Preface

What Is This Document?

The California High-Speed Rail Authority (Authority) proposes to construct, operate, and maintain an electric-powered high-speed rail (HSR) system in California. When completed, the 800-mile HSR system will provide new passenger rail service to California’s major metropolitan areas and through the counties that are home to more than 90 percent of the state’s population. The Merced to Fresno Section of the California HSR system is a critical link connecting the Bay Area HSR sections north and south to the rest of the system.

In keeping with the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century (California Streets & Highways Code § 2704 et seq.), the Merced to Fresno Section: Central Valley Wye (Central Valley Wye) would create the east-west HSR connection between the San Jose to Merced Section to the west and the north-south portion of the Merced to Fresno Section to the east. The term wye refers to the Y-like formation that is created at the point where train tracks branch off the mainline to continue in different directions. Four Central Valley Wye alternatives and the No Project Alternative are analyzed in this joint California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) document.

The Council on Environmental Quality provides for NEPA decision-making through a phased process (42 United States Code [U.S.C.] § 4321 et seq.). This process is referred to as tiered decision-making. This phased process supports a broad-level programmatic decision using a first-tier environmental impact statement (EIS); this first-tier process is followed by more specific decisions at the second tier, with one or more second-tier EISs. CEQA (Public Resources Code 21000 et seq.) also encourages tiering and provides for a first-tier and second-tier environmental impact report (EIR).

Sequence of California HSR Tiered Environmental Documents

1st Tier/Program Documents

- Final Program EIR/EIS for the Proposed California High-Speed Train System (2005)
- San Francisco Bay Area to Central Valley High-Speed Train Final Program EIR/EIS (2008)
- Bay Area to Central Valley High-Speed Train Revised Final Program EIR (2010)
- Bay Area to Central Valley High-Speed Train Partially Revised Final Program EIR (2012)

2nd Tier/Project Documents

- Merced to Fresno Section Final EIR/EIS (2012)
- Merced to Fresno Section: Central Valley Wye Draft Supplemental EIR/EIS (2019)
  - Merced to Fresno Section: Central Valley Wye Revised Draft Supplemental EIR/Second Draft Supplemental EIS (2020)
- Merced to Fresno Section: Central Valley Wye Final Supplemental EIR/EIS (this document)

The Authority and the Federal Railroad Administration (FRA) prepared the 2005 Final Program EIR/EIS for the Proposed California High-Speed Train System (Statewide Program EIR/EIS) (Authority and FRA 2005), which was a first-tier analysis of the general effects of implementing the HSR system across two-thirds of the state. The 2008 San Francisco Bay Area to Central Valley High-Speed Train (HST) Final Program EIR/EIS (Bay Area to Central Valley Program EIR/EIS) (Authority and FRA 2008) and the Authority’s 2012 Bay Area to Central Valley HST Partially Revised Final Program EIR (Authority 2012) were also first-tier, programmatic documents, focusing on the Bay Area to Central Valley region. These first-tier EIR/EIS documents provided FRA and the Authority with the environmental analysis necessary to evaluate the overall HSR system and make broad decisions about general HSR alignments and station locations for further study in the second-tier EIR/EISs.

The Merced to Fresno Section EIR/EIS, approved in 2012, is a second-tier EIR/EIS that tiers off of the program EIR/EIS documents; it provides project-level information for decision-making on the Merced to Fresno Section of the HSR system. The Authority’s Board of Directors certified the Merced to Fresno Section Final EIR/EIS under CEQA on May 3, 2012, and filed a Notice of Determination on May 4, 2012, and approved the Hybrid Alternative. Although the Authority approved the Hybrid Alternative for the north/south alignment...
of the high-speed rail and the Downtown Merced and Downtown Fresno Mariposa Street station locations, these approvals deferred a decision on the area known as the “wye connection”, that is, the east-west high-speed rail connection between the San Jose to Merced Section to the west and the north-south Merced to Fresno Section to the east, for additional environmental analysis. FRA issued a Record of Decision (ROD) under NEPA on September 18, 2012, and the Surface Transportation Board issued a ROD on June 13, 2013. Through the ROD, FRA approved the Hybrid Alternative and Downtown Merced and Downtown Fresno Mariposa Street station locations, consistent with the Authority’s decision in May 2012.

In 2019, the Authority published the Merced to Fresno Section: Central Valley Wye Draft Supplemental EIR/EIS (Draft Supplemental EIR/EIS), as the next step in the environmental review process to select a wye connection. The Authority published this document in May 2019 pursuant to CEQA and in September 2019 pursuant to NEPA. The Draft Supplemental EIR/EIS evaluated the impacts and benefits of implementing the wye connection alternatives, including the No Project Alternative, in the more geographically limited area of the wye connection between Merced and Madera and is based on more detailed project planning and engineering. The analysis therefore built on the earlier decisions and program EIR/EISs, while providing more site-specific and detailed analysis.

The May 2019 circulation included “EIR Errata and Clarifications” summarizing the Authority’s decision at that time to publish the document pursuant to CEQA only as well as related matters.

The September 2019 circulation included a “NEPA Distribution Explanation” which explained the Authority’s decision to publish the Draft Supplemental EIR/EIS pursuant to NEPA under terms of the July 23, 2019 Memorandum of Understanding between FRA and the State of California (NEPA Assignment MOU).

The Draft Supplemental EIR/EIS did the following:

- Described the four Central Valley Wye alternatives and their potential impacts.
- Provided environmental information to assist decision-makers in selecting the project to be built.
- Identified measures to avoid and minimize impacts, and, when necessary, compensate for adverse impacts.
- Considered cumulative impacts as part of the environmental review process.

The Authority widely circulated the Draft Supplemental EIR/EIS to affected local jurisdictions, state and federal agencies, tribes, community organizations, other interest groups, and interested individuals. The document was also available for review at Authority offices, public libraries, and county clerk offices. The public comment period closed 45 to 48 days after the draft document was circulated for each public review (CEQA and NEPA). During each public review period, the Authority held a public hearing to receive verbal testimony on the Draft Supplemental EIR/EIS.

In addition, in March 2020, the Authority also circulated for public review the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, Biological Resources Analysis (Revised/Second Draft Supplemental EIR/EIS). This document was limited to updates to Section 3.7, Biological Resources and Wetlands, and a related appendix in association with a bumble bee species present in the project area that became a candidate for state listing in late 2019. This document also included excerpts from the cumulative impact discussion (Section 3.19.6.6, Biological Resources and Wetlands) as the text appeared in the Draft Supplemental EIR/EIS.

This document, the Merced to Fresno Section: Central Valley Wye Final Supplemental EIR/EIS (Final Supplemental EIR/EIS), incorporates the whole of the Draft Supplemental EIR/EIS as well as updates associated with the Revised/Second Draft Supplemental EIR/EIS. Volume IV of this Final Supplemental EIR/EIS also includes the Authority’s responses to all comments received during the above three public circulations, while Volumes I and II have been revised to reflect changes and clarifications, including those based on comments received. These revisions are described in greater detail in the Final Supplemental EIR/EIS Summary.
The Authority is issuing this document in August 2020, prior to an anticipated meeting of the Authority’s Board, further described below. The document will be available electronically on the Authority’s website; the Authority will also distribute electronic copies to interested parties. The Authority will make paper copies of the document available for public review at the Authority’s Sacramento and Fresno offices and at various local library facilities, depending on the facilities’ capacity to hold the document.¹

**How Do I Use This Document?**

The purpose of environmental documents prepared under NEPA and CEQA is to disclose information about a proposed project to decision-makers and the public. While the science and analysis that supports this Final Supplemental EIR/EIS is complex, this document is intended for the general public. Every attempt has been made to limit the use of technical terms and acronyms. Where this cannot be avoided, the terms and acronyms are defined the first time they are used in each chapter.

Volume I of this Final Supplemental EIR/EIS is organized into 15 chapters and a Summary. Volume II contains technical appendices, Volume III provides plans and other relevant engineering drawings, and Volume IV contains the Authority’s responses to public comments received on the Draft Supplemental EIR/EIS and the Revised/Second Draft Supplemental EIR/EIS during the public review period.

For a reader with limited time to devote to this document, the Summary is the place to start. It provides an overview of all of the substantive chapters in this document and includes a table listing the potential environmental impacts for each environmental resource topic. If the reader begins here, but wants more information, the Summary directs the reader where to get details elsewhere in the document. Below is a list of other chapters and a short summary of each.

Throughout Volumes I and II of this document, vertical bars in the left- and right-hand margins indicate areas where substantive edits² to text, tables, or graphics were made between the Draft Supplemental EIR/EIS and this Final Supplemental EIR/EIS. There were no changes to Volume III since publication of the Draft Supplemental EIR/EIS. Volume IV is newly added and was not a part of the Draft Supplemental EIR/EIS.

**Volume I**

**Environmental Clarifications and Errata** was included with the May 2019 publication of the Draft Supplemental EIR/EIS pursuant to CEQA. This document explains why the Authority was circulating the Draft Supplemental EIR/EIS pursuant only to CEQA and includes background on how the analyses and conclusions within the Draft Supplemental EIR/EIS were consistent with updates to the CEQA Guidelines published in December 2018.

**NEPA Distribution Explanation** was included with the September 2019 publication of the Draft Supplemental EIR/EIS pursuant to NEPA. This document explained the Authority’s publication under the NEPA Assignment MOU.

**Chapter 1.0, Introduction and Purpose, Need, and Objectives**, explains the Authority’s purpose and need for the Merced to Fresno Section, including the Central Valley Wye and provides a history of the planning process.

¹ The COVID-19 pandemic has resulted in widespread closure of government facilities, including numerous local library facilities that were able to receive and offer the public the opportunity to review the Draft Supplemental EIR/EIS and Revised Draft Supplemental EIR/Second Draft Supplemental EIS. These facilities will also receive the Final Supplemental EIR/EIS for public review if they are open to the public and available to safely provide such services. As of August 2020, the Authority offices in Sacramento and Fresno are open and are serving as document repositories.

² Changing references to the “Draft Supplemental EIR/EIS” to the “Final Supplemental EIR/EIS” is considered a substantive change.
Chapter 2.0, Alternatives, describes the proposed Central Valley Wye alternatives, as well as the No Project Alternative used for purposes of comparison. It contains illustrations and maps and provides a review of construction activities. These first two chapters help the reader understand what is being analyzed in the remainder of the document.

Chapter 3.0, Affected Environment, Environmental Consequences, and Mitigation Measures, is where the reader can find information about the existing transportation, environmental, and social conditions in the area of the Central Valley Wye. This chapter provides the findings of the analysis of potential environmental impacts, along with methods to reduce these impacts (called mitigation measures). Chapter 3 is divided into subsections discussing the following environmental resource topics:

- Transportation*
- Air Quality and Global Climate Change*
- Noise and Vibration*
- Electromagnetic Fields and Electromagnetic Interference
- Public Utilities and Energy
- Biological Resources and Wetlands*
- Hydrology and Water Resources*
- Geology, Soils, Seismicity, and Paleontological Resources*
- Hazardous Materials and Waste*
- Safety and Security
- Socioeconomics and Communities*
- Land Use and Development
- Agricultural Farmland
- Parks, Recreation, and Open Space
- Aesthetics and Visual Resources*
- Cultural Resources*
- Regional Growth
- Cumulative Impacts

*separate technical report available

Chapter 4.0, Section 4(f) and Section 6(f) Evaluations, provides the analysis to support the Authority’s determinations under Section 4(f) of the Department of Transportation Act of 1966 and Section 6(f) of the Land and Water Conservation Funds Act.

Chapter 5.0, Environmental Justice, discusses whether the Central Valley Wye alternatives may cause disproportionate impacts on low-income and minority communities. It also identifies mitigation to reduce those impacts where appropriate.

Chapter 6.0, Project Costs and Operations, summarizes the estimated capital and operations and maintenance costs for each Central Valley Wye alternative evaluated in this Final Supplemental EIR/EIS, including funding and financial risk.

Chapter 7.0, Other NEPA/CEQA Considerations, summarizes the Central Valley Wye alternatives’ environmental effects under NEPA, the significant adverse environmental effects that cannot be avoided under CEQA, and the significant irreversible environmental changes that would occur as a result of the Central Valley Wye alternatives or irretrievable commitments of resources or foreclosure of future options.

Chapter 8.0, Preferred Alternative, describes the Preferred Alternative and the basis for identifying the Preferred Alternative.

Chapter 9.0, Public and Agency Involvement, contains summaries of coordination and outreach activities with agencies and the general public during preparation of this Final Supplemental EIR/EIS. In addition, this chapter contains a list of common comments and the responses to this subset of comments.
Chapter 10.0, Final Supplemental EIR/EIS Distribution, identifies the public agencies, tribes, and organizations that were informed of the availability of, and locations to obtain, this Final Supplemental EIR/EIS.

Chapter 11.0, List of Preparers, provides the names and responsibilities of the authors of this Final Supplemental EIR/EIS.

Chapter 12.0, References/Sources Used in Document Preparation, lists the references and contacts used in writing this document.

Chapter 13.0, Glossary of Terms, provides a definition of certain terms used in this Final Supplemental EIR/EIS.

Chapter 14.0, Index, provides a tool to cross-reference major topics used in this Final Supplemental EIR/EIS.

Chapter 15.0, Acronyms and Abbreviations, defines the acronyms and abbreviations used in this document.

Volume II, Technical Appendices provide additional details on the Central Valley Wye alternatives and the Final Supplemental EIR/EIS process. Technical appendices, included in Volume II, are primarily related to the affected environment and environmental consequences analyses. These appendices are numbered to match their corresponding section in Chapter 3, as well as Chapter 2, of this Final Supplemental EIR/EIS (e.g., 3.7-A is the first appendix for Section 3.7).

Since publication of the Draft Supplemental EIR/EIS, several appendices within Volume II were revised. For a complete list, please refer to the Summary, Section S.1.2 and S.1.3. All other appendices included with this Final Supplemental EIR/EIS are the same as those published with the Draft Supplemental EIR/EIS.

Volume III, Alignments and Other Plans, also available by request in electronic format presents the design drawings, including trackway and roadway crossing design. These documents are also available via:
http://hsr.ca.gov/Programs/Environmental_Planning/supplemental_merced_fresno.html

and at locations identified in Chapter 10, Final Supplemental EIR/EIS Distribution. There were no changes to Volume III since publication of the Draft Supplemental EIR/EIS.

Technical Reports provide more detailed technical analyses and data than that included in Chapter 3 of the Final Supplemental EIR/EIS. The asterisks (*) in the list of Chapter 3 sections indicate topics that have a separate technical report. Technical reports are not included in the Final Supplemental EIR/EIS. They are available in electronic format and via:
http://hsr.ca.gov/Programs/Environmental_Planning/supplemental_merced_fresno.html.

No technical reports were changed between the Draft and Final Supplemental EIR/EIS.

Volume IV, Response to Comments, contains all public comments received on the Draft Supplemental EIR/EIS and the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, and the Authority’s responses to all such comments. This volume also contains the Authority’s Standard Responses to comments in both English and Spanish.

What Happens Next?

The Authority will consider certifying the Final Supplemental EIR/EIS for compliance with CEQA, making a final decision on the Central Valley Wye, and whether to approve the Preferred Alternative. If the Authority certifies the Final Supplemental EIR/EIS and makes a decision on the Central Valley Wye, it will file a Notice of Determination with the State Clearinghouse. Under the NEPA Assignment MOU (FRA and State of California 2019), the Authority is now the lead federal agency. Accordingly, the Authority will also issue a ROD reflecting its decision on the project as well as its compliance with other related federal laws.