

APPENDIX 3.1-D: CENTRAL VALLEY WYE TECHNICAL REPORT MEMORANDUM OF UPDATES

California High-Speed Rail Authority

Merced to Fresno Section: Central Valley Wye

**Technical Reports:
Memorandum of
Updates**

September 2018



TABLE OF CONTENTS

1	INTRODUCTION.....	1-1
1.1	Memorandum Purpose	1-1
1.2	Memorandum Organization	1-2
2	TECHNICAL REPORT STATUS OVERVIEW	2-1
2.1	Introduction.....	2-1
2.2	Updates Matrix	2-1
3	DESCRIPTION OF UPDATES.....	3-1
3.1	Introduction.....	3-1
3.2	Transportation Technical Report	3-1
3.3	Air Quality and Global Climate Change Technical Report.....	3-2
3.4	Noise and Vibration Technical Report	3-2
3.5	Biological Resources and Wetlands Technical Report	3-3
3.6	Hydrology and Water Resources Technical Report	3-5
3.7	Geology, Soils, and Seismicity Technical Report	3-7
3.8	Paleontological Resources Technical Report	3-8
3.9	Hazardous Materials and Wastes Technical Report	3-9
3.10	Community Impact Assessment	3-10
3.11	Draft Relocation Impact Report	3-12
3.12	Aesthetics and Visual Resources Technical Report.....	3-13
3.13	Historic Architectural Survey Report.....	3-14
4	REFERENCES.....	4-1

Tables

Table 1	Matrix Key	2-1
Table 2	Status of Updates Matrix.....	2-1
Table 3	Description of Updates: Transportation Technical Report.....	3-1
Table 4	Description of Updates: Air Quality and Global Climate Change Technical Report	3-2
Table 5	Description of Updates: Noise and Vibration Technical Report	3-2
Table 6	Description of Updates: Biological Resources and Wetlands Technical Report.....	3-3
Table 7	Description of Updates: Hydrology and Water Resources Technical Report.....	3-5
Table 8	Description of Updates: Geology, Soils and Seismicity Technical Report	3-7
Table 9	Description of Updates: Paleontological Resources Technical Report	3-8
Table 10	Description of Updates: Hazardous Materials and Wastes Technical Report.....	3-9
Table 11	Description of Updates: Community Impact Assessment	3-10
Table 12	Description of Updates: Draft Relocation Impact Report.....	3-12
Table 13	Description of Updates: Aesthetics and Visual Resources Technical Report.....	3-13
Table 14	Description of Updates: Historical Archeological Survey Report.....	3-14

ACRONYMS AND ABBREVIATIONS

ACS	American Community Survey
Authority	California High-Speed Rail Authority
CDOF	California Department of Finance
CEQA	California Environmental Quality Act
CIA	Community Impact Assessment
CRAM	California Rapid Assessment Method
Draft Supplemental EIR/EIS	<i>California High-Speed Rail Merced to Fresno Section: Central Valley Wye Draft Supplemental Environmental Impact Report/Supplemental Environmental Impact Statement</i>
EINU	electrical interconnection and network upgrade
EIR	environmental impact report
EIR/EIS	environmental impact report/environmental impact statement
EIS	environmental impact statement
FRA	Federal Railroad Administration
IAMF	Impact avoidance and minimization feature
Merced to Fresno Final EIR/EIS	<i>Merced to Fresno Section Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS)</i>
ROD	Record of Decision
SR	State Route

1 INTRODUCTION

1.1 Memorandum Purpose

The California High-Speed Rail Authority (Authority) has prepared this *Merced to Fresno Section: Central Valley Wye Section Technical Report Memorandum of Updates* to support the *Merced to Fresno Section: Central Valley Wye Draft Supplemental Environmental Impact Report (EIR)/Supplemental Environmental Impact Statement (EIS)* (Draft Supplemental EIR/EIS). The Draft Supplemental EIR/EIS tiers from the original *Merced to Fresno Section Final EIR/EIS* (Merced to Fresno Final EIR/EIS) (Authority and FRA 2012). The Authority Board of Directors certified the Merced to Fresno Final EIR/EIS under the California Environmental Quality Act (CEQA) on May 3, 2012, and filed a Notice of Determination on May 4, 2012. The Federal Rail Road Administration (FRA) issued a Record of Decision (ROD) on September 18, 2012, and the Surface Transportation Board 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 preferred alternative, these approvals deferred a decision on the wye connection for a future environmental analysis.

The Draft Supplemental EIR/EIS is the next step in the environmental review process to select a wye connection between the cities of Merced and Madera. The Draft Supplemental EIR/EIS evaluates the impacts and benefits of implementing the No Project Alternative¹ and four Central Valley Wye alternatives: the State Route (SR) 152 (North) to Road 13 Wye Alternative, SR 152 (North) to Road 19 Wye Alternative, Avenue 21 to Road 13 Wye Alternative, and SR 152 (North) to Road 11 Wye Alternative.

Chapter 3 of the Draft Supplemental EIR/EIS addresses existing environmental conditions relevant to the Central Valley Wye alternatives and the potential impacts of the Central Valley Wye alternatives, examining each environmental resource topic in a separate section as follows:

- Section 3.2, Transportation*
- Section 3.3, Air Quality and Global Climate Change*
- Section 3.4, Noise and Vibration*
- Section 3.5, Electromagnetic Fields and Electromagnetic Interference
- Section 3.6, Public Utilities and Energy
- Section 3.7, Biological Resources and Wetlands*
- Section 3.8, Hydrology and Water Resources*
- Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources*
- Section 3.10, Hazardous Materials and Wastes*
- Section 3.11, Safety and Security
- Section 3.12, Socioeconomics and Communities*
- Section 3.13, Land Use and Development
- Section 3.14, Agricultural Farmland
- Section 3.15, Parks, Recreation, and Open Space
- Section 3.16, Aesthetics and Visual Quality*
- Section 3.17, Cultural Resources*
- Section 3.18, Regional Growth
- Section 3.19, Cumulative Impacts

The asterisks (*) in the list of Chapter 3 sections indicate topics that have a separate technical report providing more detailed technical analyses and data than Chapter 3 of the Draft Supplemental EIR/EIS. The Central Valley Wye technical reports were completed between December 2016 and April 2018. The technical reports prepared for the Central Valley Wye

¹ The No Project Alternative as defined in the Draft Supplemental EIR/EIS serves as both the No Project Alternative under the California Environmental Quality Act and the No Action Alternative under the National Environmental Policy Act.

Draft Supplemental EIR/EIS are available on the Authority's website:

http://hsr.ca.gov/Programs/Environmental_Planning/supplemental_merced_fresno.html.

Even though some of the technical reports were completed in December 2016, the content of the Draft Supplemental EIR/EIS continued to evolve to incorporate the most current data and other sources of information relevant to the environmental analyses, some of which were not available at the time that those technical reports were prepared. As a result, some of the information presented in the Draft Supplemental EIR/EIS is more current than the information presented in the technical reports. This Central Valley Wye Technical Report Memorandum of Updates provides full disclosure of the information updated in the Draft Supplemental EIR/EIS that has not been incorporated into the corresponding technical reports.

1.2 Memorandum Organization

The remainder of this memorandum is structured as follows:

- Section 2, Technical Report Status Overview: provides a high level status overview, in the form of a matrix, for all technical reports to clearly illustrate which information has been updated in the Draft Supplemental EIR/EIS that has not been incorporated into the corresponding technical reports.
- Section 3, Description of Updates: provides a summary of the relevant updates made in the Draft Supplemental EIR/EIS in relationship to the corresponding technical reports.

2 TECHNICAL REPORT STATUS OVERVIEW

2.1 Introduction

This section presents a high level status overview, in the form of a matrix, for all technical reports to clearly illustrate which information has been updated in the Draft Supplemental EIR/EIS that has not been incorporated into the corresponding technical reports.

2.2 Updates Matrix

The following status of updates matrix (Table 2) presents all the Draft Supplemental EIR/EIS technical reports and indicates the status code for each report, as explained in Table 1.

Table 1 Matrix Key

Status Code	Status Category
A	Information presented in technical report is the same as the corresponding information presented in the Draft Supplemental EIR/EIS.
B	Information presented in the technical report is the same as corresponding information presented in the Draft Supplemental EIR/EIS. However, some variations in information presented on laws, regulations, plans, policies, and orders exist. While the changes to laws, regulations, plans, policies, and orders were outside of the Authority's control some changes are relevant to the analysis and thus differences between the Draft Supplemental EIR/EIS and the relevant technical report may exist, as noted in Section 3.
C	In addition to the above category, some information presented in the technical reports has been updated in the Draft Supplemental EIR/EIS and, as a result, some variations to information relating to the affected environment, methodologies employed, impacts evaluated, and the presented data may exist, as noted in Section 3.

Further information on the updates made in the Draft Supplemental EIR/EIS in relationship to the corresponding technical reports, where applicable, is provided in Section 3 (Description of Updates).

Table 2 Status of Updates Matrix

	Technical Report	Status
1	Transportation Technical Report	C
2	Air Quality and Global Climate Change Technical Report	B
3	Noise and Vibration Technical Report	C
4	Biological Resources and Wetlands Technical Report	C
5	Wetlands Delineation Report	A
6	Evaluation of Wetland Condition: California Rapid Assessment Method (CRAM) Report	A
7	Hydrology and Water Resources Technical Report	C
8	Geology, Soils, and Seismicity Technical Report	C
9	Paleontological Resources Technical Report	C
10	Hazardous Materials and Wastes Technical Report	C
11	Community Impact Assessment	C
12	Draft Relocation Impact Report	C

	Technical Report	Status
13	Aesthetics and Visual Resources Technical Report	C
14	Archaeological Survey Report	A
15	Archaeological Survey Report – Electrical Interconnections and Network Upgrades Addendum	A
16	Historic Architectural Survey Report	B
17	Historic Architectural Survey Report – Electrical Interconnections and Network Upgrades Addendum	A
18	Biological Assessment (including Preliminary Compensatory Mitigation Plan)	A

3 DESCRIPTION OF UPDATES

3.1 Introduction

This section presents the following information for those technical reports where updates have been made in the Draft Supplemental EIR/EIS that have not been incorporated into the corresponding technical reports:

- Date the technical report was last updated;
- Summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed
- Section of the Draft Supplemental EIR/EIS in which the updated information can be found.

3.2 Transportation Technical Report

The Transportation Technical Report was last updated in December 2016. Table 3 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.2, Transportation, of the Draft Supplemental EIR/EIS.

Table 3 Description of Updates: Transportation Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Transportation Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of transportation. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Transportation Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.2.2 (Laws, Regulations and Orders) of Section 3.2
2	<p>Impact Evaluation - Within the Transportation Technical Report, potential impacts resulting from the Central Valley Wye alternatives were evaluated under three overarching impact categories:</p> <ol style="list-style-type: none"> 1. Effects on roadway level service; 2. Effects on regional transport system 3. Temporary construction effects <p>However, within the Draft Supplemental EIR/EIS these categories were broken down further into 5 overarching impact categories under which there were 21 separate impacts to facilitate a more in-depth evaluation. Thus, more detailed analysis is presented in the Draft Supplemental EIR/EIS when compared to the Transportation Technical Report. Despite this, however the overall conclusions are the same in that there would be no significant impacts as a result of Central Valley Wye construction or operations and, therefore, no mitigation measures are required.</p>	Section 3.2.6 (Environmental Consequences) of Section 3.2

3.3 Air Quality and Global Climate Change Technical Report

The Air Quality and Global Climate Change Technical Report was last updated in October 2017. Table 4 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.3, Air Quality and Global Climate Change, of the Draft Supplemental EIR/EIS.

Table 4 Description of Updates: Air Quality and Global Climate Change Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Air Quality and Global Climate Change Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of air quality and global climate change. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Air Quality and Global Climate Change Technical Report differs from the Draft Supplemental EIR/EIS.	Section 3.3.2 (Laws, Regulations and Orders) of Section 3.3

3.4 Noise and Vibration Technical Report

The Noise and Vibration Technical Report was last updated in December 2016. Table 5 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.4, Noise and Vibration, of the Draft Supplemental EIR/EIS.

Table 5 Description of Updates: Noise and Vibration Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Noise and Vibration Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of noise and vibration. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Noise and Vibration Technical Report differs from the Draft Supplemental EIR/EIS.	Section 3.4.2 (Laws, Regulations and Orders) of Section 3.4

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
2	Impact Evaluation - The Noise and Vibration Technical Report determined that there would be no potential noise impacts at the Chowchilla Seventh Day Adventist Church and School. However, as the centerline of the Avenue 21 to Road 13 Wye Alternative is only 50 feet away from the school, it has since been determined, following the finalization of the Noise and Vibration Technical Report, that there could be construction noise impacts at the Chowchilla Seventh Day Adventist Church and School. In line with this conclusion, additional information has been provided in the Draft Supplemental EIR/EIS on the potential construction impacts at the Chowchilla Seventh Day Adventist Church and School. Thus, the information presented in the Noise and Vibration Technical Report differs from the Draft Supplemental EIR/EIS.	Section 3.4.5 (Affected Environment) and Section 3.4.6 (Environmental Consequences) of Section 3.4

3.5 Biological Resources and Wetlands Technical Report

The Biological Resources and Wetlands Technical Report was last updated in December 2016. Table 6 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.7, Biological Resources and Wetlands, of the Draft Supplemental EIR/EIS.

Table 6 Description of Updates: Biological Resources and Wetlands Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Biological Resources and Wetlands Technical Report. Since the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of biological resources and wetlands. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Biological Resources and Wetlands Technical Report differs from the Draft Supplemental EIR/EIS.	Section 3.7.2 (Laws, Regulations and Orders) in Section 3.7
2	Land Cover Type - While the Biological Resources and Wetlands Technical Report provides additional technical details on the land cover types within the Core Habitat resource study area, it does not include information on the land cover types within the electrical interconnections and network upgrades (EINU) Core Habitat resource study area as that information is presented separately within Appendix 2-D (Electrical Interconnections and Network Upgrades) of the Draft Supplemental EIR/EIS. Thus, the Valley Sink Scrub land cover type is not referenced within the Biological Resources and Wetlands Technical Report but is referenced in Section 3.7 (Biological Resources and Wetlands), which presents a consolidated list of land cover types from the Biological Resources and Wetlands Technical Report and Appendix 2-D.	Table 3.7.3 and referenced throughout Section 3.7, as required

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
3	<p>Land Cover Acreages - Table 5-3 in the Biological Resources and Wetlands technical report includes land cover type acreages for each of the Central Valley Wye alternatives. Following the finalization of the Biological Resources and Wetlands Technical Report, comments were received from the U.S. Army Corps of Engineers that resulted in changes having to be made in the jurisdictional aquatic resources mapping in the Merced to Fresno Section: Central Valley Wye Second Supplemental Wetlands Delineation Report on December 6, 2017, and the Draft Supplemental EIR/EIS.</p> <p>In addition, the Draft Supplemental EIR/EIS includes acreage information from Appendix 2-D (Electrical Interconnections and Network Upgrades).</p> <p>These two items have led to an inconsistency in the acreages of special-plant species habitat and effects on jurisdictional waters between the information presented in the Biological Resources and Wetlands Technical Report and the Draft Supplemental EIR/EIS. Thus, the information presented in the Biological Resources and Wetlands Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Table 3.7.5, 3.7.12, 3.7.15 and referenced throughout Section 3.7, as required
4	<p>Special Status Wildlife Species - While the Biological Resources and Wetlands Technical Report provides additional technical details on the potential for special status wildlife species to occur in the habitat study area, it does not include information on the potential for special status wildlife species to occur within the EINU habitat study area as that information is presented separately within Appendix 2-D (Electrical Interconnections and Network Upgrades) of the Draft Supplemental EIR/EIS. Thus, the following species are not referenced within the Biological Resources and Wetlands Technical Report but are referenced in Section 3.7 (Biological Resources and Wetlands), which presents a consolidated list of potential special status wildlife species from the Biological Resources and Wetlands Technical Report and Appendix 2-D:</p> <ul style="list-style-type: none"> ▪ Nelson's antelope squirrel ▪ Giant kangaroo rat ▪ Fresno kangaroo rat ▪ Silvery legless lizard ▪ San Joaquin coachwhip ▪ Barrow's goldeneye ▪ Marbled godwit ▪ Song sparrow ("Modesto" population) ▪ Spotted towhee 	Table 3.7-7 and referenced throughout Section 3.7, as required

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
5	<p>Wildlife Species Status - Following the finalization of the Biological Resources and Wetlands Technical Report, updates have been made to the critical habitat designation for the following species, as listed under the Federal Endangered Species Act, California Endangered Species Act, California Native Plant Protection Act, or other regulations as defined in Section 3.7.2 (Laws, Regulations, and Orders) that have the potential to occur within the habitat study area:</p> <ul style="list-style-type: none"> ▪ Vernal pool tadpole shrimp ▪ Central Valley steelhead ▪ Tricolored blackbird ▪ American peregrine falcon ▪ Bald eagle ▪ Chinook salmon ▪ Grasshopper sparrow ▪ Western burrowing owl ▪ Yellow warbler ▪ Loggerhead shrike <p>In line with this, updates to the special status wildlife species that have the potential to occur in the habitat study area have been made within the Draft Supplemental EIR/EIS, but these revisions have not been made in the Biological Resources and Wetlands Technical Report. Thus, the information presented in the Biological Resources and Wetlands Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Table 3.7-7 in Section 3.7

3.6 Hydrology and Water Resources Technical Report

The Hydrology and Water Resources Technical Report was last updated in December 2016. Table 7 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.8, Hydrology and Water Resources, of the Draft Supplemental EIR/EIS.

Table 7 Description of Updates: Hydrology and Water Resources Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Hydrology and Water Resources Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of hydrology and water resources. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Hydrology and Water Resources Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.8.2 (Laws, Regulations and Orders) of Section 3.8

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
2	<p>Stream Crossings - When drafting the Draft Supplemental EIR/EIS, it was identified that there was a discrepancy in the stream crossing information presented in Table 6-1 (Total Number of Water Crossings by Central Valley Wye Alternative) of the Hydrology and Water Resources Technical Report. This discrepancy has been rectified in Table 3.8-11 (Types of Crossings Installed during Construction by Central Valley Wye Alternative) in the Draft Supplemental EIR/EIS. Thus, the information presented on stream crossings in the Hydrology and Water Resources Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.8.6 (Environmental Consequences) of Section 3.8
3	<p>Tunnel Discrepancies - When drafting the Draft Supplemental EIR/EIS, it was identified that the manner in which tunnel sections had been described (i.e., number and nature of tunnels), within the Hydrology and Water Resources Technical Report was incorrect. This has been rectified within the Draft Supplemental EIR/EIS but revisions have not been made in the Hydrology and Water Resources Technical Report. Thus, the information presented on tunnels in the Hydrology and Water Resources Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.8.5.2 (Surface Water Hydrology)
4	<p>Impact Determination - When drafting the Draft Supplemental EIR/EIS, it was identified that more detailed information was available on how construction and operations of the Central Valley Wye alternatives could affect existing drainage patterns and irrigation and storm water distribution systems and thus the temporary and permanent construction area disturbance information for each Central Valley Wye alternative, represented in acres of disturbed land, was updated in the Draft Supplemental EIR/EIS (Table 3.8-13). As a result, additional and more up-to-date information was available to inform the impact determination for the following surface-water quality impacts in the Draft Supplemental EIR/EIS:</p> <ul style="list-style-type: none"> ▪ Impact HYD#1: Temporary Changes to Drainage Patterns and Stormwater Runoff ▪ Impact HYD#2: Permanent Changes to Drainage Patterns and Stormwater Runoff <p>While this has not changed the conclusion outcomes for these impacts, the level of information presented for the evaluation of these two impacts differs between the Hydrology and Water Resources Technical Report and the Draft Supplemental EIR/EIS.</p>	Section 3.8.6 (Environmental Consequences) of Section 3.8

3.7 Geology, Soils, and Seismicity Technical Report

The Geology, Soils and Seismicity Technical Report was last updated in December 2016. Table 8 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.9, Geology, Soils, Seismicity and Paleontological Resources, of the Draft Supplemental EIR/EIS.

Table 8 Description of Updates: Geology, Soils and Seismicity Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Geology, Soils and Seismicity Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of geology, soils and seismicity. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Geology, Soils and Seismicity Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.9.2 (Laws, Regulations and Orders) of Section 3.9
2	<p>Soil Expansion - When drafting the Draft Supplemental EIR/EIS it was identified that the Natural Resources Conservation Service had updated its soil expansion data. In line with this, the acreage information presented in Table 3.9.13 (Area of Impact by Alternative, Soils with Moderate and High Expansion Potential [acres]) in the Draft Supplemental EIR/EIS was updated. Thus, the information presented in Table 6-2 (Resource Study Area Soils with Expansion Potential) in the Geology, Soils and Seismicity Technical Report differs from the acreage information presented in the Draft Supplemental EIR/EIS.</p>	Section 3.9.6 (Environmental Consequences) of Section 3.9
3	<p>Tunnel Discrepancies - When drafting the Draft Supplemental EIR/EIS it was identified that the manner in which tunnel sections had been described (i.e., number and nature of tunnels), within the Geology, Soils and Seismicity Technical Report was incorrect. This has been rectified within the Draft Supplemental EIR/EIS but revisions have not been made in the Geology, Soils and Seismicity Technical Report. Thus, the information presented on tunnels in the Geology, Soils and Seismicity Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.9.6.2 (Geology, Soils, and Seismicity)

3.8 Paleontological Resources Technical Report

The Paleontological Resources Technical Report was last updated in December 2016. Table 9 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.9 of the Draft Supplemental EIR/EIS.

Table 9 Description of Updates: Paleontological Resources Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Paleontological Resources Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of paleontological resources. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Paleontological Resources Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.9.2 (Laws, Regulations and Orders) of Section 3.9
2	<p>Impact Avoidance and Minimization Features (IAMFs) - Following the finalization of the Paleontological Resources Technical Report, the Authority refined IAMFs to avoid and minimize impacts on paleontological resources. The updated IAMFs have been included in the Draft Supplemental EIR/EIS but are not included in the Paleontological Resources Technical Report. Thus, the information presented in the Paleontological Resources Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.9.4 (Methods for Evaluating Impacts) of Section 3.9

3.9 Hazardous Materials and Wastes Technical Report

The Hazardous Materials and Wastes Technical Report was last updated in December 2016. Table 10 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.10, Hazardous Materials and Wastes, of the Draft Supplemental EIR/EIS.

Table 10 Description of Updates: Hazardous Materials and Wastes Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Hazardous Materials and Wastes Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of hazardous materials and wastes. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Hazardous Materials and Wastes Technical Report differs from the Draft Supplemental EIR/EIS.</p>	<p>Section 3.10.2 (Laws, Regulations and Orders) of Section 3.10</p>
2	<p>School Facilities within 0.25 Mile of the Central Valley Wye Alternatives - Following the finalization of the Hazard Materials and Wastes Technical Report, additional school facilities within 0.25 mile of the Central Valley Wye Alternatives were identified and, therefore, have been included within the Draft Supplemental EIR/EIS analysis. The Hazard Materials and Wastes Technical Report has not been updated. Despite this, there are no differences in the conclusions drawn within the Supplemental EIR/EIS and the Hazard Materials and Wastes Technical Report.</p>	<p>Section 3.10.5 (Affected Environment) and Section 3.10.6 (Environmental Consequences) of Section 3.10</p>

3.10 Community Impact Assessment

The Community Impact Assessment (CIA) was last updated in December 2016. Table 11 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the CIA was completed and the location of these changes within Section 3.12, Socioeconomics and Communities, of the Draft Supplemental EIR/EIS.

Table 11 Description of Updates: Community Impact Assessment

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Community Impact Assessment. Following the finalization of the Community Impact Assessment, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of community impacts. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Community Impact Assessment differs from the Draft Supplemental EIR/EIS.</p>	Section 3.12.2 (Laws, Regulations and Orders) of Section 3.12
2	<p>The Census American Community Survey (ACS) and California Department of Finance (CDOF) demographics information -</p> <p>When drafting the Draft Supplemental EIR/EIS it was identified that:</p> <ul style="list-style-type: none"> ▪ Minor data discrepancies were present in the CIA 2014 ACS demographic and housing data ▪ The 2040 population projections data in the CIA relies on data released by the CDOF in a different year than that referenced in the Draft Supplemental EIR/EIS, resulting in projections that vary slightly <p>As a result, the information presented in the following tables and related text in the Community Impact Assessment differs from that presented in the Draft Supplemental EIR/EIS:</p> <ul style="list-style-type: none"> ▪ Table 5-1 State and County Population Trends ▪ Table 5-3 Minority Group Representation ▪ Table 5-11 Housing Characteristics in 2014 	<p>The following tables within Section 3.12:</p> <p>Table 3.12-3 Past, Present and Projected Populations</p> <p>Table 3.12-4 Minority Group Representation</p> <p>Table 3.12-5 Housing Characteristics</p>
3	<p>Environmental Justice - Following the finalization of the CIA, the environmental justice analysis within the Draft Supplemental EIR/EIS was expanded to include additional information to support how conclusions were drawn and to incorporate updated and new mitigation measures. As described below under community cohesion, mitigation measure SO-MM#2: Implement Measures to Reduce Impacts Associated with the Division of Communities was revised to introduce detailed project design features to reduce effects on community cohesion within Fairmead under the SR 152 alternatives. Two new mitigation measures to address environmental justice impacts on Fairmead were also introduced to reduce effects on Fairmead under the SR 152 alternatives (EJ-MM#1: Assist in Providing a Community Center for the Community of Fairmead, and EJ-MM#2: Assist in Providing Water and Sewer Service to the Community of Fairmead). As a result, there are differences in the level of information provided, the proposed mitigation, and conclusions drawn between the Supplemental EIR/EIS and the Community Impact Assessment.</p>	Chapter 5 (Environmental Justice)

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
4	<p>Community Cohesion - Following the finalization of the CIA, mitigation measure SO-MM#2: Implement Measures to Reduce Impacts Associated with the Division of Communities, was revised by the Authority in consultation with the Community of Fairmead to introduce detailed, community-specific mitigation within Fairmead. The purpose of MM#2 is to incorporate features into the final design of the Preferred Alternative to maintain a robust sense of community cohesion in Fairmead. As a result, detailed information on MM#2 is included within the Draft Supplemental EIR/EIS but is not presented in the CIA. While there are no differences in the conclusions drawn within the Supplemental EIR/EIS and the CIA, there are differences in the level of information provided between the two documents.</p>	Section 3.12.7 (Mitigation Measures) of Section 3.12
5	<p>Data discrepancies - When drafting the Draft Supplemental EIR/EIS, it was identified that data discrepancies were present in the following tables in the Community Impact Assessment:</p> <ul style="list-style-type: none"> ▪ Table 6-1 Estimated Number of Residential Displacements by Alternative ▪ Table 6-6 Residential Displacements in School Districts by Alternative ▪ Table 6-8 Projected Economic and Employment Effects of Changes in Agricultural Production ▪ Table 6-9 Annual Lost Property Tax Revenue <p>These data inaccuracies have been addressed in the Draft Supplemental EIR/EIS, but the revisions have not been incorporated into the CIA.</p>	The following Tables within Section 3.12: Table 3.12-10 Estimated Number of Residential Displacements by Alternative Table 3.12-16 Projected Economic and Employment Impacts of Changes in Agricultural Production Table 3.12-18 Annual Lost Property Tax Revenues

3.11 Draft Relocation Impact Report

The Draft Relocation Impact Report was last updated in December 2016. Table 12 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the Draft Relocation Impact Report was completed and the location of these changes within Section 3.12 of the Draft Supplemental EIR/EIS.

Table 12 Description of Updates: Draft Relocation Impact Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Draft Relocation Impact Report. Following the finalization of the Draft Relocation Impact Report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of relocation impacts. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Draft Relocation Impact Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.12.2 (Laws, Regulations and Orders) of Section 3.12
2	<p>The Census American Community Survey (ACS) and California Department of Finance (CDOF) demographics information - When drafting the Draft Supplemental EIR/EIS it was identified that:</p> <p>Minor data discrepancies were present in the Draft Relocation Impact Report 2014 ACS demographic and housing data</p> <p>The 2040 population projections data in the Draft Relocation Impact Report relies on data released by the CDOF in a different year than that referenced in the Draft Supplemental EIR/EIS, resulting in projections that vary slightly</p> <p>As a result, the information presented in the following tables and related text in the Draft Relocation Impact Report differs from that presented in the Draft Supplemental EIR/EIS:</p> <ul style="list-style-type: none"> ▪ Table 5-1 Past, Present, and Projected Populations ▪ Table 5-3 Minority Group Representation ▪ Table 5-8 Housing Stock Inventory ▪ Table 5-10 Housing Tenure and Vacancy 	<p>The following Tables within Section 3.12:</p> <p>Table 3.12-3 Past, Present and Projected Populations</p> <p>Table 3.12-4 Minority Group Representation 2010–2014</p> <p>Table 3.12-5 Housing Characteristics in 2014</p> <p>Table 3.12-6 Housing Tenure and Vacancy</p>
3	<p>Data discrepancies - When drafting the Draft Supplemental EIR/EIS it was identified that data discrepancies were present in the following tables in the Draft Relocation Impact Report:</p> <ul style="list-style-type: none"> ▪ Table 6-2 Estimated Number of Residential Displacements by Alternative ▪ Table 6-3 Gap Analysis of Residential Developments by Alternative <p>These data inaccuracies have been addressed in the Draft Supplemental EIR/EIS, but the revisions have not been incorporated into the Draft Relocation Impact Report.</p>	Table 3.12-10 Estimated Number of Residential Displacements by Alternative

3.12 Aesthetics and Visual Resources Technical Report

The Aesthetics and Visual Resources Technical Report was last updated in December 2016. Table 13 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.16, Aesthetics and Visual Resources, of the Draft Supplemental EIR/EIS.

Table 13 Description of Updates: Aesthetics and Visual Resources Technical Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Aesthetics and Visual Resources Technical Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of aesthetics and visual resources. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Aesthetics and Visual Resources Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.16.2 (Laws, Regulations and Orders) of Section 3.16
2	<p>Landscape Units and Key Viewpoints - When drafting the Draft Supplemental EIR/EIS, the visual quality baseline for the San Joaquin River Landscape Unit key view point 2 (KVP 2) at Indiana Road was revised from high to moderately high for the following reasons:</p> <ul style="list-style-type: none"> ▪ The view shares similar characteristics to other views that were rated moderately high for visual quality ▪ This road does not compare to Robertson Boulevard, where visual quality is rated high <p>While the visual quality rating has been revised in the Draft Supplemental EIR/EIS, this change has not been incorporated into the Aesthetics and Visual Quality Technical Report.</p>	Section 3.16.5.3 (Landscape Units and Key Viewpoints) of Section 3.16
3	<p>Effects Analysis (Technical Report) / Environmental Consequences (EIR/EIS) - When drafting the Draft Supplemental EIR/EIS, revisions have been made to how the loss of historic palms along Robertson Boulevard are quantified to enable the existing gap in the historic palms at the SR 152 interchange to be clearly identified and a comparison to be drawn in the analysis. The Draft Supplemental EIR/EIS now quantifies this information by quoting the gap, in linear feet, that would be created following the removal of trees, while the Aesthetics and Visual Resources Technical Report quantifies this information by quoting the number of trees removed. Thus, the format in which the quantification of the loss of historic palms along Robertson Boulevard is presented in the Aesthetics and Visual Resources Technical Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.16.6.3 (Central Valley Wye Alternatives) of Section 3.16

3.13 Historic Architectural Survey Report

The Historical Archaeological Survey Report was last updated in October 2016. Table 14 presents a summary of the changes made in the Draft Supplemental EIR/EIS after the technical report was completed and the location of these changes within Section 3.17 of the Draft Supplemental EIR/EIS.

Table 14 Description of Updates: Historical Archeological Survey Report

Change #	Description of Change	Location in Draft Supplemental EIR/EIS
1	<p>Laws, Regulations and Orders - CEQA and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws and, as such, information is presented in both the Draft EIR/EIS and the Historic Architectural Survey Report. Following the finalization of the technical report, updates have been made in the Draft Supplemental EIR/EIS, as required, to information on laws, regulations, plans, policies, and orders that are relevant to the analysis of historical archeological resources. Thus, the information presented in Section 3 (Laws, Regulations and Orders) of the Historic Architectural Survey Report differs from the Draft Supplemental EIR/EIS.</p>	Section 3.17.2 (Laws, Regulations and Orders) of Section 3.17

4 REFERENCES

California High-Speed Rail Authority and Federal Railroad Administration (Authority and FRA).
2012 *Merced to Fresno Section Final Environmental Impact Report/Environmental Impact Statement*.