemental EIR/EIS was issued on November 9, 2017, and the 60-day public review period closed on January 16, 2018. The Draft Supplemental EIR/EIS presented the purpose and need for the Fresno to Bakersfield Section; the May 2014 Project and the F-B LGA comparison; the existing environmental setting; potential effects (both beneficial and adverse) from construction and operation; and impact avoidance and minimization measures and mitigation measures to avoid, reduce, or eliminate potential adverse environmental effects.

The Draft Supplemental EIR/EIS informed decision-makers, interested parties, and the public about the various alternatives and potential impacts. It also identified the F-B LGA as the Preferred Alignment Alternative between Poplar Avenue in Kern County and Oswell Street in Bakersfield and identified the Bakersfield F Street Station as the preferred station alternative. FRA and the Authority held a public hearing in Bakersfield on December 19, 2017, to provide opportunity for the public to comment on the Draft Supplemental EIR/EIS verbally and in writing. At the public hearing, the FRA and the Authority received 26 oral and 9 written comment submittals on the Draft Supplemental EIR/EIS. During the 60-day public review period, the Authority and FRA received 251 additional comment submittals on the project hotline, sent to the project email address, through the Authority's web portal, or via the postal service.

The Authority considered the information presented in and the comments received on the Draft Supplemental EIR/EIS when preparing the Final Supplemental EIS. The Final Supplemental EIS, published October 2019, retained (from the Draft Supplemental EIR/EIS) identification of the F-B LGA as the Preferred Alignment Alternative between Poplar Avenue in Kern County and Oswell Street in Bakersfield, and the Bakersfield F Street Station as the preferred station alternative. The Final Supplemental EIS also included responses to all substantive comments resulting from public and agency comments on the Draft Supplemental EIR/EIS.

3.4 Environmentally Preferable Alternative

The Council on Environmental Quality NEPA regulations require that the ROD identify all alternatives that were considered, "…specifying the alternative or alternatives which were considered to be environmentally preferable" (40 C.F.R. 1505.2). As discussed in Section 1.4 above, in May 2017, the USACE and EPA concurred that the F-B LGA is the preliminary LEDPA, consistent with USACE's permit program (33 C.F.R. Part 320-331) and EPA's Section 404(b)(1) Guidelines (40 C.F.R. 230- 233). Additionally, as identified in Section 8.4 of the Draft Supplemental EIS, and in accordance with 40 C.F.R. 1505.2, the F-B LGA is the environmentally preferred alternative.

4. SUMMARY OF POTENTIAL EFFECTS

Construction and operation of the Preferred Alternative (F-B LGA) will affect a variety of environmental and social resources. Impacts on these resources could be adverse or beneficial. NEPA impact determination requires consideration of both context and intensity. The Final Supplemental EIS[6] analyzed all potential impacts resulting from construction and operation of the F-B LGA. A full discussion of the potential impacts of the F-B LGA, organized by resource area, is included in Chapter 3 of the Final Supplement EIS.

To fully understand the potential range of impacts of the selected alternative, the Final Supplemental EIS analyzes all potential impacts resulting from construction and operation of the HSR System in the LGA area. A full discussion of the potential impacts of the selected alternative, organized by resource area, can be found in Chapter 3 of the Final Supplemental EIS.

The F-B LGA will not result in impacts that require mitigation in the following resource areas: electromagnetic fields and electromagnetic interference; public utilities and energy; station planning, land use, and development; and regional growth. Project design features, best management practices (BMP), and avoidance and minimization measures will be implemented as part of the design of the Project to reduce and/or avoid potential impacts, and will be required as part of project implementation as described further in Section 5 of this Supplemental ROD. The Authority considered the above resource area effects in reaching its decision.

The following sections summarize the adverse impacts with and without the implementation of mitigation and the beneficial impacts associated with construction and operation of the F-B LGA for each resource area.

4.1 Transportation

Potential construction-related impacts on transportation will include temporary road closures and delays. Disruptions and delays will be temporary and will be reduced through implementation of avoidance and minimization measures included in the 2014 FRA Fresno to Bakersfield ROD.

The F-B LGA will benefit traffic safety and circulation by grade separating many existing at-grade crossings and removing at-grade intersections with the BNSF railway in the city of Shafter. In addition, the F-B LGA will benefit the regional transportation system by reducing vehicle trips on freeways and diverting patrons of intrastate commercial air trips to high-speed train travel. This reduction in vehicle trips from the regional roadway system will improve future levels of service and reduce overall vehicle miles traveled. However, project operation will increase traffic congestion at numerous intersections around the station and result in permanent road closures in urban and rural areas. Implementation of traffic mitigation measures discussed in the 2014 FRA Fresno to Bakersfield ROD and measures specific to the F-B LGA that the Authority in October 2018 committed to implementing in its capacity as state lead agency under CEQA (and repeated in Mitigation Monitoring and Enforcement Plan [MMEP] amendment #4 for tracking purposes), including roadway restriping, installation of signals, modification of signal timing, roadway widening, and conversion of intersections to stop-control from two-way stops to all-way stops, will reduce impacts and will still apply to the F-B LGA. Implementation of mitigation the Authority already committed to in October 2018 will improve traffic operations at multiple intersections and roadway segments within the study area.

[6] The Final Supplemental EIS consists of its title/signature page, the 2017 Draft Supplemental EIR/EIS (three volumes), Responses to Comments on the Draft Supplemental EIR/EIS, and Changes to the Draft Supplemental EIR/EIS (Errata).

4.2 Air Quality and Global Climate Change

Construction of the F-B LGA will result in an increase in criteria pollutants and greenhouse gas (GHG) emissions. Construction emissions will exceed the San Joaquin Valley Air Basin thresholds for volatile organic compounds, carbon monoxide, nitrogen oxides, and particulate matter smaller than or equal to 10 microns in diameter and smaller than or equal to 2.5 microns in diameter. The Draft Supplemental EIR/EIS and 2014 FRA Fresno to Bakersfield ROD identified mitigation measures to offset these construction-related impacts. In addition, the Authority will purchase emission credits to offset the impact through a VERA with the San Joaquin Valley Air Pollution Control District, which will reduce construction impacts. In correspondence dated October 18, 2019 (attached to this Supplemental ROD as Appendix C), the FRA confirmed that the prior General Conformity Determination that it issued in 2014 was adequate and did not require revision. Since the air quality emissions of the Fresno to Bakersfield Section with F-B LGA will result in slightly lower construction emissions compared to those discussed in the Fresno to Bakersfield Section Final EIR/EIS and in the 2014 FRA Fresno to Bakersfield ROD, the final General Conformity determination associated with the 2014 FRA Fresno to Bakersfield ROD is still valid; see Section 6.3, General Conformity Determination. Furthermore, the F-B LGA construction GHG emissions will be offset in less than 12 months of the HSR operations resulting from the reduction in future car and plane trips resulting from the Project.

Operation of the HSR project will have a beneficial effect on (i.e., reduce) statewide emissions of carbon monoxide, nitrogen oxides, reactive organic gas, sulfur oxide, and particulate matter smaller than or equal to 10 microns in diameter and smaller than or equal to 2.5 microns in diameter by diverting trips from modes with higher emissions (e.g., commercial air flights and automobile trips) to HSR, which has lower emissions. In addition, project operation will have a net beneficial impact on statewide GHG emissions through reducing statewide GHG emissions.

4.3 Noise and Vibration

The F-B LGA will result in noise impacts during construction. These impacts will be temporary and mitigated through the implementation of project design features and mitigation measures identified in the Fresno to Bakersfield Section Final EIR/EIS and the 2014 FRA Fresno to Bakersfield Section ROD. Mitigation for these impacts includes noise monitoring during construction and requiring the contractor to implement one or more noise control measures to meet the noise limits. Vibration from pile driving activities during construction of the F-B LGA could also result in damage to fragile/historic buildings within approximately 77 feet and residential structures within approximately 55 feet of pile driving activity. Mitigation for vibration impacts includes preconstruction surveys to document the existing condition of buildings located within 50 feet of pile installation and using methods other than a hammer to install piles close to buildings that could be damaged by vibration. Mitigation measures will reduce construction-related noise and vibration impacts.

The existing noise environment near the BNSF rail line in the city of Shafter includes noise generated from BNSF rail operations and train horns. The BNSF rail line in the city of Shafter will be elevated as part of the proposed F-B LGA. Noise levels generated from the BNSF rail operations will continue, but they will generally be lower due to shielding of the retained fill and elimination of the train horns. The F-B LGA will result in operational noise impacts. Sound barriers will be used to reduce noise levels at sensitive uses. However, the construction of sound barriers may not be feasible or economically reasonable, sound insulation may not be acoustically feasible or practical for certain structures, and special track work may not reduce noise impacts. After mitigation, noise associated with operation of the F-B LGA will have severe impacts on a total of 152 sensitive receptors, including 149 residences. Therefore, even with the implementation of mitigation, operational noise effects will still remain for some receivers because they are located outside of the area where the barrier will be fully effective or because the sound barrier will not fully mitigate the effect.

4.4 Biological Resources and Wetlands

With implementation of mitigation measures identified in the 2014 FRA Fresno to Bakersfield ROD and measures specific to the F-B LGA (see MMEP amendment #4), biological resources and wetlands impacts associated with the F-B LGA will be mitigated.

The F-B LGA does not overlap any designated or proposed critical habitat units. Construction activities associated with the F-B LGA will result in both permanent and temporary direct or indirect impacts through the disturbance or removal of lands that have been determined to support, or could potentially support habitats of concern. Project operation will result in both permanent and temporary direct and indirect impacts on habitats of concern. However, implementation of mitigation measures identified in the 2014 FRA Fresno to Bakersfield ROD, including purchase of credits from an existing mitigation bank, conducting a special-status plant re-establishment program at a 1:1 ratio, and compliance with permit requirements will still apply to the F-B LGA and will mitigate impacts on habitats of concern.

Construction of the Preferred Alternative will temporarily and permanently affect riparian habitat. Restoration of riparian habitat shortly after construction disturbance will mitigate construction-period impacts. The Authority will compensate for permanent impacts on riparian habitat, determined in consultation with the appropriate agencies (e.g., California Department of Fish and Wildlife), by restoring nearby riparian areas through permittee-responsible compensatory mitigation.

Construction activities associated with, as well as operation of, the F-B LGA will result in both permanent and temporary direct or indirect impacts through the disturbance or removal of lands that have been determined to support or could potentially support special-status plant species. However, implementation of mitigation measures identified in the 2014 FRA Fresno to Bakersfield ROD, including purchase of credits from an existing mitigation bank, conducting a special-status plant re- establishment program at a 1:1 ratio, and compliance with permit requirements will still apply to the F-B LGA and will mitigate impacts on special-status plant species.

Prior to implementation of mitigation measures, the F-B LGA will result in impacts on jurisdictional waters and wetlands. However, implementation of mitigation measures identified in the 2014 FRA Fresno to Bakersfield ROD, including compliance with permit requirements, will still apply to the F-B LGA and will mitigate impacts on jurisdictional waters and wetlands.

Construction and operation of the F-B LGA will result in both permanent and temporary direct or indirect impacts through the disturbance or removal of lands that have been determined to support or could potentially support special-status wildlife species. However, implementation of mitigation measures identified in the 2014 FRA Fresno to Bakersfield ROD and measures specific to the F-B LGA (see MMEP amendment #4), including purchase of credits from an existing mitigation bank, conducting a special-status plant re-establishment program at a 1:1 ratio, and compliance with permit requirements will still apply to the F-B LGA and will mitigate impacts on special-status wildlife species.

The F-B LGA will potentially result in interference with wildlife movement corridors during both construction and operation. However, implementation of mitigation measures identified in the 2014 FRA Fresno to Bakersfield ROD, including project design elements, purchase of credits from an existing mitigation bank, and compliance with permit requirements will still apply to the F-B LGA and will mitigate impacts on wildlife movement corridors.

4.5 Hydrology and Water Resources

Construction and operations activities associated with the F-B LGA could potentially result in hydrology and water quality impacts on existing drainage, irrigation distribution systems, and water quality; however, avoidance and minimization measures have been incorporated into the design to reduce impacts on hydrology and water resources. These measures include, but are not limited to, project design features for stormwater management and flood protection, and erosion and sedimentation controls, tracking controls, and waste management and materials pollution controls. In addition to the avoidance and minimization measures identified in the 2014

FRA Fresno to Bakersfield ROD, LGA-specific mitigation was identified (see MMEP amendment #4) to mitigate impacts related to floodplains associated with construction and operation of the F-B LGA. Therefore, with the implementation of avoidance and minimization measures and mitigation measures, impacts on hydrology and water resources will be mitigated.

4.6 Geology, Soils, Seismicity, and Paleontological Resources

The F-B LGA could result in impacts associated with geologic, soils, and seismic hazards, including unstable slopes, soil settlement, accelerated erosion, expansive and corrosive soil properties, and earthquake-induced ground liquefaction and slope destabilization. Potential impacts will be addressed through implementation of conventional foundation design methods for elevated structure, retained-fill, at-grade, and retained-cut facilities. Standard engineering and design measures and BMPs will be incorporated into the project to avoid and/or minimize impacts related to geology, soils, and seismicity.

No specific paleontological resources have been recorded within the F-B LGA study area, although five geologic formations intersect the study area and are considered highly sensitive for potentially significant, yet unidentified, paleontological resources. The potential for project activities to affect paleontological resources will depend upon the required depth of ground disturbances during construction. However, potential effects associated with disturbance of paleontological resources during construction will be mitigated by ensuring appropriate monitoring and cessation of ground-disturbing activities, as needed.

4.7 Hazardous Materials and Wastes

Construction and operation of the F-B LGA could cause ground disturbance (including disturbance of groundwater or surface water) near known contaminated site or sites, or where contamination could exist in the study area. Approximately 149 Potential Environmental Concern sites are within 150 feet of the F-B LGA footprint, resulting in the need for investigation during the final engineering and design phase. Construction and operation of the F-B LGA could also involve the use, storage, and disposal of hazardous materials and wastes in the study area. Construction and operation activities associated with the F-B LGA will be required to comply with existing federal and state regulations, including requirements of the Phase I, II, or III Environmental Site Assessment to reduce potential impacts related to hazardous materials. In addition, implementation of the avoidance and minimization measures and mitigation measure identified in the 2014 FRA Fresno to Bakersfield ROD still apply to the F-B LGA and will reduce impacts related to hazardous materials and waste.

4.8 Safety and Security

The F-B LGA will increase demand for local emergency responders around the stations due to station activity and associated redevelopment and increased commercial development/increased employees in the area. However, the station will have on-site security patrols and expanded facilities will be required to comply with local site development and permitting processes. In addition, the Authority will coordinate with all emergency responders to maintain existing traffic patterns and fulfill response route needs, as specified in the mitigation measures included the 2014 FRA Fresno to Bakersfield ROD.

Operating on a fully grade-separated, dedicated track alignment, using contemporary safety, signaling, and automatic train control systems, the F-B LGA will provide a safe and reliable means of intercity travel. Design of the system also will avoid conflicts with other vehicles, existing rail systems, pedestrians, and bicyclists and will allow the trains to operate year-round under different weather conditions. The F-B LGA will also improve safety where existing at-grade railroad crossings are replaced with grade-separated crossings, resulting in a beneficial effect on safety at railroad crossings. F-B LGA-specific mitigation measures identified in the Final Supplemental EIS (see MMEP amendment #4) will ensure continued operation of specific parcels, including the Halliburton Facility, Rain-for-Rent Facility, and Golden Empire Gleaners Facility, due to placement of the F-B LGA alignment.

4.9 Socioeconomic and Communities

Construction activities will generate direct, indirect, and induced jobs in the region. Given the high level of unemployment in the region, it is anticipated that most of these new construction jobs will be filled by current residents. Project construction activities will have an overall negative impact on sales tax revenues collected by local governments during the construction period because the sales tax lost from displaced businesses will outweigh sales tax gains from construction activities. However, the loss in sales tax revenue will be temporary and will be negligible when compared to the total sales tax collected in the region.

Potential impacts that will result from operation of the F-B LGA include disruption and division of communities and economic effects. Many of these impacts are related to the displacement and relocation of residences, businesses, agricultural operations, and community facilities as a result of property acquisitions for the F-B LGA. The F-B LGA will follow existing and long-established highway and railroad corridors through the urban areas and will not bisect established neighborhoods. Sufficient comparable residential units are available to accommodate displaced residents under the F-B LGA; therefore, no additional housing will need to be constructed. Most of the displacements will occur on industrially zoned land within the community of Oildale. However, sufficient replacement space for these businesses is available under the F-B LGA. The F-B LGA will result in loss of sales tax revenue associated with displacement of businesses. However, construction-related sales tax gains will help to offset these losses, and sales tax losses associated with displacements will begin to decrease as displaced businesses become re-established at new locations and new businesses move in to replace those that do not reopen. Project operation is expected to have an overall positive impact on sales taxes collected by local governments under F-B LGA implementation. Measures identified in the 2014 FRA Fresno to Bakersfield ROD are still applicable to the F-B LGA and will reduce impacts related to split agricultural parcels, rural communities, community facilities, displaced residences, and acquisitions.

4.10 Agricultural Land

Construction of the F-B LGA will result in the temporary use of agricultural land, including Important Farmland, for construction sites outside of the permanent right-of-way, such as for staging and material laydown areas. This land will be restored and returned to agricultural use after project construction is completed.

The F-B LGA will convert Important Farmland to nonagricultural uses, bisect agricultural parcels, and require full or partial acquisition of parcels under Williamson Act and Farmland Security Zones contracts (state laws). Overall, the F-B LGA will result in the permanent loss of 372 acres of Important Farmland. Mitigation measures included in the 2014 FRA Fresno to Bakersfield ROD will still be applicable to the F-B LGA and include preserving land for agriculture and consolidating remnant parcels so that they remain in agricultural production. The F-B LGA will also implement a Farmland Consolidation Program to reduce impacts caused by parcel severance; while parcel ownership may change due to severance, the larger remnant parcels will remain in agricultural use.

However, these mitigation measures will not create new farmland nor will they replace the converted farmland in an area of high production agricultural soils that are threatened by development encroachment. The F-B LGA will result in the permanent loss of agricultural land with the implementation of mitigation.

4.11 Parks, Recreation, and Open Space

The F-B LGA will result in temporary noise, dust, visual, and access effects on two parks. Construction impacts, such as property, noise, dust, and visual degradation associated with the F-B LGA will be short in duration. In addition, measures identified in the 2014 FRA Fresno to Bakersfield ROD will be implemented to minimize disruptions to recreational facilities during the construction period.

As identified in the Final Supplement EIS, the F-B LGA will result in the permanent acquisition of approximately 0.76 acre of parkland, including 0.66 acre of land at Kern River Parkway and approximately 0.10 acre at Weill Park. The proposed Bakersfield F Street Station will include new park space that will at least partially offset the parkland that will be acquired for the Project and will be located in generally the same area as the parkland being acquired. In addition, operation and maintenance of the F-B LGA could result in changes to park character as a result of noise and/or visual changes associated with the F-B LGA that will disrupt recreational activities or opportunities at parks within the study area. As described in the 2014 FRA Fresno to Bakersfield ROD, as part of project implementation the Authority will implement impact avoidance and minimization measures and mitigation measures (MMEP Amendment #4, Table 2) to reduce potential impacts on park resources, including working with affected jurisdictions to provide compensation for affected areas.

Alternate access will be provided for temporary impacts on parks and recreational facilities, or compensation will be provided for permanent property acquisition.

4.12 Aesthetics and Visual Resources

Construction of the F-B LGA will result in impacts on visual quality in the rural San Joaquin Valley and urban Bakersfield portions of the alignment, as well as through the City of Shafter, from obstruction, light, and glare. Construction activities will disturb undeveloped landscapes, introduce new features that contrast with the existing rural views, obstruct scenic views, and introduce new sources of light and glare. Even with implementation of mitigation, construction-related impacts on aesthetics and visual resources will still remain and will not fully mitigate the effect.

The F-B LGA will introduce new features including elevated and non-elevated portions of the HSR guideways, guideway support columns, contact power system, bridges, and roadway grade separations within rural areas, resulting in impacts on visual quality and character of the area. Mitigation measures identified in the 2014 FRA Fresno to Bakersfield ROD will still be applicable to the F-B LGA and will reduce effects related to visual disruption during construction, changes to visual character, design of HSR structures, landscape screening, and light and glare. In addition, mitigation measures specific to F-B LGA (see MMEP amendment #4) include raising embankments adjacent to residential areas and installing decorative parapet design at the Kern River crossing to reduce visual effects; however, the measures will not fully mitigate the effect.

4.13 Cultural Resources

Activities that cause impacts on cultural resources are typically associated with construction of a project: disturbance of the ground, material, or physical alteration of the built environment, or alteration of the visual setting. Construction of the F-B LGA will occur in both urban and rural/undeveloped areas. The F-B LGA will have the potential to affect historic architectural and historic-era archaeological resources in the urban areas and the potential to affect undisturbed prehistoric archaeological sites in rural/undeveloped areas. The F-B LGA will result in indirect visual effects on four historic architectural resources that are listed or eligible for listing on the National Register of Historic Places by introducing new visual elements into their setting that could affect the historic property's ability to convey its significance. However, affected historic resources within urbanized areas adjacent to the F-B LGA are also typically adjacent to other transportation infrastructure (i.e., freight lines and highways); therefore, the functional historical context of these resources will not substantially change and no adverse effect will result. Even with the implementation of mitigation measures, including preparing interpretive or educational materials and documenting and recording historical resources, the visual indirect effects cannot be fully avoided or minimized; however, the effects will not be adverse.

No known archaeological resources were identified within the F-B LGA study area. However, the F-B LGA has the potential to affect unknown or unrecorded archaeological resources that may exist within the study area. Mitigation measures identified in the 2014 Fresno to Bakersfield ROD will still be applicable to the F-B LGA and will reduce impacts on archaeological resources, and no adverse effect will result.

4.14 Cumulative Impacts

The Final Supplemental EIS includes mitigation measures that will minimize or avoid most impacts associated with F-B LGA construction and operation. Mitigation measures from the 2014 Fresno to Bakersfield Section Final EIR/EIS and associated 2014 ROD that are relevant to the F-B LGA will also be implemented. However, when combined with other past, present, and reasonably foreseeable projects, the F-B LGA will still result in cumulatively considerable impacts related to noise, agricultural land, visual resources, and cultural resources, even after implementation of mitigation measures. Specifically, the project's incremental contribution to overall noise, acreage of Important Farmland converted to nonagricultural uses, visual effect of construction activities located in proximity to one another, exposure, and disruption of archaeological resources and cultural properties, and removal and/or damage to historic architectural resources from continued urbanization and development will all be considered cumulative impacts.

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5. MITIGATION COMMITMENTS AND MONITORING

Construction and environmental commitment implementation for the F-B LGA is being supervised and controlled by the Authority. The Authority is responsible for ensuring that these commitments are implemented, and the Authority has a full oversight role for this project. It is also expected that USACE, State Water Resources Control Board, and California Department of Fish and Wildlife will make frequent compliance reviews to assure that the Section 404 Permit and State waters and species permit conditions are satisfied. Strict erosion and sedimentation control provisions will be enforced.

Consistent with 40 C.F.R. 1505.2(c), all practicable means to avoid or minimize environmental harm caused by the Preferred Alternative (i.e., F-B LGA) have been identified and included as mitigation measures in the MMEP, included as Appendix C. The MMEP was approved in the June 2014 ROD, which was prepared for the Fresno to Bakersfield Section and included the May 2014 Project. The approved 2014 MMEP is applicable to the F-B LGA. Since June 2014, there have been three amendments to the MMEP, all of which are also applicable to the F-B LGA and the May 2014 Project. The fourth amendment to the MMEP describes mitigation measures that will avoid, minimize, or compensate for potential adverse environmental impacts that result specifically (i.e., distinct from the May 2014 Project) from constructing and operating the F-B LGA of the California HSR System.

The FRA may monitor the implementation of environmental commitments in the MMEP, to the extent consistent with the NEPA Assignment MOU. The MMEP describes mitigation measures that will avoid, minimize, or compensate for potential adverse environmental impacts that result from constructing and operating the Fresno to Bakersfield Section of the California HSR System. Pursuant to its responsibilities under NEPA Assignment, these measures were developed by the Authority in consultation with appropriate agencies, as well as with input received from the public. The Authority is required to comply with all mitigation measures adopted with this Supplemental ROD.

The Preferred Alternative also incorporates many impact avoidance and minimization measures and BMPs that are identified in the Final Supplemental EIS and included in detail in the technical reports. The Authority, and FRA as part of the Draft Supplemental EIR/EIS, identified these avoidance and minimization measures to avoid and minimize potential Project impacts. The Authority will apply these measures and BMPs to avoid impacts in several resource areas. Regulatory requirements for many activities provide additional assurance that impacts on the environment will not occur. The applicable regulatory requirements and the avoidance and minimization measures that are part of the F-B LGA are described in more detail in the MMEP. The avoidance and minimization measures are a condition of Project approval and must be implemented by the Authority during design, construction, and operation of the Preferred Alternative (which is the F-B LGA approved by this Supplemental ROD).

The MMEP, as incorporated into this Supplemental ROD, is a formal commitment by the Authority to carry out all of the measures identified therein as a condition of Project approval. Therefore, in designing, constructing, and operating the F-B LGA, the Authority is required to adhere to and provide appropriate funding for all mitigation measures in the MMEP. The Authority will implement an Environmental Management System consisting of strategic planning, policies and procedures, organizational structure, staffing and responsibilities, milestones, schedule, and resources devoted to achieving the Authority's environmental commitments. The Environmental Management System will also track the implementation of environmental requirements and compliance reports. This system will rely on data from the design-build contractor, regional consultants, permitting activities, monitoring, inspections, and other compliance activities. The Authority will manage this database, and agency partners will receive regular updates from meetings and reports demonstrating compliance activities and progress relevant to their regulatory requirements.

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6. DECISION

The Authority finds that the Preferred Alternative identified in the Final Supplemental EIS from just north of Poplar Avenue to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield) (i.e., F-B LGA) best fulfills the purpose and need and objectives for the Project while balancing impacts on the natural and human environment. In reaching this decision, the Authority considered the physical and operational characteristics and potential environmental consequences associated with the HSR alternatives from Poplar Avenue to Oswell Street; however, this decision document identifies and approves the F-B LGA from just north of Poplar Avenue to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield), but not the portion from the Station to Oswell Street (see Figure 1). The Authority, as lead agency, consulted with the cooperating agencies and considered the Draft Supplemental EIR/EIS, the Final Supplemental EIS, and all public and agency comments received during the review period in reaching this decision. The cooperating agencies may issue their own decision documents, as appropriate, consistent with their statutory and regulatory responsibilities.

6.1 Section 106

Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking take into account the effect of the undertaking on any district, site, building, structure, or other object that is listed or eligible for listing on the National Register of Historic Places. The FRA, State Historic Preservation Officer (SHPO), the Authority, and the Advisory Council on Historic Preservation executed a Programmatic Agreement (PA) on July 22, 2011. The PA sets forth numerous requirements intended to ensure appropriate treatment of historic resources during ground-disturbing activities associated with Project construction. The PA also provides protocols for how and when formal eligibility determinations will be made. Eligibility determinations will be made by the appropriate agency based on information presented in the appropriate, completed State site records forms. Moreover, the PA sets forth requirements for tribal monitoring of construction activities to help ensure protection of cultural resources that may be encountered. Adherence to the terms of the PA will fulfill all obligations under Section 106.

In accordance with the PA, a Memorandum of Agreement (MOA) for the treatment of adverse effects on historic properties in the Fresno to Bakersfield Section of the California HSR System was executed by the FRA, SHPO, the Authority, STB, USACE, and Advisory Council on Historic Preservation on May 14, 2014.

The MOA summarizes the results of the Section 106 process and the treatment measures agreed to among the Project's consulting and concurring parties. The primary elements in the MOA include a process for revising the Area of Potential Effect; a process for completing the historic properties identification effort; treatment measures for historic properties that will be affected by the Project; and administrative stipulations. The MOA includes treatments proposed for both above- and below-ground cultural resources, including archaeological and historic architectural resources as well as traditional cultural properties. These include general measures to avoid adverse operational noise effects and construction vibration effects and to mitigate impacts through planning for inadvertent damage and preparing detailed documentation of affected historic properties, as well as property-specific measures for treatment of historic properties that will be adversely affected by the Project.

The Traditional Cultural Property study, the F-B LGA Archaeological Survey Report, and the F-B LGA Historic Architectural Survey Report were submitted to the SHPO for review in February 2016. The SHPO concurred with the conclusions of the F-B LGA Historic Architectural Survey Report on June 1, 2016, and the conclusions of the F-B LGA Archaeological Survey Report on July 6, 2016. On September 9, 2016, the F-B LGA Archaeological Survey Report Addendum 1 and the F-B LGA Historic Architectural Survey Report Addendum 1 were submitted to the SHPO; the SHPO concurred with the conclusions of these addenda on November 17, 2016, and October 13, 2016, respectively. The draft *Fresno to Bakersfield Section Supplemental Section 106*

Findings of Effect, Locally Generated Alternative (Supplemental FOE) was submitted to SHPO for review on August 31, 2017. The SHPO concurred with the Supplemental FOE on September 14, 2017. The amended treatment plans will be finalized sufficiently in advance of the start of construction to obtain agreement amongst the signatories. Appendix D includes the SHPO concurrence letter.

6.2 Section 4(f)

Projects that are undertaken by an operating administration of the DOT or that may receive federal funding and/or discretionary approvals from such an operating administration must demonstrate compliance with Section 4(f) of the DOT Act of 1966. Section 4(f) protects publicly owned lands that are parks, recreational areas, and wildlife refuges. Section 4(f) also protects historic sites (including archaeological resources) of national, state, or local significance that are on public or private land. FRA issued its Section 4(f) Evaluation in the Draft Supplemental EIR/EIS, and the Authority finalized that Section 4(f) Evaluation in the Final Supplemental EIS. The analysis and information in the Section 4(f) Evaluation included with the Final Supplemental EIS is incorporated herein by reference.

Chapter 4 of the Draft Supplemental EIR/EIS contains FRA's evaluation of whether the Project would result in any of the following "uses" of properties projected under Section 4(f): permanent use (which encompasses permanent easements or temporary easements that exceed limits for temporary occupancy), temporary occupancy, and constructive use. Impacts were then evaluated to see if the criteria for a *de minimis* impact determination were met and appropriate coordination with officials having jurisdiction over each resource was conducted. Since the publication of the Draft Supplemental EIR/EIS, the City of Bakersfield issued its concurrence that the Preferred Alternative (i.e., F-B LGA) will result in a *de minimis* Section 4(f) impact on the Kern River Parkway and Weill Park.[7] (See Appendix E for the City of Bakersfield's Section 4(f) concurrence letter.) The Kern River Parkway and Weill Park are the only Section 4(f) uses identified within the F-B LGA footprint. Updates to the Section 4(f) Evaluation since the release of the Draft Supplemental EIR/EIS are included in the Changes to the Draft Supplemental EIS (Errata) of the Final Supplemental EIS.

6.2.1 Alternatives

As described in Chapter 4 of the Draft Supplemental EIR/EIS, FRA has considered Section 4(f) properties throughout the planning and F-B LGA development and analysis process. The primary goal of the F-B LGA development process was to avoid and minimize impacts on environmental resources, including resources protected by Section 4(f). During this process, the alignment was designed to avoid direct adverse effects on parks, recreational areas, and historic resources.

6.2.2 Measures to Minimize Harm/Mitigation

Measures to minimize harm include measures that were taken during project planning to avoid or minimize impacts, as well as mitigation and enhancement measures to compensate for unavoidable project impacts. Table 2 lists the measures identified by the Authority to minimize harm, as required by 49 U.S.C. Section 303(c)(2), which will be incorporated into the Project to address the impacts of the alternative alignment. It should be noted that not all parts of the measures to minimize harm will be applicable to the Preferred Alternative (for example no Section 106 properties will be affected by the F-B LGA and therefore measures to reduce Section 106 impacts are not applicable). Additionally, some mitigation measures below will act as minimization measures for the F-B LGA where mitigation is not required. The Authority is continuing ongoing coordination, as appropriate, with these officials; during the Authority's consideration of its decision and during final design, additional measures may be agreed on to further reduce potential impacts on Section 4(f) properties.

[7] Weill Park is located southeast of the F Street Station and is not part of the Authority's NEPA approval for the Fresno to Bakersfield Section Preferred Alternative.

Table 2 Measures to Minimize Harm

Impact(s)	Measures to Minimize Harm
Historic Properties (Jurisdiction: SHPO)	
Property acquisition Potential vibration impacts Potential visual intrusion	• The F-B LGA will develop construction methods to avoid indirect adverse effects on any historic properties from vibration caused by construction activities. Vibration from impact pile driving during construction is anticipated to reach up to 0.12 in/sec ppv at 135 feet from the project centerline, a level that could cause the physical destruction, damage, or alteration of historic properties or historical resources if the pile driving is within 80 to 140 feet of the building. Because impact pile driving could cause adverse effects, alternative construction methods causing less than 0.12 in/sec ppv measured at the receptor will be developed for construction activities near historic properties or historical resources if they are determined to be susceptible to vibration damage at or above 0.12 in/sec ppv (Authority and FRA 2012e). The development of alternative construction methods at these locations will avoid indirect adverse vibration effects on historic properties. Implementation of avoidance measures will be monitored to ensure that damaging vibration levels are avoided during construction adjacent to the historic properties identified as requiring this treatment. The mitigation measure described above is consistent with FRA's *High-Speed Ground Transportation Noise and Vibration Impact Assessment* (2005) for evaluation of noise and vibration impacts associated with HSR. The BETP will describe the methodology for the avoidance of adverse vibration effects and how such avoidance will be monitored and implemented during construction of the Project. • As identified in the MOA, the BETP will identify specific historical resources that will be physically altered, damaged, or destroyed by the Project and that will be documented in detailed recordation that includes photographs. This documentation may include preparation of updated recordation forms (Form 523), or may be consistent with the Historic American Building Survey, the Historic American Engineering Record, and the Historic American Landscape Survey programs. The recordation undertaken by this treatment will focus on the aspect of integrity that will be affected by the Project for each historic property subject to this treatment. For example, historic properties in an urban setting that will experience an adverse visual effect will be photographed to capture exterior and contextual views; interior spaces will not be subject to recordation if they would not be affected. Recordation documents will follow the appropriate guidance for the recordation format and program selected. • The BETP will identify historic properties and historical resources that will be subject for historic interpretation. Interpretive exhibits will provide information regarding specific historic properties or historical resources and will address the aspect of the significance of the properties that will be affected by the Project. Interpretive materials could include, but are not limited to: brochures, videos, websites, articles, or reports for general publication, commemorative plaques, or exhibits. Historic properties and historical resources subject to demolition by the Project will be the subject of informative permanent metal plaques that will be installed at the site of the demolished historic property or at nearby public locations. Each plaque will provide a brief history of the subject property, its engineering/architectural features and characteristics, and the reasons for and the date of its demolition. The interpretive materials will utilize images, narrative history, drawings, or other material produced for the mitigation described above, including the additional recordation prepared, or other archival sources. The interpretive materials could be advertised and made available to and/or disseminated to the public at local libraries, historical societies, or public buildings. This mitigation measure is consistent with best practices within the professional historic

Impact(s)	Measures to Minimize Harm
	preservation community and is commensurate with the treatment of historic properties in similar-scale transportation projects. Preparing interpretive exhibits has proven to be effective in achieving the stewardship goals of Section 106. Performance tracking of this mitigation measure will be described in the BETP and will be included in the Mitigation Monitoring and Enforcement Plan. • The BETP will provide that a plan for the repair of inadvertent damage to historic properties or historical resources be developed before Project construction. The plan will consist of a general protocol for inadvertent damage to historic architectural resources and a listing of specific properties that should be the subject of an individual plan because of their immediate proximity to the project. Inadvertent damage from the project to any of the historic properties or historical resources near construction activities will be repaired in accordance with the USSOI's Standards for Rehabilitation. The plan may utilize photographic documentation prepared for the other mitigation measures (such additional recordation) as the baseline condition for assessing damage. The plan will include the protocols for notification, coordination, and reporting to the SHPO and the landowner or land-owning agencies. Before implementation of the plan, plans for any repairs to historic properties will be submitted for review and comment to the SHPO to verify conformance with the USSOI's Standards for Rehabilitation. This mitigation measure is consistent with best practices within the professional historic preservation community and is commensurate with treatment of historic properties in similar-scale transportation projects. This type of mitigation measure has proven to be effective in achieving the stewardship goals of Section 106. Performance tracking of this treatment will be described in the BETP.
Kern River Parkway; Weill Park (Jurisdiction: City of Bakersfield)	
Property acquisition Visual intrusion from overhead HSR Temporary construction activities in the park Temporary construction noise impacts	• Offsite landscape screening will be planted to provide new, intermittent screening of project structures. Occasional groupings of new trees in the parkway will be placed to break up views of long expanses of the guideway. Extensive tall tree planting will be made at or near the edge of the Project right-of-way in the parkway. • The Authority will continue to work with the City of Bakersfield to advance the final design through a collaborative, context-sensitive solutions approach. Participants in the consultation process will meet on a regular basis to develop a consensus on the urban design elements that are to be incorporated into the final guideway designs. The process will include activities to solicit community input in the affected neighborhoods. • For the elevated guideways and columns, architectural elements, such as graceful curved or tapered sculptural forms and decorative surfaces, will be incorporated to provide visual interest. Decorative texture treatments will be included on large-scale concrete surfaces such as parapets and other segments of elevated guideways. A variety of texture, shadow lines, and other surface articulation will be added to provide visual and thematic interest. The design of guideway columns and parapets will be closely coordinated with station and platform architecture to promote unity and coherence where guideways lie adjacent to stations. • Design features that provide interest and reflect the local design context will be incorporated. These features could include landscaping, lighting, and public art. • After construction is complete, the Authority will plant vegetation within lands acquired for the Project features (e.g., shifting roadways) that are not used for the HSR Project or related supporting infrastructure. Plantings will allow adequate space between the vegetation and the HSR alignment and catenary lines. All street trees and other visually important vegetation removed in these areas during construction will be replaced with similar vegetation that, on maturity, will be similar in size and character to the removed vegetation. The Authority will ensure that vegetation will be continuously maintained and appropriate irrigation systems will be installed within the planting areas. No species listed on the Invasive Species Council of California's list of invasive species will be used for

Impact(s)	Measures to Minimize Harm
	these plantings. • The Authority will coordinate with the City of Bakersfield to provide alternative routes for bicycle or pedestrian paths that will be temporarily closed during construction of the HSR guideway. • As part of ongoing coordination with the City of Bakersfield, the Authority will continue discussions and identification of opportunities to reduce impacts, such as minimizing the vertical clearance of the guideway. • During construction, the contractor will monitor construction noise to verify compliance with the established noise limits. The contractor will be given the flexibility to meet the FRA and local construction noise limits in the most efficient and cost-effective manner. Meeting these limits can be done by either prohibiting certain noise-generating activities during nighttime hours or providing additional noise control measures to meet the noise limits. The following noise control mitigation measures will be implemented as necessary, for nighttime and daytime: - Install a temporary construction site sound barrier near a noise source. - Locate stationary construction equipment as far as possible from noise-sensitive sites. - Use low-noise emission equipment. - Implement noise-deadening measures for truck loading and operations. - Monitor and maintain equipment to meet noise limits. - Line or cover storage bins, conveyors, and chutes with sound-deadening material. - Use acoustic enclosures, shields, or shrouds for equipment and facilities. - Use high-grade engine exhaust silencers and engine-casing sound insulation. - Minimize the use of generators to power equipment. - Limit use of public address systems. - Grade surface irregularities on construction sites. - Use moveable sound barriers at the source of the construction activity. - Limit or avoid certain noisy activities during nighttime hours. - To mitigate noise related to pile driving, the use of an auger to install the piles instead of a pile driver will reduce noise levels substantially. If pile driving is necessary, limit the time of day that the activity can occur. - In the procurement of an HSR vehicle technology, the Authority will require bidders to meet the federal regulations (40 C.F.R. Part 201.12/13) at the time of procurement for locomotives (currently a 90-decibel-level standard) for cars operating at speeds of greater than 45 miles per hour.

Authority = California High-Speed Rail Authority
BETP = Built Environment Treatment Plan
C.F.R = Code of Federal Regulations
F-B LGA = Fresno to Bakersfield Locally Generated Alternative
FRA = Federal Railroad Administration
HSR = high-speed rail
in/sec = inches per second
MOA = Memorandum of Agreement
ppv = peak particle velocity
SHPO = State Historic Preservation Office
USSOI = U.S. Secretary of the Interior

California High-Speed Rail Authority and USDOT Federal Railroad Administration (Authority and FRA). 2012e. *California High-Speed Train Fresno to Bakersfield Section: Noise and Vibration Technical Report.* Sacramento and Washington, DC: California High-Speed Rail Authority and USDOT Federal Railroad Administration, 2012.

6.2.3 Section 4(f) Determination

Based on the analysis in Chapter 4 of the Draft Supplemental EIR/EIS and the updates provided in Changes to the Draft Supplemental EIS (Errata) in the Final Supplemental EIS, the Authority finds that the impacts on the two park/recreational resources, the Kern River Parkway multi-use trails and Weill Park, will be *de minimis*. The City of Bakersfield, the official with jurisdiction over the resources, concurred in writing with this finding on September 12, 2018 (see Appendix E).

6.3 General Conformity Determination

As part of the environmental review of the Fresno to Bakersfield Project Section, FRA conducted a general conformity evaluation pursuant to 40 C.F.R. Part 51, Subpart W and 40 C.F.R. Part 93, Subpart B. FRA conducted the general conformity evaluation following all regulatory criteria and procedures and in coordination with EPA, San Joaquin Valley Air Basin, and the California Air Resources Board. As a result of this review, the FRA found that Project-generated emissions will be fully offset (for construction phase) or less than zero (for operational phase) considering the following commitments:

- Prior to commencement of construction in the Fresno to Bakersfield Section, the Authority entered into a VERA with the San Joaquin Valley Air Pollution Control District.
- The Authority has committed to fully offset all construction emissions (to net zero) for every year of construction.

As referenced in Section 3.3 of the Draft Supplemental EIR/EIS, the modifications to the Fresno to Bakersfield Section associated with the Preferred Alternative (i.e., F-B LGA) will result in slightly lower construction emissions compared to those from the Fresno to Bakersfield Section with the May 2014 Project. As stated in the FRA's correspondence dated October 18, 2019 (attached as Appendix B), the FRA has reviewed the applicability of the final General Conformity determination (2014) when considering the F-B LGA as part of the overall Fresno to Bakersfield Section, and its conclusion is that the final General Conformity determination is still valid.

6.4 Section 7 Endangered Species Finding

Because the Project is likely to have an impact on threatened or endangered species, the Authority prepared a BA for the Project and consulted with USFWS, as required under Section 7 of the Endangered Species Act. The Authority's informal and formal Section 7 consultation with USFWS has been ongoing and was instrumental in scoping the biological resource analysis for the Draft Supplemental EIR/EIS, as well as for the BA. The Authority developed and submitted a Draft BA for the Fresno to Bakersfield Section to USFWS in June 2012, which evaluated direct, indirect, and cumulative effects of the Project on federally listed, threatened, endangered, or proposed listed species and their designated habitat.

Following USFWS review and additional consultation and coordination, USFWS issued a BO for the Fresno to Bakersfield Section of the HSR on February 28, 2013. In the BO, USFWS concluded that the Fresno to Bakersfield Section, as proposed, is not likely to jeopardize the continued existence of the listed wildlife and plant species potentially occurring in the Fresno to Bakersfield Section action area. Consistent with Section 7 requirements, the BO also stipulates several reasonable and prudent conservation measures to avoid or reduce potential impacts.

Following issuance of the BO, the Authority and FRA made modifications to Project alignment alternatives, which required reopening the formal Section 7 consultation with USFWS. A supplemental BA was submitted to the USFWS in October 2013. Following USFWS review and additional consultation and coordination, USFWS issued an addendum to the BO for the Project on April 1, 2014. This BO also includes an incidental take statement authorizing activities associated with construction of the Project from the Fresno station to the Bakersfield station.

The Authority and FRA obtained a second BO on July 28, 2017, addressing changes to the Preferred Alternative and considering effects on the Buena Vista Lake ornate shrew (Appendix F). The F-B LGA was not included in either the April 1, 2014, or July 28, 2017, BOs. Nevertheless, the Authority will require the design-build contractor to implement the conservation measures identified in both the 2014 and 2017 BOs.

Subsequent to publication of the Draft Supplemental EIR/EIS, in May 2018, the Authority, on behalf of the FRA, requested reinitiation of formal consultation with the USFWS and was issued a BO Amendment for the Fresno to Bakersfield Section in July 2018 (Appendix G). The BO Amendment incorporates the F-B LGA into the overall Fresno to Bakersfield Section BO (08ESMF00-2012-F-0247). The USFWS's BO Amendment determined that construction of the

F-B LGA is not likely to jeopardize listed species or result in the destruction or adverse modification of critical habitat.

6.5 Wetlands Finding

In addition to NEPA and other environmental laws, the federal lead agency is also required to make findings pursuant to Executive Order 11990, Protection of Wetlands, and the U.S. Department of Transportation Wetlands Order, DOT Order 5660.1A.

It is anticipated that impacts on waters of the United States may occur as a result of the Preferred Alternative. However, as noted in Section 1.4 above, in May 2017 the USACE concurred, pending the emergence of any changes or new information after the release of the Draft Supplemental EIR/EIS, that the Preferred Alternative contains the preliminary LEDPA. Design requirements and permit conditions will require contractors to avoid impacts on jurisdictional waters wherever feasible.

In addition to the Section 404 permit, the Authority has submitted water quality certification applications, prepared pursuant to Section 401 to the State Water Resources Control Board for the Preferred Alternative. To the maximum extent practicable, the Authority will implement pre- and post-construction BMPs for sediment and erosion control. If avoidance of impacts on jurisdictional waters is not feasible, mitigation will be determined by USACE and the State Water Resources Control Board and reflected in permits and other authorizations issued for the Project.

Based upon these findings, the Authority determines that the Project is consistent with Executive Order 11990 and DOT Order 5660.1A.

6.6 Floodplains Finding

DOT Order 5620.2 implements Executive Order 11988, Floodplain Management. These orders state that the federal lead agency may not approve an alternative involving a significant encroachment unless the agency can make a finding that the proposed encroachment is the only practicable alternative. The major purposes of Executive Order 11988 are to avoid federal support for floodplain development; to prevent uneconomic, hazardous, or incompatible use of floodplains; to restore and preserve the natural and beneficial floodplain values; and to be consistent with the standards and criteria of the National Floodplain Insurance Program.

The Authority, as the federal lead agency, concludes that the Preferred Alternative will not result in any substantial adverse impact on natural and beneficial values of the floodplains, will not result in a substantial change in flood risks or damage, and will not have a substantial potential for interruption or termination of emergency service and evacuation routes. Based upon these findings, the Authority determines that the Project is consistent with requirements of Executive Order 11988.

6.7 Environmental Justice Finding

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. DOT Order 5610.2(a), “Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” 77 Federal Register 27534 (May 10, 2012), imposes similar obligations on DOT operating administrations to promote the principles of Executive Order 12898 and incorporate such principles in all programs, policies, and activities, including the NEPA process.

The Preferred Alternative (i.e., F-B LGA) will result in disproportionately high and adverse effects on minority and low-income populations in Shafter and Bakersfield. These impacts consist of an increase in both ambient noise levels; residential and business displacements, and the displacement of important community facilities; and decreases in visual quality.

The Project includes the application of noise and vibration mitigation measures (see MMEP, in Appendix C) to reduce noise and vibration impacts resulting from HSR operations by constructing sound barriers, acquiring property easements, installing insulation, and providing a smooth running surface for the HSR, as appropriate. However, these measures will not completely eliminate the adverse impacts, which will likely be more severe in urban areas where minority and low-income populations reside. There are no practicable mitigation measures beyond these, or alternatives, available to completely eliminate these effects.

The Project includes various mitigation measures that address relocation through locating suitable replacement properties and facilities. Mitigation measures also include additional outreach to affected minority and low-income populations, such as but not limited to facilitated community workshops. These measures will reduce but not eliminate the effects that result from displacements. There are no practicable mitigation measures beyond these, or alternatives, available to completely eliminate these effects.

Similarly, the incorporation of context-sensitive design criteria for Project features and plantings and other landscape features to screen views of Project structures and sound walls will mitigate the light, glare, and blocked views that result from the Project, and therefore will reduce the adverse effects. Nevertheless, some decreases in visual quality will remain even with mitigation, and will disproportionately affect minority and low-income populations. There are no practicable mitigation measures beyond these, or alternatives, available to completely eliminate these effects.

The Authority also considered the potential offsetting benefits associated with the Preferred Alternative. For example, construction and operation of the Preferred Alternative will result in employment growth in the region, and it will specifically benefit low-income and minority populations through special recruitment, training, and job set-aside programs.

The California HSR System, of which the Fresno to Bakersfield Section is just one section, will improve transportation options throughout the state, improve long-term air quality, and reduce traffic congestion. These Project benefits will accrue not only to low-income and minority populations, but also to the broader community as a whole.

As part of the Environmental Justice analysis and as discussed above, the Authority identified appropriate mitigation measures for the Preferred Alternative to address potentially adverse impacts on low-income and minority populations. One of the elements of the Project mitigation is continued outreach with affected communities to ensure their concerns are considered during final design and Project implementation.

The Authority, as NEPA lead agency, finds that there is a substantial need, based on the overall public interest, for an HSR system that connects the southern Central Valley, including Bakersfield as its largest city, to the San Francisco Bay Area (of which connection the F-B LGA is an indispensable part), and which connects the Los Angeles area to the San Francisco Bay Area (of which connection the F-B LGA is also an indispensable part).

The core substantial need for the project, as part of the Valley to Valley system and the longer Los Angeles to San Francisco Phase I system, is the increased intercity mobility the system would provide and to complement existing highway and airports that have not meaningfully expanded in decades despite significant populations growth in California. More specifically, on a state level, the overall HSR System, including the F-B LGA, will provide program benefits that are in the overall public interest. The benefits include:

- Improvements in mobility and travel time
- Reductions in vehicle miles traveled and commensurate drops in emissions of GHGs and criteria air pollutants
- Increased job creation both during construction and throughout operations, which is particularly important in the Central Valley as an economic matter

- Enhanced community planning leading to transit-oriented development and pedestrian scale communities
- Greater opportunities for walking and improved health outcomes as identified through the HSR planning and environmental documentation

Operation of the first segment of the Phase 1 HSR system will remove the equivalent of 31,000 passenger cars from the highways per day, according to the C*alifornia High-Speed Rail Project Comparison of Providing the Equivalent Capacity to High-Speed Rail through Other Modes* (Authority and FRA 2012a).[8] The HSR operation will present an alternative to the needed expenditure of $158 billion for new highway miles and airport infrastructure. Additionally, vehicle miles traveled (an indicator of energy consumption), GHG emissions, and criteria air pollution generation will be reduced from the diversion of travelers from passenger cars to rail.

The implementation of HSR will have a beneficial effect on future community development around station sites and in proximity to intercity transit affected by HSR investment. Transit-oriented development will create denser community centers, leading to pedestrian scale planning. Provision of walkable and cycling infrastructure will reduce the demand for short-distance automobile travel and can spur economic development at the pedestrian level. The focus on transit-oriented development, complete streets, and walkable communities will have direct benefits to property values, community cohesion, and healthy outcomes as described in Vision California (Authority and Calthorpe Associates 2010).[9]

More locally, the City of Bakersfield will realize community and economic benefits surrounding the F Street Station development. As discussed in Appendix 8-A of the Draft Supplemental EIR/EIS, the F Street Station area (F-B LGA) contains more vacant but brownfield land compared to the Truxtun Avenue Station (May 2014 Project); therefore, the F Street Station presents more opportunities for infill development, revitalization of existing large buildings, new job creation, and transit-oriented housing. According to the *City of Bakersfield Making Downtown Bakersfield Vision Plan* (May 2018), the second phase of Plan implementation lays out a framework for redeveloping the area around the F Street Station. Garces Circle would be transformed from an automobile-oriented roundabout into a high-density, mixed-use retail, residential and office district. This new district will be supported by rehabilitating adjacent mixed-use and single-family neighborhoods.

Furthermore, the Authority, as NEPA lead agency, finds that the other alternative under consideration, the May 2014 Project, would have greater effects on protected populations, as compared to the F-B LGA, related to operational land use and parks, recreation, and open space effects, and it would have similar effects on protected populations, as compared to the F-B LGA, related to operational noise and vibration, socioeconomics and communities, and aesthetics and visual resources effects. The Authority finds that the May 2014 Project would have other adverse social, economic, environmental, or human health impacts that are severe. For example, the May 2014 Project would have 302 severe noise impacts, a community effect in the community of Chrome, a Section 4(f) use in which the local jurisdiction did not concur with the proposed *de minimis* finding, and a land use incompatibility finding associated with the Truxtun Avenue Station.

Moreover, the F-B LGA is superior in many community and natural environment regards compared to the May 2014 Project. Examples include:

[8] California High-Speed Rail Authority (Authority) and USDOT Federal Railroad Administration (FRA). 2012a. *California High-Speed Rail Project Comparison of Providing the Equivalent Capacity to High-Speed Rail through Other Modes.* Sacramento, CA, and Washington, D.C.: California High-Speed Rail Authority and U.S. Department of Transportation Federal Railroad Administration.

[9] California High-Speed Rail Authority (Authority) and Calthorpe Associates. 2010. Vision California, Charting Our Future: Statewide Scenarios Report. May 12, 2010.

- The F-B LGA, when compared to the May 2014 Project, will reduce the number of residential displacements. The F-B LGA will require 86 residential displacements compared to 384 residential displacements under the May 2014 Project.
- The F-B LGA, when compared to the May 2014 Project, will result in fewer business relocation impacts. The F-B LGA will require 377 business relocations displacements compared to 392 business relocations under the May 2014 Project.
- The F-B LGA, when compared to the May 2014 Project, results in fewer total direct impacts on protected waters. The F-B LGA will result in 17.14 acres of total direct impacts on waters compared to 20.14 acres of total direct impacts on waters under the May 2014 Project.
- With respect to resources protected by Section 4(f), both alternatives cross the Kern River Parkway, resulting in comparable impacts. The May 2014 Project would cross the Mill Creek Linear Park, while the F-B LGA will cross the northern half of Weill Park. In the 2014 Fresno to Bakersfield Section Final EIR/EIS, FRA determined the impacts to Mill Creek Linear Park and for the Kern River Parkway would be *de minimis*, but the City of Bakersfield, the official with jurisdiction, did not concur with the determination and therefore FRA instead found a 4(f) use of those resources. For the F-B LGA, the City of Bakersfield provided formal written concurrence on the *de minimis* use determination on September 12, 2018.
- The F-B LGA, when compared to the May 2014 Project, will result in fewer severe noise impacts. The F-B LGA will result in severe noise impacts at 152 sensitive receptors compared to 302 severe noise impacts associated with the May 2014 Project.
- The F-B LGA, when compared to the May 2014 Project, will result in fewer permanent impacts on Important Farmlands. The F-B LGA will permanently impact 372 acres of Important Farmlands compared to 485 acres under the May 2014 Project.

The F-B LGA also will result in fewer overall impacts related to agricultural lands, noise, residential displacement, special-status species, aquatic habitats, and key community facilities.

7. CONCLUSION

The Authority, as the federal lead agency, has reached a decision that most closely aligns with the Authority's statutory mission and responsibilities, considering economic, environmental, technical, and other factors and based on the information contained within the Final Supplemental EIS and the project record.

For the portion of the Fresno to Bakersfield Section from just north of Poplar Avenue to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield) (see Figure 1), the Authority approves the F-B LGA and the F Street Station. The Authority has selected this alternative and corresponding station because: (1) it best satisfies the Purpose, Need, and Objectives for the proposed action; and (2) it minimizes impacts on the natural and human environment by utilizing and existing transportation corridor where practicable and incorporating mitigation measures. Accordingly, from just north of Poplar Avenue to and including the F Street Station (specifically to the intersection of 34th Street and L Street in Bakersfield), the F-B LGA and the F Street Station have been selected and approved for Project implementation. This conclusion does not change FRA's conclusions and decision in the 2014 ROD north of Poplar Avenue.

Brian P. Kelly
Chief Executive Officer
California High-Speed Rail Authority

October 31, 2019
Date

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APPENDIX A: LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE CONCURRENCE LETTERS

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APPENDIX B: CORRESPONDENCE FROM FEDERAL RAILROAD ADMINISTRATION REGARDING GENERAL CONFORMITY

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APPENDIX C: MITIGATION MONITORING AND ENFORCEMENT PLAN (AND AMENDMENTS)

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APPENDIX D: STATE HISTORIC PRESERVATION OFFICER CONCURRENCE LETTER

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APPENDIX E: SECTION 4(F) CONCURRENCE LETTER

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APPENDIX F: JULY 28, 2017, BIOLOGICAL OPINION (BUENA VISTA LAKE ORNATE SHREW)

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APPENDIX G: JULY 27, 2018, BIOLOGICAL OPINION (LOCALLY GENERATED ALTERNATIVE)

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