

California High-Speed Rail Authority

Merced to Fresno Section: Central Valley Wye

Supplemental Record of
Decision

September 2020



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.

This page left blank Intentionally

TABLE OF CONTENTS

EXPLANATORY COVER NOTE.....	1
SUPPLEMENTAL RECORD OF DECISION	4
1 INTRODUCTION	4
1.1 California HSR System.....	7
1.2 Central Valley Wye	9
2 AGENCY ROLE AND RESPONSIBILITIES	11
2.1 Federal Railroad Administration	11
2.2 Surface Transportation Board	12
2.3 U.S. Bureau of Reclamation.....	12
2.4 U.S. Army Corps of Engineers	12
2.5 U.S. Fish and Wildlife Service and National Marine Fisheries Service.....	13
2.5.1 U.S. Fish and Wildlife Service.....	13
2.5.2 National Marine Fisheries Service	14
3 PURPOSE AND NEED	14
4 ALTERNATIVES	15
4.1 Consideration of Wye Alternatives as part of the Merced to Fresno Final EIR/EIS.....	15
4.2 Alternatives Development and Screening after the Merced to Fresno Final EIR/EIS.....	16
4.3 Alternatives Carried Forward for Study in the Draft Supplemental EIR/EIS and Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis	18
4.3.1 SR 152 (North) to Road 13 Wye Alternative	18
4.3.2 SR 152 (North) to Road 19 Wye Alternative	18
4.3.3 Avenue 21 to Road 13 Wye Alternative	18
4.3.4 SR 152 (North) to Road 11 Wye Alternative	19
4.4 Description of the Selected Alternative (the Environmentally Preferable Alternative)	19
5 SUMMARY OF POTENTIAL EFFECTS	20
5.1 Air Quality and Global Climate Change.....	21
5.2 Noise and Vibration	22
5.3 Biological Resources and Wetlands.....	23
5.4 Hazardous Materials and Wastes	24
5.5 Socioeconomics and Communities	25
5.6 Land Use and Development.....	26
5.7 Agricultural Farmland	26
5.8 Aesthetics and Visual Resources.....	27
5.9 Cultural Resources	27
5.10 Cumulative Impacts	28
6 MITIGATION COMMITMENTS AND MONITORING	29
7 SUMMARY OF COMMENTS.....	29
8 DECISION	31
8.1 Section 106.....	32
8.2 Section 4(f)	32
8.2.1 Measures to Minimize Harm/Mitigation	33
8.2.2 Section 4(f) Determination	34
8.3 General Conformity Determination.....	34
8.4 Section 7 Endangered Species Finding	34
8.5 Wetlands Finding.....	35

8.6	Floodplains Finding	35
8.7	Environmental Justice Finding.....	36
9	CONCLUSION	39

Appendices

APPENDIX A	GENERAL CONFORMITY DETERMINATION MEMORANDUM
APPENDIX B	U.S. FISH AND WILDLIFE SERVICE BIOLOGICAL OPINION
APPENDIX C	NATIONAL MARINE FISHERIES SERVICE BIOLOGICAL OPINION
APPENDIX D	MITIGATION MONITORING AND ENFORCEMENT PLAN
APPENDIX E	STATE HISTORIC PRESERVATION OFFICER SECTION 106 CONCURRENCE LETTER
APPENDIX F	LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE CONCURRENCE LETTER
APPENDIX G	LETTERS TO THE AUTHORITY BOARD AND BOARD MEETING MATERIALS

Tables

Table 1. Major NEPA Milestones	11
--------------------------------------	----

Figures

Figure 1 Selected Alternative for the Central Valley Wye (SR 152 [North] to Road 11 Wye Alternative).....	6
Figure 2 Statewide California High-Speed Rail System	8
Figure 3 Central Valley Wye Alternatives Considered in the Final Supplemental EIR/EIS	17

ACRONYMS AND ABBREVIATIONS

Acronym	Definition
Authority	California High-Speed Rail Authority
BA	Biological Assessment
BO	Biological Opinion
BMP	best management practices
CEQA	California Environmental Quality Act
C.F.R.	Code of Federal Regulations
Checkpoint B Summary Report	<i>Supplemental Checkpoint B Summary Report in Support of the Merced to Fresno Section: Wye Alternatives</i>
DOT	U.S. Department of Transportation
Draft Supplemental EIR/EIS	<i>California High Speed Rail Project Merced to Fresno Section: Central Valley Wye Draft Supplemental Environmental Impact Report/Environmental Impact Statement</i>
EFH	Essential Fish Habitat
EINU	electrical interconnections and network upgrades
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
Final Supplemental EIR/EIS	<i>California High Speed Rail Project Merced to Fresno Section: Central Valley Wye Final Supplemental Environmental Impact Report/Environmental Impact Statement</i>
FRA	Federal Railroad Administration
GCD	General Conformity Determination
GHG	greenhouse gas
HSR	California High-Speed Rail
KV	kilovolt
LEDPA	Least Environmentally Damaging Practicable Alternative
Merced to Fresno Final EIR/EIS	<i>Merced to Fresno Section California High-Speed Rail Final Environmental Impact Report/Environmental Impact Statement</i>
Merced Fresno MOA	<i>California High-Speed Train Merced to Fresno Section: Memorandum of Agreement for the Treatment of Adverse Effects on Historic Properties under Section 106 of the National Historic Preservation Act</i>
MMEP	Mitigation Monitoring and Enforcement Plan
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act

Acronym	Definition
NEPA Assignment MOU	Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration (FRA) and the State of California delegating NEPA lead agency status to the Authority
NMFS	National Marine Fisheries Service
NOx	nitrogen oxides
OSHA	Occupational Safety and Health Administration
PA	<i>Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the California High-Speed Train Project</i>
PM	particulate matter
Project	Central Valley Wye Project
Reclamation	U.S. Bureau of Reclamation
Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis	<i>California High-Speed Rail Project Merced to Fresno Section: Central Valley Wye Revised Draft Supplemental EIR/Second Draft Supplemental EIS, Biological Resources Analysis</i>
ROD	Record of Decision
RSA	Resource Study Area
SHPO	State Historic Preservation Officer
SJVAPCD	San Joaquin Valley Air Pollution Control District
STB	Surface Transportation Board
Supplemental Alternatives Analysis Report	<i>Merced to Fresno Section: Central Valley Wye Alternatives Supplemental Alternatives Analysis Report</i>
Supplemental ROD	Supplemental Record of Decision
TPSS	traction power substation
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VERA	Voluntary Emissions Reduction Agreement
VOC	volatile organic compounds

This page left blank Intentionally

**CALIFORNIA HIGH-SPEED RAIL
MERCED TO FRESNO PROJECT SECTION
CENTRAL VALLEY WYE**

**EXPLANATORY COVER NOTE
SUPPLEMENTAL RECORD OF DECISION**

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Under the National Environmental Policy Act (NEPA), the California High-Speed Rail Authority (Authority) is issuing a Supplemental Record of Decision (ROD) for the Central Valley Wye portion of the Merced to Fresno Project Section (referred to as the Project). This Supplemental ROD identifies the SR 152 (North) to Road 11 Wye Alternative as the Selected Alternative for the Project.

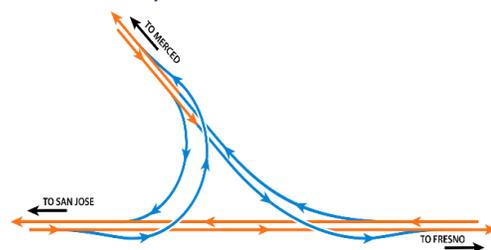
The Authority takes these actions under a program generally known as NEPA Assignment. More specifically, the environmental review, consultation, and other actions required by applicable federal environmental laws for this Project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration (FRA) and the State of California (NEPA Assignment MOU). Accordingly, the Authority is now the NEPA lead agency. The Authority therefore is issuing this Supplemental ROD as the NEPA lead agency.

In 2012, the Authority and FRA completed the *Merced to Fresno Section California High-Speed Rail Final EIR/EIS*, the California Environmental Quality Act (CEQA) and NEPA project-level analysis of high-speed rail alignments and associated facilities from Merced to Fresno. The Authority Board of Directors certified the Merced to Fresno Final EIR/EIS under CEQA on May 3, 2012 and filed a Notice of Determination on May 4, 2012. The FRA issued a ROD on September 18, 2012, and the Surface Transportation Board (STB) issued a ROD on June 13, 2013. Although approvals by the Authority Board of Directors and FRA identified the Merced to Fresno Section: Hybrid Alternative as the Selected Alternative for the north-south alignment of the high-speed rail, each of these approvals deferred a decision on the Central Valley Wye portion of that alternative for additional environmental analysis. The Merced to Fresno Final EIR/EIS had analyzed two alternative alignments for the wye connection, one paralleling Avenue 21 and another paralleling Avenue 24. As stated in FRA's 2012 ROD:

Based on input from regulatory agencies, FRA and the Authority have determined that a previously studied SR 152 east-west alignment and related wyes merit detailed study as well. Although the Final EIS identifies the possibility of the SR152 wye, full environmental analysis of this wye option as well as additional analysis on the Ave 24 and Ave 21 options, where necessary, will occur in the San Jose to Merced Project EIR/EIS (FRA, 2012, p. 19).

Following consultation with the public and with agencies of interest, the Authority and FRA

What Is a "Wye"?



The term wye refers to the Y-like formation that is created at the point where the train tracks branch off the mainline to continue in different directions.

eventually decided to carry forward four alignment alternatives for analysis in a supplement to the 2012 Merced to Fresno Final EIR/EIS.¹

The Authority issued the *California High-Speed Rail Project Merced to Fresno Section: Central Valley Wye Draft Supplemental EIR/EIS* (Draft Supplemental EIR/EIS) for a 48-day review period pursuant to CEQA between May 3, 2019, and June 20, 2019. The Authority subsequently issued the same document for a 45-day review period pursuant to NEPA between September 13, 2019, and October 28, 2019. The Draft Supplemental EIR/EIS consisted of three volumes:

- Volume I – “Report”
- Volume II – “Technical Appendices”
- Volume III – “Alignment Plans”

The Draft Supplemental EIR/EIS identified the SR 152 (North) to Road 11 Wye Alternative as the Preferred Alternative.

After issuing the Draft Supplemental EIR/EIS, the Authority learned of the California Department of Fish and Wildlife’s new listing of a bumble bee species that may be present in the relevant resource study area for the Central Valley Wye alternatives. The Authority duly issued the *California High-Speed Rail Project Merced to Fresno Section: Central Valley Wye Revised Draft Supplemental EIR/Second Draft Supplemental EIS, Biological Resources Analysis* (Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis) pursuant to both CEQA and NEPA for a 45-day public review period between March 13, 2020, and April 27, 2020, reflecting updates associated with a newly listed bumble bee candidate species for State of California special status. The Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis consisted of revisions to Draft Supplemental EIR/EIS Section 3.7, Biological Resources and Wetlands and a related technical appendix, regarding background information, impacts, and mitigation measures concerning this species. This document also included an unrevised excerpt from section 3.19.6.6 of the Draft Supplemental EIR/EIS concerning cumulative impacts.

On August 7, 2020, the Authority issued the *California High-Speed Rail Project Merced to Fresno Section: Central Valley Wye Final Supplemental EIR/EIS* (Final Supplemental EIR/EIS). The Final Supplemental EIR/EIS included the text of the Draft Supplemental EIR/EIS, including revisions from the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, as well as in response to comments received during the 2019 and 2020 public review periods associated with the earlier distributions of these documents. Accordingly, the Final Supplemental EIR/EIS included an additional volume, Volume IV – “Response to Comments.” The Final Supplemental EIR/EIS reaffirmed the Draft Supplemental EIR/EIS’s identification of the SR 152 (North) to Road 11 Wye Alternative as the Preferred Alternative.

This Supplemental ROD is the Authority’s approval under NEPA, as NEPA lead agency, of the SR 152 (North) to Road 11 Wye Alternative for the Central Valley Wye portion. This is separate from and independent of the Authority’s CEQA decision-making.

This Supplemental ROD approves for implementation the SR 152 (North) to Road 11 Wye Alternative to connect the Merced to Fresno Project Section to the San Francisco Bay Area via the wye connection and, therefore, help complete the California HSR System Phase 1 for travel between San Francisco and Los Angeles/Anaheim. This Supplemental ROD does not change any determinations made in FRA’s 2012 ROD and in STB’s 2013 ROD for the Merced to Fresno Final EIR/EIS. This Supplemental ROD establishes that the SR 152 (North) to Road 11 Wye Alternative best serves the purpose and need for the Merced to Fresno project and minimizes economic, social, and environmental impacts. In addition to a summary of potential effects, this Supplemental ROD includes the findings for:

¹ For more on this decision-making process, refer to the *Supplemental Checkpoint B Summary Report in Support of the Merced to Fresno Section: Wye Alternatives Section 404(b)(1) Analysis and Draft Subsequent Environmental Impact Report/Supplemental Environmental Impact Statement* (FRA and Authority 2013).

- Section 106 of the National Historic Preservation Act
- Section 4(f) of the Department of Transportation Act of 1966
- Clean Air Act General Conformity Determination
- Section 7 of the Endangered Species Act
- Section 404 Clean Water Act Least Environmentally Damaging Practicable Alternative
- Wetlands pursuant to Executive Order 11990
- Floodplains pursuant to Executive Order 11988
- Environmental Justice pursuant to Executive Order 12898

This Supplemental ROD consists of the following:

- Supplemental ROD
- Appendices to the Supplemental ROD:
 - Appendix A: General Conformity Determination Memorandum
 - Appendix B: U.S. Fish and Wildlife Service Biological Opinion, September 27, 2019
 - Appendix C: National Marine Fisheries Service Biological Opinion, September 3, 2019
 - Appendix D: Mitigation Monitoring and Enforcement Plan (MMEP)
 - Appendix E: State Historic Preservation Officer Concurrence Letter (April 2018)
 - Appendix F: Least Environmentally Damaging Practicable Alternative Concurrence Letter (September 2018)

**CALIFORNIA HIGH-SPEED RAIL AUTHORITY
MERCED TO FRESNO PROJECT SECTION
CENTRAL VALLEY WYE
SUPPLEMENTAL RECORD OF DECISION**

APPROVAL OF SR 152 (NORTH) TO ROAD 11 WYE ALTERNATIVE

1 INTRODUCTION

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) Central Valley Wye portion (referred to as the Project), which is part of the Merced to Fresno Project Section of the statewide High-Speed Rail Program. The Authority is the NEPA lead agency under what is generally known 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 dated July 23, 2019, and executed by the Federal Railroad Administration (FRA) and the State of California (NEPA Assignment MOU). The Authority is also the lead agency for state environmental reviews under the California Environmental Quality Act (CEQA).

This Supplemental ROD approves the SR 152 (North) to Road 11 Wye Alternative as described in the *California High Speed Rail Project Merced to Fresno Section: Central Valley Wye Final Supplemental Environmental Impact Report/Environmental Impact Statement* (Final Supplemental EIR/EIS) dated August 7, 2020. As set forth in this Supplemental ROD, the SR 152 (North) to Road 11 Wye Alternative best serves the purpose and need for this project and minimizes economic, social, and environmental impacts and is therefore the Selected Alternative.

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 (USEPA), the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the Advisory Council on Historic Preservation (ACHP). Refer to Table 1 on page 11 for a list of major NEPA milestones.

To comply with NEPA, the Authority issued the *California High-Speed Rail Project Merced to Fresno Section: Central Valley Wye Draft Supplemental Environmental Impact Report/Environmental Impact Statement* (Draft Supplemental EIR/EIS) in September 2019. The Authority had previously issued this document in May 2019 pursuant to CEQA.

In March 2020, the Authority issued the *California High-Speed Rail Project Merced to Fresno Section: Central Valley Wye Revised Draft Supplemental EIR/Second Draft Supplemental EIS, Biological Resources Analysis* (Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis) concerning the addition of a wildlife species as a candidate for protected status by the California Department of Fish and Wildlife. The Draft Supplemental EIR/EIS and the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis each covered both state and federal environmental requirements.

This Supplemental ROD provides the decision of the Authority under its assigned responsibilities for NEPA. This Supplemental ROD is specific to the Central Valley Wye, which is the portion of the Merced to Fresno Project Section located in Merced and Madera Counties, with some supporting electrical interconnections and network upgrades (EINU) located in Fresno and Stanislaus Counties. The Central Valley Wye will connect the Merced to Fresno Section of the HSR system to the San Jose to Merced Project Section at Carlucci Road. This decision

document outlines all relevant information used by the Authority, as the NEPA lead agency, for approval of the Selected Alternative, the SR 152 (North) to Road 11 Wye Alternative.

The Authority considered the following alternatives:

- SR 152 (North) to Road 13 Wye Alternative
- 152 (North) to Road 19 Wye Alternative
- Avenue 21 to Road 13 Wye Alternative
- SR 152 (North) to Road 11 Wye Alternative

As depicted in Figure 1 below and described in further detail in Chapter 2, Alternatives, of the Final Supplemental EIR/EIS, the Selected Alternative spans approximately 51 miles, mostly at-grade on raised embankment, although its design includes several aerial structures over roads and waterways.

The wye configuration of this alternative is located west-southwest of the city of Chowchilla, with the east-west axis along the north side of State Route (SR) 152 and the north-south axis on the east side of Road 11.

The alignment of the Selected Alternative begins at the intersection of Henry Miller Road and Carlucci Road in Merced County and continues east, crossing the San Joaquin River, Eastside Bypass, and SR 59. The alignment continues east at-grade along the north side of SR 152 toward Chowchilla, splitting into two legs (four tracks) near Road 10. Two tracks turn north towards Merced and two continue west toward SR 99 and then south towards Fresno.

The Authority considered all other Central Valley Wye alternatives in the Draft Supplemental EIR/EIS, the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, and the Final Supplemental EIR/EIS. In making its decision, the Authority considered the information and analysis contained in these documents and the associated administrative record, information presented in the Merced to Fresno Final EIR/EIS (2012), and 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, the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, and the 30-day period following the publication of the Final Supplemental EIR/EIS. The Final Supplemental EIR/EIS evaluates impacts of the full extent of the Central Valley Wye alignment and its corresponding Resource Study Area (RSA), and proposes mitigation to reduce such impacts if necessary.

The Authority has prepared this Supplemental ROD in accordance with the NEPA Assignment MOU, 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 EIR/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 alternatives considered in the Draft Supplemental EIR/EIS, the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, and the Final Supplemental EIR/EIS.
- Discusses agency roles and responsibilities.
- Identifies the alternatives considered but not carried forward in the Final Supplemental EIR/EIS.

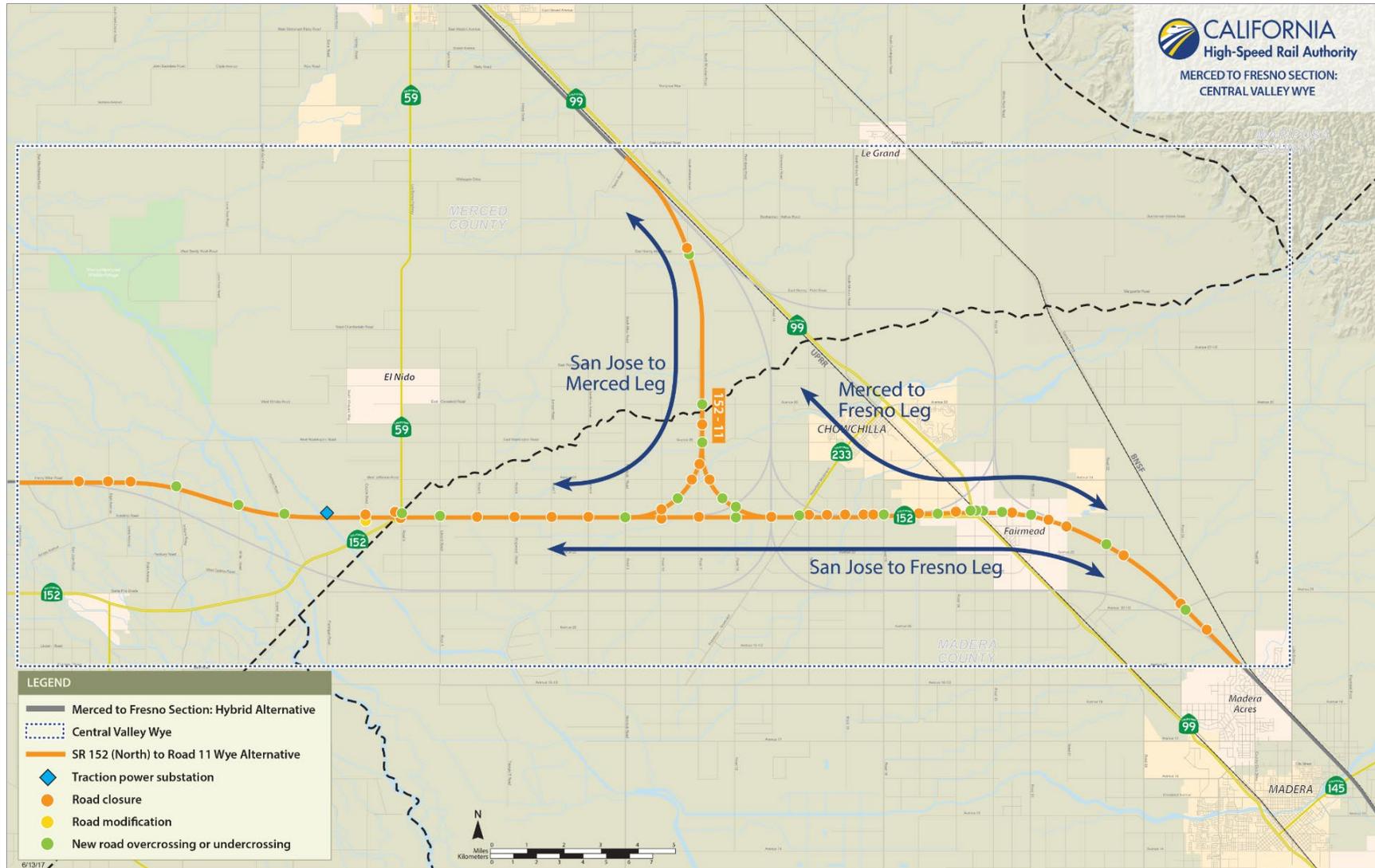


Figure 1 Selected Alternative for the Central Valley Wye (SR 152 [North] to Road 11 Wye Alternative)

- Identifies SR 152 (North) to Road 11 Wye as the Selected Alternative.
- Identifies the Environmentally Preferable Alternative.
- Summarizes environmental benefits and adverse effects.
- Discusses and makes determinations required under other relevant laws and guidance, including:
 - The National Historic Preservation Act of 1966, as amended, 54 U.S.C. 306101-307106 et seq.
 - Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 303
 - Section 7 of the Endangered Species Act of 1973, 16 U.S.C. 1531-1544
 - Section 404 of the Clean Water Act, 33 U.S.C. 1251-1387
 - United States Executive Order 12898 (Environmental Justice)
 - FRA’s General Conformity Determination pursuant to the Clean Air Act, 42 U.S.C. 7401-7671q
- Imposes impact avoidance and minimization features (IAMFs) and mitigation measures that will be implemented to avoid and minimize environmental harm and sets forth a binding monitoring and enforcement program for all such features and measures.
- Presents the Authority’s Decision, determinations, and findings on the Selected Alternative and discusses the factors that were balanced by the Authority in making its decision.
- Summarizes the status of compliance with permitting and other environmental requirements.

1.1 California HSR System

The Authority is responsible for planning, designing, constructing, and operating the California HSR System. Its state statutory mandate is to develop an 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. As shown in Figure 2, the California HSR System will provide intercity, high-speed service on more than 800 miles of track, 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.

Previously, the Authority and FRA prepared three programmatic (Tier 1) EIR/EIS documents:

- *Final Program EIR/EIS for the Proposed California High-Speed Train System (2005)* (Statewide Program EIR/EIS)
- *Bay Area to Central Valley High-Speed Train Program EIR/EIS (2008)*
- *Bay Area to Central Valley High-Speed Train Partially Revised Final Program EIR (2012)*

These Tier 1 documents were intended to select preferred alignments and station locations to advance for project-level analysis in Tier 2 EIR/EISs. Refer to Chapter 1 of the Final Supplemental EIR/EIS for a detailed description of the California HSR System and the history of the three programmatic EIR/EIS 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.

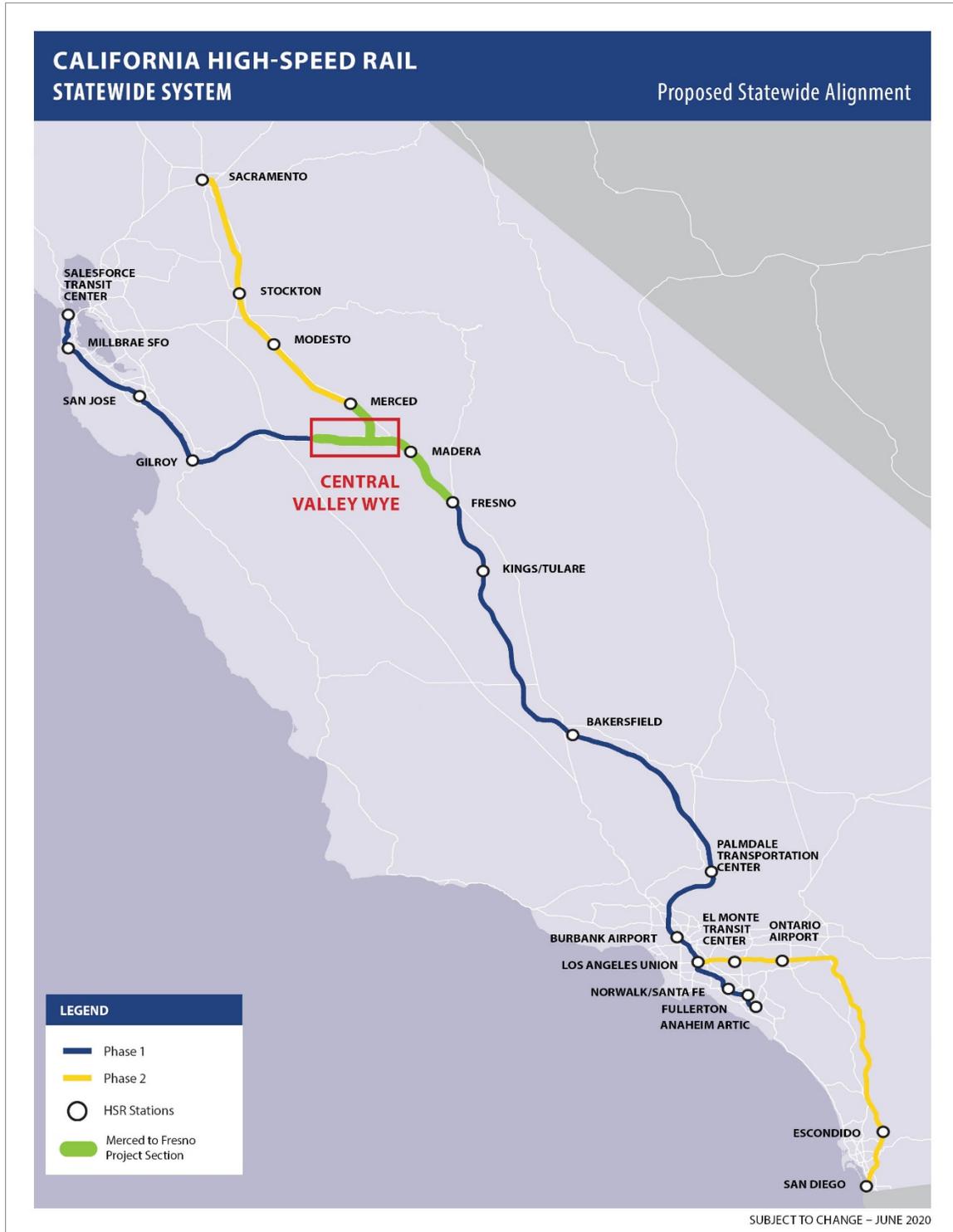


Figure 2 Statewide California High-Speed Rail System

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, and it describes ridership forecasts, which take population and employment into consideration. The Authority released a Draft 2020 Business Plan in February 2020 for public review and comment. The Authority Board is expected to approve the Draft 2020 Business Plan later in 2020 and deliver the 2020 Business Plan to the California legislature.

The Draft 2020 Business Plan forecasts were developed using the same travel forecasting model as the 2016 and 2018 Business Plans, updated for more recent population and employment forecasts. Under the Draft 2020 Business Plan, the Phase 1 medium ridership forecast for 2040 is 38.6 million, and the high ridership forecast is 50.0 million. The Draft 2020 Business Plan describes in detail how the California HSR System will be implemented in light of current budgetary and funding realities.

The California HSR System Phase 1, as approved through the Tier 1 2005 Statewide Program EIR/EIS, has been divided into eight individual Project Sections for project-specific, Tier 2 analyses. 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). As of September 2020, Tier 2 environmental reviews have been completed for the following Project Sections:

- Fresno to Bakersfield (completed April 2012)
- Merced to Fresno (completed May 2012)

Beginning in August 2013, the Authority commenced construction with the execution of the first four (to date) construction packages that span portions of both the Fresno to Bakersfield and Merced to Fresno project sections.

As of September 2020, the Authority has issued draft Tier 2 environmental documents for the following sections:

- Bakersfield to Palmdale (issued February 2020)
- San Jose to Merced (issued April 2020)
- Burbank to Los Angeles (issued May 2020)
- San Francisco to San Jose (issued July 2020)

1.2 Central Valley Wye

The Central Valley Wye is part of the Merced to Fresno Project Section of the California High-Speed Rail System, and this Supplemental ROD is a supplement to FRA's 2012 ROD for the Merced to Fresno Project Section.

The FRA issued a ROD concerning the Merced to Fresno Final EIR/EIS on September 18, 2012. On June 13, 2013, STB issued its ROD concerning the Merced to Fresno Final EIR/EIS. These RODs identified the Hybrid Alternative as the Selected Alternative for the north-south HSR alignment of the Merced to Fresno Project Section and deferred identification of a Selected Alternative for the Central Valley Wye. In other words, these earlier RODs approved portions of the Hybrid Alternative outside the wye for the north-south HSR alignment and the Downtown Merced and Downtown Fresno Mariposa Street station locations, but they deferred a decision on the area known as the "wye connection." The "wye connection" is the east-west HSR connection between the San Jose to Merced Project Section to the west and the north-south Merced to Fresno Project Section to the east. FRA's 2012 and STB's 2013 ROD deferred the decision in order to allow for additional environmental analysis of that area. The Central Valley Wye Final Supplemental EIR/EIS provided that analysis.

Public and agency involvement for the Draft Supplemental EIR/EIS started in 2012 following publication of the Merced to Fresno Final EIR/EIS and continued through publication of the Draft Supplemental EIR/EIS. During this period from 2012 to 2018, public and agency involvement was focused on the development and refinement of wye alignment alternatives. During the preparation

of the Draft Supplemental EIR/EIS, questions were received from members of the public and interested parties via email, phone calls, public information meetings, and one-on-one discussions with stakeholders including landowners, farmers, residents, organizations, public agencies, and elected officials. Some of the most frequently asked questions were related to impacts on property, homes, agricultural lands and operations, and local road circulation and access, as well as about the process for selecting the final alignment. Other commonly asked questions included impacts on school transportation and the tax base, as well as impacts from noise and vibration during construction and future rail operations.

The Authority conducted specific outreach efforts to potentially affected minority and/or low-income populations in order to gain input and obtain their comments as part of the public record, and to accurately reflect the setting and potential impacts of the Central Valley Wye alternatives on these communities. These meetings were advertised in both Spanish and English; materials were available in both Spanish and English on the website; and Spanish-speaking interpreters were available at the meetings.

As detailed in Chapter 9, Public and Agency Involvement, of the Final Supplemental EIR/EIS, public outreach meetings, briefings, presentations, workshops, and webinars were held in the vicinity of the Central Valley Wye throughout the process to determine the Central Valley Wye alternatives. These engagement efforts were attended by stakeholders, including landowners, farmers, residents, organizations, public agencies, and elected officials, who expressed opinions on the selection of a wye alternative. The key themes specific to selection of alternatives, as expressed by these stakeholders, included:

- Preference for an alignment along existing transportation corridors
- Minimization of impacts on the City of Chowchilla
- Minimization of impacts on valuable agricultural land and irrigation facilities
- Minimization of impacts on road closures for transportation of farming equipment, school district buses, and general community circulation

The Draft Supplemental EIR/EIS was released for a 45-day public comment period from September 13 to October 28, 2019, under NEPA. A public hearing to receive public comments was held on October 1, 2019, at the Chowchilla Fairgrounds. This was in addition to an earlier public hearing the Authority convened in May 2019, pursuant to the CEQA-only issuance of the document for a 48-day public comment period. In March 2020, the Authority issued the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, opening an additional 45-day public comment period between March 13, 2020 and April 27, 2020.

During the three public comment periods associated with the Draft Supplemental EIR/EIS and Revised/Second Draft Supplemental EIR/EIS, the Authority received 82 submissions, yielding a total of 731 discrete comments. The Authority provided responses to each of these comments in Volume IV of the Final Supplemental EIR/EIS.

Table 1. Major NEPA Milestones

Milestone	Date
Section 404/Section 408 Memorandum of Understanding	November 2010
Section 7 FESA Merced to Fresno Section Biological Opinion (NMFS)	April 17, 2012
Section 7 FESA Merced to Fresno Section Biological Opinion (USFWS)	September 14, 2012
Preliminary Jurisdictional Determination	October 31, 2016
Preliminary LEDPA Determination (USACE)	September 12, 2018
Section 7 FESA Central Valley Wye Biological Opinion (NMFS)	September 3, 2019
Issuance of the Draft Supplemental EIR/EIS pursuant to NEPA	September 13, 2019
Section 7 FESA Central Valley Wye Biological Opinion (USFWS)	September 27, 2019
Checkpoint C Closure	November 26, 2019
Issuance of the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, pursuant to CEQA and NEPA	March 13, 2020
Issuance of the Final Supplemental EIR/EIS pursuant to CEQA and NEPA	August 7, 2020

CEQA = California Environmental Quality Act; EIR = Environmental Impact Report; EIS = Environmental Impact Statement; FESA = Federal Endangered Species Act; LEDPA = Least Environmentally Damaging Practicable Alternative; NEPA = National Environmental Policy Act; NMFS = National Marine Fisheries Service; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service

2 AGENCY ROLE AND RESPONSIBILITIES

The Authority is the NEPA lead agency, pursuant to the NEPA Assignment MOU and as defined in the Final Supplemental EIR/EIS. Both the Draft Supplemental EIR/EIS and the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis were released to the public under the Authority as NEPA and CEQA lead agency. The Authority thus retains decision-making responsibility under both NEPA and CEQA as lead agency under both laws.

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 Project are being carried out by the Authority, acting on behalf of the State of California pursuant to 23 U.S.C. 327 and the NEPA Assignment MOU. Under the NEPA Assignment MOU, FRA assigned federal environmental review responsibilities for the Project to the State of California. Since July 23, 2019, the Authority performs as the lead NEPA agency in this program, known as NEPA Assignment.

As required by law and the NEPA Assignment MOU, FRA has retained responsibility for making air quality conformity determinations under the Clean Air Act (42 U.S.C. 7506) and for government-to-government consultation with Indian tribes.

The NEPA Assignment MOU also requires the Authority to consult with FRA prior to making any proposed constructive use determinations under Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 303); however, there are no such determinations associated with the Selected Alternative.

Regarding a determination of general conformity under the Clean Air Act, the emissions associated with the construction of the Merced to Fresno Project Section of the HSR system were analyzed in the Merced to Fresno Section: Final General Conformity Determination (GCD). In 2012, FRA issued a Final Federal GCD for the Merced to Fresno Final EIR/EIS, which was found

to be in conformance with established standards. Because each of the Central Valley Wye alignment alternatives contain additional miles of track when compared to the Merced to Fresno Final EIR/EIS, and because the Central Valley Wye construction schedule, quantities, and emissions estimation methodologies differ from those analyzed in the Merced to Fresno Final EIR/EIS, revised emissions estimates have been developed. An analysis of the revised emissions estimates found that the approved GCD for the Merced to Fresno Project Section covers all estimated pollutants for all Central Valley Wye alternatives.

The Merced to Fresno GCD included a commitment from the Authority and FRA to reduce all criteria pollutant emissions through emission offsets using a Voluntary Emissions Reduction Agreement (VERA) with the San Joaquin Valley Air Pollution Control District (SJVAPCD). Accordingly, the Final Supplemental EIR/EIS stated that the Final GCD for the Merced to Fresno Project Section was adequate to cover the revised Central Valley Wye alignment. That is, regardless of the years in which the criteria pollutant emissions (nitrogen oxides [NO_x], volatile organic compounds [VOCs], and particulate matter [PM]) exceed applicability rates, the Merced to Fresno Final GCD includes a commitment from the Authority and FRA to reduce all NO_x, VOC, and PM emissions through a VERA with SJVAPCD. Upon comparing anticipated NO_x, VOC, and PM emissions from the Central Valley Wye to the values presented in the Merced to Fresno Final GCD, the Authority determined that emissions estimates are consistent between the two sections. The FRA agreed with this conclusion in written correspondence provide on April 21, 2020. Accordingly, no further re-evaluation is needed for the Central Valley Wye. Therefore, the findings and recommendations contained with the Merced to Fresno GCD remain in place, and no further action is required. The GCD and the concurrence memorandum are included as Appendix A to this Supplemental ROD.

Additionally, FRA maintains 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); 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, and therefore concluded that it has jurisdiction over the California HSR System. Following completion of this process, the STB is expected to adopt the Authority's Final Supplemental EIR/EIS and issue its own Supplemental ROD authorizing the Project.

2.3 U.S. Bureau of Reclamation

The HSR alignment crosses Reclamation lands and facilities. 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 necessary land rights to Reclamation. Reclamation will grant or transfer land rights as appropriate to the Authority. Final Supplemental EIR/EIS Appendix 3.6-C, Bureau of Reclamation Lands, depicts all Reclamation facilities within the footprint of the Central Valley Wye alternatives.

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 of 1899 Section 14 (33 U.S.C. 408) (Section 408).

As a first step in project permitting, the Authority, FRA, USACE, and USEPA executed an MOU (i.e., NEPA/404/408 MOU) in November 2010. The NEPA/404/408 MOU outlined a process to integrate the requirements of NEPA with the requirements of Section 404 and Section 408. The purpose of the NEPA/404/408 MOU was to ensure the analysis underlying the EIR/EIS documents for each California HSR System project section would be sufficient to support USACE's preliminary least environmentally damaging practicable alternative (LEDPA) determination and for USACE to issue a NEPA decision.

The Authority conducted wetland delineations of the Central Valley Wye RSA and prepared two reports that documented its findings: the Biological Resources and Wetlands Technical Report (2016) and the Second Supplemental Wetlands Delineation Report (2018). These reports were submitted to USACE for issuance of a preliminary jurisdictional determination. On October 31, 2016, USACE concurred with the findings of the wetlands reports and issued a preliminary jurisdictional determination letter. 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, the USACE and USEPA concurred in July 2018 that the Authority's Selected Alternative is the preliminary LEDPA.

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. The USACE will use the Final Supplemental EIR/EIS to integrate requirements of NEPA and its permitting responsibilities (including USEPA's Section 404(b)(1) Guidelines). The information contained in the Final Supplemental EIR/EIS provides information that will facilitate USACE's consideration and issuance of any necessary permits and approvals. Furthermore, any USACE documents produced based in information from the Final Supplemental EIR/EIS can be used for alteration or modification of completed federal flood risk management facilities and any associated operation and maintenance, as well as real estate permissions or instruments (as applicable).

2.5 U.S. Fish and Wildlife Service and National Marine Fisheries Service

Concurrently with the NEPA process, the Authority initiated consultations under the federal Endangered Species Act (FESA) Section 7 (16 U.S.C. 1536), pursuant to 50 C.F.R. Part 402, and regarding Essential Fish Habitat (EFH) pursuant to 50 C.F.R. Part 600. Section 7 of FESA requires federal agencies to consult with USFWS and/or the NMFS, 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 and habitat are addressed through a consultation process with USFWS that is outlined under Section 7 of FESA. The Magnuson-Stevens Fisheries and Conservation Management Act (16 U.S.C. 1801 et seq.) requires federal agencies to consult with NMFS on activities that may adversely affect EFH for species that are managed under federal fishery management plans in United States waters. Impacts associated with EFH are addressed through a coordination process with NMFS that may be combined with FESA Section 7 consultation.

2.5.1 U.S. Fish and Wildlife Service

The Authority and FRA submitted the initial *Merced to Fresno Section Biological Assessment* to USFWS in November 2011. Between February and June 2012, the Authority and FRA provided the USFWS with supplemental memoranda containing revised analyses and new information about the effects of the Merced to Fresno Project Section on federally listed species. Information specific to the preferred Merced to Fresno Section: Hybrid Alternative was submitted to the USFWS in April 2012, and included a project description, wildlife crossing information, suggested conservation measures, and a cumulative effects analysis. The USFWS issued the 2012 Merced

to Fresno Biological Opinion (BO) in September 2012, which was amended five times to address various changes. While the 2012 Merced to Fresno BO presented the USFWS biological opinion on the effects of the entire Merced to Fresno Project Section (including the Wye alternatives at that time), the Incidental Take Statement covered only a specific portion of the Central Valley Wye alignment and not the entirety of the Selected Alternative. Therefore, the Authority prepared an additional Biological Assessment (BA) and reinitiated Section 7 consultation with USFWS in June 2019. USFWS issued an amended BO for the Central Valley Wye on September 27, 2019, concluding that the Central Valley Wye is not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat. The BO includes an Incidental Take Statement that authorizes incidental take anticipated from Project activities. Appendix B of this Supplemental ROD contains the USFWS's 2019 amended BO.

2.5.2 National Marine Fisheries Service

On September 23, 2009, the Authority and FRA requested technical assistance from NMFS regarding potential effects of the Merced to Fresno Project Section on federally listed salmonids pursuant to Section 7 of the FESA and effects on EFH under the Magnuson-Stevens Act. On October 17, 2011, the Authority submitted a draft BA to NMFS for the Merced to Fresno Project Section, initiated formal consultation for the Merced to Fresno Project Section on December 1, 2011, and issued the *Biological and Conference Opinion, High Speed Train: Merced–Fresno* (NMFS 2012) on April 17, 2012.

The Authority submitted a supplemental BA addressing the effects of the Selected Alternative on federally listed fish species to NMFS in October 2018. NMFS issued its amended BO on September 3, 2019, which concluded that the Project is not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat. The BO includes an Incidental Take Statement that authorizes incidental take anticipated from Project activities. The BO also includes Magnuson-Stevens conservation measures to offset adverse effects on EFH. Appendix C of this Supplemental ROD contains NMFS's 2019 amended BO.

3 PURPOSE AND NEED

As established in the 2005 Statewide Program EIR/EIS for the HSR, 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.

The Selected Alternative implements the Central Valley Wye portion of the Merced to Fresno Project Section of the California HSR System that will connect the San Jose to Merced Project Section to the Merced to Fresno Project Section's north-south alignment. As described above in Section 1, the Selected Alternative follows the existing Henry Miller Road from its intersection with Carlucci Road before running approximately adjacent to SR 152 to the extent feasible until its intersection with Road 11, and the SR 99 and BNSF Railway rights-of-way in the north-south direction (for a more detailed description of the full alignment, please refer to Section 4.4 below). Deviations from these existing transportation corridors are necessary to accommodate design requirements; specifically, wider curves are necessary to accommodate the speed of the HSR compared to lower-speed roadway alignments. The Selected Alternative does not follow existing transportation rights-of-way where it transitions from following one transportation corridor to another.

As part of the California HSR System and consistent with the goals established in the 2005 Statewide Program EIR/EIS, the SR 152 (North) to Road 11 Wye Alternative 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 north San Joaquin Valley, and that connects the system in the Central Valley to system

facilities in the Bay Area. The SR 152 (North) to Road 11 Wye Alternative therefore supports the purpose and need of the Project.

4 ALTERNATIVES

This section summarizes the alternatives analysis process and alternatives evaluated in the Supplemental EIS Documents and describes the Selected and Environmentally Preferable alternatives.

4.1 Consideration of Wye Alternatives as part of the Merced to Fresno Final EIR/EIS

The Authority and FRA initially considered five potential options for the wye connection in the April 2010 *Merced to Fresno Section Preliminary Alternatives Analysis Report*. This early alternatives analysis process evaluated the five potential wye connection design options, screening and refining each design option to avoid key environmental issues and improve performance. The preliminary evaluation of these design options balanced ecological, agricultural, and community impact issues as well as travel time.

The Authority and FRA prepared three subsequent alternatives analysis reports for the Merced to Fresno Project Section and the San Jose to Merced Project Section, including the 2010 *San Jose to Merced Section Preliminary Alternatives Analysis Report*, the 2011 *Merced to Fresno Section Supplemental Alternatives Analysis Report* and the 2011 *San Jose to Merced Section Supplemental Alternatives Analysis Report*. The Authority and FRA selected wye connection design options located along Avenue 21, Avenue 24, and SR 152, among others, to carry forward for further engineering and environmental analysis. Based on the results of the 2011 *Merced to Fresno Section Supplemental Alternatives Analysis Report*, the Authority and FRA carried forward two wye connection design options (the Avenue 24 Wye and the Avenue 21 Wye) into the Merced to Fresno Draft and Final EIR/EISs.

While the Merced to Fresno Final EIR/EIS identified a preferred alternative for the north-south HSR alignment (the Hybrid Alternative) and examined two design options for an east-west connection to the San Jose to Merced Project Section (the “wye connection” or the Central Valley Wye), it did not identify a preferred alternative for the Central Valley Wye.

The Authority certified the Merced to Fresno Final EIR/EIS under CEQA on May 3, 2012 and filed a Notice of Determination on May 4, 2012. As previously noted, FRA issued a ROD on the Merced to Fresno Final EIR/EIS on September 18, 2012.

Although the Authority approved the portions of the Hybrid Alternative for the Merced to Fresno Project Section outside the wye connection for the north-south HSR alignment and the Downtown Merced and Downtown Fresno Mariposa Street station locations, these approvals deferred a decision on the Central Valley Wye alignment alternatives. FRA’s September 2012 ROD came to similar conclusions.

Studying Central Valley Wye alignment alternatives in greater detail through the preparation of the Central Valley Wye Draft Supplemental EIR/EIS allowed the alternatives development process to be more fully informed by the key HSR system objective of aligning HSR tracks adjacent to existing transportation corridors where possible. Other objectives that helped shape inform the development of alternatives included minimizing impacts on farmland and communities, balancing environmental impacts with travel time and construction costs, including a variety of public and resource agency input obtained through extensive outreach.

4.2 Alternatives Development and Screening after the Merced to Fresno Final EIR/EIS

After its 2012 decisions on the Merced to Fresno Final EIR/EIS, in 2013, the Authority and FRA prepared the *Merced to Fresno Section: Central Valley Wye Alternatives Supplemental Alternatives Analysis Report* (Supplemental Alternatives Analysis Report). The Supplemental Alternatives Analysis Report evaluated 14 wye connection alternatives and selected four to carry forward for further evaluation.

Also in 2013, at the request of the USACE and USEPA, the Authority and FRA developed a *Supplemental Checkpoint B Summary Report in Support of the Merced to Fresno Section: Wye Alternatives* (Checkpoint B Summary Report). The Checkpoint B Summary Report considered a total of 17 wye connection alternatives: the 14 alternatives that were evaluated in the 2013 Supplemental Alternatives Analysis Report, plus three variations of other alternatives that had been previously considered but withdrawn from further consideration prior to the Merced to Fresno Final EIR/EIS. Based on the analysis in the Checkpoint B Summary Report, the Authority and FRA eliminated 13 of the 17 Central Valley Wye alternatives from further environmental review, based on consideration of the alternatives' consistency with the HSR system and Merced to Fresno Project Section Purpose and Need, impacts on aquatic resources, impacts on the environment, relative construction costs, logistics of implementation/construction, incompatibility with land use, and public/agency input.

Continued coordination between the Authority, FRA, USACE, and USEPA resulted in further refinements to the Central Valley Wye alternatives. This coordination led to the withdrawal of two of the four alternatives and the addition of an alternative to carry forward.

In August and September 2014, respectively, the USEPA and USACE concurred with the Authority and FRA on three alternatives to carry forward:

- SR 152 (North) to Road 13 Wye Alternative
- SR 152 (North) to Road 19 Wye Alternative
- Avenue 21 to Road 13 Wye Alternative

Between September 2014 and late 2017, the Authority and FRA continued to conduct public outreach with local stakeholders. This effort produced additional information about the Central Valley Wye alternatives and informed further refinements to the alternatives proposed to be carried forward. As a result of this additional stakeholder outreach and upon review of improved mapping documentation for the various alignments, an alternative that had been previously considered but dismissed, SR 152 (North) to Road 11 Wye Alternative, was ultimately carried forward for analysis.

The Authority and FRA documented this screening process through three addenda to the 2013 Checkpoint B Summary Report, arriving at four alternatives to carry forward for detailed environmental analysis. Figure 3 shows these four alternatives:

- SR 152 (North) to Road 13 Wye Alternative
- SR 152 (North) to Road 19 Wye Alternative
- Avenue 21 to Road 13 Wye Alternative
- SR 152 (North) to Road 11 Wye Alternative

These four alternatives were carried forward for analysis in the Draft Supplemental EIR/EIS, the Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis, and the Final Supplemental EIR/EIS. In both the Draft Supplemental EIR/EIS and the Final Supplemental EIR/EIS, the SR 152 (North) to Road 11 Wye Alternative (now the Selected Alternative) was identified as the Preferred Alternative.

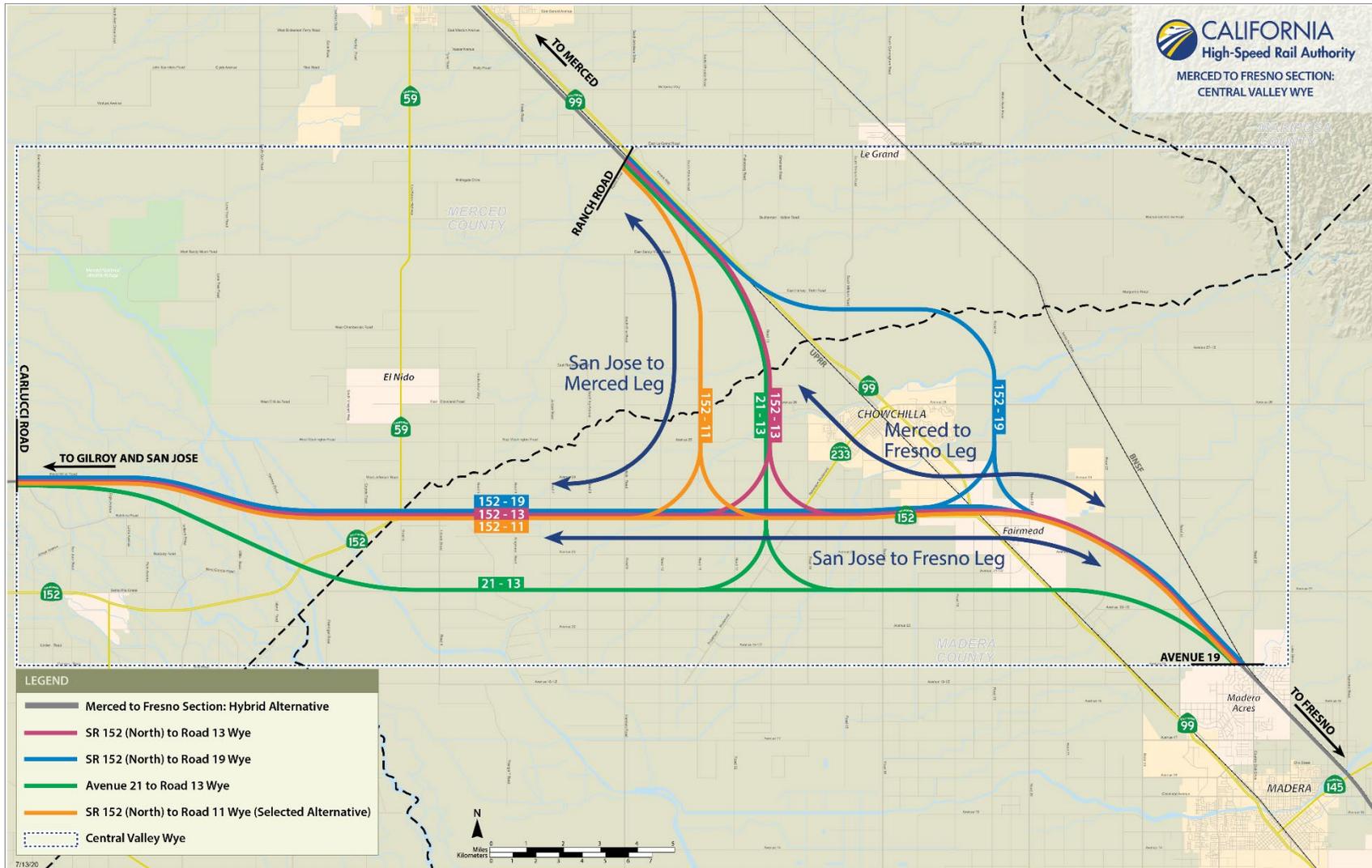


Figure 3 Central Valley Wye Alternatives Considered in the Final Supplemental EIR/EIS

4.3 Alternatives Carried Forward for Study in the Draft Supplemental EIR/EIS and Revised/Second Draft Supplemental EIR/EIS, Biological Resources Analysis

4.3.1 SR 152 (North) to Road 13 Wye Alternative

The SR 152 (North) to Road 13 Wye Alternative would follow the existing Henry Miller Road and SR 152 rights-of-way as closely as possible in the east-west direction, and the Road 13, SR 99, Union Pacific Railroad (UPRR), and BNSF Railway rights-of-way in the north-south direction. It would extend approximately 52 miles, mostly at-grade on raised embankment, although it would also have aerial structures and a segment of retained cut (depressed alignment). This alternative would begin in Merced County at the intersection of Henry Miller Road and Carlucci Road. Wildlife undercrossing structures would be installed in at-grade embankments along this alternative where the alignment intersects wildlife corridors.

The SR 152 (North) to Road 13 Wye Alternative would require EINU to support railway infrastructure. Upgrades would include a 115-kilovolt (kV) and 230-kV traction power substation (TPSS), a switching station, and an approximately 2.5-mile double-circuit 230-kV transmission tie-line to the Wilson Substation.

Additionally, the SR 152 (North) to Road 13 Wye Alternative would require the permanent closure of 38 public roadways at selected locations and the construction of 24 overcrossings or undercrossings in lieu of closure. Fourteen of these permanent road closures would be located at SR 152 where roads currently cross at-grade; these roads would need to be closed to convert SR 152 to a fully access-controlled corridor.

4.3.2 SR 152 (North) to Road 19 Wye Alternative

The SR 152 (North) to Road 19 Wye Alternative would follow the existing Henry Miller Road and SR 152 rights-of-way as closely as practicable in the east-west direction and Road 19, SR 99, and BNSF Railway rights-of-way in the north-south direction. Beginning at the intersection of Henry Miller Road and Carlucci Road, this alternative would continue east toward Elgin Avenue, where it would curve southeast toward the San Joaquin River, crossing the river on an aerial structure. It would return to an at-grade embankment, then onto another aerial structure to cross the Eastside Bypass and continue east into Madera County. It would cross Ash Slough and Berenda Slough on aerial structures. At the Road 16 crossing, the alignment would transition to the Merced to Fresno Section: Hybrid Alternative. Wildlife undercrossing structures would be provided in at-grade embankments where the alignment intersects wildlife corridors.

The SR 152 (North) to Road 19 Wye Alternative would require EINU to support railway infrastructure. Upgrades would include two 115-kV TPSSs, a switching station, and reconductoring 38.4 miles of single-circuit 230-kV No. 1 transmission line and 11.3 miles of single-circuit (idle) 115-kV power line.

The SR 152 (North) to Road 19 Wye Alternative would require the permanent closure of 36 public roadways at selected locations and the construction of 29 overcrossings or undercrossings.

4.3.3 Avenue 21 to Road 13 Wye Alternative

The Avenue 21 to Road 13 Wye Alternative would follow the existing Henry Miller Road and Avenue 21 rights-of-way as closely as practicable in the east-west direction and the Road 13, SR 99, and BNSF Railway rights-of-way in the north-south direction. The alternative would extend approximately 53 miles mostly at-grade on an embankment, although it would also have aerial structures and a short segment of retained cut (depressed alignment). The wye configuration of this alternative would be located approximately 4 miles southwest of the city of Chowchilla, with the east-west axis along the north side of Avenue 21 and the north-south axis on the east side of Road 13.

Beginning at the intersection of Henry Miller Road and Carlucci Road (at the same point in Merced County as the SR 152 [North] to Road 13 Wye Alternative), west of Elgin Avenue this

alternative would curve southeast toward the San Joaquin River and Eastside Bypass. As the San Jose to Merced leg approaches SR 152, it would converge with the Merced to Fresno leg, requiring the northbound track of the San Jose to Merced leg to rise on an aerial structure and cross over the tracks of the Merced to Fresno leg. The San Jose to Merced leg would continue north on an elevated alignment crossing Ash Slough, the Chowchilla River, and Road 13 on aerial structures. As the leg returns to grade, it would curve northwest, cross Dutchman Creek on an aerial structure, and follow along the west side of the UPRR/SR 99 corridor. At Sandy Mush Road, the alternative would descend into a shallow cut (depressed) section for approximately 0.5 mile, with a retained cut-and-cover undercrossing tunnel segment at the Caltrans Sandy Mush Road Overhead. The alternative would return to grade and continue along the UPRR/SR 99 corridor, connecting to the Merced to Fresno Section: Hybrid Alternative at Ranch Road. Wildlife undercrossing structures would be provided along this alternative in at-grade embankment portions of the HSR corridor where the alignment intersects wildlife corridors.

The Avenue 21 to Road 13 Wye Alternative would require EINU to support railway infrastructure. Upgrades would include a 115-kV TPSS, a switching station, and relocation of the existing PG&E Dairyland Substation, which would require below- and above-grade construction components including but not limited to foundations, steel structures, transformer and fencing installation, and construction of new access roads. The Avenue 21 to Road 13 Wye Alternative would also require the permanent closure of 30 public roadways at selected locations and the construction of 28 overcrossings or undercrossings. Local roads paralleling the HSR alignment and used by small communities and farm operations may be shifted and reconstructed to maintain their function. Access easements would be provided to maintain access to properties severed by the HSR alignment.

4.3.4 SR 152 (North) to Road 11 Wye Alternative

The SR 152 (North) to Road 11 Wye Alternative is the Selected Alternative. It is discussed in greater detail below in Section 4.4, *Description of the Selected Alternative (the Environmentally Preferable Alternative)*.

4.4 Description of the Selected Alternative (the Environmentally Preferable Alternative)

The basic purpose and need of the Central Valley Wye is to connect the San Jose to Merced Project Section to the Merced to Fresno Section of the HSR system.

The Selected Alternative, the SR 152 (North) to Road 11 Wye Alternative, approximately follows the existing Henry Miller Road from its intersection with Carlucci Road before running approximately adjacent to SR 152 to the extent feasible until its intersection with Road 11 to connect these two Project Sections. Along its alignment, it generally follows the Henry Miller Road and SR 152 rights-of-way as closely as practicable in the east-west direction, and the Road 11, SR 99, and BNSF Railway rights-of-way in the north-south direction. In total, the SR 152 (North) to Road 11 Wye Alternative extends approximately 51 miles mostly at-grade on raised embankment, although its design includes some aerial structures. Wildlife undercrossing structures will be installed in at-grade embankments along this alternative where the alignment passes through wildlife movement corridors.

The SR 152 (North) to Road 11 Wye Alternative also requires EINU to support railway infrastructure, including an option wherein the Site 6—El Nido TPSS could be constructed at the intersection of SR 152 and Lincoln Road. A 2.5-mile, 115-kV transmission line (115-kV tie-line) will be constructed along the west side of Lincoln Road to connect the expanded El Nido Substation to this TPSS. Fiber optic cables will also be trenched underground directly beneath the El Nido 115-kV Tie-Line and the Site 7—Wilson 230-kV Tie-Line. The SR 152 (North) to Road 11 Wye Alternative requires the permanent closure of 33 public roadways at selected locations and the construction of 24 overcrossings or undercrossings in lieu of closure. Between over- or undercrossings, 19 additional roads will be closed. Local roads paralleling the HSR alignment and used by small communities and farm operations may be shifted and reconstructed to maintain

their function. Access easements will be provided to maintain access to properties severed by the HSR alignment.

The Council on Environmental Quality NEPA regulations require that the ROD, including this Supplemental 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 2.4 above, in July 2018, the USACE and USEPA concurred that the SR 152 (North) to Road 11 Wye Alternative is the preliminary LEDPA, consistent with USACE’s permit program (33 C.F.R. Part 320-331) and USEPA’s Section 404(b)(1) Guidelines (40 C.F.R. 230-233). Additionally, as identified in Section 8.5 of the Draft Supplemental EIR/EIS, and in accordance with 40 C.F.R. 1505.2, the SR 152 (North) to Road 11 Wye Alternative is the environmentally Selected Alternative for the following reasons:

- The three SR 152 Central Valley Wye alternatives, including the Selected Alternative, would result in local and regional transportation benefits from improvements to SR 152 that would not occur with the Avenue 21 to Road 13 Wye Alternative. Grade-separating SR 152 would improve traffic flow and reduce the potential for accidents. The proposed roadway improvements are consistent with existing Caltrans plans for SR 152.
- Overall, the Selected Alternative will result in fewer impacts on key natural environmental factors than the other alternatives. Wetlands and other aquatic habitats provide a relatively high value for a diverse population of biological species and continue to be subject to severe development pressures. The Selected Alternative will have the least impact on high-value aquatic habitats compared to the other Central Valley Wye alternatives.
- Overall, the Selected Alternative will result in fewer impacts on community-based resources than the other Central Valley Wye alternatives. Compared to the other two SR 152 alternatives, the Selected Alternative will result in substantially fewer business and residential displacements and it will convert less Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, as defined in Section 3.14, Agricultural Farmland, of the Final Supplemental EIR/EIS) than all other Central Valley Wye alternatives.
- One of the primary factors under consideration is the location of the SR 152 alternatives through the community of Fairmead. In coordination with the local community, the Authority identified and developed mitigation to offset impacts associated with the Selected Alternative. This mitigation provides an opportunity to maintain the quality of life in Fairmead and create local improvements that otherwise would not be realized without implementation of the HSR project.
- Extensive stakeholder outreach has not resulted in a clear community preference for a single alternative. Slightly more letters of support were received for the Selected Alternative.
- The Selected Alternative is estimated to cost the least to construct. Based on preliminary engineering estimates, the Selected Alternative will cost at least \$150 million less than the estimated costs to construct the other three Central Valley Wye alternatives.

5 SUMMARY OF POTENTIAL IMPACTS

Construction and operation of the Selected Alternative, SR 152 (North) to Road 11 Wye Alternative, will affect a variety of environmental and social resources. Impacts on these resources could be adverse or beneficial.

To fully understand the potential range of impacts of the Selected Alternative, the Final Supplemental EIR/EIS analyzed all reasonably foreseeable environmental impacts resulting from

its construction and operation. Chapter 3 of the Final Supplemental EIR/EIS provides a full discussion of these impacts, organized by resource area.

The Selected Alternative will not result in impacts requiring mitigation in the resource areas listed below. However, certain design features, best management practices (BMP), and impact avoidance and minimization features (IAMF) will be implemented. IAMFs are documented in Appendix D to this Supplemental ROD. In reaching its decision in this Supplemental ROD, the Authority considered these resource area effects:

- Transportation
- Electromagnetic fields and electromagnetic interference
- Public utilities and energy
- Hydrology and water resources
- Geology, soils, seismicity, and paleontological resources
- Safety and security
- Parks and recreation

Regional growth Subsections 5.1 through 5.10 below summarize both the adverse and beneficial impacts of construction and operation of the Selected Alternative, with and without the implementation of mitigation. Please refer to Appendix D for the Mitigation Monitoring and Enforcement Program, which lists all IAMFs and mitigation measures referenced below that will be required for the Selected Alternative.

5.1 Air Quality and Global Climate Change

As discussed in Section 3.3, Air Quality and Global Climate Change, of the Final Supplemental EIR/EIS, the Selected Alternative (like all other Central Valley Wye alternatives) will generate direct and indirect greenhouse gas (GHG) emissions during construction that could contribute to global climate change. However, these emissions will be temporary and will be offset from the emissions benefit that will occur during the operations period. Construction of the Selected Alternative, as well as any of the other Central Valley Wye alternatives, will also have the potential to degrade air quality through exhaust emissions of NO_x and fugitive dust generation, and will result in an exceedance of NO_x thresholds outside of the San Joaquin Valley Air Basin during hauling of ballast and sub-ballast material.

However, the Selected Alternative will require less ballast and sub-ballast hauling than would be required to construct the other alternatives. Air quality modeling of construction of the Selected Alternative, as well as the other Central Valley Wye alternatives, has shown that no gaseous air pollutant emitted from construction activities will exceed the health-protective National Ambient Air Quality Standards or California Ambient Air Quality Standards, and that PM emissions will not exceed the SJVAPCD's significant impact level.

In addition to adhering to general BMPs and required air quality management and GHG reduction strategies, the Authority will implement mitigation measures to address the air quality impacts associated with construction of the Selected Alternative. The Authority will incorporate exhaust emissions requirements for construction equipment into contract specifications. The Authority will require that all heavy-duty off-road construction diesel equipment used during the construction phase uses the cleanest reasonably available equipment (including newer equipment or tailpipe retrofits). The contractor will document efforts undertaken to locate newer equipment (such as, in order of priority, Tier 4, Tier 3, or Tier 2 equipment) or tailpipe retrofit equivalents. All on-road trucks used to haul construction materials, including fill, ballast, rail ties, and steel, will consist of an average fleet mix of equipment model year 2010 or newer, but no less than the average fleet mix for the current calendar year as set forth in California Air Resources Board's EMFAC2014 database. Additionally, because the Selected Alternative (as well as the other Central Valley Wye alternatives) requires the construction of concrete batch plants (which can degrade localized air quality), batch plants will be required to be sited at least 1,000 feet from sensitive receptors and must use control measures to reduce fugitive dust emissions to the USEPA AP-42 controlled emission factor standards. Furthermore, the Authority and the SJVAPCD will enter into a VERA to cover the portion of the Project approved and funded for construction within the San Joaquin

Valley Air Basin, which will offset all emissions to net-zero. Lastly, the Authority will purchase offsets and implement off-site emission mitigation for emissions associated with hauling ballast material in the San Francisco Bay Area Air Basin.

Operation of the Selected Alternative will result in beneficial net reductions in regional emissions due to user redirection from airplanes and personal vehicles to HSR. Operation of the Selected Alternative will have a beneficial effect on (i.e., reduce) statewide emissions of carbon monoxide, NOx, reactive organic gas, sulfur oxide, and PM 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. Moreover, among the Central Valley Wye alternatives, the Selected Alternative will result in the least amount of dust emissions resulting from train movement. The Selected Alternative will result in a net reduction in GHG emissions statewide relative to both 2015 CEQA existing conditions and 2040 NEPA future conditions.

5.2 Noise and Vibration

As discussed in Section 3.4, Noise and Vibration, of the Final Supplemental EIR/EIS, construction of the Selected Alternative (as well as any of the other Central Valley Wye alternatives) will require the use of noise-generating mechanical equipment over a period of 1 to 3 years at any given location. In addition, construction of the Selected Alternative (or any of the SR 152-associated Central Valley Wye alternatives) will result in temporary and permanent closure of some local roads as well as temporary lane closures on SR 152 and SR 99. This will require rerouting traffic, which will affect existing noise levels in the vicinity.

Among the Central Valley Wye alternatives, the Selected Alternative will result in the fewest construction-related roadway modifications and closures and thus the least noise impacts related to traffic diversion. These noise impacts will not increase the ambient noise level above existing Federal Highway Administration (FHWA) Noise Abatement Criteria for most receptors. The Selected Alternative will result in the exposure of two sensitive receptors to an increase in ambient noise levels in exceedance of FHWA Noise Abatement Criteria; similar exposure will result from either of the other two Central Valley Wye alternatives paralleling SR 152.

While the Selected Alternative (or any of the other Central Valley Wye alternatives) will entail construction-related vibration that could result in human annoyance, vibration modeling has demonstrated that construction-related vibration will not reach levels with the potential to cause structural damage to buildings located outside of the project footprint. Because of the relative location of the Selected Alternative to existing single-family residences, construction vibration associated with the Selected Alternative will affect a smaller number of sensitive receptors than an alternative like the SR 152 (North) to Road 19 Alternative.

Operation of the Selected Alternative will generate noise levels above ambient levels from train passbys, resulting in adverse impacts from the exposure of sensitive receptors to severe noise. With implementation of the Selected Alternative, 61 single-family residences will experience moderate noise impacts and 35 will experience severe noise impacts. Among the Central Valley Wye alternatives, these are neither the highest nor the lowest numbers of affected residences. While operation-related noise of any of the Central Valley Wye alternatives could also place new stress on animals, the Selected Alternative will pass through the fewest miles of wildlife movement corridors and will pass by the fewest confined animal facilities.

To avoid or minimize potential noise and/or vibration effects associated with construction and operation, the Authority will adhere to all applicable state and federal regulations, including the following: FHWA and FRA guidelines for emissions of noise from transportation sources and for the abatement of excessive noise emissions; Occupational Safety and Health Administration (OSHA) regulations that protect workers from hazardous noise exposure; FHWA and OSHA guidelines regarding modeling and mitigating noise from construction sources for both construction workers and sensitive receptors in proximity to construction; and Caltrans' Traffic Noise Analysis Protocol, which provides a methodology for evaluating construction and traffic noise and for evaluating the effectiveness and feasibility of different sound abatement methods.

Additionally, the Authority has developed project-specific design strategies that will further reduce the potential for adverse effects associated with construction and operation of the Selected Alternative to levels below those that will be achieved through regulatory compliance alone. However, even with implementation of regulatory requirements and these project-specific design strategies, the Selected Alternative still has the potential to result in adverse impacts. To further reduce project-related construction and operation noise, the Authority has developed mitigation measures that include requiring preparation of and adherence to a construction noise mitigation and monitoring program, conducting subsequent noise and vibration environmental analysis during final design, and ensuring that train vehicle procurement meets pertinent federal noise regulations for locomotives and rail cars.

5.3 Biological Resources and Wetlands

As discussed in Section 3.7, Biological Resources and Wetlands, of the Final Supplemental EIR/EIS, construction of the Selected Alternative (as well as all other Central Valley Wye alternatives) has the potential to adversely affect biological resources through disturbance of habitats or natural communities or through direct or indirect impacts on sensitive resources, including special-status plant and wildlife species.

Relative to the other Central Valley Wye alternatives, the Selected Alternative has the least potential, or equal potential, for impacts on nine special-status plant species associated with vernal pools and three plant species associated with freshwater marsh, natural watercourses, open water, or seasonal wetlands.

Overall impacts on vernal pool plant communities would be similar across all three SR 152 alternatives, and impacts on the seasonal wetland plant community will be lowest with implementation of the Selected Alternative.

Moreover, among the Central Valley Wye alternatives, the Selected Alternative will have the least (or equal to the least) potential for impacts on the following species and their associated habitats:

- Valley elderberry longhorn beetle
- Vernal pool and wetland invertebrates (although the Avenue 21 to Road 13 Wye Alternative would have the least potential for impacts on Crotch bumble bee)
- Silvery legless lizard
- San Joaquin coachwhip
- Least Bell's vireo
- Western burrowing owl
- San Joaquin kit fox

Among the Central Valley Wye alternatives, the Selected Alternative will also result in the second-lowest level of impact on the following species and their habitats:

- California tiger salamander
- Western spadefoot
- Western pond turtle
- Blainville's horned lizard
- Giant garter snake
- Bats – roosting bats, pallid bat, Western red bat
- American badger

In addition, the Selected Alternative will result in the least acreage impact on wetlands and riparian/stream habitat. The Selected Alternative will also result in the lowest track mileage among the Central Valley Wye alternatives within established wildlife movement corridors.

Among the Central Valley Wye alternatives, the Selected Alternative will have the least potential for impacts on jurisdictional aquatic resources and on wildlife movement corridors, but it will potentially affect critical habitat associated with vernal pool invertebrates.

The Selected Alternative will result in direct impacts on EFH (the San Joaquin River), similar to the other Central Valley Wye alternatives, associated with the placement of piers and the bridge over the river.

Operations and maintenance activities would be identical or very similar for all of the Central Valley Wye alternatives; therefore, all four Central Valley Wye alternatives have similar potential for operations impacts on special-status plant species, special-status wildlife species, special-status plant communities, jurisdictional waters, critical habitats, EFH, and wildlife movement corridors.

To minimize potential effects on biological resources, the Authority will implement numerous strategies and design features (set forth in IAMFs) that will avoid or minimize effects and will comply with all biological permit requirements. In addition to these IAMFs, the Authority will require numerous mitigation measures that will further minimize and/or compensate for adverse effects of the Selected Alternative. These include broad mitigation strategies designed to minimize impacts through the establishment of environmentally sensitive areas and non-disturbance zones; installing wildlife exclusion fencing; conducting pre-construction surveys; preparing a Habitat Mitigation Plan; and implementing off-site habitat restoration, enhancement, and preservation strategies, including the opportunity to purchase credit from an agency-approved mitigation bank. Additional mitigation measures have been developed to minimize potential effects on specific special-status species or groups of species.

5.4 Hazardous Materials and Wastes

As discussed in Section 3.10, Hazardous Materials and Wastes, of the Final Supplemental EIR/EIS, construction and operation of the Selected Alternative (as well as any of the Central Valley Wye alternatives) will require the use of various types and quantities of hazardous materials. These materials would be similar across all Central Valley Wye alternatives and include the use of such materials within 0.25 mile of a school during the construction phase. However, no extremely hazardous substances will be permitted within 0.25 mile of schools. The Selected Alternative (and two of the three other alternatives) have an essentially equal potential to result in temporary effects associated with the transport, use, storage, inadvertent disturbance, and/or disposal of hazardous materials (including diesel fuel, lubricants, solvents, cement products, or other material containing strongly acidic or basic chemicals).

Additionally, because construction activities will often occur on agricultural properties that may have used pesticides and other hazardous substances, construction-related ground disturbance could result in the inadvertent disturbance and release of undocumented concentrations of such materials and wastes.

The risk of exposure to asbestos and lead has the potential to occur during the demolition of roadways and structures. Lead could also be released from soils along roadways or paint from demolished buildings. The potential for increased exposure to asbestos or lead as a result of building demolition will be temporary during construction.

Of the four Central Valley Wye alternatives, the Selected Alternative requires the second lowest amount of demolition (as measured in square feet of buildings to be demolished) and thus has the second lowest potential for risk of exposure to asbestos and lead.

Among the Central Valley Wye alternatives, the Selected Alternative is located near the fewest sites of Potential Environmental Concern, and it is not located in the vicinity of any landfills.

While operation of the Central Valley Wye alternatives could result in intermittent direct impacts through the transport, use, storage, and disposal of hazardous materials and wastes, these impacts will be minimized through conformance with established policies. These policies will reduce the potential for improper handling of materials and wastes that could result in routine or accidental releases. Intermittent direct impacts from HSR operation in proximity to schools and

recreational areas also have the potential to occur. However, hazardous materials and wastes activities will not occur within 0.25 mile of the nearest school or recreational area during operation.

The Authority has developed BMPs and similar strategies as IAMFs that will avoid or minimize hazardous material-related impacts of the Selected Alternative. These strategies include property acquisition; Phase I environmental site assessments and appropriate remediation; incorporation of methane protection measures and gas monitoring; use of work barriers; creation and utilization of an environmental management system; and preparation and implementation of plans for construction management, demolition, spill prevention, hazardous materials and wastes, undocumented contamination, hazardous materials transportation, and construction and operation near landfills. Additionally, the Authority will implement mitigation measures that will require documentation to demonstrate compliance with regulations governing the use of extremely hazardous materials near schools during construction.

5.5 Socioeconomics and Communities

As discussed in Section 3.12, Socioeconomics and Communities, of the Final Supplemental EIR/EIS, construction and operation of the Selected Alternative (as well as all other Central Valley Wye alternatives) will have unavoidable adverse impacts on community cohesion, resulting from road closures that disrupt pedestrian, bicycle, and transit circulation patterns, as well as noise and visual impacts that could have implications on community cohesion and social engagement in Fairmead and the rural agricultural community. The alternatives will also have adverse impacts on the agricultural economy from the acquisition and conversion of farmland to a nonagricultural use, and it will have permanent disruptive noise impacts on communities adjacent to the wye alignment. Construction equipment and activities could potentially deter neighbors from interacting and participating in community activities and could result in a perception by area residents that they have been separated from their community. However, these impacts will generally be lowest under the Selected Alternative compared to the other wye alternatives.

Additionally, the Selected Alternative will affect community cohesion in Fairmead because the alignment will impede travel between residences in the northern part of the community and between residences and community facilities (e.g., Fairmead Elementary School) to the south at some sites.

Construction and operation of the Selected Alternative will require the acquisition of right-of-way, resulting in the displacement of residents, commercial and industrial businesses, and agricultural operations. The Selected Alternative will result in the reduction of revenues from property taxes, close roads on school bus routes, and use/transport hazardous materials (during construction). However, among the Central Valley Wye alternatives, the Selected Alternative will result in the fewest displaced residential units and agricultural facilities, as well as the lowest acreage of important farmland converted to transportation use.

Construction of the Selected Alternative will generate jobs that will result in an estimated \$4.61 million increase in construction-generated sales tax revenue, contributing to a net positive economic effect. While the Selected Alternative's projected number of construction-related jobs (8,120) in the four-county region (Madera, Merced, Fresno, and Stanislaus) is slightly lower than those associated with the other Central Valley Wye alternatives, the beneficial impact of the Selected Alternative is still notable.

Operation of the Selected Alternative as part of the statewide HSR system will improve state and regional connectivity while facilitating new access to employment and educational opportunities, creating job opportunities across many sectors of the regional economy and stimulating local sales tax revenues. While operation of the Selected Alternative will result in some adverse community-related impacts, including permanent increases in noise levels, it will result in long-term regional air quality benefits from a reduction in vehicle miles traveled.

The Authority has developed BMPs and similar strategies as IAMFs that will avoid or minimize construction-related community impacts of the Selected Alternative. However, even with implementation of IAMFs, impacts on socioeconomics and communities will be substantial. Therefore,

the Authority has developed mitigation measures to further reduce such impacts on neighborhoods and communities. The mitigation measures will require the Authority to conduct special outreach efforts to affected residents and property owners to ensure that suitable replacement properties are acquired; this outreach will include local community workshops to identify additional strategies that could minimize impacts on remaining residents and property owners. Mitigation measures associated with noise and vibration and with hazardous materials will also help reduce community-related effects.

5.6 Land Use and Development

As discussed in Section 3.13, Land Use and Development, of the Final Supplemental EIR/EIS, construction of the Selected Alternative will result in both temporary and permanent effects related to land use. The Selected Alternative will require the permanent conversion 2,740 acres of land (along a total of 49.3 linear miles) to transportation or electrical facility uses. Among the Central Valley Wye alternatives, this is the second-lowest acreage of such conversion. The Selected Alternative will require the permanent closure of 33 roads (the second lowest among all Central Valley Wye alternatives) and the construction of 24 undercrossings and overcrossings (tied for the lowest among all Central Valley Wye alternatives). Construction of the Selected Alternative will also require the temporary use of lands outside the right-of-way; the Selected Alternative will require 484 acres of such temporary use, the second lowest among all Central Valley Wye alternatives. Such temporary uses will likely entail disruptions to property access and neighborhoods and indirect impacts related to increased noise levels, dust and other air pollutants, traffic, and visual changes as well as by reducing access to irrigation ditches and causing potential crop damage on adjacent lands.

Operation of the Selected Alternative will not result in continued changes to land use and development, because permanent land use impacts (including by conversion) will occur during construction.

The Authority has developed BMPs and similar strategies as IAMFs that will avoid or minimize the land use and development-related impacts of the Selected Alternative. However, even with adherence to these IAMFs, impacts of the Selected Alternative on land use patterns will remain adverse. The Authority will implement mitigation measures related to reducing community division and ensuring that the design of elevated guideways can adapt to local contexts.

5.7 Agricultural Farmland

As discussed in Section 3.14, Agricultural Farmland, of the Final Supplemental EIR/EIS, construction of the Selected Alternative (as well as of any of the other Central Valley Wye Alternatives) will temporarily use Important Farmland, permanently convert Important Farmland to nonagricultural use (i.e., transportation), and result in the creation of remnant parcels (which are too small to economically farm). However, among the Central Valley Wye alternatives, the Selected Alternative will require the lowest acreages of Important Farmland for temporary use and permanent conversion. Moreover, construction of the Selected Alternative will result in the lowest acreage of remnant parcels among all Central Valley Wye alternatives. Overall, among the Central Valley Wye alternatives, the Selected Alternative will result in the least direct and indirect permanent conversion of Important Farmland, including conversion that may occur through the creation of remnant parcels.²

Construction and operation of the Selected Alternative (as well as any of the other Central Valley Wye alternatives) will result in limited changes in aerial spraying patterns but will generally not interfere with spraying of crops and will not result in the conversion of Important Farmland to a nonagricultural use. Regarding construction-related effects on agricultural infrastructure, the Selected Alternative (as well as all other Central Valley Wye alternatives) will largely avoid

² Many severed parcels contain small or irregularly shaped remnants. Some of these parcels would not be added to the acquisition area because the Authority has determined that some agricultural use would continue to be viable. For example, some small parcels could be consolidated with adjacent landowners, and larger, irregularly shaped parcels could still be farmed (although with some loss of efficiency).

impacts associated with utility interruption, and no conversion of Important Farmland to a nonagricultural use will occur from agricultural infrastructure disruptions.

The Authority has developed BMPs and similar strategies as IAMFs that will avoid or minimize the Selected Alternative's impacts on Important Farmland (refer to Appendix D of this Supplemental ROD for details). However, even with adherence to these IAMFs, the Selected Alternative will still result in the permanent conversion of Important Farmland to a nonagricultural use. Therefore, through an existing agreement with the California Department of Conservation, the Authority funds the California Farmland Conservancy Program's work to identify suitable agricultural land for mitigation of impacts as well as the purchase of agricultural conservation easements from willing sellers. This agreement provides for the purchase of agricultural conservation easements to preserve Important Farmland in an amount to commensurate with the quantity and quality of converted farmlands. Because the Selected Alternative will require the lowest acreage of permanent conversion of Important Farmland compared to the other Central Valley Wye alternatives, the Selected Alternative will require the lowest amount of mitigation for agricultural land.

5.8 Aesthetics and Visual Resources

As discussed in Section 3.16, Aesthetics and Visual Resources, of the Final Supplemental EIR/EIS, construction of the Selected Alternative (as well as all other Central Valley Wye Alternatives) will temporarily degrade visual quality through the presence of construction equipment, such as stockpiles, dust, and nighttime lighting. In addition, the Selected Alternative (as well as the other Central Valley Wye alternatives) will result in the removal of established palm trees from the Robertson Boulevard Tree Row, a visually prominent scenic and historic resource. In addition, the Selected Alternative will traverse the community of Fairmead (similar to two other Central Valley Wye alternatives), thereby decreasing visual quality in this area. The Selected Alternative, among the Central Valley Wye Alternatives, will require the least removal (4,088 linear feet) of established palm trees from the Robertson Boulevard Tree Row.

To avoid or reduce other visual impacts of the Selected Alternative, the Authority has developed BMPs and similar strategies as IAMFs (refer to Appendix D of this Supplemental ROD for details). These IAMFs include adherence to design strategies that will avoid, minimize, and reduce adverse effects on aesthetic and visual resources.

However, to further reduce potential adverse visual effects associated with construction of the Selected Alternative, the Authority has developed mitigation measures that require contractors to minimize and/or screen construction areas and minimize or avoid nighttime light disturbance. These mitigation measures also require the Authority to engage with local communities to help inform the design of elevated guideways so that they are more visually harmonious with the local context. Landscape treatments and other plantings after construction will also enhance visual quality, along with mitigation measures to ensure the prompt treatment of graffiti on new infrastructure.

5.9 Cultural Resources

As discussed in Section 3.17, Cultural Resources, of the Final Supplemental EIR/EIS, construction of the Selected Alternative (as well as any of the other Central Valley Wye alternatives) will result in the removal of trees from the Robertson Boulevard Tree Row, which is considered a historic built environment (architectural) resource. While the Selected Alternative (or any of the other Central Valley Wye alternatives) will not encounter or adversely affect any known archaeological resource, construction-related excavation has the potential to unearth unknown archaeological resources.

Among the Central Valley Wye alternatives, the Selected Alternative requires the least removal (4,088 linear feet) of trees from the Robertson Boulevard Tree Row.

To avoid or reduce cultural resources impacts of the Selected Alternative, the Authority has developed BMPs and similar strategies as IAMFs (refer to Appendix D of this Supplemental ROD for details). These include requirements for additional surveys, training sessions for construction

personnel to be able to identify cultural resources, a monitoring plan, a discovery plan, procedure if unanticipated discoveries are made during ground-disturbing activities, and plans to protect and to avoid or minimize damage to historic properties. Additionally, the Selected Alternative will incorporate mitigation measures concerning both archaeological resources and built environment resources. Mitigation measures include phased identification of archaeological and built environment resources, allowing for the potential discovery of previously unidentified resources once access to all properties within the construction area is secured. Surveys for such resources will be conducted on all properties that have not been subject to prior surveys before construction begins. Should any resources be identified, the Authority will consult with Section 106 consulting parties and agree upon appropriate mitigation measures, which may include preservation in place, data recovery, or other appropriate steps outlined in the Built Environment Treatment Plan or Archaeological Treatment Plan. Archaeological mitigation measures will set forth protocols and standards to ensure that any unanticipated discoveries are properly evaluated, avoided if possible, and treated, and that will halt construction work in the area while such discoveries are evaluated. For built environment resources, mitigation will help minimize, but not fully avoid, impacts associated with tree removal from the Robertson Boulevard Tree Row.

5.10 Cumulative Impacts

As discussed in Section 3.19, Cumulative Impacts, of the Final Supplemental EIR/EIS, adherence to IAMFs and/or mitigation measures will avoid or minimize most impacts associated with construction and operation of the Selected Alternative, as well as the other Central Valley Wye alternatives. However, when combined with other past, present, and reasonably foreseeable projects, the construction of the Selected Alternative (as well any of the Central Valley Wye Alternatives) will, even with adherence to IAMFs and mitigation measures, contribute to cumulative impacts in the following resource areas:

- Biological resources
- Agricultural farmland
- Aesthetics and visual resources
- Cultural resources

The Selected Alternative will result in direct impacts on critical habitats for eight special-status species, including San Joaquin Orcutt grass, vernal pool fairy shrimp, vernal pool tadpole shrimp, Conservancy fairy shrimp, Central Valley steelhead, Colusa grass, fleshy owl's-clover, and Greene's tuctoria. Although some of these habitats are protected from development, construction of the Selected Alternative, along with other planned development anticipated under the cumulative condition, will result in a cumulative loss of habitat for these species. Construction of the Selected Alternative will increase turbidity and siltation in the San Joaquin River, contributing to cumulative impacts on essential fish habitat. In addition, construction of the Selected Alternative will require the construction of new permanent linear infrastructure that will disrupt seasonal migrations and animal foraging and mating opportunities. IAMFs incorporated into the project design, as well as mitigation measures, will minimize but not avoid the Selected Alternative's contributions to these significant wildlife crossing and EFH cumulative impacts.

The Selected Alternative's conversion of existing agricultural land uses, including Important Farmland, to urban or transportation uses, is occurring in a regional context where other development projects are also resulting in loss of agricultural land uses, including Important Farmland. The Authority has entered into an agreement with the Department of Conservation and its California Farmland Conservancy Program to implement agricultural land mitigation (including the purchase of off-site agricultural easements that will protect Important Farmland elsewhere in the region) to help offset impacts of the Selected Alternative (and of farmland conversion in other project sections). However, Important Farmland is a finite resource that cannot be replaced, so the Selected Alternative's conversion of Important Farmland will contribute to this regional cumulative impact.

In terms of visual and historic resources, the Selected Alternative will require removal of 4,088 linear feet of the Robertson Boulevard Tree Row, a visually prominent scenic and historic

resource. While the Authority commits to minimize tree removal and replant/landscape other areas, the Robertson Boulevard Tree Row is a unique resource consisting of mature palm trees stretching for several miles. The Selected Alternative's modification to the Robertson Boulevard Tree Row is the least among all Central Valley Wye alternatives, but the removal of 4,088 linear feet will contribute to the degradation of this visual and historic resource.

6 MITIGATION COMMITMENTS AND MONITORING

The Authority will supervise construction and require implementation of mitigation measures for the Selected Alternative. 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, the State Water Resources Control Board, and the California Department of Fish and Wildlife will make frequent compliance reviews to verify that all conditions of their respective permits are satisfied.

Consistent with 40 C.F.R. 1505.2(c), all practicable means to avoid or minimize environmental harm caused by the Selected Alternative have been identified and incorporated as IAMFs. Further means to reduce and/or compensate for environmental impacts have been identified and included as mitigation measures.

The MMEP describes mitigation measures that will avoid, minimize, or compensate for reasonably foreseeable environmental impacts that result from constructing and operating the Central Valley Wye portion of the Merced to Fresno Project 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 Selected Alternative also incorporates many IAMFs that are identified in the Final Supplemental EIR/EIS. The Authority, as part of the Draft Supplemental EIR/EIS, identified these IAMFs to avoid and minimize potential Project impacts. The Authority will apply these IAMFs and BMPs to avoid impacts in several resource areas. Regulatory requirements (such as hazardous material disposal and various mandatory safety strategies) provide additional assurance that impacts on the environment will not occur or will be minimized to the fullest extent practicable. The applicable regulatory requirements and the IAMFs that are part of the Selected Alternative are described in more detail in the MMEP. The IAMFs are a condition of Project approval and must be implemented by the Authority during design, construction, and operation of the Selected Alternative approved by this Supplemental ROD.

All IAMFs and mitigation measures are included in Appendix D of this Supplemental ROD. The Authority is required to comply with all mitigation measures adopted with 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 Selected Alternative, the Authority is required to adhere to and provide appropriate funding for all IAMFs and mitigation measures in the MMEP.

7 SUMMARY OF COMMENTS

During the 30-day availability period following the August 7 publication of the Final Supplemental EIR/EIS, the Authority received nine comment letters from the following agencies, organizations, and individuals. Seven of these letters were supportive of the proposed project, the preferred alternative, the environmental documentation, and/or the statewide HSR system. The remaining two of these letters expressed concerns. Copies of all correspondence received are included in Appendix G, Letters to the Authority Board and Board Meeting Materials, of this Supplemental ROD.

- California Department of Transportation, District 10
- City of Chowchilla
- City of Sacramento
- Fresno Council of Governments

- San Joaquin Joint Powers Authority
- Central Valley Rail Working Group
- San Joaquin Regional Rail Commission
- Sacramento Regional Rail Working Group
- Wye Madera Task Force

The Authority notes and appreciates all of the letters provided in support of the project, the Preferred Alternative, the environmental documentation, and/or the statewide HSR system. Many of the support letters stated that the Preferred Alternative achieves the HSR system's purpose and need while resulting in fewer impacts on both the natural environment and community resources than the other three alternatives. Letters also stated support for the 2020 Draft Business Plan recommendation to pursue a Merced to Bakersfield interim operating segment with approval for the Central Valley Wye Final Supplemental EIR/EIS critical to interim operations.

The two letters expressing concern were from the City of Chowchilla and the Wye Madera Task Force.

Among the key concerns expressed by these commenters was a general observation regarding the adequacy of the Authority's responses to comments submitted by two of these agencies (City of Chowchilla and Wye Madera Task Force) during the NEPA and CEQA public review periods of the Draft Supplemental EIR/EIS. Both the City of Chowchilla and Wye Madera Task Force also resubmitted (directly or by reference) their previously submitted comments. These previously submitted comments and responses to those comments can be found in Volume IV of the Final Supplemental EIR/EIS.

At a September 10, 2020 public hearing of the Authority Board to consider project approvals under CEQA, Mr. Matthew Treber, speaking for the Wye Madera Task Force, stated that Madera County and the Task Force was interested in continuing the collaborative discussions with the Authority towards resolution of its previously expressed concerns. The Authority appreciated this additional comment from the Task Force and looks forward to its continued engagement with the Task Force to address concerns it raised in its previously submitted comment letters.

The City of Chowchilla also restated previously expressed concerns about operational noise impacts, the potential for the proposed rail alignment to preclude visibility of an industrial park the City has proposed, the proposed funding for an expansion of the City's sewage treatment plant and an extension of sewer service to the community of Fairmead, and the role of local agencies in the review and approval of high-speed rail related infrastructure. During the public hearing, Mr. Rod Pruet, the City Administrator for the City of Chowchilla, expressed appreciation to the Authority for its collaborative effort to address the City's concerns and asked the Authority Board to delay project approval until a Memorandum of Agreement between the City and the Authority was finalized.

Following the public comment section of the September 10, 2020 hearing, Authority staff provided verbal responses to the specific concerns raised in these comment letters. A summary is below.

Regarding noise from train operations, the Authority noted that all four alternatives considered would have resulted in both moderate and severe operational noise impacts (refer to Figure 3.4-2 in the Final Supplemental EIR/EIS). All such impacts are to single-family residences; no other sensitive receptor types (e.g. schools, churches, cemeteries) would be affected. None of the moderate or severe operational noise impacts are within the city limits of Chowchilla. As set forth in mitigation measure NV-MM#2, the Authority will conduct additional noise analysis during final design if planned operations change that could affect operational noise.

Regarding the City's proposed industrial park visual and access impairment, the Authority acknowledged the City's planning efforts for an industrial park as identified in the Chowchilla

Industrial Park Specific Plan. Refer also to Final Supplemental EIR/EIS, Volume IV, and the Authority's response to similar comment 247-204. The City expressed the concern that the presence of a raised rail embankment would preclude views of the proposed industrial park area from major adjacent roadways, namely State Route 152. The Authority responded by displaying a visual simulation of proposed project conditions, demonstrating that the proposed rail embankment would not overly obscure views from State Route 152 into the proposed industrial park. The visual simulation is included in Appendix G. Moreover, the Authority reiterated that the design of the proposed project would allow for appropriate and adequate access into the proposed industrial park area.

With regard to the City's concerns about funding for a sewer connection to serve the community of Fairmead, the Authority notes that it has been in ongoing discussions with both the community of Fairmead and the City of Chowchilla to determine funding and implementation of sewer connections to residences of Fairmead from the Chowchilla Wastewater Treatment System. The Authority has programmed funding in its baseline budget for the related mitigation measures (EJ-MM#1 and EJ-MM#2). The Authority notes that the City of Chowchilla has moved forward with development of a project to expand its wastewater treatment facility, but that full funding is not currently in place. The Authority has offered to provide supplemental funding to ensure Chowchilla has a viable project it can fund that includes connecting Fairmead to the treatment facility. As of September 2020, the Authority is continuing discussions with City on as part of a process to sign a memorandum of understanding; the Authority still needs to come to agreement with the City on the proposed size of the expansion. The Authority expects that the State Water Resources Control Board will likely approve of the solution, which will address the health and safety issue of groundwater contamination associated with septic systems on many parcels in Fairmead. The Authority has also agreed to provide a letter to the State Water Resources Control Board expressing support for the City's efforts concerning expansion of the wastewater treatment plant.

With regard to the City's comment advocating for increased local agency approval of high-speed rail infrastructure, the Authority reiterated many of its previous responses submitted by the City on the Draft Supplemental EIR/EIS. The City expressed the opinion that local agencies should have some form of approval over a number of impact avoidance and minimization features (IAMFs) and mitigation measures within its jurisdiction. The Authority reiterated the importance it attaches to obtaining local input and its history of working closely with such agencies towards reaching consensus on design solutions. While the Authority will have the ultimate approval authority for design specifications, the Authority will continue its close coordination and engagement with local agencies towards achieving mutually agreeable design solutions wherever and whenever feasible.

In issuing this Supplemental ROD, the Authority has considered all of the comments received during the availability period of the Final Supplemental EIR/EIS, as well as the comments previously received on the Draft Supplemental EIR/EIS and the Revised Draft Supplemental EIR/Second Draft Supplemental EIS.

8 DECISION

The Authority finds that the SR 152 (North) to Road 11 Wye Alternative, identified in the Final Supplemental EIR/EIS as the Preferred Alternative, is the Selected Alternative. In making this finding, the Authority concludes that, among the alternatives considered, the Selected Alternative 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 all considered Central Valley Wye alternatives. The Authority, as lead agency, consulted with the cooperating agencies and considered the Draft Supplemental EIR/EIS, the Revised/Second Draft Supplemental EIR/EIS,

Biological Resources Analysis, the Final Supplemental EIR/EIS, and all public and agency comments received during the review periods in reaching this decision.

The cooperating agencies may issue their own decision documents, as appropriate, consistent with their statutory and regulatory responsibilities.

8.1 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 the *Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the California High-Speed Train Project* (PA) in 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.

The *California High-Speed Train Merced to Fresno Section: Memorandum of Agreement for the Treatment of Adverse Effects on Historic Properties under Section 106 of the National Historic Preservation Act* (Merced Fresno MOA) was also signed by the same parties in 2012. The Merced Fresno MOA was amended in 2013 to add the STB and USACE to the signatories and again in 2017 to add efficiencies for re-examinations. The MOA summarizes the results of the Section 106 process and the treatment measures agreed to among the Project's consulting and concurring parties for both above- and below-ground cultural resources.

The assessment of adverse effects required under Section 106 of the National Historic Preservation Act was documented in the *Merced to Fresno Section: Central Valley Wye Final Supplemental Section 106 Findings of Effect Report* that was approved by SHPO in 2018 in a Concurrence Letter (see Appendix E to this Supplemental ROD) and is available at the following link: https://www.hsr.ca.gov/docs/programs/merced-fresno-eir/TR-15_Supplemental_Section_106_Findings_of_Effect_Report.pdf.

8.2 Section 4(f)

Projects that are undertaken by an operating administration of the Department of Transportation (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.

Under the NEPA Assignment MOU, the Authority has been delegated the power to make determinations under Section 4(f). The NEPA Assignment MOU stipulates that the Authority must consult with FRA prior to making any constructive use determination, but otherwise delegates all responsibilities under Section 4(f) to the Authority. As further detailed below, there is no constructive use determination associated with the Central Valley Wye.

As described in Chapter 4 of the Draft Supplemental EIR/EIS, Section 4(f) properties were considered throughout the planning and alternatives development and analysis process to avoid and minimize impacts on resources protected by Section 4(f). During this process, the Selected Alternative was designed to avoid direct adverse effects on parks, recreational areas, and historic

resources. The Final Supplemental EIR/EIS contains the Authority's evaluation of whether the Central Valley Wye alternatives 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. Three Section 4(f) properties are present in the Selected Alternative's RSA for recreational and cultural resources: one outdoor play area (at the Fairmead Elementary School) and two historic resources (the Chowchilla Canal and Robertson Boulevard Tree Row). The Authority issued its Draft Section 4(f) Evaluation in the Draft Supplemental EIR/EIS and finalized that Section 4(f) Evaluation in the Final Supplemental EIR/EIS. The analysis and information in the Section 4(f) Evaluation included with the Final Supplemental EIR/EIS is incorporated herein by reference.

The Fairmead Elementary School play areas will not incur a use under Section 4(f) because the Selected Alternative will not incorporate any land from the play areas.

The Selected Alternative will cross the Chowchilla Canal. Crossing the Chowchilla Canal is considered a use. However, the Selected Alternative will not realign or impair the Chowchilla Canal. Since the publication of the Draft Supplemental EIR/EIS, the Authority has made a Section 4(f) *de minimis* impact determination for the Chowchilla Canal. The Authority notified the SHPO of its intent to make this determination during the Section 106 consultation process with the SHPO. In April 2018, the SHPO concurred in writing on the Authority's finding of no adverse effect under Section 106 on the Chowchilla Canal, and the Section 4(f) *de minimis* impact determination was thus finalized.

The Selected Alternative will incur an unavoidable permanent use of the Robertson Boulevard Tree Row, requiring removal of 4,088 linear feet of this historic property. The Authority made a Section 106 finding of adverse effect on the Robertson Boulevard Tree Row. Accordingly, as reflected in the Final Supplemental EIR/EIS, the Authority completed a Section 4(f) evaluation for this resource and concluded there are no feasible and prudent avoidance alternatives for the Robertson Boulevard Tree Row, further determining that the Selected Alternative will cause the overall least harm to the resource among all of the Central Valley Wye alternatives. The Authority is continuing coordination, as appropriate, with the SHPO regarding adverse effects on the Robertson Boulevard Tree Row.

8.2.1 Measures to Minimize Harm/Mitigation

The Authority developed measures to minimize harm to the Robertson Boulevard Tree Row during project planning to avoid or minimize impacts, as well as mitigation and enhancement measures to compensate for the unavoidable project impacts of tree removal and visual intrusion.

In consultation with the SHPO (the Official with Jurisdiction for the Robertson Boulevard Tree Row), the Authority has identified measures to minimize harm, as required by 49 U.S.C. 303(c)(2). These measures are now incorporated into the Selected Alternative. The Authority is continuing ongoing coordination, as appropriate, with the SHPO. During the Authority's consideration of its decision and during final design, the Authority, in consultation with the SHPO, may identify and implement additional measures to further reduce impacts on the Robertson Boulevard Tree Row. The Authority has identified the following measures to minimize harm to the Robertson Boulevard Tree Row:

- The Built Environment Treatment Plan currently identifies protective measures for any substantially affected historic properties. Mitigation commitments include, but are not limited to, pre-construction condition assessments, a plan for protection, a response plan for unanticipated effects, relocation of selected trees and replacement in kind of any trees that

would not survive relocation, interpretive materials, weekly assessments during construction, and a post-construction conditions assessment.

- The Built Environment Treatment Plan has been amended and SHPO concurred with the amendment to add a commitment for the Authority to refine the design to further minimize the number of trees affected. Furthermore, the SHPO would be asked to review and comment on the design as it is developed.

8.2.2 Section 4(f) Determination

Section 4(f) requires the selection of an alternative that avoids the use of a Section 4(f) property if that alternative is deemed feasible and prudent and the use does not qualify for a finding of *de minimis* impact. After making a Section 4(f) determination and identifying measures to minimize harm, if there is more than one alternative that results in the use of a Section 4(f) property, the Authority must also compare the alternatives to determine which alternative has the potential to cause the least overall harm in light of the preservationist purpose of the statute.

As described above and in Chapter 4 of the Final Supplemental EIR/EIS, the Authority has determined that the Selected Alternative will not use any Fairmead Elementary School play areas. Accordingly, no Section 4(f) determination is required.

Regarding the Selected Alternative and the Chowchilla Canal, the Authority has made a *de minimis* determination under Section 4(f). Because of this determination, no mitigation is necessary for this resource.

Regarding the Selected Alternative and the Robertson Boulevard Tree Row, the Authority has made a permanent use determination under Section 4(f). As noted above, the Authority came to this determination after undertaking a rigorous evaluation to ultimately conclude that there are no feasible or prudent avoidance alternatives to the Selected Alternative. This is in part due to the fact that the Robertson Boulevard Tree Row extends for approximately 9 miles to the southwest of the city of Chowchilla and thus constitutes a resource of substantial length. Avoidance would require substantial alignment changes found to be infeasible and/or imprudent. Among all Central Valley Wye alternatives, the Selected Alternative requires the least removal of linear feet (4,088 feet) from the Robertson Boulevard Tree Row and thus the least overall harm to this resource's value as a cultural resource and regionally prominent visual resource.

8.3 General Conformity Determination

As described in greater detail in Section 2.1, the Final GCD (see Appendix A) for the Merced to Fresno Section was signed by FRA on September 18, 2012 and published with the Merced to Fresno Section ROD. It was based on the condition that the Authority enter into a VERA with the SJVAPCD to offset construction emissions of NO_x, VOC, and PM to net zero.

Because the Merced to Fresno Final EIR/EIS decision documents deferred a final decision on a wye alternative, the Central Valley Wye was not initially included in the GCD for the Merced to Fresno Section. However, the Authority found that its Air Quality and Global Climate Change Technical Report for the Central Valley Wye (2017) indicated general consistency with the pertinent air quality conclusions in the Merced to Fresno Final EIR/EIS (2012), including the previous GCD.

FRA concurred with this conclusion on April 21, 2020. Therefore, a separate GCD was not prepared for the Central Valley Wye because the Merced to Fresno Final GCD is valid for the Central Valley Wye Section.

8.4 Section 7 Endangered Species Finding

The proposed action (construction and operation of the Selected Alternative) is in compliance with Section 7 of the FESA. Because the proposed action is likely to have an impact on threatened or endangered species, the Authority prepared BAs and consulted with USFWS and NMFS, as required under Section 7 of the FESA. The Authority submitted requests to reinstate Section 7 consultation with USFWS and NMFS in 2019. USFWS issued its amended BO on

September 27, 2019 (see Appendix B). Refer to Section 2.5 above for details on the Authority's (and FRA's) submittals to the USFWS and NMFS regarding the Central Valley Wye.

Because the Central Valley Wye has changed since the wye alternatives were evaluated as part of the Merced to Fresno Section in 2012 and Incidental Take Statements were not issued for the entirety of the Merced to Fresno Section, supplemental BAs addressing the effects of the Central Valley Wye on federally listed species and critical habitat were prepared.

USFWS concluded that the proposed action is not likely to jeopardize the continued existence of threatened or endangered species and is not likely to adversely affect critical habitat. The amended BO contains an Incidental Take Statement and reasonable and prudent measures covering the extent of the project that was not previously covered by the incidental take statement in the 2012 Merced to Fresno BO. The Authority will implement the measures identified in the amended USFWS BO.

Because the Central Valley Wye crosses the San Joaquin River, which is identified as EFH for Central Valley steelhead and Central Valley spring-run Chinook salmon, the Authority also coordinated with NMFS in accordance with the Magnuson-Stevens Act. NMFS concluded there would be an adverse effect on EFH in an amended BO on September 3, 2019. NMFS concluded that the proposed action was not likely to jeopardize listed species or the experimental nonessential population and would have no effect on critical habitat. The amended NMFS BO (Appendix C) contains an Incidental Take Statement and reasonable and prudent measures authorizing activities associated with project construction throughout the Merced to Fresno Section, including the Central Valley Wye. The Authority will implement the measures in the amended NMFS BO.

The proposed action is in compliance with the Magnuson-Stevens Act.

8.5 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.

Though impacts on waters of the United States may occur as a result of the Selected Alternative, in September 2018 the USACE concurred that the Selected Alternative is the preliminary LEDPA because there is no practicable alternative to the placement of fill in waters of the United States and all practicable measures to avoid harm to waters of the United States have been included (see Appendix F). Design requirements and permit conditions will require contractors to avoid impacts on jurisdictional waters wherever feasible. The requirements identified in the MMEP, incorporated as part of this document (Appendix D), will minimize the destruction, loss, or degradation of wetlands and preserve and enhance the natural and beneficial values of wetlands. The proposed action is in compliance with the Section 404(b)(1) guidelines.

To the maximum extent practicable, the Authority will implement pre- and post-construction BMPs for sediment and erosion control. The measures and features included in the MMEP will reduce impacts on wetlands to a level sufficient to achieve no net loss. However, if determined to be necessary by USACE and the State Water Resources Control Board, these measures can be increased through Clean Water Act permitting, or additional measures may be recommended and reflected in other project permits and authorizations. Based upon USACE findings and the Authority's evaluation, the Authority determines that the proposed action is consistent with Executive Order 11990 and DOT Order 5660.1A, Section 401, and Section 404, including Section 404(b)(1).

8.6 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.

As indicated in Section 3.8, Hydrology and Water Resources, of the Final Supplemental EIR/EIS, the Authority, as the federal lead agency, concludes that the Selected Alternative will not result in any substantial adverse impacts 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. Design of the Selected Alternative includes effective measures to avoid or minimize the potential for exposure of HSR passengers and employees to flooding, and new or additional exposure to flooding risks and hazards from the failure of a levee or dam will not occur. Based upon these findings, the Authority determines that the proposed action is consistent with requirements of Executive Order 11988.

8.7 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 Central Valley Wye alternatives, including the Selected Alternative will result in adverse effects on low-income and minority populations residing along the project corridor, primarily within the Community of Fairmead. However, among the three SR 152 alternatives, the Selected Alternative will have the lowest effect on this community. The Avenue 21 to Road 13 Wye Alternative would mostly avoid the community of Fairmead.

Impacts of the Selected Alternative on low-income and minority populations will include:

- an increase in noise levels, the introduction of new visible features that permanently change the aesthetic and visual quality in Fairmead;
- temporary and permanent road closures resulting in traffic diversion;
- impacts on community cohesion;
- residential and commercial unit displacement;
- the acquisition and permanent conversion of agricultural lands and confined agricultural facilities;
- localized air quality degradation due to construction activities;
- temporary impacts on surface water and groundwater quality;
- the nearby use of hazardous materials during construction;
- potential disruption of cultural resources; and
- temporary disruptions to recreational facility access.

The Selected Alternative will include the application of both IAMFs and mitigation measures that reduce disproportionate adverse effects on low-income and minority populations (see the MMEP, Appendix D). The Authority and its contractors must comply with:

- FRA guidelines for minimizing noise and vibration impacts on sensitive receptors;
- specific strategies to minimize construction-related noise impacts;

- implementation of locally appropriate design criteria into HSR facilities; implementation of features to minimize traffic impacts;
- construction of vehicular crossings, sidewalks, and multiuse trails to improve community cohesion and improve recreational facilities;
- assistance for displaced residents with finding new suitable housing within the communities in which they currently reside;
- incorporation of dust control plans and other construction-phase air quality management strategies;
- implementation of erosion-minimization strategies; restrictions on the locations in which hazardous materials can be used; and
- implementation of cultural resource surveys and testing.

In addition to the above IAMFs and mitigation measures that will reduce disproportionate adverse effects related to issues such as noise, air quality, transportation, and hazardous materials, the Authority will also implement additional mitigation measures specific to socioeconomic effects. These mitigation measures include additional outreach to affected minority and low-income populations, such as but not limited to facilitated community workshops. These mitigation measures will reduce but not eliminate the effects that result from displacements. There are no practicable mitigation measures beyond these available to completely eliminate such displacements. Similarly, no other wye alternatives would completely avoid such displacements.

The Authority also considered the potential offsetting benefits associated with the Selected Alternative. For example, construction and operation of the Selected 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 Central Valley Wye is a portion of just one section (Merced to Fresno), 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. 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 Central Valley to the San Francisco Bay Area. In completing the Merced to Fresno Project Section, the Central Valley Wye will support increased intercity mobility and complement existing highway and airport infrastructure that has not meaningfully expanded in decades despite significant population growth in California. On a state level, the Central Valley Wye will contribute the California HSR System goal to provide program benefits that are in the overall public interest, including:

- 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 operation, 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 *California High-Speed Rail Project Comparison of Providing the Equivalent Capacity to High-Speed Rail through Other Modes* (Authority and FRA 2012). The HSR operation will present an alternative to the needed expenditure of \$158 billion for new highway miles and airport infrastructure. Additionally, the

diversion of travelers from passenger cars to rail will reduce vehicle miles traveled (an indicator of energy consumption), GHG emissions, and criteria air pollution generation.

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. Operation of the Selected Alternative will also provide long-term benefits associated with improvements in mobility; vehicular, pedestrian, and bicycle safety; and air quality, as well as new employment opportunities consisting of approximately 1,200 jobs within the Central Valley. These regional project benefits will accrue equally to low-income and minority populations within the RSA and to the general population as a whole. For communities such as Fairmead, which has a high unemployment rate, the employment opportunities created by construction of the Selected Alternative, in combination with the Authority's employment commitments and training programs designed to increase the ability of local workers to compete for these jobs, will result in economic benefits for the community.

Though the Selected Alternative will displace 62 residential units within unincorporated areas in the Merced and Madera Counties, including within the community of Fairmead, this the lowest amount of displacements that would occur out of any of the three SR 152 alternatives. The Selected Alternative will not displace any migrant farmworker housing or transient camps. The Selected Alternative will also require the fewest commercial and industrial business displacements among the three SR 152 alternatives. Though the Avenue 21 to Road 13 Wye Alternative would result in the fewest residential and commercial displacements due to its alignment south of Fairmead, it would have greater effects on other resource areas, including exposure to a larger number of sensitive receptors to severe noise impacts, displacement of a larger number of agricultural facilities, larger impacts on wetlands and other waters, larger impacts on multiple special-status plant and wildlife species, and a larger impact on the Robertson Boulevard Tree Row.

The Authority has conducted extensive outreach with the community of Fairmead to identify and evaluate measures that could mitigate impacts beyond the resource-specific measures that, for example, reduce noise, visual impacts, and community division stemming from construction and operation of the Central Valley Wye alternatives. Coordination to develop mitigation aimed at offsetting the HSR contribution to stressors on the community would provide an opportunity to maintain quality of life in Fairmead. As part of the Selected Alternative, the Authority will provide funding to Madera County to construct a community center in Fairmead. In addition, the Authority will address the community's lack of sewer and water service, which constrains future development, by providing funding to connect Fairmead to the Chowchilla Wastewater Treatment Plant and the nearest safe and reliable municipal water supply system.

In addition to reducing the impacts that the Selected Alternative will have on environmental justice in the community of Fairmead, the mitigation strategies will improve the quality of life of Fairmead residents and remove a constraint to development in Fairmead. The Authority therefore concludes that there will be no disproportionately high and adverse effects on the community of Fairmead from construction and operation of the Selected Alternative.

9 CONCLUSION

The Authority, as the federal lead agency, and as authorized by the NEPA Assignment MOU, 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 EIR/EIS and the project record.

For the Central Valley Wye, the Authority approves the SR 152 (North) to Road 11 Wye Alternative. The Authority has selected this alternative 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 an existing transportation corridor where practicable and incorporating mitigation measures. Accordingly, the SR 152 (North) to Road 11 Wye Alternative has been selected and approved for Project implementation.

Signed by Brian P. Kelly on September 16, 2020

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

Date