Memorandum

To: CHAIR AND COMMISSIONERS **CTC Meeting**: May 17-18, 2023

From: TANISHA TAYLOR, Interim Executive Director

Reference Number: 2.2c.(11), Action

Prepared By: Jose Oseguera
Assistant Deputy Director

Published Date: May 5, 2023

Subject: Approval of Project for Future Funding Consideration – Final Environmental Impact Report for the ACE Ceres-Merced Extension Project, Resolution E-22-72

Recommendation:

Staff recommends the California Transportation Commission (Commission), as a Responsible Agency, accept the Final Environmental Impact Report for the ACE Ceres-Merced Extension Project (Project) in Stanislaus and Merced Counties and approve the Project for future funding consideration.

Issue:

The San Joaquin Regional Rail Commission is the California Environmental Quality Act lead agency for the Project. The project will extend ACE passenger rail service from Ceres to Merced by upgrading some existing tracks and constructing new track at certain locations within the existing Union Pacific Railroad (UPRR) Fresno Subdivision right-of-way over a total distance of approximately 34 miles. Three new stations and a layover and maintenance facility will be constructed along the extension alignment. The project will include acquisition of additional right-of-way for the new stations, layover yards, maintenance facilities, and construction or access areas located outside the existing railroad right-of-way.

For all projects that are anticipated to be funded through a program under the purview of the Commission, full compliance with the California Environmental Quality Act is required. The Commission will not allocate funds to projects for design, right-of-way or construction until the environmental document is complete, and the Commission has approved the environmentally cleared project for future funding consideration.

Background:

On December 3, 2021, the Board of Commissioners of the San Joaquin Regional Rail Commission adopted the Final Environmental Impact Report and determined that impacts related to agriculture, noise and vibration were significant and unavoidable impacts under the California Environmental Quality Act.

The Board of Commissioners of the San Joaquin Regional Rail Commission found there were several benefits that outweigh the unavoidable adverse impacts of the project. These overriding benefits include economic, legal, social, and technological considerations that outweigh the identified significant effect on the environment. The Board of Commissioners of the San Joaquin Regional Rail Commission determined the Project would accomplish the following benefits:

- Supports the economic transportation demands of the region by fostering connections between the Bay Area, the Sacramento Area, and the northern San Joaquin Valley Counties (San Joaquin, Stanislaus, and Merced).
- Supports the growing commuter needs of individuals from the cities of Ceres, Turlock, Livingston, Atwater, and Merced travelling to job centers in the Bay Area and the Sacramento Area.
- Reduces motorized commuter traffic by providing alternative modes of transportation, which will reduce future air quality deterioration, particularly in the San Joaquin Valley Air Basin.
- Shifts commuters and other travelers to higher occupancy modes of transportation.
- Enhances intercity service and transit connections in the Central Valley.
- Aids in the reduction of greenhouse gas emissions to help minimize the long-term effects of climate change.

On March 29, 2023, the San Joaquin Regional Rail Commission confirmed that the preferred alternative set forth in the Final Environmental Impact Report is consistent with the Project scope of work programmed by the Commission.

The Project is estimated to cost $508,000,000 and is partially funded with Transit and Intercity Rail Capital Program Funds ($57,018,000) for design and construction.

Construction is estimated to begin in Fiscal Year 2025-26.

Attachments:

- Attachment A: Resolution E-22-72
- Attachment B: Statement of Overriding Considerations
- Attachment C: Notice of Determination
- Attachment D: Project Location Map

CALIFORNIA TRANSPORTATION COMMISSION
Resolution for Future Funding Consideration

10 – San Joaquin, Stanislaus, and Merced Counties
Resolution E-22-72

1.1 WHEREAS, the San Joaquin Regional Rail Commission has completed a Final Environmental Impact Report for the ACE Ceres-Merced Extension Project (Project) in San Joaquin, Stanislaus, and Merced Counties; and

1.2 WHEREAS, the San Joaquin Regional Rail Commission has certified that the Final Environmental Impact Report has been completed pursuant to California Environmental Quality Act (CEQA) and the CEQA Guidelines; and

1.3 WHEREAS, the Project is located within and along the Union Pacific Railroad right-of-way in Stanislaus and Merced Counties; and

1.4 WHEREAS, the Project will extend ACE passenger rail service from Ceres to Merced by upgrading some existing tracks and constructing new track at certain locations within the existing Union Pacific Railroad (UPRR) Fresno Subdivision right-of-way over a total distance of approximately 34 miles. Three new stations and a layover and maintenance facility will be constructed along the extension alignment. The project will include acquisition of additional right-of-way for the new stations, layover yards, maintenance facilities, and construction or access areas located outside the existing railroad right-of-way; and

1.5 WHEREAS, on December 3, 2021, the Board of Commissioners of the San Joaquin Regional Rail Commission adopted the Final Environmental Impact Report; and

1.6 WHEREAS, the Board of Commissioners of the San Joaquin Regional Rail Commission determined that impacts related to agriculture, noise and vibration would be significant and unavoidable; and

1.7 WHEREAS, the Board of Commissioners of the San Joaquin Regional Rail Commission adopted a Statement of Overriding Considerations for the Project finding that the Project benefits outweigh the unavoidable adverse environmental impacts; and

1.8 WHEREAS, the above-referenced significant effects are acceptable when balanced against the facts set forth in the Statement of Overriding Considerations; and

1.9 WHEREAS, on March 29, 2023, the San Joaquin Regional Rail Commission confirmed that the preferred alternative set forth in the Final Environmental Impact Report is consistent with the Project scope of work programmed by the Commission; and

1.10 WHEREAS, the California Transportation Commission (Commission), as a Responsible Agency, has considered the information contained in the Final Environmental Impact Report and the Statement of Overriding Considerations.

2.1 NOW, THEREFORE, BE IT RESOLVED that the Commission does hereby accept the Final Environmental Impact Report and the Statement of Overriding Considerations for the above-referenced Project to allow for future funding consideration.

Attachment #2

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS ACE CERES-MERCED EXTENSION PROJECT

PREPARED FOR:

SAN JOAQUIN REGIONAL RAIL COMMISSION

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November 2021

ICF. 2021. ACE Ceres-Merced Extension Project. Findings of Fact and Statement of Overriding Considerations for the ACE Ceres-Merced Extension Project. November. (ICF 00144.20) San Francisco, CA. Prepared for San Joaquin Regional Rail Commission, Stockton, CA

Section 1
Introduction

1.1 Introduction

The San Joaquin Regional Rail Commission (SJRRC) has prepared for certification a Final Environmental Impact Report (EIR) for the ACE Ceres–Merced Extension Project (Project). The Project would extend ACE passenger rail service along approximately 34-miles from Ceres to Merced. The Project will enhance commuter rail and intercity service and transit connections in the San Joaquin Valley; reduce traffic congestion, improve regional air quality, and reduce greenhouse gas emissions; and promote local and regional land use and transportation sustainability goals.

The Final EIR identifies a Proposed Project, as well as alternatives that were considered. The SJRRC has decided to pursue and implement the Proposed Project. The Proposed Project would include the construction and operation of the following improvements:

- Ceres to Merced Extension Alignment
- Turlock Station
- Livingston Station
- Merced Station
- Merced Layover & Maintenance Facility

For a detailed description of the Proposed Project, see Chapter 2, *Project Description*, of the Draft EIR and Chapter 4, *Text Revisions to the Draft EIR*, of the Final EIR.

Section 1 of this document provides a summary of the environmental review process. Section 2 describes the alternatives considered in the 2021 Final EIR. Section 3 contains the SJRRC's findings for each significant environmental effect of the Proposed Project identified in the Final EIR, as required by CEQA. Section 3 also describes the reasons why the Project alternatives analyzed in the Final EIR ultimately have been rejected. Section 4 consists of a statement of overriding considerations, as required by State CEQA Guidelines Section 15093, stating the specific circumstances that support the SJRRC's determination that the unavoidable significant environmental effects of the Proposed Project are acceptable because specific benefits of the Proposed Project outweigh those effects.

1.2 CEQA Process

The SJRRC analyzed the Proposed Project based on the California Environmental Quality Act (CEQA, Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000, et seq.). The Final EIR prepared by the SJRRC determined that the Proposed Project could have potentially significant effects on the environment, including significant effects that cannot be avoided.

Consistent with CEQA's requirements, the Proposed Project's Draft EIR was circulated for a 45-day public review period beginning on April 22, 2021 and ending on June 7, 2021. All written comments

received during the public review period were responded to in Chapter 3, *Responses to Comments* of the Final EIR.

Prior to approving the Proposed Project, the SJRRC must certify that it has considered the Final EIR, that the Final EIR adequately meets the requirements of CEQA, and that the Final EIR reflects the independent judgment of the SJRRC. Upon approving the Proposed Project, the SJRRC must adopt the following findings of fact regarding the significant effects identified in the Final EIR, the range of alternatives analyzed in the Final EIR, and statement of overriding considerations explaining the benefits that outweigh the significant unavoidable effects identified in the Final EIR.

Pursuant to Public Resources Code (PUB. RES. CODE) Section 21081.6, the SJRRC is also adopting a mitigation monitoring and reporting program (MMRP) for the mitigation measures that are the SJRRC's responsibility to implement. The MMRP establishes a program to ensure that the adopted mitigation measures identified in the Final EIR will be implemented.

Section 2
Alternatives Considered

2.1 Introduction

The SJRRC considered a range of alternatives before selecting the alternatives analyzed in Final EIR. Alternatives were identified through input from the public, agencies, and stakeholders during scoping. Scoping was conducted in 2018 when the extension from Ceres to Merced was considered in the EIR programmatically and in 2020 for the project-level review of the Proposed Project. Appendix A, *ACE Extension Scoping Memorandum* of the Draft EIR contains the scoping report detailing the scoping process, including the notification and scoping activities undertaken in 2020. As discussed in Section 5.6 in Chapter 5, *Alternatives*, of the Draft EIR, the SJRRC considered a wide range of alternatives suggested during the scoping process and then conducted a three-part screening evaluation to select the alternatives to be analyzed in the EIR. Alternatives determined to be infeasible, to not avoid or substantially reduce one or more significant impacts of the Proposed Project, or to not meet all or most of the Project's objectives were dismissed from further analysis.

Based on the screening process results, the Draft EIR analyzed the following alternative at a level of detail equal to the Proposed Project with a detailed description of this alternative in Chapter 2, *Project Description*, and environmental analysis in Chapter 3, *Environmental Impact Analysis,* and in Chapter 4, *Other CEQA-Required Analysis:*

- Atwater Station Alternative

Draft EIR Section 5.3, *Analysis of Alternatives at a Lesser Level of Detail*, describes the three alternatives that were analyzed at a lesser level of detail than the Proposed Project and provides that environmental analysis:

- No Project Alternative
- Merced Layover Facility Alternative
- Merced Station Alternative

These alternatives are summarized below, beginning with the alternative described at an equal level of detail to the Proposed Project.

2.2 Atwater Station Alternative

The Atwater Station Alternative would be constructed in southwestern Atwater, between the Applegate Road at-grade crossing and the Packer Street at-grade crossing. This potential station would be located adjacent to the Atwater Transpo located south of Atwater Boulevard, between Third Street and First Street. The Atwater Transpo operates as a bus stop for local and intercity bus services provided by Merced County Transit and as a parking lot for bus users. As shown in Figure 2-7 of the Draft EIR, development of the Atwater Station Alternative would consist of the following unique improvements.

- Construction of a station platform and fences outside of the two mainline tracks.

- Construction of a new surface parking lots providing a total of 172 parking spaces.
- Modification of Atwater Boulevard to allow vehicle access to parking lot.
- Construction of a new pedestrian tunnel under the railroad tracks, including associated ramps and stairways.
- Sidewalk improvements and crosswalk enhancements on First Street.

To provide ACE service at this new station, a new station platform would be constructed to allow passengers to board and disembark the train. A 30-foot-wide and 955-foot-long center platform located between the re-aligned existing mainline track and new mainline track would be constructed between MP 143.13 and MP 143.32 on the UPRR Fresno Subdivision, between the Applegate Road and Packer Street at-grade crossing. The new platform would accommodate 10 ACE rail cars and one locomotive. Construction of a pedestrian tunnel, which would include 2 ramps and 2 stairways, would provide access to the platform on the south end of the platform. Platform access would also be via an at-grade crossing at the north end of the platform. Passenger amenities and safety features, such as patron shelters with benches and map boxes, ticket validation machines, streetlamps, guardrails, security equipment, and emergency call box stations, would be installed on the station platform area. Two 3,000-foot-long fences would be constructed outside of the two mainline tracks from Fulkerth Road to the south. These fences would be to prevent passengers from accessing the platform across the train tracks.

To meet future parking demands generated by ACE service, two new surface parking lots would be constructed. A new surface parking lot (Main Lot) would be constructed just north-east of the station platform with 120 parking spaces. Vehicle access to the Main Lot would be provided by two entrances on Atwater Boulevard. Designated turning lanes on Atwater Boulevard between Fourth Street and Fifth Street would be installed to facilitate vehicles accessing the Main Lot. Construction of the Main Lot would require the demolition of existing industrial and commercial buildings onsite. In addition, landscaping would be installed at the station, including at-surface parking lot areas. A new surface parking lot (East Lot) would be constructed on a lot located off of Atwater Boulevard, between First Street and Second Street with 52 parking spaces. Vehicle access to the East Lot would be provided by two entrances on First Street and Second Street.

The parking improvements at the Atwater Station Alternative would be located outside the UPRR ROW.

2.3 No Project Alternative

CEQA Guidelines Section 15126.6(e) requires the analysis of a No Project Alternative. The No Project Alternative analysis must discuss the existing conditions as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved.

The No Project Alternative would result in no new rail transit connection being established between Ceres and Merced. ACE would extend train service from Stockton to Sacramento (Natomas/ Sacramento Airport Station) and would include a shuttle from the Natomas/ Sacramento Airport Station to the Sacramento Airport. In addition, under the No Project Alternative and as part of the ACE Lathrop to Ceres Extension Project, which was analyzed previously at a project-level detail in the ACE Extension Lathrop to Ceres/Merced EIR (Prior EIR), ACE would extend train service from

Lathrop to Ceres and would include buses between Ceres and Merced, connecting to the trains at Ceres.

ACE service would include the following in the morning and in the evening under the No Project Alternative in 2030.

- Two direct trains between Stockton and San Jose.
- One direct train between Ceres and San Jose with connecting bus service between Ceres and Merced.
- One direct train between Natomas and San Jose.
- One direct train between Natomas and Stockton.
- Three trains between Ceres and Natomas via the Natomas Extension. These three trains also connect at North Lathrop to other inbound ACE trains with service to San Jose.
- Four buses between Ceres and Merced, connecting to the trains at Ceres.

2.4 Merced Layover Facility Alternative

The Merced Layover Facility Alternative would be located within unincorporated Merced County, north of the downtown of the City of Merced, on the west side of State Route (SR) 99, between the Black Rascal Canal and Bear Creek. The lead track to the Merced Layover Facility Alternative would cross over from the existing mainline track at milepost (MP) 148.22 and at MP 149.33 on the Fresno Subdivision. The lead track to the layover facility would cross over Black Rascal Canal at MP 148.38, would cross Southern Pacific Avenue at grade at MP 148.43, cross under the SR 99 overhead structure at MP 149.07, and cross the Private Road at grade at MP 149.29. The lead track would cross over Black Rascal Canal via a new single-track concrete bridge south of the single-track bridge for the existing mainline track. The bridge would be approximately 17-feet-wide supported by two abutments on each end and five piers located in the canal. New at-grade crossing features – including concrete crossing panels where the new mainline track crosses the roadway, railroad crossing signals, guards or gates, signal houses, and stop bars – would be installed at Southern Pacific Avenue at MP 148.43. Modifications to a private road at-grade crossing at MP 149.29 for the layover facility lead track would include installing concrete crossing panels where the tracks cross the roadway.

Four new storage tracks, ranging from 0.40 to 0.50 mile, would turn out from the lead track to the layover facility. The layover facility would also include support facilities such as an administrative office building, crew facilities, light vehicle repair facilities, parts storage, fueling facilities, wayside power, and train cleaning function areas. Support facilities would be constructed to the north along the length of the new storage tracks and a fence would be constructed around the perimeter of the layover facility.

The majority of improvements for the Merced Layover Facility Alternative would be located outside the Union Pacific Railroad (UPRR) ROW. West 16th Street forms the northern boundary of the site and the site is surrounding by industrial properties to the north and northeast, and agricultural properties to the south and west. There is also a residential development located approximately 0.25 mile south of the site.

This alternative would include all of the other facilities associated with the Project. In other words, this alternative would include the Ceres to Merced Extension Alignment, Turlock Station, Livingston Station, the Merced Station, and the Merced Layover Facility Alternative. Figure 5-1 of the Draft EIR depicts the location of the Merced Layover Facility Alternative.

2.5 Merced Station Alternative

The Merced Station Alternative would be located adjacent to the Fresno Subdivision between Canal Street and G Street in downtown Merced. The ACE station platform would be located adjacent to the currently adopted location of the future California High-Speed Rail (HSR) station in Merced, as identified in the environmental impact report/environmental impact statement (EIR/EIS) for the Merced to Fresno HSR project section (California High-Seed Rail Authority and Federal Railroad Administration 2012). As noted in Chapter 2, *Project Description*, the City of Merced has identified that it would prefer that both the ACE station and the HSR station be located in closer proximity to the Merced Transit Station, which is on 16th Street between N Street and O Street.

Development of the Merced Station Alternative would consist of the following improvements.

- Construction of a station platform and fence between the new mainline track and existing mainline track.
- Construction of a new surface parking lot, providing a total of 173 parking spaces.

To provide ACE service at this new station, a new station platform would be constructed to allow passengers to board and disembark the train. An approximately 20-foot-wide and 1,000-foot-long station platform would be constructed between MP 150.92 and MP 151.11 on the Fresno Subdivision, between the Martin Luther King Jr. Way and G Street at-grade crossings. A 1,000-foot-long fence would be constructed between the existing mainline track and the new mainline track, which would function as the station track, in the vicinity of the station platform.

To meet future parking demands generated by ACE service, a new surface parking lot would be constructed in the vicinity of the future HSR station, north of the Fresno Subdivision and west of Martin Luther King Jr. Way. Vehicle access to the North Lot would be provided by two entrances on West 16th Street. Construction of the North Lot would require the demolition of existing commercial buildings onsite. In addition, landscaping would be installed at the station, including at parking areas. The majority of improvements at the Merced Station Alternative would be located outside the UPRR ROW, particularly the parking improvements.

Under this alternative, the Merced Station Alternative would be implemented instead of the proposed Merced Station. This alternative would include all of the other facilities associated with the Project. In other words, this alternative would include the Ceres to Merced Extension Alignment, Turlock Station, Livingston Station, the Merced Station Alternative, and the Merced Layover & Maintenance Facility Alternative. Figure 5-2 of the Draft EIR depicts the location of the Merced Station Alternative.

Section 3
Findings

3.1 CEQA Requirements

CEQA requires the lead agency to make written findings about the disposition of the project's effects whenever it decides to approve a project for which an EIR has been certified (PUB. RES. CODE Section 21081). Regarding these findings, Section 15091 of the State CEQA Guidelines states, in part:

> No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:
>
> (1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
>
> (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
>
> (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.
>
> (b) The findings required by subsection (a) shall be supported by substantial evidence in the record.

The "changes or alterations" referred to in the State CEQA Guidelines may be mitigation measures, alternatives to the project, or changes to the project by the project proponent. The Final EIR for the Proposed Project identifies mitigation measures that will reduce significant effects of the Proposed Project or mitigate other potential effects that may not be, strictly speaking, environmental effects under CEQA. These mitigation measures will be incorporated into the design of the Proposed Project. An MMRP will also be adopted by the SJRRC to ensure that the mitigation measures identified in the Final EIR and these findings will be implemented.

The documents and other materials that constitute the record upon which the SJRRC's decision and these findings are based can be reviewed in person at the following location:

San Joaquin Regional Rail Commission
949 East Channel Street
Stockton, CA 95202

3.2 Findings Regarding Independent Review and Judgment

Each member of the SJRRC Board was provided a complete copy of the Final EIR for the Proposed Project in advance of the hearing on the Proposed Project. The SJRRC hereby finds that the Final EIR reflects its independent judgment. The SJRRC also finds that it has independently reviewed and analyzed the Final EIR prior to taking final action with respect to the Proposed Project.

3.3 Findings Regarding the Project

3.3.1 Findings Regarding Significant and Unavoidable Effects

The SJRRC determines that the following significant effects cannot be avoided. The following significant effects includes those effects that were found to be cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Feasible mitigation measures included in the Final EIR will lessen the effects but will not result in complete mitigation of the effects to a less-than-significant or less-than-considerable level. The full text of each of the mitigation measures cited below is found in the Final EIR and that text is hereby incorporated by reference. The titles/numbers of the effects are the same as those in the Final EIR. The following identifies the pertinent mitigation measures by number and summary title.

See the next section for those effects for which mitigation measures have been adopted and that are thereby reduced below the level of significance.

3.3.1.1 Agricultural Resources

Significant Effect: Impact AG-1. Construction and operation of the Proposed Project could convert Important Farmlands to nonagricultural use.

Findings: The SJRRC hereby makes findings (a)1 and (a)(3) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Permanent conversion would occur within the Proposed Project where land categorized as Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance) and that is being used for agricultural purposes occurs. The cause of permanent conversion of Important Farmland is a direct impact on Important Farmland. Appendix I of the Draft EIR, provides the list of parcels containing Important Farmland that could be permanently converted by implementation of the Proposed Project.

The Proposed Project would traverse a combination of urban lands, grazing lands, and lands with Important Farmland. As summarized in Tables 3.2-5 and 3.2-6, the Ceres to Merced Extension Alignment and the Merced Layover & Maintenance Facility would result in the conversion of Important Farmland to nonagricultural uses. The impact of the Proposed Project is potentially significant.

The following measure mitigates this impact to the extent feasible, but not to a less than significant level.

- AG-1.2: Conserve Important Farmlands (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance)

Mitigation Measure AG-1.2 would reduce impacts from permanent conversion of Important Farmland as a result of direct use of the land by requiring the purchase of agricultural conservation easements at a ratio of 1:1 for direct use of Important Farmland. This mitigation measure would be effective in minimizing the overall permanent conversion of Important Farmland to a

nonagricultural use because it would preserve Important Farmland in an amount commensurate with the quantity and quality of the converted farmlands and within the same agricultural regions where the impacts would occur. However, because mitigation would not prevent conversion of Important Farmland, the impact from the Proposed Project would be significant and unavoidable.

Significant Effect: Impact C-AG-1. Construction and Operations of the Project could contribute considerably to a significant cumulative impact on agricultural resources.

Findings: The SJRRC hereby makes findings (a)1 and (a)(3) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: As documented in Section 3.2, *Agricultural Resources* and discussed in Section 4.2.5.4, *Agricultural Resources*, a trend toward conversion of agricultural land to nonagricultural uses exists throughout the Proposed Project study area. Accordingly, in locations where the Proposed Project in combination with other projects would convert agricultural land to nonagricultural uses, a cumulative impact exists.

The following measure mitigates the Proposed Project's impact, but not to a less than considerable level.

- AG-1.1: Avoid Important Farmlands and Restore Important Farmlands used for temporary staging areas
- AG-1.2: Conserve Important Farmlands (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance)

Implementation of the Proposed Project would result in the direct conversion of approximately 12.1 acres of Important Farmland. The Proposed Project's operation will result in non-agricultural uses occurring on these lands. It is reasonably estimated that some of the projects listed in Tables 4-3, 4-5, and 4-6 of the Draft EIR, would also result in some direct Important Farmland conversion. Therefore, the Project's direct conversion of up to approximately 12.1 acres of Important Farmland would constitute a cumulatively considerable contribution to this impact. With implementation of Mitigation Measure AG-1.2, the Proposed Project's operational cumulative contribution to Important Farmland conversion would be reduced; however, the Proposed Project's permanent operational contribution to cumulative impacts on Important Farmland would remain considerable with mitigation.

3.3.1.2 Noise and Vibration

Significant Effect: Impact NOI-1. Construction of the Proposed Project could generate a substantial temporary increase in ambient noise levels in the vicinity of the Proposed Project in excess of FTA thresholds.

Findings: The SJRRC hereby makes findings (a)(1) and (a)(3) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project would include three basic activities: (1) site work, (2) rail work, and (3) structures work. Depending on the improvement, site work is expected to occur over periods of 8 to 14 months, rail work is expected to occur over periods of 12 months, and structures work is expected to occur over periods of 8 to 24 months.

Generally, construction of the Proposed Project could last anywhere from 10 to 36 months, depending on the improvement. Construction work could occur during the nighttime along portions of the alignment that are on active freight rail lines. The local noise ordinances for the cities and counties along the extension alignment generally limit construction noise to time periods during the weekday, weekend, and holiday daytime hours. Nighttime construction work is generally prohibited, but some jurisdictions allow for variance.

Construction activities would be considered to have a significant impact if they would generate noise exposure more than the FTA thresholds. As shown in Table 3.12-7 of the Draft EIR, the operation of certain construction equipment and construction activities could generate noise exposure in excess of FTA thresholds for residences within 135 to 270 feet from a construction site, depending on the activity. The potential for noise impacts would be greatest during structures work at locations where pile driving is required for bridge construction. Nighttime construction near residential uses would have larger impacts than daytime construction would have and would also result in a potentially significant impact. Because residences would be located within 135 to 270 feet from a construction site for the Proposed Project, construction of the Proposed Project could generate a substantial temporary increase in ambient noise levels in excess of FTA thresholds, and this would be a potentially significant impact.

The following measure mitigates this impact, but not to a less than significant level.

- NOI-1.1: Implement a construction noise control plan

The measures specified in Mitigation Measure NOI-1.1 would generally reduce the construction noise levels. However, the measures would not necessarily guarantee that all sensitive residential receptors in the vicinity of the construction area would not be exposed to noise levels exceeding the 80 dBA limit during the day or the 70 dBA limit at night. Specifically, because track improvements are located within or near an active railroad, it is probable that construction near some residential areas will have to be conducted at night to avoid disruption of active freight and passenger rail operation and to complete construction on schedule. Furthermore, although a temporary sound wall may be effective in certain locations, in many cases, the nature of the construction work makes use of such sound walls infeasible. Construction-related noise would be short-term and would cease after construction is completed. Still, even with mitigation, the impact of temporary construction-related noise on nearby noise-sensitive receptors would remain a significant and unavoidable impact of the Proposed Project, in particular where heavy construction would occur immediately adjacent to residences and where construction would occur at night near residences.

Significant Effect: Impact C-NOI-1. Construction of the Proposed Project could contribute considerably to a significant cumulative impact on noise.

Findings: The SJRRC hereby makes findings (a)(1) and (a)(3) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: During construction, an increase in noise levels would affect sensitive receptors within 135 to 270 feet of the Proposed Project. For a cumulative impact to occur, a cumulative project would need to be located near one of the sensitive receptors that the Proposed Project would affect and construction for the cumulative project would need to occur at the same time as the Proposed Project. The construction schedules for the cumulative projects are not currently known; therefore, it is not possible to determine at this time if there would be potential

cumulative impacts. However, due to the proximity of some cumulative projects next to sensitive receptors, the potential exists for a cumulative noise impact to occur during construction.

Construction noise impacts would be greatest during work at locations where pile driving is required for bridge construction. Because most of the Proposed Project would be located on an active rail line, construction work could occur during the nighttime. Nighttime construction near residential uses would have larger impacts than daytime construction and would result in a potentially significant impact.

The following measure mitigates this impact, but not to a less considerable level.

- NOI-1.1: Implement a construction noise control plan

Mitigation Measure NOI-1.1, which would require preparation of a noise control plan, would reduce potential daytime and nighttime construction noise impacts, but not necessarily to a less than significant level at all times and locations. Because there could be other cumulative projects simultaneously under construction adjacent to the Proposed Project, the Proposed Project could result in a considerable contribution to a cumulative noise impact during construction.

3.3.2 Findings Regarding Significant Effects Mitigated to Less-Than-Significant Levels

The SJRRC has determined that, for the following effects, mitigation measures included in the Final EIR will mitigate the effects of the Proposed Project to a less-than-significant level. The following identifies the pertinent mitigation measures by number and summary title. The full text of each of the mitigation measures cited below is found in the Draft EIR and that text is hereby incorporated by reference.

3.3.2.1 Aesthetics

Significant Effect: Impact AES-1: Construction of the Proposed Project could substantially degrade the existing visual character or quality of the site and its surroundings, including scenic vistas and scenic highways, and could create a new source of substantial light or glare that would adversely affect day or nighttime views.

Finding: The SJRRC hereby makes finding (a)(1) (described in Section 3.1 above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Visual changes resulting from introducing construction activities and equipment into the viewsheds of all user groups would be temporary for the Proposed Project. Construction of the alignment would generally occur in a linear fashion and migrate along the corridor. Construction would affect all viewers adjacent to or in the construction corridor. Impacts would be greater where there are more viewers and where larger portions of the Proposed Project would be visible. Construction may be visible from some locations with scenic vista views, such as elevated roadways and bridges that cross or parallel the existing rail corridor or adjacent multilevel buildings.

Construction activities involving heavy equipment use, soil and material transport, and land clearing in the right-of-way, along public roadways, and at construction staging areas would create fugitive dust and introduce noise. The aesthetic disruptions would be less pronounced in urban areas where

there would be less soil disruption, but more pronounced in rural areas where there would be more soil disruption.

Residential viewers could have construction activities occurring adjacent to their homes, or nearby, evoking a sense of invaded privacy and resulting in a potentially significant impact.

The following measures mitigate this impact to a less than significant level.

- AES-1.1: Install visual barriers between construction work areas and sensitive receptors
- AES-1.2: Limit construction near residences to daylight hours
- AES-1.3: Minimize fugitive light from portable sources used for construction

Implementation of Mitigation Measures AES-1.1, AES-1.2, AES-1.3, and San Joaquin Valley Air Pollution Control District Regulation VIII, which call for installing visual barriers between construction and sensitive receptors, limiting work to daylight hours adjacent to sensitive receptors, limiting construction lighting near sensitive receptors, and limiting fugitive dust, would reduce this impact from the Proposed Project to a less-than-significant level.

Significant Effect: Impact AES-2. Proposed Project operations could conflict with applicable zoning and other regulations governing scenic quality in an urbanized area, including scenic vistas.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Landscaped freeway segments are located in close proximity to the Ceres to Merced Extension Alignment. The Ceres to Merced Extension Alignment passes by directly adjacent to landscaped freeway segments of SR 99 in Ceres (PM 11.24–11.90) and Keyes (PM 7.86–8.69). There would be some potential that some trees or shrubs could be affected during construction along both of these segments because the shrubs are located so close to the alignment. Similarly, the Ceres to Merced Extension Alignment would impact small portions of trees and shrubs along the landscaped freeway segment of SR 99 (PM 28.84–30.57) in Livingston, along both sides of the freeway, to bridge the freeway. If trees or shrubs are damaged or removed along these three segments in Ceres, Keyes, and Livingston, the removals could affect the classification of each segment as a landscaped freeway and result in potentially significant impacts

The Proposed Project stations and the Merced Layover & Maintenance Facility could result in the following: creation of a large-scale, warehouse looking facility that covers much of the site where none presently exists for the Merced Layover & Maintenance Facility; implementation of utilitarian looking facilities; building removal; implementation of new parking lots; implementation of fencing; and implementation of pedestrian overpasses. New vertical utility features would be introduced that could disrupt the visual landscape. The stations would also require fence installation as well as other barriers and railings for safety. Chain link fencing, railings, and similar barriers are often light gray, a color that detracts from views. If fencing is light gray, the color would act to limit views. Impacts on scenic quality due to conflicts with policies in local plans would be potentially significant.

The following measures mitigate this impact to a less than significant level.

- AES-2.1: Landscape parking facilities
- AES-2.2: Apply aesthetic design treatments to pedestrian bridges over tracks and bridges with visibility to residents and recreationists

- AES-2.3: Underground new utilities
- AES-2.4: Apply aesthetic surface treatments to fencing and pedestrian bridge safety barriers
- AES-2.5: Replace disturbed vegetation along landscaped freeways

Implementation of Mitigation Measures AES-2.1, AES-2.2, AES-2.3, AES-2.4, and AES-2.5 would reduce impacts associated with the Proposed Project to a less-than-significant level. Mitigation Measure AES-2.1 would reduce impacts associated with vegetation removal and the appearance of paved lots for the Proposed Project by ensuring that parking facilities and streets are landscaped and blend with the surrounding environment. Mitigation Measure AES-2.2 would apply aesthetic design treatments to the pedestrian bridge for the Turlock Station and buildings associated with the Merced Layover & Maintenance Facility to ensure that visual conditions are improved. Mitigation Measure AES-2.3 would ensure that new overhead utilities are placed underground for new stations and would reduce visual impacts related to new overhead utilities. Mitigation Measure AES-2.4 would apply aesthetic surface treatments to fencing and pedestrian bridge safety barriers associated with the Proposed Project and would ensure that fencing and safety barriers blend with the surrounding environment. Mitigation Measure AES-2.5 would replace any vegetation damaged by the Ceres to Merced Extension Alignment along the Caltrans-designated landscaped freeway segment of SR 99. Implementation of Mitigation Measures AES-2.1 through AES-2.5 would minimize impacts of the Proposed Project on the scenic quality of urbanized areas and conflicts with applicable zoning and regulations to a less than significant level.

Significant Effect: Impact AES-5: Proposed Project operations could create a new source of substantial light or glare that would adversely affect day or nighttime views.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Parking lot, access road, platform, and pedestrian overcrossings for Proposed Project stations and the Merced Layover Maintenance Facility could include standard lighting or light-emitting diode (LED) lighting for security purposes, which could affect sensitive receptors if not properly designed. LED lights can negatively affect humans by increasing nuisance light and glare, in addition to increasing ambient light glow, if proper shielding is not provided and blue-rich white light lamps (BRWL) are used. New sources of lighting, especially blue-rich white light (BRWL) LED lighting, at all stations and maintenance facilities would result in potentially significant impacts.

The following measures mitigate this impact to a less than significant level.

- AES-2.1: Landscape parking facilities
- AES-2.2: Apply aesthetic design treatments to pedestrian bridges over tracks and bridges with visibility to residents and recreationists
- AES-5.1: Apply minimum lighting standards

Mitigation Measure AES-5.1 would ensure that the change to existing nighttime light and glare levels relative to parking lots, access roads, and platform lighting at the Turlock Station, Livingston Station, and Merced Station are nominal. Mitigation Measure AES-5.1 would also ensure that the change to existing nighttime light and glare levels relative to lighting at the Merced Layover & Maintenance Facility are nominal. Implementation of Mitigation Measure AES-2.1 would ensure that trees are

planted to provide a source of shade to reduce glare and to filter nighttime lighting and reduce impacts from the Turlock Station, Livingston Station, Merced Layover & Maintenance Facility, and Merced Station. Implementation of Mitigation Measure AES-2.2 would ensure that aesthetic treatments are applied to the visible pedestrian bridge structure and building facades and would decrease glare and reduce impacts from the Turlock Station and the Merced Layover & Maintenance Facility. Implementation of Mitigation Measures AES-2.1, AES-2.2, and AES-5.1 would reduce impacts associated with the Proposed Project to a less-than-significant level.

Significant Effect: Impact C-AES-1. Construction and Operation of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on aesthetics. Construction and Operation of the Proposed Project would not contribute considerably to a significant cumulative impact on aesthetics.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The land use changes associated with the cumulative condition resulting from implementation of both the Proposed Project and the cumulative projects identified in Tables 4-3, 4-5, and 4-6 of the Draft EIR have the potential to affect aesthetic and visual resources in several ways. These impacts would result from project construction activities; development of roadways, parking areas, and buildings; alteration of the study area's visual character; and the introduction of new light and/or glare sources that would change the visual conditions along the Proposed Project corridor. These changes associated with Proposed Project and other foreseeable projects would result in a significant cumulative impact on aesthetics.

The following measures mitigate these impacts to a less than considerable level.

- AES-1.1: : Install visual barriers between construction work areas and sensitive receptors
- AES-1.2: Limit construction near residences to daylight hours
- AES-1.3: Minimize fugitive light from portable sources used for construction
- AES-2.1: Landscape parking facilities
- AES-2.2: Apply aesthetic design treatments to parking bridges over tracks and bridges with visibility to residents and recreationists
- AES-2.3: Underground new utilities
- AES-2.4: Apply aesthetic surface treatments to fencing and pedestrian bridge safety barriers
- AES-2.5: Replace disturbed vegetation along landscaped freeways
- AES-5.1: Apply minimum lighting standards

Implementation of Mitigation Measures AES-1.1, AES-1.2, AES-1.3, and SJVAPCD Regulation VIII would reduce construction impacts on aesthetics to a less-than-significant level by installing visual barriers between construction and sensitive receptors, limiting work to daylight hours adjacent to sensitive receptors, limiting construction lighting near sensitive receptors, and limiting fugitive dust. Thus, the Project's contribution to cumulative impacts on aesthetics as a result of construction would be less than considerable with mitigation.

Proposed Project improvements entail track improvements, new stations, and a new layover and maintenance facility that would introduce new features such as parking lots, pedestrian bridges, utility lines, railroad bridges, and vegetation removal that would alter the existing visual landscape, and degrade the existing visual character or quality of the Proposed Project corridor, including scenic vistas. In addition, the new stations and layover and maintenance facility would include introduction of new lighting features or removal of trees or shrubs that would increase glare. However, implementation of Mitigation Measures AES-2.1, AES-2.2, AES-2.3, AES-2.4, AES-2.5, and AES-5.1 would reduce this impact to a less-than-significant level by requiring landscaping for parking facilities; aesthetic design treatment for pedestrian bridges, railroad bridges, and the Merced Layover & Maintenance Facility; undergrounding of utilities where feasible; replacing disturbed vegetation along landscaped freeways; and minimum lighting standards. Thus, the Proposed Project's contribution to cumulative impacts on aesthetics as a result of operation would be less than considerable with mitigation

3.3.2.2 Agricultural Resources

Significant Effect: Impact AG-1. Construction of the Proposed Project could convert Important Farmlands to nonagricultural use due to the temporary use of Important Farmlands.

Finding: The SJRRC hereby makes finding (a)(1) (described in above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project would require the temporary use of Important Farmland. Land that has been identified for temporary use would be leased from the landowner (through a temporary construction easement) and temporarily removed from agricultural use for the duration of construction. The Proposed Project (due to the Ceres to Merced Extension Alignment) would result in temporary use of 0.9 acre of Important Farmland for the staging of construction equipment (see Table 3.2-5 of the Draft EIR). The impact due to the Ceres to Merced Extension Alignment is potentially significant. If temporary staging areas are not immediately restored to former agricultural use (preconstruction condition) after construction, disruption in agricultural use may become permanent. Important Farmlands that are temporarily converted to nonagricultural uses through construction would be degraded for agricultural purposes and would be vulnerable to permanent conversion to nonagricultural uses, which is a potentially significant impact.

The following measure mitigates these impacts to a less than significant level.

- AG-1.1: Avoid Important Farmlands and Restore Important Farmlands used for temporary staging areas

Mitigation Measure AG-1.1 would reduce temporary impacts on Important Farmland by requiring that Important Farmlands subject to temporary use during construction be avoided to the extent practical and if avoidance is not possible, to be restored to agricultural use after construction. For temporarily occupied lands, disruption of agricultural use would last only from the time land is leased from the landowner until restoration is complete. The temporary impact on Important Farmlands would be less than significant after mitigation for the Proposed Project.

Significant Effect: Impact AG-5. Construction of the Proposed Project could involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to nonagricultural use.

Finding: The SJRRC hereby makes finding (a)(1) (described in above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project may temporarily disrupt utilities, utility access roads, and power supply infrastructure supporting existing agricultural uses if utilities must be relocated to accommodate construction activities. Further, construction of the Proposed Project may disrupt access to irrigation infrastructure supporting existing agricultural uses. If temporary service, irrigation, or farm road interruptions or relocations associated with the Ceres to Merced Extension Alignment are not coordinated with agricultural producers, agricultural operations could be affected, potentially resulting in the conversion of existing agricultural uses. This is a potentially significant impact.

The following measures mitigate these impacts to a less than significant level.

- AG-5.1: Relocate irrigation facilities
- AG-5.2: Coordinate with utility providers

Mitigation Measure AG-5.1 would require new irrigation facilities be installed and fully operational before existing facilities are disconnected, avoiding temporary disruption to agricultural operations. Mitigation Measure AG-5.2 would require construction activities be coordinated with service providers to minimize or avoid service interruptions to agricultural operations. With implementation of these mitigation measures, impacts on farmland due to disruption of irrigation facilities or utilities associated with the Proposed Project (due to the Ceres to Merced Extension Alignment) would be less than significant.

Significant Effect: Impact C-AG-1. Construction of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on agricultural resources. Construction of the Proposed Project would not contribute considerably to a significant cumulative impact on agricultural resources.

Findings: The SJRRC hereby makes findings (a)1 and (a)(3) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Proposed Project would require the temporary use of approximately 1.0 acres of Important Farmlands during construction. Important Farmlands that are temporarily converted to nonagricultural uses through construction would be degraded for agricultural purposes and would be vulnerable to permanent conversion to nonagricultural uses. During construction of the Proposed Project, Important Farmlands would be temporarily leased from the landowner (per a temporary construction easement) if they cannot be avoided and temporarily removed from agricultural use for the duration of construction. In addition, construction of the Proposed Project may disrupt irrigation activities and could result in utility interruptions for improvements that include Important Farmland. Irrigation and utility disruptions could also result in the conversion of Important Farmlands to nonagricultural use. Because construction disruption is likely to take place in a similar timeframe and geography to some of the

cumulative projects, the Proposed Project's contribution to the cumulative impact is potentially significant.

The following measures mitigate these impacts to a less than considerable level.

- AG-1.1: Avoid Important Farmlands and Restore Important Farmlands used for temporary staging areas
- AG-5.1: Relocate irrigation facilities
- AG-5.2: Coordinate with utility providers

Implementation of Mitigation Measures AG-1.1, AG-5.1, and AG-5.2 reduce these impacts to a less-than-significant level by requiring the restoration of Important Farmlands used for temporary construction staging areas to pre-construction conditions, relocation of affected irrigation facilities, and coordination with utility providers to minimize or avoid interruptions. Thus, the Proposed Project's contribution to cumulative impacts on agricultural resources as a result of construction would be less than considerable with mitigation.

3.3.2.3 Air Quality

Significant Effect: Impact AQ-1: Construction of the Proposed Project could conflict with or obstruct implementation of the applicable air quality plans.

Finding: The SJRRC hereby makes finding (a)(1) (described in above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction emissions would exceed SJVAPCD's annual NO_X threshold. Because NOx emissions during construction of the Proposed Project exceed SJVAPCD's threshold, construction of the Proposed Project may conflict with the *8-hour SJVAPCD 2007 Ozone Plan* and the *2004 Extreme Ozone 1-hour Attainment Demonstration Plan*. This is a potentially significant impact.

The following measure mitigates these impacts to a less than significant level.

- AQ-2.1: Implement advanced emissions controls for off-road equipment

Mitigation Measure AQ-2.1 would reduce construction-related NOx emissions from the Proposed Project below SJVAPCD's annual threshold. Accordingly, construction of the Proposed Project would not conflict with applicable air quality plans with implementation of mitigation. Construction of the Proposed Project would not conflict with applicable air quality plans with implementation of mitigation.

Significant Effect: Impact AQ-2a. Construction of the Proposed Project could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is designated a nonattainment area under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project has the potential to create air quality impacts through the use of heavy-duty construction equipment, worker vehicle trips, truck

hauling trips, and locomotive trips. In addition, fugitive emissions would result from site grading and asphalt paving. The total amount, duration, and intensity of construction activity could have a substantial effect on the amount of construction emissions, their concentrations, and the resulting impacts occurring at any one time.

Table 3.3-11 of the Draft EIR summarize estimated unmitigated construction-related emissions in the San Joaquin Valley Air Pollution Control District (SJVAPCD). The Proposed Project would exceed SJVAPCD's annual NOX threshold by 4 pounds per day (and 2 tons per year). No other pollutant emissions would exceed the SJVAPCD thresholds. Due to the exceedance of NOx, emissions may contribute to a cumulatively considerable net increase of a criteria pollutant within SJVAB for which the region is designated a nonattainment area. This is a potentially significant impact.

The following measures mitigate these impacts to a less than significant level.

- AQ-2.1: Implement advanced emissions controls for off-road equipment
- AQ-2.2: Implement advanced emissions controls for locomotives used for construction

Mitigation is required to reduce NO_X, emissions. Mitigation Measure AQ-2.1 reduces emissions from off-road equipment and requires engines greater than 25 horsepower to meet Tier 4 emission standards. Mitigation Measure AQ-2.2 is not required to mitigate this impact, but the emissions analysis includes this measure, which is required for a subsequent impact (see Impact AQ-3b below). The modeling also accounts for compliance with SJVAPCD Regulation VIII, which is required to control fugitive dust emissions.

Table 3.3-12 of the Draft EIR summarize estimated mitigated construction-related emissions in the SJVAPCD. As shown in Table 3.3-12, Mitigation Measures AQ-2.1 and AQ-2.2 would reduce construction-related NOx emissions in SJVAPCD below the applicable significance threshold. Thus, mitigation would reduce NOX emissions to below the annual significance threshold, which is based on the NSR program and attainment of the NAAQS, and consider relevant past, present, and reasonably foreseeable future projects within the air basin. Because Proposed Project-generated NOX emissions are below the relevant threshold with mitigation, the Proposed Project would not incrementally contribute to a significant ozone or associated human heath impact. This impact from construction of the Proposed Project would be less than significant with mitigation

Significant Effect: Impact AQ-3b. Construction of the Proposed Project could expose sensitive receptors to substantial diesel particulate matter or localized particulate matter concentrations.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project would have the potential to create inhalation health risks which may exceed local significance thresholds for increased cancer and non-cancer health risk at receptor locations adjacent to the track, stations, and/or maintenance facility. As noted in Section 3.3.3.2, *Pollutants of Concern*, of the Draft EIR, the cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other air toxic from construction of the Proposed Project.

Table 3.3-16 of the Draft EIR summarizes estimated unmitigated and mitigated maximum individual cancer risk and chronic health hazard from construction of the Proposed Project in the SJVAPCD. Without mitigation, the values in Table 3.3-16 would exceed the thresholds. Cancer risks could be as

high as 49 per million, which is above the threshold of 20 per million. Hazard index values would be below the threshold. Because of the cancer risk threshold exceedance, this is a potentially significant impact.

The following measures mitigate these impacts to a less than cumulatively considerable level.

- AQ-2.1: Implement advanced emissions controls for off-road equipment
- AQ-2.2: Implement advanced emissions controls for locomotives used for construction

Mitigation Measure AQ-2.1 is separately required to reduce NOx emissions. Mitigation Measure AQ-2.2 would require advanced emissions controls for locomotives, which would reduce DPM emissions. As shown in Table 3.3-16 of the Draft EIR, construction of the Proposed Project would not result in increased cancer or chronic health hazards in excess of SJVAPCD thresholds with Mitigation Measures AQ-2.1 and AQ-2.2. Mitigation is thus required to reduce health-related impacts. This impact from construction of the Proposed Project would be less than significant with mitigation

Significant Effect: Impact AQ-3d. Operations of the Proposed Project could expose sensitive receptors adjacent to the ACE stations and maintenance facilities to health risks from increased exposure to diesel particulate matter.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Operations of the Proposed Project would require the operation of a diesel-powered emergency generator at the Merced Layover & Maintenance Facility. There are residences located within 1,000 feet of the eastern part of the Merced Layover & Maintenance Facility (i.e., the part closer to SR 59). These residences are located east of SR 59. If the diesel-powered emergency generator were located within 1,000 feet of these residences, then there is a potential that diesel particulate matter from the emergency generator could result in health risks to nearby residences. Because a health risk assessment has not been conducted, this is considered a potentially significant impact.

The following measure mitigates these impacts to a less than significant level.

- AQ-3.1: Locate emergency generator for the Merced Layover & Maintenance Facility more than 1,000 feet from residences.

Mitigation Measure AQ-3.1 would require that the diesel-powered emergency generator at the Merced Layover & Maintenance Facility be located at least 1,000 feet from any sensitive receptors. Given that the source-receptor distance for the generator would be more than 1,000 feet after implementation of Mitigation Measure AQ-3.1, diesel emissions from the generator would be substantially reduced at the nearest sensitive receptors. Consequently, the impacts on health risks from the Proposed Project would be less than significant after the implementation of Mitigation Measure AQ-3.1.

Significant Effect: Construction of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on air quality. Construction of the Proposed Project would not contribute considerably to a significant cumulative impact on air quality. Operation of the Proposed Project would not contribute considerably to a significant cumulative impact on air quality.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: During construction, both the Proposed Project and all identified cumulative projects would emit criteria pollutants from use of construction equipment and vehicles. Although construction activities would be temporary, the emissions of these pollutants and contaminants from concurrent or nearby construction of identified projects would result in a significant cumulative air quality impact. In addition, construction of other rail improvements and other cumulative projects between Ceres and Merced could emit TACs (in the form of diesel particulate matter [DPM]) from the use of construction equipment and vehicles, which could affect the health of sensitive receptors along the corridor between Ceres and Merced. This would constitute a potentially significant impact. In summary, there could be a potentially significant cumulative impact on air quality during construction of the Project and other cumulative projects.

Operations of the Proposed Project would reduce all criteria pollutant emissions, relative to the No Project Conditions in the BAAQMD. This would be a regional air quality benefit. In the SJVAB, Proposed Project operations would reduce emissions of CO, PM10, PM2.5, and SOx, while increasing ROG emissions and NOx emissions by amounts less than SJVAPCD thresholds. Thus, the Proposed Project's contribution to cumulative impacts on air quality related to criteria pollutants in the BAAQMD would be less than considerable, and would in fact provide an overall benefit from reducing criteria pollutants. In the SJVAB for Proposed Project operations, the Proposed Project's contribution to cumulative impacts on air quality related to criteria pollutants would be less than considerable (beneficial) for CO, PM10, PM2.5, and SOx and less than considerable for ROG and NOx.

Total cumulative health risks to sensitive receptors located near Proposed Project during operation would not exceed BAAQMD's and SJVAPCD's health risk thresholds. Changes in ACE service with the Proposed Project would not contribute to cumulative health hazards because predicted health risks are anticipated to be lower as a result of the ACE service changes, relative to existing conditions. If the Proposed Project is not implemented, the receptors would continue to be exposed to the existing pollution levels from ambient sources. The service extension would increase emissions from locomotives, whereas the displacement of VMT would reduce emissions from motor vehicles, beyond the effects expected with the Proposed Project. The combined effects of the changes in the ACE service, displacement of VMT, and motor vehicle and stationary source turnover represent the new emissions paradigm to which the receptors will be exposed. The combined changes in ACE service will achieve health risk reductions along the Proposed Project corridor, which also would constitute a localized air quality benefit. Accordingly, the Proposed Project's contribution to cumulative impacts on air quality related to TACs from operation of the Proposed Project would be less than considerable (beneficial).

The following measures mitigate these impacts to a less than considerable level.

- AQ-2.1: Implement advanced emissions controls for off-road equipment
- AQ-2.2: Implement advanced emissions controls for locomotives used for construction

SJVAPCD considers risks in excess of project-level thresholds to result in a cumulatively considerable impact. Therefore, the analysis provided in Section 3.3, *Air Quality* of the Draft EIR provides the conclusions for the potential cumulative impacts. Implementation of Mitigation Measures AQ-2.1 and AQ-2.2 would reduce Proposed Project construction-related NOx and TAC

emissions below applicable thresholds. Thus, the Proposed Project's contribution to cumulative impacts on air quality during construction would be less than considerable after mitigation.

3.3.2.4 Biological Resources

Significant Effect: Impact BIO-1. Construction of the Proposed Project could remove or degrade special-status plants and their habitat.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction for the majority of Proposed Project would occur within the existing UPRR ROW and would disturb ruderal areas with limited potential to support special-status plant species. Although unlikely, special-status plant species could be present within the existing UPRR ROW during construction. Outside of the existing UPRR ROW, special-status plant species have the potential to occur in natural land cover with suitable habitat characteristics (e.g., clay soils, riparian vegetation, and sandy soils).

If and where special-status plant species are present, ground disturbance could result in the direct mortality of individuals through the removal of vegetation, crushing, trampling, introduction of nonnative or invasive plants, and degradation or loss of habitat. Other temporary construction impacts on special-status plant species would include exposure to air pollutants during construction (e.g., dust) and removal of vegetation that would most likely regenerate within 1 year. In addition, the potential exists for runoff with sediment and contaminants (e.g., oil, grease, concrete) to enter upland areas as well as water bodies adjacent to construction activities, which would decrease habitat quality and potentially indirectly affect special-status plant species. This is a potentially significant impact.

The following measures mitigate these impacts to a less than significant level.

- BIO-1.1: Conduct preconstruction surveys for special-status plant species
- BIO-1.2: Prepare a salvage, relocation, or propagation and monitoring plan for special-status plant species
- BIO-1.3: Document affected special-status plant species
- BIO-1.4: Prevent introduction or spread of invasive plant species
- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters

Implementation of Mitigation Measures BIO-1.1, BIO-1.2, BIO-1.3, BIO-1.4, and HYD-1.2 would avoid or minimize for impacts on special-status plants by avoidance of plants, salvage and relocation, impact documentation, and prevention of the spread of invasive plants. In addition, implementation of Mitigation Measure HYD-1.2 would require specific procedures for work adjacent to, within, or crossing surface waters. With implementation of Mitigation Measures BIO-1.1, BIO-1.2, BIO-1.3, BIO-1.4, and HYD-1.2, impacts on special-status plant species during construction of the Proposed Project (due to the Ceres to Merced Extension Alignment) would be less than significant.

Significant Effect: Impact BIO-2. Construction of the Proposed Project could injure or kill special-status wildlife species and remove or degrade their habitat.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: If special-status wildlife species are present, construction activities of the Proposed Project could result in direct and/or indirect effects on special-status wildlife species. Direct effects can be temporary (i.e., conditions return to baseline within 1 year of disturbance) or permanent in duration. Direct effects could be caused by the following actions: injury or mortality of wildlife from construction equipment vehicle strike, crushing, and/or entombment; loss or disturbance of habitat from vegetation clearing (including removal of trees, shrubs and ground cover vegetation), grading, excavating/trenching, tie and ballast installation, bridge work, and concrete work activities during construction; temporary stockpiling, soil movement, construction materials, or other construction waste; excavation and placement of fill; soil compaction, dust, air pollution, and water runoff from the construction site; increased vehicle traffic and human presence; short-term construction-related noise (from equipment and human presence) and visual disturbance; and degradation of water quality in aquatic habitat features from construction runoff containing petroleum or concrete products. Indirect effects could be caused by the following actions: increased light and noise levels; alteration of hydrology or aquatic thermal regime; damage through toxicity associated with exposure to herbicides and other chemicals; introduction of invasive (nonnative) species; decreased reproductive success as a result of loss of foraging and nesting habitat; and reduced habitat suitability and prey abundance as a result of habitat alteration or degradation. The types of direct and indirect effects on special-status wildlife resulting from these actions would be similar wherever habitat for a given species or a group of species is present. The description of effects on special-status wildlife is based on land cover types or habitat features that support special-status species, including some that support multiple species, and could be affected by construction. The potential for construction impacts on special-status species is summarized in Table 3.4-5 of the Draft EIR. The Proposed Project could affect special-status wildlife species and their habitat and would result in a potentially significant impact.

The following measures mitigate this impact to a less than significant level.

- BIO-2.1: Conduct a worker environmental training program for construction personnel
- BIO-2.2: Avoid vernal pool–endemic species
- BIO-2.3: Avoid valley elderberry longhorn beetle
- BIO-2.4: Avoid California tiger salamander and western spadefoot toad
- BIO-2.5: Avoid western pond turtle and giant garter snake
- BIO-2.6: Avoid coast horned lizard and Northern California legless lizard
- BIO-2.7: Avoid nesting birds
- BIO-2.8: Avoid Swainson's hawk
- BIO-2.9: Compensate for Swainson's hawk foraging habitat loss
- BIO-2.10: Avoid burrowing owl
- BIO-2.11: Compensate for burrowing owl habitat loss
- BIO-2.12: Avoid song sparrow (Modesto population), tricolored blackbird, and yellow-headed blackbird

- BIO-2.13: Avoid roosting bats
- BIO-2.14: Avoid San Joaquin kit fox and American badger
- BIO-2.15: Compensate for San Joaquin kit fox and American badger habitat loss
- BIO-2.16: Avoid direct impacts on Western Monarch Butterfly Host Plants & Provide Compensatory Mitigation for Impacts on Monarch Butterfly Habitat

Implementation of Mitigation Measures BIO-2.1 through BIO-2.16 would reduce the likelihood of wildlife injury or mortality during construction and require compensation for habitat loss through in-kind habitat preservation, enhancement, and/or creation. With implementation of these measures, impacts on special-status wildlife species during construction of the Proposed Project would be less than significant.

Significant Effect: Impact BIO-3. Construction of the Proposed Project would injure or kill special-status fish and remove or degrade their habitat.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Special-status fish species have the potential to occur in natural land cover with suitable habitat characteristics (e.g., stream crossings for new bridges). The Merced River and Bear Creek provide habitat for Central Valley steelhead, Chinook salmon, Pacific and Kern Brook lamprey, splittail, and hardhead.

Direct impacts on habitat would be limited to the installation of piles in the Merced River and Bear Creek. No piles would be placed in the Merced River; therefore, there would be no permanent direct impact on the Merced River. A total of 27 piles would be placed in Bear Creek, which would result in a permanent direct impact of 81 square feet (0.002 acre). The installation of the bridges over the Merced River and Bear Creek would both require the installation of temporary work trestles over the river and creek. These work trestles would be removed when construction is completed and would, therefore, be considered a temporary impact. The temporary impact on the Merced River and Bear Creek is conservatively estimated to be 5,000 square feet (0.11 acre) and 4,000 square feet (0.09 acre), respectively. The actual impacts on this river and creek would be lower because the temporary impact area would be limited to the areas where the temporary piles would be installed within the water for the construction of the temporary work trestle. If and where fish species are present, ground-disturbance activities could result in impacts on special-status species through degradation or loss of habitat and reduction in number of available prey. SRA cover, which is defined as nearshore aquatic habitat and adjacent woody riparian habitat that provides shade and cover in the stream or river, is important habitat for special-status fish species. Construction of new bridges could result in loss of riparian habitat. Riparian vegetation removal along creek and riverbanks affects fish habitat. Removal of SRA can cause an increase in water temperature, decrease in cover, and decrease in invertebrates that are prey for fish. Additionally, there is potential for runoff of sediment and contaminants (i.e., oil, grease, concrete) into waterbodies that may be adjacent to construction activities, which would decrease water quality for aquatic species. The permanent and temporary impacts on aquatic habitat, the loss of SRA cover, and the potential impacts on water quality due to construction of the bridges over the Merced River and Bear Creek (as a part of the Ceres to Merced Extension Alignment) could result in a potentially significant impact on special-status fish.

Furthermore, construction noise and vibration from pile driving could result in a temporary impact on special-status fish species. Due to the poor quality of habitat and warm water temperatures, it is unlikely that special-status fish species would be present in the pile driving area. Once impact pile driving begins, individual fish that approach the study area are likely to detect the sounds and avoid or bypass the potential injury impact zone. Opportunities for fish to avoid impact pile-driving sounds would also occur during periods when pile driving ceases (e.g., while repositioning equipment) and at night when pile driving would be suspended. Nonetheless, without the implementation of measures to protect special-status fish species, there is the potential for the Proposed Project to significantly impact special-status fish

The following measures mitigate these impacts to a less than significant level.

- BIO-2.1: Conduct a worker environmental training program for construction personnel
- BIO-3.1: Implement noise reduction measures for pile driving
- BIO-3.2: Develop and implement a hydroacoustic monitoring plan to minimize noise effects on fish
- BIO-3.3: Implement seasonal restrictions for in-water work
- BIO-4.1: Avoid and protect wetlands during construction
- BIO-4.2: Compensate for impacts on jurisdictional wetlands and non-wetland waters of the United States (aquatic resources) prior to improvements impacts during construction
- BIO-5.1: Avoid and protect sensitive natural communities, including riparian habitat, during construction
- BIO-5.2: Compensate for loss of sensitive natural communities (including riparian habitat)
- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters

Implementation of Mitigation Measures BIO-2.1, BIO-3.1, BIO-3.2, BIO-3.3, BIO-4.1, BIO-4.2, BIO-5.1, BIO-5.2, and HYD-1.2 would reduce impacts associated with the Proposed Project (due to the Ceres to Merced Extension Alignment) to a less-than-significant level by requiring training of construction personnel, including restrictions and guidelines when working in and near sensitive habitat, such as the Merced River and Bear Creek; implementation of measures to reduce the noise from impact pile driving; monitoring the noise that is generated during pile driving, as well as monitoring for the potential stress, injury, or mortality of the fish species in the area; requiring that pile driving take place between June 15 to October 15, when adult steelhead and Chinook salmon would not be migrating upstream to spawn; requiring the protection of nearby riverine and riparian habitat; and implementation of measures to protect the water quality of the Merced River and Bear Creek during construction. With implementation of Mitigation Measures BIO-2.1, BIO-3.1, BIO-3.2, BIO-3.3, BIO-4.1, BIO-4.2, BIO-5.1, BIO-5.2, and HYD-1.2, impacts on special-status fish species during construction of the he Proposed Project (due to the Ceres to Merced Extension Alignment) would be less than significant.

Significant Effect: Impact BIO-4. Construction of the Proposed Project would remove or degrade state or federally regulated wetlands and other aquatic resources.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Although the majority of the environmental footprint of the Proposed Project is disturbed or developed, aquatic resources are present in limited portions of the Ceres to Merced Extension Alignment. Table 3.4-10 in the Draft EIR shows the area of aquatic resources and wetlands that are located within the environmental footprint of the Proposed Project, and that could be directly affected by the Ceres to Merced Extension Alignment. The Proposed Project (due to the Ceres to Merced Extension Alignment) could affect 0.68 acre of riverine areas and 0.70 acre of freshwater marsh. In these areas, both direct and indirect impacts on state- and federally regulated wetlands and other aquatic resources would be significant.

The following measures mitigate these impacts to a less than significant level.

- BIO-4.1: Avoid and protect wetlands during construction
- BIO-4.2: Compensate for impacts on jurisdictional wetlands and non-wetland waters of the United States (aquatic resources) due to proposed impacts during construction

Implementation of Mitigation Measures BIO-4.1 and BIO-4.2 would avoid, minimize, or compensate for impacts on state- and federally regulated wetlands and other aquatic resource. Erosion and sedimentation measures would be employed during construction to minimize impacts on adjacent and downstream resources, and in-kind watershed restoration activities would mitigate for loss of wetland and aquatic resources. As such, impacts on state- and federally regulated wetlands and other aquatic resource from the Proposed Project (due to the Ceres to Merced Extension Alignment) would be reduced to a less-than-significant level.

Significant Effect: Impact BIO-5. Construction of the Proposed Project could remove or degrade sensitive natural communities, including riparian habitat, identified in local or regional plans, policies, and regulations or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Most of environmental footprint for the Proposed Project is in developed and cropland areas, with small areas of natural land cover primarily associated aquatic riverine, wetlands, and riparian habitat along natural waterways. The Ceres to Merced Extension Alignment would construct new bridges over the Merced River, Canal Creek, Weber Canal, Black Rascal Canal, and Bear Creek, which would impact riparian habitats, including 0.49 acre of the sensitive natural community known as Valley Foothill Riparian and 0.52 acre of mixed riparian forest and woodland (summarized in Table 3.4-11 of the Draft EIR). Construction of the Proposed Project (due to the Ceres to Merced Extension Alignment) could result in impacts on sensitive natural communities, including aquatic riverine resources, wetland, and riparian habitat. Where present within the affected area, portions of sensitive natural communities, including riparian habitat, would be removed or degraded. Impacts on sensitive natural communities, including riparian habitat, would be significant

The following measures mitigate these impacts to a less than significant level.

- BIO-4.1: Avoid and protect wetlands during construction
- BIO-4.2: Compensate for impacts on jurisdictional wetlands and non-wetland waters of the United States (aquatic resources) due to Proposed Project impacts during construction
- BIO-5.1: Avoid and protect sensitive natural communities, including riparian habitat, during construction
- BIO-5.2: Compensate for loss of sensitive natural communities (including riparian habitat)

Implementation of Mitigation Measures BIO-4.1, BIO 4.2, BIO-5.1, and BIO-5.2 would avoid or compensate for impacts on sensitive natural communities. Erosion and sedimentation measures would be employed during construction to minimize impacts on adjacent and downstream resources and in-kind riparian restoration activities would mitigate for loss of sensitive natural community resources. As such, impacts associated with the Proposed Project (due to the Ceres to Merced Extension Alignment) would be reduced to a less-than-significant level.

Significant Effect: Impact BIO-6. Construction of the Proposed Project could substantially interfere with native resident or migratory fish or wildlife species movement, established migration corridors, or their use of nursery areas.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project could affect native and resident wildlife movement in riverine aquatic habitat and riparian habitat. Construction in riverine aquatic habitat and associated riparian habitat could directly deter or prevent fish or wildlife movement through vegetation removal or disturbance, which provide cover for fish and wildlife movement; the presence of physical barriers, construction equipment, or human presence; visual, noise and vibratory disturbance, changes in water quality; and alteration of hydrology. Construction in these habitats could indirectly deter or prevent fish or wildlife movement through vibration, noise, and light generated by construction; vegetation composition alteration; increased road and vehicle traffic, and the introduction of invasive plants.

Overall, construction of the Ceres to Merced Extension Alignment would affect riverine or riparian habitat; therefore, construction of these improvements could have an impact on native and resident fish or wildlife migration or movement corridors because riverine and riparian habitat provide natural land cover for fish and wildlife movement. Fish and wildlife movement could be affected by construction-related noise and vibration disturbance, the presence of construction vehicles and machinery, and habitat removal or degradation. Impacts on native resident and migratory fish and wildlife corridors from construction of the Ceres to Merced Extension Alignment would be potentially significant.

The following measures mitigate these impacts to a less than significant level.

- BIO-2.3: Avoid valley elderberry longhorn beetle
- BIO-2.7: Avoid nesting birds
- BIO-2.8: Avoid Swainson's hawk
- BIO-2.9: Compensate for Swainson's hawk foraging habitat loss
- BIO-2.10: Avoid burrowing owl

- BIO-2.11: Compensate for burrowing owl habitat loss
- BIO-2.12: Avoid song sparrow (Modesto population), tricolored blackbird, and yellow-headed blackbird
- BIO-2.13: Avoid roosting bats
- BIO-3.3: Implement seasonal restrictions for in-water work
- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters

Implementation of Mitigation Measures BIO-2.3, BIO-2.7 through BIO-2.13, BIO-3.3, and HYD-1.2 would include measures (including pre-construction surveys, monitoring, buffers, etc.) to protect elderberry longhorn beetle, nesting and special-status birds, and roosting bats during construction; would require that in-water work at the Merced River and Bear Creek be limited to June 15 to October 15; and would require specific procedures for work adjacent to, within, or crossing surface waters, which would limit the amount of sedimentation release into the Merced River and Bear Creek. These measures would avoid or minimize impacts on native and resident fish movement and fish corridors, reducing impacts associated with the Proposed Project to a less-than-significant level.

Significant Effect: Impact BIO-7. Construction of the Proposed Project could conflict with local biological resource policies, including tree preservation policies or ordinances.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: There are local policies related to the protection of plants, wildlife, and fish species. These local policies are identified in Appendix G, Regional Plans and Local General Plan of the Draft EIR, and include policies from the Stanislaus County General Plan, Merced County General Plan, Delhi Community Plan, City of Ceres General Plan, and City of Livingston General Plan. Construction could conflict with local biological resource policies, including tree preservation policies and ordinances, by removing locally regulated trees and/or disturbing sensitive plant and wildlife habitat during construction. Tree removal is expected during construction as part of ground disturbance; however, construction would avoid tree removal, unless necessary. As described in Impact BIO-1, BIO-2, and BIO-3, construction of the Proposed Project would result in a potentially significant impact on special-status plants, wildlife, and fish species. As such, construction of the Proposed Project could conflict with local biological resource policies, resulting in a potentially significant impact.

The following measures mitigate these impacts to a less than significant level.

- BIO-1.1: Conduct preconstruction surveys for special-status plant species
- BIO-1.2: Prepare a salvage, relocation, or propagation and monitoring plan for special-status plant species
- BIO-1.3: Document affected special-status plant species
- BIO-1.4: Prevent introduction or spread of invasive plant species
- BIO-2.1: Conduct a worker environmental training program for construction personnel
- BIO-2.2: Avoid vernal pool–endemic species

- BIO-2.3: Avoid valley elderberry longhorn beetle
- BIO-2.4: Avoid California tiger salamander and western spadefoot toad
- BIO-2.5: Avoid western pond turtle and giant garter snake
- BIO-2.6: Avoid coast horned lizard and Northern California legless lizard
- BIO-2.7: Avoid nesting birds
- BIO-2.8: Avoid Swainson's hawk
- BIO-2.9: Compensate for Swainson's hawk foraging habitat loss
- BIO-2.10: Avoid burrowing owl
- BIO-2.12: Avoid Song sparrow (Modesto population), tricolored blackbird, and yellow-headed blackbird
- BIO-2.13: Avoid roosting bats
- BIO-2.14: Avoid San Joaquin kit fox and American badger
- BIO-3.1: Implement noise reduction measures for pile driving
- BIO-3.2: Develop and implement a hydroacoustic monitoring plan to minimize noise effects on fish
- BIO-3.3: Implement seasonal restrictions for in-water work
- BIO-4.1: Avoid and protect wetlands during construction
- BIO-5.1: Avoid and protect sensitive natural communities, including riparian habitat, during construction
- BIO-7.1: Compensate for tree removal during construction
- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters

Implementation of Mitigation Measures BIO-1.1 through BIO-1.4, BIO-2.1 thorough BIO-2.10, BIO-2.12 through BIO-2.14, and HYD-1.2 would require the protection of sensitive resources from development and/or disturbance through standard surveys, protection of native habitat through buffers and set-back, and protections of waterways from erosion and siltation. Implementation of Mitigation Measures BIO-3.1 through BIO-3.3 would protect wildlife corridors that support fish and wildlife species. Implementation of Mitigation Measures BIO-4.1 and BIO-5.1 would provide protection to wetlands and sensitive communities. Implementation of Mitigation Measure BIO-7.1 would require the compensation of trees removed using ratios derived from applicable local ordinances. With implementation of these mitigation measures, construction of the Proposed Project would result in a less-than-significant impact related to conflicts with local biological resource policies.

Significant Effect: Impact BIO-9: Operation of the Proposed Project could injure or kill special-status wildlife species.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Proposed Project would require the maintenance of bridges, which would require routine removal of woody debris, sediment, and other materials that accumulate near the piers of the bridges; maintenance of culverts; and vegetation management and herbicide/insecticide application. These maintenance activities could affect special-status species [including western pond turtle, giant garter snake, tricolored-black bird, song sparrow (Modesto population), other migratory nesting birds, valley elderberry longhorn beetle, pallid bat, western, mastiff bat, western red bat, and Townsend's big-eared bat]. These impacts would be potentially significant.

The following measures and revisions mitigate this impact to a less than significant level.

- BIO-9.1: Avoid nesting bird impacts during operation and maintenance activities
- BIO-9.2: Avoid roosting bat impacts during operation and maintenance activities
- BIO-9.3: Conduct pre-activity survey for special-status wildlife species prior to conducting maintenance activities

Implementation of Mitigation Measure BIO-9.1, BIO-9.2, and BIO-9.3 would reduce and/or avoid impacts associated with maintenance activities of the Proposed Project through conducting maintenance activities outside of sensitive timeframes. Where avoidance is not feasible, Mitigation Measure BIO-9.3 requires conducting pre-activity surveys for special-status species prior to conducting maintenance activities. With the implementation of Mitigation Measures BIO-9.1, BIO-9.2, and BIO-9.3, impacts on special-status wildlife species from the operation of the Proposed Project would be less than significant.

Significant Effect: Impact BIO-10. Operation of the Proposed Project could injure or kill special-status fish and remove or degrade their habitat.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Proposed Project alignment would include the operation of new bridges over the Merced River and Bear Creek. Special-status fish species that could be affected by the new bridges include Central Valley steelhead, Central Valley Chinook salmon, hardhead, Pacific and Kern Brook lamprey, and Sacramento splittail. The increased number of in-water structures due to the new bridge over Bear Creek could affect channel velocities and affect fish movement, as well as instream erosion. Given the bridge designs, this is unlikely to result in substantial change in velocities or erosion, but pending further evaluation, is considered potentially significant.

The following measure mitigate these impacts to a less than significant level.

- BIO-10.1: Model hydraulics of new bridges before construction

New piles in the channel may increase velocities in the bridge area, preventing steelhead and Chinook salmon from accessing upper spawning areas during the winter and spring, especially in Bear Creek. Modeling expected hydraulics from the new bridge structure and revising the bridge design if necessary, will ensure salmonids are able to pass upstream unimpeded. Implementation of Mitigation Measures BIO-10.1 would reduce operations impacts of new bridge associated with the Proposed Project (due to the Ceres to Merced Extension Alignment) to a less-than-significant level by verifying water velocities and allowing migration of anadromous fish.

Significant Effect: Impact BIO-12. Operation of the Proposed Project could conflict with local biological resource policies, including tree preservation policies or ordinances.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Local policies are identified in Appendix G of the Draft EIR and include policies from the Merced County General Plan and Turlock General Plan. As described in Impact BIO-9 of the Draft EIR, operation of the Proposed Project could result in a potentially significant impact on special-status plants, wildlife, and fish species. As such, operation of the Proposed Project could conflict with local biological resource policies, resulting in a potentially significant impact.

The following measure mitigates these impacts to a less than significant level.

- BIO-9.1: Avoid nesting bird impacts during operation and maintenance activities
- BIO-9.2: Avoid roosting bat impacts during operation and maintenance activities
- BIO-9.3: Conduct pre-activity survey for special-status wildlife species prior to conducting maintenance activities

Implementation of Mitigation Measure BIO-9.1, BIO-9.2, and BIO-9.3 would ensure operation of the Proposed Project is consistent with local biological resource polices protecting special-status wildlife habitat and species by incorporation of survey standards and mitigation requirements that protect resources, identify and protect nesting habitat prior to disturbance, and protect wildlife habitat. With the implementation of Mitigation Measures BIO-9.1, BIO-9.2 and BIO-9.3, operation of the Proposed Project would result in a less than significant impact related to conflict with local biological resource policies.

Significant Effect: Impact C-BIO-1. Construction and Operation of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on biological resources. Construction and Operation of the Proposed Project would not contribute considerably to a significant cumulative impact on biological resources.

Finding: The Authority hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: As described in Section 3.4, *Biological Resources*, of the Draft EIR, the Proposed Project could have significant construction impacts on special-status species, riparian habitats or other sensitive natural communities, protected wetlands or waters, and to trees along during construction, without mitigation. However, implementation of the Mitigation Measures described in Section 3.4, *Biological Resources* of the Draft EIR, would reduce Proposed Project construction impacts to biological resources to less than significant levels. Generally, because construction of the Proposed Project would primarily be located within existing UPRR ROW and not occur in pristine areas, impacts would be to remnant biological resources within that context. Thus, with mitigation, the Proposed Project's residual construction impacts would be limited in scale and extent. However, while individual Proposed Project construction impacts would be mitigated, at sites where the Proposed Project crosses through areas of sensitive biological habitat near any of the cumulative projects identified in Tables 4-3, 4-5, and 4-6 of the Draft EIR, a significant cumulative impact on biological resources could still occur.

Additionally, maintenance activities associated with the Proposed Project and other cumulative projects could have significant impacts on special-status species during tree or vegetation management along the Proposed Project corridor. New Proposed Project permanent structures, such as new bridges over waterways, could have significant impacts on special-status fish species due to changes to channel morphology, hydraulics, and shading where other cumulative projects would be located. Specifically, the retrofit of the Bear Creek Bridge on SR 59 could affect Bear Creek. The Project also entails a new railroad bridge over Bear Creek. These operation and maintenance activities could potentially result in a potentially significant cumulative impact.

The following measures mitigate these impacts to a less than considerable level.

- BIO-1.1: Conduct preconstruction surveys for special-status plant species
- BIO-1.2: Prepare a salvage, relocation, or propagation and monitoring plan for special-status plant species
- BIO-1.3: Document affected special-status plant species
- BIO-1.4: Prevent introduction or spread of invasive plant species
- BIO-2.1: Conduct a worker environmental training program for construction personnel
- BIO-2.2: Avoid vernal pool–endemic species
- BIO-2.3: Avoid valley elderberry longhorn beetle
- BIO-2.4: Avoid California tiger salamander and western spadefoot toad
- BIO-2.5: Avoid western pond turtle and giant garter snake
- BIO-2.6: Avoid coast horned lizard and Northern California legless lizard
- BIO-2.7: Avoid nesting birds
- BIO-2.8: Avoid Swainson's hawk
- BIO-2.9: Compensate for Swainson's hawk foraging habitat loss
- BIO-2.10: Avoid burrowing owl
- BIO-2.11: Compensate for burrowing owl habitat loss
- BIO-2.12: Avoid song sparrow (Modesto population), tricolored blackbird, and yellow-headed blackbird
- BIO-2.13: Avoid roosting bats
- BIO-2.14: Avoid San Joaquin kit fox and American badger
- BIO-2.15: Compensate for San Joaquin kit fox and American badger habitat loss
- BIO-2.16: Avoid direct impacts on Western Monarch Butterfly Host Plants & Provide Compensatory Mitigation for Impacts on Monarch Butterfly Habitat
- BIO-3.1: Implement noise reduction measures for pile driving
- BIO-3.2: Develop and implement a hydroacoustic monitoring plan to minimize noise effects on fish
- BIO-3.3: Implement seasonal restrictions for in-water work

- BIO-4.1: Avoid and protect wetlands during construction
- BIO-4.2: Compensate for impacts on jurisdictional wetlands and non-wetland waters of the United States (aquatic resources) prior to improvements impacts during construction
- BIO-5.1: Avoid and protect sensitive natural communities, including riparian habitat, during construction
- BIO-5.2: Compensate for loss of sensitive natural communities (including riparian habitat)
- BIO-7.1: Compensate for tree removal during construction
- BIO-9.1: Avoid nesting bird impacts during operation and maintenance activities
- BIO-9.2: Avoid roosting bat impacts during operation and maintenance activities
- BIO-9.3: Conduct pre-activity survey for special-status wildlife species prior to conducting maintenance activities
- BIO-10.1: Model hydraulics of new bridges before construction
- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters

Implementation of Mitigation Measures BIO 1.1 through BIO-1.4 and HYD-1.2 for special-status plants species; BIO-2.1 through BIO-2.16 for special-status wildlife species; BIO-2.1, BIO-3.1 through BIO-3.3, BIO-4.1, BIO-4.1, BIO-5.1, BIO-5.2, and HYD-1.2 for special-status fish species; BIO-4.1 and BIO-4.2 for wetlands and other aquatic resources; BIO-4.1, BIO-4.2, BIO-5.1, and BIO-5.2 for sensitive natural communities; BIO-2.4, BIO-2.7 through BIO-2.13, BIO-3.3, and HYD-1.2 for species movement and migratory corridors; BIO-7.1 for trees are identified to reduce construction impacts to less-than-significant levels for the Proposed Project. Generally, because construction of the Proposed Project would not occur in pristine areas, but rather in a developed rail corridors or highly urbanized areas, impacts would be to remnant biological resources within that context. With mitigation, the Proposed Project's residual construction impacts would be limited in scale and extent. Thus, the Proposed Project's contribution to cumulative impacts on biological resources as a result of construction would be less than considerable with mitigation.

Implementation of Mitigation Measures BIO-9.1, BIO-9.2, and BIO-9.3 would require avoidance of nesting birds during vegetation management, avoidance of roosting bats during vegetation management, and pre-activity survey for special-status wildlife species, reducing cumulative operations impacts to wildlife to less than significant levels. Additionally, implementation of Mitigation Measures BIO-10.1 would require modeling the hydraulics of new bridges to ensure the least impact on geomorphic integrity of waterways, and modifications to bridge designs to verify water velocities and allow migration of anadromous fish. Thus, the Project's contribution to cumulative impacts on biological resources as a result of operation would be less than considerable with mitigation.

3.3.2.5 Cultural Resources

Significant Effect: Impact CUL-2. Construction and operation of the Proposed Project could cause a substantial adverse change in the significance of an archaeological resource or tribal cultural resource.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The potential for impacts on archaeological resources occurs when a project disturbs or destroys portions of an archaeological resource during ground disturbance. This includes both known resources and previously unknown resources. Impacts from the Proposed Project vary because some of the facilities occur within the boundaries of known sites and some are located within areas determined to have increased sensitivity for as-yet-undocumented resources.

One known but unevaluated archaeological resource (P-50-001923 [CA-STA-420H]) was identified within or directly adjacent to the Ceres to Merced Extension Alignment. The Ceres to Merced Extension Alignment has the potential to affect known archaeological resources directly or indirectly within the archaeological study area. Resource P-50-001923 (CA-STA-420H) is located within the Ceres to Merced Extension Alignment and was revisited during pedestrian survey and the site was noted to be heavily disturbed and that all diagnostic artifacts had been removed. While this resource may have minimal surface constituents, it is unknown whether this resource has a subsurface component. Although this resource may have been previously disturbed, this resource has not been evaluated and construction in the area could disturb archaeological resources. This is a potentially significant impact.

Portions of the Ceres to Merced Extension Alignment, the Merced Layover & Maintenance Facility, and Merced Station are in the vicinity of the Merced River, Bear Creek, and the Jordan Canal, which are identified as areas with high general prehistoric archaeological resource sensitivity and high buried archaeological resource sensitivity. Therefore, construction of these facilities may disturb previously undocumented archaeological resources, which would constitute a potentially significant impact.

The following measure mitigates these impacts to a less than significant level.

- CUL-2.1: Conduct cultural resources awareness training
- CUL-2.2: Implement cultural resources monitoring plan
- CUL-2.3: Conduct archaeological monitoring
- CUL-2.4: Implement procedures in case of inadvertent archeological discoveries
- CUL-2.5: Conduct archaeological testing
- CUL-2.6: Implement avoidance and protection measures

Due to the presence of the existing UPRR ROW and track, pavement, urban overlay, and property acquisition/permission-to-enter issues in the study area, evaluation of P-50-001923 through archaeological testing is not feasible. Mitigation Measures CUL-2.1 and CUL-2.4 would require cultural awareness training for construction personnel and implementation of procedures in the event of the unanticipated discovery of archaeological resources or human remains. Mitigation Measures CUL-2.2 and CUL-2.3 would require the preparation of a construction monitoring plan that identifies the procedures to follow during archaeological monitoring in the portions of the Proposed Project that are identified as archaeologically sensitive by the geoarchaeological sensitivity mapping or where known archaeological resources are located. Mitigation Measure CUL-2.5 would require archaeological testing to assess the extent and significance of P-50-001923 (CA-STA-420H). Mitigation Measure CUL-2.6 would require implementation of avoidance and protection measures

throughout the entire Proposed Project in the event that P-50-001923 (CA-STA-420H) or any other new discovered site are determined to be eligible for NRHP or CRHR. Implementation of these mitigation measures would reduce potential impacts from the Proposed Project on archaeological resources and tribal cultural resources to a less-than-significant level.

Significant Effect: Impact CUL-3. Construction of the Proposed Project could disturb human remains, including those interred outside of formal cemeteries.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The potential for impacts associated with disturbance of human remains occurs when a project encounters or disturbs such remains, including in areas outside of formal cemeteries and known burial sites. The potential for such impacts to occur varies, depending on anticipated excavation activities.

Portions of the Ceres to Merced Extension Alignment, the Merced Station, and the Merced Layover & Maintenance Facility are in the vicinity of the Merced River, Bear Creek, and the Jordan Canal, which are identified as areas with high general prehistoric archaeological resource sensitivity and high buried archaeological resource sensitivity. Therefore, construction of these facilities may disturb previously undocumented archaeological resources, including human remains. This is a potentially significant impact. Although portions of the Ceres to Merced Extension Alignment, Turlock Station, and Livingston Station are not located within areas of high general prehistoric archaeological resource sensitivity and high buried archaeological resource sensitivity, the potential remains to encounter unanticipated deposits, including human remains, during ground disturbance of these proposed facilities. In summary, construction of all Proposed Project facilities could result in a potentially significant impact related to the disturbance of human remains.

The following measure mitigates these construction impacts to a less than significant level.

- CUL-2.1: Conduct cultural resources awareness training
- CUL-2.4: Implement procedures in case of inadvertent archeological discoveries
- CUL-3.1: Comply with state laws relating to Native American remains

Implementation of Mitigation Measures CUL-2.1 and CUL-2.4 would ensure early identification and protection of unanticipated discoveries during construction. Implementation of Mitigation Measure CUL-3.1 would require compliance with state laws relating to Native American remains in the event human remains of Native American origin are discovered during construction. Protocols include informing the county coroner and contacting the NAHC for identification of descendants. Implementation of Mitigation Measure CUL-3.1 would reduce potential impacts on human remains from the Proposed Project to a less-than-significant level.

Significant Effect: Impact CUL-4. Construction of the Proposed Project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The potential for impacts on tribal cultural resources occurs when a project disturbs or destroys portions of a tribal cultural resource during ground disturbance. This includes both known resources and previously unknown resources. Impacts from the Proposed Project vary because some of the facilities are located within areas determined to have high general prehistoric archaeological resource sensitivity and increased sensitivity for a buried archaeological resource.

Although the Proposed Project is generally located on lands that have been previously disturbed or within the existing UPRR ROW, undiscovered archaeological resource or tribal cultural resource may be present. Potential impacts on tribal cultural resources during construction would be potentially significant.

The following measure mitigates these construction impacts to a less than significant level.

- CUL-2.1: Conduct cultural resources awareness training
- CUL-2.4: Implement procedures in case of inadvertent archeological discoveries
- CUL-3.1: Comply with state laws relating to Native American remains
- CUL-4.1: Implement procedures in case of inadvertent tribal cultural resources discoveries

Implementation of Mitigation Measures CUL-2.1, CUL-2.4, CUL-3.1, and CUL-4.1 would ensure early identification and protection of unanticipated discoveries during project construction and the proper treatment of human remains. Implementation of Mitigation Measure CUL-4.1 would require that additional consultation with local tribal groups occur following inadvertent prehistoric archaeological discoveries. This consultation would allow for the assessment of prehistoric archaeological resources to consider their potential to be tribal cultural resources. Protocols include protection of the resource and contacting the four tribal representatives originally identified by the NAHC and that were notified of the Proposed Project. Mitigation Measure CUL-4.1 would be implemented in tandem with CUL-2.4. Implementation of Mitigation Measure CUL-4.1 would reduce potential impacts on tribal cultural resources. Implementation of Measures CUL-2.1, CUL-2.4, CUL-3.1, and CUL-4.1 would reduce potential impacts on tribal cultural resources from the Proposed Project to a less-than-significant level.

Significant Effect: Impact C-CUL-1. Construction of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on cultural resources and tribal cultural resources. Construction of the Proposed Project would not contribute considerably to a significant cumulative impact on cultural resources and tribal cultural resources after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction activities associated with cumulative projects could affect archaeological resources, tribal cultural resources, or human remains in or adjacent to the Proposed Project corridor. If known or unknown archaeological resources, tribal cultural resources, or human remains are disturbed, the cumulative projects could result in significant cumulative impacts.

Because impacts on archaeological resources and tribal cultural resources are site specific, the Proposed Project's contribution to cumulative impacts on archaeological resources and tribal cultural resources would depend on the geographic overlap of the Proposed Project excavation

areas with cumulative project excavation areas. The majority of Proposed Project improvements would be within or directly adjacent to the existing UPRR ROW, in disturbed areas that have undergone multiple previous periods of excavation and construction. However, previous disturbance does not preclude the potential to affect cultural deposits, and encountering significant cultural resources during construction of the Proposed Project would result in a significant impact on a unique archaeological resource.

Construction of the Proposed Project could disturb human remains, including those interred outside of formal cemeteries. Although the Proposed Project would primarily be located within or directly adjacent to the existing UPRR ROW where there have been multiple previous periods of excavation and construction, previous disturbance does not preclude the potential to affect cultural deposits, including human remains. Thus, the potential to uncover human remains, including Native American human remains exists and although not anticipated, human remains could be identified during site-preparation and grading activities.

The following measures mitigate these impacts to a less than considerable level.

- CUL-2.1: Conduct cultural resources awareness training
- CUL-2.2: Implement cultural resources monitoring plan
- CUL-2.3: Conduct archaeological monitoring
- CUL-2.4: Implement procedures in case of inadvertent archeological discoveries
- CUL-2.5: Conduct archaeological testing
- CUL-2.6: Implement avoidance and protection measures
- CUL-3.1: Comply with state laws relating to Native American remains
- CUL-4.1: Implement procedures in case of inadvertent tribal cultural resources discoveries

Implementation of Mitigation Measures CUL-2.1 through CUL-2.6 and CUL-4.1, would require pre-construction cultural resources awareness training, preparation of a cultural resources monitoring plan, archaeological monitoring, establishing procedures in case of inadvertent discoveries, archaeological testing, application of avoidance and protection measures in the event of newly discovered sites, and implementation of procedures in case of inadvertent tribal cultural resources discoveries. Thus, the Proposed Project's contribution to cumulative impacts on archaeological resources and tribal cultural resources as a result of construction would be less than considerable with mitigation.

In addition, implementation of Mitigation Measure CUL-3.1 requires compliance with state laws relating to Native American remains, and would reduce the Proposed Project's potential impacts on human remains to a less-than-significant level. In addition, other cumulative project's would be subject to the same state law. Thus, the Proposed Project's contribution to cumulative impacts on human remains as a result of construction would be less than considerable with mitigation.

3.3.2.6 Geology and Soils

Significant Effect: Impact GEO-3. Construction of the Proposed Project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The potential for impacts on paleontological resources depends on whether the Proposed Project would disturb geologic units with undetermined or high paleontological sensitivity. All of the features associated with the Proposed Project (i.e., alignment, stations, and the Merced Layover & Maintenance Facility) would occur on geologic units with high paleontological sensitivity. Construction would require ground disturbance, which could affect significant paleontological resources, resulting in a potentially significant impact.

The following measure mitigates these impacts to a less than significant level.

- GEO-3.1: Monitor for discovery of paleontological resources, evaluate found resources, and prepare and follow a recovery plan for found resources.

Mitigation Measure GEO-3.1 requires training for construction crews to recognize paleontological resources by a qualified paleontologist, stopping work in case of discovering such resources, evaluating those resources by a qualified paleontologist and, as appropriate, preparing and implementing a recovery plan. This measure would ensure that excavation would not result in destruction of significant paleontological resources, and potential construction impacts would be less than significant for the Proposed Project.

Significant Effect: Impact C-GEO-1. Construction of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on unique paleontological resources. Construction of the Proposed Project would not contribute considerably to a significant cumulative impact on unique paleontological resources.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Paleontological resources are nonrenewable and are subject to impacts from ground-disturbing activities such as grading, excavation, and vegetation clearing (Society for Vertebrate Paleontology 2010). As a nonrenewable resource, rail, road, and land development activities on geologic units that may contain paleontological resources have the potential to remove such resources irretrievably from the scientific record. Accordingly, in areas of rapid growth where paleontological resource-rich geologic units lie close to the ground surface, such as in the paleontological resources study area described in Section 3.7, *Geology and Soils* of the Draft EIR, a potentially significant cumulative impact on paleontological resources has the potential to exist.

The following measures mitigate these impacts to a less than considerable level.

- GEO-3.1: Monitor for discovery of paleontological resources, evaluate found resources, and prepare and follow a recovery plan for found resources

The Proposed Project would be in areas that are underlain by geologic units that have yielded abundant, diverse, and scientifically important fossil finds, including remains of numerous vertebrates. Where geologic units with high paleontological sensitivity are present, construction-related ground disturbance, particularly excavation and grading, could result in disturbance, damage, or loss affecting significant (scientifically important but non-unique) paleontological resources. Ground disturbance by projects located within these sensitive geologic units presents a

similar potential to disturb, damage, or lose such resources. Implementation of Mitigation Measure GEO-3.1 during construction of the Proposed Project would require paleontological monitoring, resource evaluation, and the preparation of recovery plans for found resources. Incorporation of this measure would provide ample protection for paleontological resources during construction of the Proposed Project. Thus, by recovering any paleontological resources found during ground-disturbing activities and conserving information about the context in which they were found, the Proposed Project's contribution to cumulative impacts on paleontological resources or unique geologic features because of construction would be less than considerable.

3.3.2.7 Hazards and Hazardous Materials

Significant Effect: Impact HAZ-2. Construction, operation, and maintenance of the Proposed Project could create a significant hazard to the public or the environment involving reasonably foreseeable upset conditions or the disturbance of existing hazardous materials.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Sources of potential soil, ballast, and/or groundwater contamination in the Proposed Project footprint include existing railroad corridors, major roadway corridors, agricultural land, petroleum pipelines, and hazardous materials release sites. All Proposed Project features could encounter potential soil, ballast, and/or groundwater contamination through at least one of these sources.

Construction of the Ceres to Merced Extension Alignment could include the disturbance of soil and ballast potentially contaminated from operation of the existing railroad corridors. Soil underlying the Ceres to Merced Extension Alignment and Merced Layover & Maintenance Facility could potentially be contaminated with aerially deposited lead from being located immediately adjacent to major roadway corridors and pesticide residues from historical agriculture operations. Soil and/or groundwater underlying all Proposed Project features could be contaminated from undocumented releases of petroleum (if any) from petroleum pipelines. Groundwater underlying the Ceres to Merced Extension Alignment, Turlock Station and Merced Station could be contaminated from nearby hazardous materials release sites. In addition, soil underlying the Ceres to Merced Extension Alignment could be contaminated from hazardous materials release sites located in the environmental footprint.

Construction and maintenance activities that could disturb hazardous materials in soil and ballast would include earthwork activities (e.g., excavation, grading, and stockpiling) and off-road trips, which could generate fugitive dust emissions or place materials in an area that results in a direct exposure scenario for workers, the public, or environmental receptors. Construction and maintenance activities that could disturb hazardous materials in groundwater would be primarily from dewatering of pile shafts, trenches, or excavation pits. The chemical quality of soil, ballast, and groundwater that may be encountered during construction and maintenance activities has not been assessed through sampling for the Proposed Project. Therefore, the disturbance of potential hazardous materials in soil, ballast, and groundwater during construction of the Proposed Project could pose a health risk to construction workers, maintenance workers, the public, and/or the environment if not characterized, handled, and disposed of properly. This is a potentially significant impact.

The following measures mitigate this impact to a less than significant level.

- HAZ-2.1: Implement voluntary oversight agreement
- HAZ-2.2: Conduct site investigations
- HAZ-2.3: Implement construction risk management plan

Mitigation Measures HAZ-2.1, HAZ-2.2, and HAZ-2.3 would require the implementation of a voluntary oversight agreement, site investigations, and a construction risk management plan, which would reduce impacts from the disturbance of potentially contaminated soil, ballast, and/or groundwater during construction and maintenance. In addition, SJVAPCD Regulation VIII would require implementation of fugitive dust controls. These measures would mitigate impacts from the disturbance of potentially contaminated soil, ballast, and/or groundwater during construction and maintenance of the Proposed Project to a less-than-significant level.

Significant Effect: Impact HAZ-3. Construction, operation, and maintenance of the Proposed Project could create a potentially significant hazard for children by emitting hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The handling or emission of hazardous or acutely hazardous materials near schools must consider potential health effects on children, who are considered sensitive receptors. There are 15 existing schools within the study area of the Proposed Project. The primary exposure pathway of concern for children at nearby schools is through the inhalation of air contaminants, such as particulate matter.

Hazardous materials used during construction and operation of the Proposed Project would be managed in accordance with applicable laws and regulations and would not be expected to create a hazard to human health. As discussed under Impact HAZ-2 in the Draft EIR, construction and maintenance that disturb contaminated soil and/or ballast contamination could generate dust and pose a health risk to the public, which includes nearby schools. This is a potentially significant impact.

As discussed in Section 3.3, Air Quality of the Draft EIR, sources of hazardous emissions during construction and operation of the Proposed Project would include diesel particulate matter (DPM) from the exhaust of construction equipment and new passenger rail service. Emissions of DPM from construction equipment could pose health risks to nearby sensitive receptors. Based on a qualitative air dispersion and health risk analyses, it was determined that emissions of DPM from construction equipment could pose health risks to nearby sensitive receptors prior to the implementation of mitigation (see Impact AQ-3a in Section 3.3, Air Quality). This is a potentially significant impact.

The following measures mitigate this impact to a less than significant level.

- HAZ-2.3: Implement construction risk management plan
- AQ-2.1: Implement advanced emissions controls for off-road equipment
- AQ-2.2: Implement advanced emissions controls for locomotives used for construction

Mitigation Measures HAZ-2.3 would require air quality monitoring during excavation in areas with elevated contaminants of concern. SJVAPCD Regulation VIII would require implementation of fugitive dust controls. Mitigation Measure AQ-2.1 would require advanced emissions controls for off-road equipment, which would help reduce DPM emissions. Mitigation Measure AQ-2.2 would require advanced emissions controls for locomotives, which would reduce DPM emissions. These measures would mitigate potential generation of contaminated dust and DPM from construction and maintenance activities of the Proposed Project (due to the Ceres to Merced Extension Alignment and Livingston Station) on school children to a less-than-significant level.

Significant Effect: Impact HAZ-4. The Proposed Project is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, it could create a significant hazard to the public or the environment.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Review of records from the State Water Board's GeoTracker database and DTSC's EnviroStor database identified three hazardous materials release sites of concern in the footprint of the Proposed Project. These release sites may have contaminated the soil and groundwater beneath portions of the Ceres to Merced Extension Alignment. As discussed under Impact HAZ 2 in the Draft EIR, construction and maintenance that disturb existing soil and/or groundwater contamination from hazardous materials release sites or other sources, could pose a health risk to construction workers, maintenance workers, the public, and/or the environment if not characterized, handled, and disposed of properly. This is a potentially significant impact.

The following measures mitigate this impact to a less than significant level.

- HAZ-2.1: Implement voluntary oversight agreement
- HAZ-2.2: Conduct site investigations
- HAZ-2.3: Implement construction risk management plan

Mitigation Measures HAZ-2.1, HAZ-2.2, and HAZ-2.3 would require the implementation of a voluntary oversight agreement, site investigations, and a construction risk management plan, which would reduce impacts from the disturbance of potentially contaminated soil, ballast, and/or groundwater during construction and maintenance activities of the Proposed Project (due to the Ceres to Merced Extension Alignment). In addition, SJVAPCD Regulation VIII would require implementation of fugitive dust controls. These measures would mitigate potential impacts associated with the Proposed Project being located on hazardous materials sites and creating a hazard to the public or the environment to a less-than-significant level.

Significant Effect: Impact C-HAZ-1. Construction and operations of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on hazardous materials. Construction and operations of the Proposed Project would not contribute considerably to a significant cumulative impact on hazardous materials after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Any of the cumulative projects listed in Tables 4-3, 4-4, and 4-6 of the Draft EIR could expose people or the environment to hazardous materials present in the underlying soils or groundwater. These projects could also expose people or the environment to such materials by using hazardous materials typically associated with construction. In addition, some of the projects listed in Tables 4-3, 4-4, and 4-6 of the Draft EIR would likely take place within 0.25 mile of a K–12 school, and therefore present the potential to expose students to such materials if appropriate remediation strategies are not incorporated. For projects involving improvements to or development of a site where soil or groundwater contamination has already occurred, the potential exists for a release of hazardous materials during construction and/or remediation of those sites. Some of the identified projects are proposed in areas with known contamination, and other projects may encounter previously unknown contamination issues. Exposure to hazardous materials also includes potential exposure to toxic air contaminants, which consist primarily of diesel particulate matter and fugitive dust, as described in greater detail in Section 3.3, Air Quality of the Draft EIR. Construction equipment that would be used to construct the Proposed Project and the cumulative projects listed in Tables 4-3, 4-4, and 4-6 of the Draft EIR can emit diesel particulate matter, and earthmoving construction activities such as grading, and excavation present the potential to generate fugitive dust. The exposure of people or the environment to hazardous materials during construction of identified projects could constitute a significant cumulative impact

Rail and other regional transportation projects as displayed in Tables 4-3 and 4-4 of the Draft EIR, as well as land development projects involving medical, industrial, and some commercial use would most likely involve greater amounts of operational hazardous materials. Hazardous materials present at these facilities may include solvents, flammable materials, compressed gases, fuels, maintenance materials, and industrial cleaning fluids along with other chemicals used in materials processing, medical facility, and transportation operations. Some of these projects would also generate hazardous materials waste. Use and handling of such materials is highly regulated by local, state, and federal requirements. However, the exposure of people or the environment to hazardous materials during operation of the identified projects could constitute a significant cumulative impact.

The following measures mitigate these impacts to a less than considerable level.

- HAZ-2.1: Implement voluntary oversight agreement
- HAZ-2.2: Conduct site investigations
- HAZ-2.3: Implement construction risk management plan

Compliance with local, state, and federal regulations for handling hazardous materials and adherence to the mandatory stormwater pollution prevention plan (SWPPP) would address impacts associated with construction handling of hazardous materials. For encountered contamination, implementation of Mitigation Measures HAZ-2.1, HAZ-2.2, HAZ-2.3, and SJVAPCD Regulation VIII would require establishing a voluntary oversight agreement, pre-construction investigations of potentially contaminated areas, preparation of a risk management plan outlining appropriate containment procedures for handling and disposal of any encountered contaminated soil and groundwater, and fugitive dust controls. Other cumulative projects would be required to comply with these existing regulations. Thus, with adherence to these regulations and incorporation of mitigation measures, the Proposed Project's contribution to cumulative impacts related to hazardous materials because of construction would be less than considerable with mitigation.

Operation and maintenance activities associated with the Proposed Project would involve the routine use of renewable diesel to power locomotives and pesticides to clear vegetation from track areas. Similar to current ACE operations, common activities such as fueling and pesticide applications could result in the exposure of workers, the public, and/or the environment to hazardous materials if the materials are not properly managed or are accidentally released. Adherence to federal and state regulations and the California Environmental Protection Unified Program reduces the risk of exposure to hazardous materials, as well as the risk of accidental release of hazardous materials. However, maintenance of the Proposed Project could result in the disturbance of contaminated soil, ballast, and/or groundwater. For encountered contamination during maintenance activities, implementation of Mitigation Measures HAZ-2.1, HAZ-2.2, HAZ-2.3, and SJVAPCD Regulation VIII require establishing a voluntary oversight agreement, pre-construction investigations of potentially contaminated areas, preparation of a RMP outlining appropriate containment procedures for handling and disposal of any encountered contaminated soil and groundwater, and fugitive dust controls. Thus, the Proposed Project's contribution to cumulative impacts related to hazardous materials as a result of operations would be less than considerable, assuming mitigation and adherence to all applicable regulatory requirements.

3.3.2.8 Hydrology and Water Quality

Significant Effect: Impact HYD-1. Construction of the Proposed Project could violate water quality standards or Waste Discharge Requirements (WDRs) or otherwise substantially degrade surface or groundwater quality.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction activities associated with the Proposed Project would have the potential to result in the discharge of groundwater or dewatering effluent to nearby surface waters. In addition, construction activities associated with the Proposed Project would have the potential for soil, sediment, construction materials, and hazardous materials to be released into surface water during work adjacent to, within, or crossing surface water. Thus, construction activities associated with Proposed Project could violate water quality standards or Waste Discharge Requirements (WDRs). These impacts would be potentially significant.

The following measures mitigate this impact to a less than significant level.

- HYD-1.1: Avoid water quality impacts from groundwater or dewatering discharges
- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters
- HYD-1.3: Limit groundwater or dewatering discharge flow rates
- HAZ-2.2: Conduct Site Investigations
- HAZ-2.3: Implement construction risk management plan

Mitigation Measure HYD-1.1 requires specific procedures for the construction of the Proposed Project entailing the discharge of groundwater or dewatering effluent. Mitigation Measure HYD-1.2 requires specific procedures for construction work for the Proposed Project adjacent to, within, or crossing surface water. Mitigation Measure HYD-1.3 requires dewatering discharge to be performed at

appropriate flow rates to ensure that erosion of stream banks, which could affect water quality, would not occur. Mitigation Measure HAZ-2.2 requires site investigations to evaluate the chemical quality of soil and groundwater that could be disturbed during construction. Mitigation Measure HAZ-2.3 requires a RMP that provides a framework for proper characterization and management of contaminated soil and groundwater that could be disturbed during construction. With implementation of Mitigation Measures HYD-1.1, HYD-1.2, HYD-1.3, HAZ-2.2, HAZ-2.3, impacts on water quality, including surface water and groundwater quality, during construction of the Proposed Project would be less than significant.

Significant Effect: Impact HYD-2. Operation of the Proposed Project could violate water quality standards or Waste Discharge Requirements (WDRs) or otherwise substantially degrade surface or groundwater quality.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Proposed Project would involve grading and reuse of existing soil and use of imported fill materials. If contaminants are present in reused existing soil or fill materials that are placed in a location exposed to stormwater, contaminants could leach into stormwater runoff from the reused existing soil or imported fill and result in pollution of stormwater runoff and surface water, potentially reducing the quality of the receiving waters. This is a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- HAZ-2.3: Implement construction risk management plan

Implementation of Mitigation Measure HAZ-2.3 requires preparation of an RMP. The RMP would include guidelines for testing and reuse of existing soil to ensure that potentially contaminated existing soil would not be reused in a manner that could pollute stormwater runoff, surface waters, or groundwater. The RMP would include guidelines for testing and use of imported fill material to ensure that contaminated fill materials are not used in a manner that could pollute stormwater runoff, surface waters, or groundwater. Implementation of Mitigation Measure HAZ-2.3 will ensure that operation of the Proposed Project would have a less-than-significant impact on water quality.

Significant Effect: Impact HYD-5. Construction of the Proposed Project could substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or impede or redirect flood flows.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Ceres to Merced Extension Alignment would intersect flood hazard zones including the mapped 100-year flood zones around the Merced River, Canal Creek, and Bear Creek. Construction of the Ceres to Merced Extension Alignment may be located within drainage courses during construction of bridges and culverts, which could also alter drainage courses and cause flooding during construction because the placement of construction materials, equipment, and new structures (e.g., culverts, bridge supports, fill material, and temporary bridges for equipment

access) within drainage courses, and potential diversion of surface water around work areas within drainage courses could obstruct flood flows. This is a potentially significant impact.

The Proposed Project would also require construction within mapped 100-year floodplains. The Ceres to Merced Extension Alignment, Merced Layover & Maintenance Facility, and the Merced Station would intersect a mapped 100-year flood zone. If flooding of construction areas occurs, construction materials and equipment could impede or redirect flood flows. This is a potentially significant impact

The following measure mitigates this impact to a less than significant level.

- HYD-5.1: Prevent construction materials and equipment from impeding or redirecting flood flows

Mitigation Measure HYD-5.1 would prevent construction materials and equipment from impeding or redirecting flood flows. This measure would mitigate potential construction impacts related to impeding or redirecting flood flows to a less-than-significant level.

Significant Effect: Impact HYD-6: Operation of the Proposed Project could substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or impede or redirect flood flows.

Finding: The SJRRC hereby makes finding (a)(1) (described in Section 3.1 above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Portions of the Ceres to Merced Extension Alignment (near the Merced River, northwest of Merced, and in Merced), the Merced Layover & Maintenance Facility, and the Merced Station would be located in a mapped 100-year flood zone. The Merced River 100-year flows are contained in the riverbanks at the Ceres to Merced Extension Alignment crossing. The base flood elevation for Merced River at the crossing is 75 feet. The Ceres to Merced Extension Alignment would also include operation of new bridges over the Merced River, Canal Creek, Weber Canal, Bear Creek, irrigation canals, and a drainage ditch, and new culverts over various canals to support the new mainline track. The design of the new bridge crossing the Merced River, Canal Creek, and Bear Creek would follow the existing UPRR and Highway-99 bridge design, such that obstructions to the flows in the river are negligible, and encroachment to the floodplains can be avoided. The bridge foundation/support structures would be designed such that no increase in the flood elevation occurs in the river. Additionally, outside the riverbanks, cross drainage structures would be installed for the east west floodplains. However, Proposed Project facilities within drainage courses and mapped flood zones could impede or redirect flood flows if not appropriately designed, which could result in flooding of offsite areas. This is a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- HYD-6.1: Perform detailed hydraulic evaluations and modify designs for facilities within drainage courses and flood zones if required to reduce potential flooding impacts

Implementation of Mitigation Measure HYD-6.1 would require detailed hydraulic evaluations and modifications of Proposed Project designs (if required) to reduce potential flooding hazards. Implementation of this measure would ensure that operation of facilities within drainage courses and mapped flood zones would not result in substantial erosion, siltation, or impede or redirect flood flows. As such, this impact would be reduced to a less-than-significant level.

Significant Effect: Impact HYD-7. Construction of the Proposed Project could alter drainage patterns and/or create or contribute runoff water that could substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff.

Finding: The SJRRC hereby makes finding (a)(1) (described in Section 3.1 above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: As described in Impact HYD-1 of the Draft EIR, construction of the Proposed Project could require the discharge of groundwater or dewatering effluent. Measures required by the Construction General Permit would control construction site runoff, ensuring proper stormwater control and water quality. Nonetheless, if the discharge is not performed at an appropriate flow rate, the discharge of groundwater or dewatering effluent could potentially increase the rate or amount of surface runoff in a manner that could result in flooding onsite or offsite, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. This is a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- HYD-1.3: Limit groundwater or dewatering discharge flow rates.

Mitigation Measure HYD-1.3 would limit flow rates for groundwater or dewatering discharges. This measure would reduce potential onsite or offsite flooding impacts, impacts related to exceeding the capacity of existing or planned stormwater drainage systems, and impacts related to providing additional sources of polluted runoff to a less-than-significant level for the Proposed Project.

Significant Effect: Impact HYD-8. Proposed Project operations could alter drainage patterns or create or contribute runoff water that could substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff.

Finding: The SJRRC hereby makes finding (a)(1) (described in Section 3.1 above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Proposed Project stations would create new impervious surfaces. The Proposed Project would be required to adhere to the requirements in the Construction General Permit and the applicable MS4/NPDES permits. Compliance with the applicable MS4/NPDES permit requirements, including post-construction requirements of the Construction General Permit, would ensure that operation of the Proposed Project would minimize increases in stormwater runoff compared to the existing condition; however, the Proposed Project could still increase stormwater runoff due to the creation of new impervious surfaces and new connections of trackside drainage ditches to existing storm drainage systems. The new impervious surfaces and connections to existing storm drainage systems could potentially increase the rate or amount of surface runoff in a manner that could result in flooding onsite or offsite, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. This is a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- HYD-8.1: Perform detailed hydraulic evaluations and modify designs for stormwater controls if required to prevent storm drainage system capacity exceedance and/or reduce potential flooding impacts.

Mitigation Measure HYD-8.1 would require detailed hydraulic evaluations and modification of stormwater controls. This mitigation measure would reduce potential onsite or offsite flooding impacts, impacts related to exceeding the capacity of existing or planned stormwater drainage systems, and impacts related to providing additional sources of polluted runoff to a less-than-significant level for the Proposed Project.

Significant Effect: Impact HYD-9. In a flood hazards, construction of the Proposed Project could risk release of pollutants due to project inundation.

Finding: The SJRRC hereby makes finding (a)(1) (described in Section 3.1 above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Ceres to Merced Extension Alignment, Merced Station, and Merced Layover & Maintenance Facility of the Proposed Project are located in areas with mapped flood hazards. During construction, BMPs would be implemented to capture and infiltrate small amounts of sheet-flow into the ground such that offsite runoff and associated pollutants from the construction site would not increase. Measures required by the Construction General Permit would also limit site runoff and associated pollutants during construction. BMPs would be implemented to control construction site runoff, and ensure proper stormwater control and treatment, and reduce the discharge of pollution to the storm drain system. However, if flooding of construction areas occurs, construction materials and equipment within drainage courses could be inundated, which could risk release of pollutants into surface waters. This is a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters
- HYD-5.1: Prevent materials and equipment from being exposed to storm flooding hazards.

Mitigation Measure HYD-1.2 requires specific procedures for construction of the Proposed Project adjacent to, within, or crossing surface water. Mitigation Measure HYD-5.1 would prevent construction materials and equipment from impeding or redirecting flood flows and the associated risk of release of pollutants due to project inundation. With implementation of Mitigation Measures HYD-1.2 and HYD-5.1, potential impacts related to the release of pollutants due to inundation from construction of the Proposed Project (due to the Ceres to Merced Extension Alignment, Merced Station, and Merced Layover & Maintenance Facility) would be less than significant.

Significant Effect: Impact HYD-10. In a flood hazard, Proposed Project operations could risk release of pollutants due to project inundation.

Finding: The SJRRC hereby makes finding (a)(1) (described in Section 3.1 above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Table 3.10-10 of the Draft EIR summarizes the required design storm interval for new stormwater drainage systems and improvements over drainage courses which would depend on the location (rural or urban) and type of drainage systems. CVFPB requires new bridges to be designed for 200-year flood events. If a bridge design cannot meet the 200-year flood criteria, the bridge would have to go through a CVFPB hearing process for approval. The review and approval of bridge designs by CVFPB would ensure that operation of new bridges in the Central Valley region would not impede or redirect flood flows and minimize associated release of pollutants.

Furthermore, the Proposed Project would be required to comply with the post-construction stormwater performance standards of the Construction General Permit and the Small MS4 Permit or Central Valley Permit, which would require the implementation of measures that would overall minimize the release of pollutants from the Proposed Project. Nonetheless, operations of the Proposed Project (due to the Ceres to Merced Extension Alignment, Merced Station, and Merced Layover & Maintenance Facility), which would be located in mapped flood hazard areas could impede or redirect flood flows if not appropriately designed, which could result in flooding of offsite areas and risk release of pollutants due to inundation. This is a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- HYD-6.1: Perform detailed hydraulic evaluations and modify designs for improvements within drainage courses and flood zones if required to reduce potential flooding impacts.

Implementation of Mitigation Measure HYD-6.1 would require detailed hydraulic evaluations modifications of project designs if required to reduce potential flooding hazards. This measure would mitigate impacts related to the release of pollutants due to inundation within mapped flood hazard areas from the Proposed Project (due to the Ceres to Merced Extension Alignment, Merced Station, and Merced Layover & Maintenance Facility) to a less-than-significant level.

Significant Effect: Impact C-HYD-1. Construction and operations of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on hydrology and water quality. Construction and operations of the Proposed Project would not contribute considerably to a significant cumulative impact on hydrology and water quality after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described in Section 3.1 above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Project would be located within mapped 100-year floodplains. Other cumulative projects would also be located within the 100-year floodplain. If storm-related flooding of construction areas were to occur, stockpiles of construction materials could be inundated and carried into onsite or offsite waterbodies, which could result in pollution of surface waters. Therefore, the Project in combination with cumulative projects would result in significant cumulative flood-related water quality impacts during construction.

Operation of the cumulative projects listed in Tables 4-3, 4-4, and 4-6 of the Draft EIR could degrade water quality due to an increase in impervious surfaces (which would increase the amount of stormwater runoff) and handling of hazardous materials (which could contaminate the stormwater runoff). Increases in stormwater runoff could cause downstream erosion and sedimentation, resulting in increased turbidity in receiving waters, depending on waterway conditions.

Contaminated stormwater runoff would result in increased pollutant loading due to contact with petroleum and other contaminants commonly deposited on impervious surfaces. In addition, rail and other regional transportation projects would increase the potential for leakage of diesel, oil, and grease, and for accidental spills of herbicides, which are used for vegetation maintenance along railway corridors; leaks or spills of any of these materials could further degrade surface water quality. Therefore, the cumulative operational water quality impacts of these projects could be significant

The Project, as well as all of the cumulative projects listed in Tables 4-3, 4-4, and 4-6 of the Draft EIR would involve the creation of new impervious surfaces that could result in changes to existing drainage patterns that may create or contribute excessive runoff that would exceed the capacity of stormwater drainage systems and result in localized flooding. Local planning requirements would require most, if not all, cumulative projects to prepare an analysis of a project's individual impacts on the existing drainage systems. If a project's impacts are significant, fair-share contributions toward facility improvements over time are generally required. In addition, compliance with regional and countywide stormwater regulations would address substantial sources of increased runoff associated with cumulative projects and require such projects to provide features for retention of water onsite and treatment of stormwater runoff. If stormwater control systems are not appropriately designed for these improvements, stormwater runoff could exceed the capacity of stormwater drainage systems and result in flooding.

Portions of the Project would be located within drainage courses and/or flood zones (including mapped 100-year flood zones) that could potentially impede or redirect flood flows during operation if the improvements are not appropriately designed. Four other cumulative projects have been identified to be located within a 100-year flood zone in the Draft EIR. The cumulative projects are also subject to post-construction requirements of the SWRCB's NPDES Construction General Permit and hydromodification management requirements of applicable MS4 permits, which are designed to reduce runoff and thereby limit the potential for flooding created by stormwater runoff. Nonetheless, a significant cumulative impact could occur if these cumulative projects resulted in a cumulative change in impervious surfaces that would result in substantial flooding.

The following measures mitigate these impacts to a less than considerable level.

- HYD-5.1: Prevent construction materials and equipment from impeding or redirecting flood flows
- HYD-6.1: Perform detailed hydraulic evaluations and modify designs for improvements within drainage courses and flood zones if required to reduce potential flooding impacts
- HYD-8.1: Perform detailed hydraulic evaluations and modify designs for stormwater controls if required to prevent storm drainage system capacity exceedance and/or reduce potential flooding impacts
- HAZ-2.3: Implement construction risk management plan

Implementation of Mitigation Measure HYD-5.1 would prevent construction materials and equipment from impeding or redirecting flood flows, thereby protecting water quality. Thus, the Project's contribution to cumulative construction impacts on water quality from flooding would be less than considerable with mitigation.

Implementation of Mitigation Measure HAZ-2.3 would require preparation of an RMP, which would include guidelines for testing and reuse of existing soil to ensure that potentially contaminated existing soil would not be reused in a manner that could pollute stormwater runoff, surface waters,

or groundwater. With implementation of this mitigation, as well as compliance with existing regulations by both the Project and cumulative projects (e.g., the Construction General Permit; requirements for Priority Development Projects under the Central Valley Permit or Small Municipal Separate Storm Sewer System [MS4] Permit; and Industrial General Permit), the Project's contribution to cumulative operational impacts on water quality and stormwater runoff would be less than considerable with mitigation.

Compliance with existing regulations, including post-construction requirements of the Construction General Permit and hydromodification management requirements of applicable MS4 permits, would minimize stormwater runoff. Additionally, Mitigation Measure HYD-8.1 would require detailed hydraulic evaluations to ensure that new stormwater control infrastructure would be appropriately designed and that runoff from Project would not exceed the capacity of storm drainage systems and result in localized flooding.

The Project would require implementation of Mitigation Measure HYD-6.1, which requires the implementation of design features for facilities located within mapped 100-year flood zones to reduce the potential flooding impacts to be equivalent to the existing conditions. With implementation of this mitigation, as well as compliance with existing regulations by both the Project and cumulative projects (e.g., SWRCB's NPDES Construction General Permit and MS4 permits), the Project's contribution to cumulative impacts related to changes in drainage patterns and flooding during operations would be less than considerable with mitigation.

3.3.2.9 Land Use and Planning

Significant Effect: Impact LU-2. Construction and operation of the Proposed Project could conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the improvements for the purpose of avoiding or mitigating an environmental effect.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Proposed Project would be subject to regional and local plans and regulations. Land use plans, policies, and regulations adopted by cities, counties, and agencies with jurisdiction over the Proposed Project area are listed in Table 3.11-2 of the Draft EIR. Many of these policies are adopted for the purpose of restricting growth to planned areas and preventing development outside of established urban areas to prevent sprawl, protect agricultural land, and prioritize infill development. Each relevant policy or regulation is accompanied by an analysis of the Proposed Project's potential to conflict or be inconsistent with each respective policy.

Table 3.11-2 of the Draft EIR identifies potential conflicts between the Proposed Project and plans, policies, and regulations. In general, the Proposed Project is consistent with adopted land use plans, policies, or regulations. However, the Draft EIR does identify potentially significant impacts due to the Merced Layover & Maintenance Facility.

As shown in Table 3.11-2 of the Draft EIR, the Merced Layover & Maintenance Facility would be located in an industrial area within the City of Merced and is currently designated as an industrial area in the City's general plan. The industrial land use designation provides for the full range of industrial activities, including but not limited to manufacturing, food processing, trucking, packing, and recycling, as well as related office and production facilities. However, there is also an area of

11.1 acres within the proposed Merced Layover & Maintenance Facility footprint that is used for agricultural purposes and is mapped as Farmland of Local Importance by the FMMP. The proposed use of the Merced Layover & Maintenance Facility on the existing agricultural land would result in inconsistencies o with policies in the 2018 Regional Transportation Plan/Sustainable Communities Strategies for Merced County, 2030 Merced County General Plan, and Merced Vision 2030 General Plan. These inconsistencies would result in potentially significant impact because the physical impact on agricultural and biological resources is significant in its own right.

The following measures mitigate this impact to a less than significant level.

- AG-1.1: Avoid Important Farmlands and Restore Important Farmlands used for temporary staging areas
- AG-1.2: Conserve Important Farmlands (Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Unique Farmland, and Farmland of Local Importance)
- BIO-2.1: Conduct a worker environmental training program for construction personnel
- BIO-2.4: Avoid California tiger salamander and western spadefoot toad
- BIO-2.5: Avoid western pond turtle and giant garter snake
- BIO-2.7: Avoid nesting birds
- BIO-2.8: Avoid Swainson's hawk
- BIO-2.9: Compensate for Swainson's hawk foraging habitat loss
- BIO-2.10: Avoid burrowing owl
- BIO-2.11: Compensate for burrowing owl habitat loss
- BIO-2.13: Avoid roosting bats
- BIO-7.1: Compensate for tree removal during construction
- BIO-9.1: Avoid nesting bird impacts during operation and maintenance activities
- BIO-9.2: Avoid roosting bat impacts during operation and maintenance activities
- BIO-9.3: Conduct pre-activity survey for special-status wildlife species prior to conducting maintenance activities.

The agricultural land that would be impacted by the Merced Layover & Maintenance Facility is located within an area that is primarily being used for industrial purposes and that is identified in the General Plan as having an industrial land use designation. Although the Merced Layover & Maintenance Facility would result in the loss of agricultural lands, it would do so in an area that is envisioned in the City of Merced General Plan as being used for industrial purposes. Furthermore, the Proposed Project would overall promote compact urban development by promoting transit-oriented-development around the Merced Station. In addition, as described in Impacts AG-1, Mitigation Measures AG-1.1 and AG-1.2 would reduce impacts from temporary use or permanent conversion of Important Farmlands associated with the Merced Layover & Maintenance Facility. Considering the Proposed Project's overall promotion of compact urban development and considering the implementation of Mitigation Measures AG-1.1 and AG-1.2, which would compensate for the loss of agricultural lands that are converted to non-agricultural uses, the inconsistency of the Merced Layover & Maintenance Facility with policies to preserve agricultural resources would be less than significant. In regard to impacts on biological resources, as described

in Impacts BIO-2, BIO-7, BIO-9, and BIO-12, Mitigation Measures BIO-2.1, BIO-2.4, BIO-2.5, BIO-2.7 through BIO-2.11, BIO-2.13, BIO-7.1, BIO-9.1, and BIO-9.2 would apply to the Merced Layover & Maintenance Facility. With implementation of these mitigation measures, the inconsistency of the Merced Layover & Maintenance Facility with policies to preserve biological resources would be less than significant as the physical impact on biological resources in its own right would be mitigated to a less-than-significant impact. Overall, the Proposed Project would result in a less than significant impact after mitigation, related to inconsistencies with policies for the purpose of avoiding or mitigating an environmental effect.

Significant Effect: Impact C-LU-1. Operation of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on land use. Operation of the Project would not contribute considerably to a significant cumulative impact on land use after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: The Project would generally be consistent with regional and local plans and policies, which emphasize providing energy-efficient alternatives to the automobile and promoting regional passenger rail services in the communities the Project would service. However, the Merced Layover & Maintenance Facility is outside the existing UPRR ROW and is identified as being inconsistent with policies to preserve agricultural or biological resources. The potential cumulative impacts on the physical environment, related to biological resources and agricultural resources is potentially significant, and is identified in Sections 4.2.5.4 and 4.2.5.6 of the Draft EIR.

The following measures mitigate these impacts to a less than considerable level.

- BIO-1.1: Conduct preconstruction surveys for special-status plant species
- BIO-1.2: Prepare a salvage, relocation, or propagation and monitoring plan for special-status plant species
- BIO-1.3: Document affected special-status plant species
- BIO-1.4: Prevent introduction or spread of invasive plant species
- BIO-2.1: Conduct a worker environmental training program for construction personnel
- BIO-2.2: Avoid vernal pool–endemic species
- BIO-2.3: Avoid valley elderberry longhorn beetle
- BIO-2.4: Avoid California tiger salamander and western spadefoot toad
- BIO-2.5: Avoid western pond turtle and giant garter snake
- BIO-2.6: Avoid coast horned lizard and Northern California legless lizard
- BIO-2.7: Avoid nesting birds
- BIO-2.8: Avoid Swainson’s hawk
- BIO-2.9: Compensate for Swainson’s hawk foraging habitat loss
- BIO-2.10: Avoid burrowing owl

- BIO-2.11: Compensate for burrowing owl habitat loss
- BIO-2.12: Avoid song sparrow (Modesto population), tricolored blackbird, and yellow-headed blackbird
- BIO-2.13: Avoid roosting bats
- BIO-2.14: Avoid San Joaquin kit fox and American badger
- BIO-2.15: Compensate for San Joaquin kit fox and American badger habitat loss
- BIO-2.16: Avoid direct impacts on Western Monarch Butterfly Host Plants & Provide Compensatory Mitigation for Impacts on Monarch Butterfly Habitat
- BIO-3.1: Implement noise reduction measures for pile driving
- BIO-3.2: Develop and implement a hydroacoustic monitoring plan to minimize noise effects on fish
- BIO-3.3: Implement seasonal restrictions for in-water work
- BIO-4.1: Avoid and protect wetlands during construction
- BIO-4.2: Compensate for impacts on jurisdictional wetlands and non-wetland waters of the United States (aquatic resources) prior to improvements impacts during construction
- BIO-5.1: Avoid and protect sensitive natural communities, including riparian habitat, during construction
- BIO-5.2: Compensate for loss of sensitive natural communities (including riparian habitat)
- BIO-7.1: Compensate for tree removal during construction
- BIO-9.1: Avoid nesting bird impacts during operation and maintenance activities
- BIO-9.2: Avoid roosting bat impacts during operation and maintenance activities
- BIO-9.3: Conduct pre-activity survey for special-status wildlife species prior to conducting maintenance activities
- BIO-10.1: Model hydraulics of new bridges before construction
- HYD-1.2: Avoid water quality impacts from construction adjacent to, within, and crossing over surface waters
- AG-1.1: Avoid Important Farmlands and Restore Important Farmlands used for temporary staging areas
- AG-1.2: Conserve Important Farmlands (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance)
- AG-5.1: Relocate irrigation facilities
- AG-5.2: Coordinate with utility providers

The Project's contribution to a cumulative impact on biological resources would be less than considerable after the implementation of mitigation. As such, the Project's contribution to cumulative impacts related to land use plan and policy inconsistencies (for the preservation of biological resources) during operation would be less than considerable with mitigation. As identified in Sections 4.2.5.4 of the Draft EIR, the Project would contribute considerably to a

cumulative impact related to the conversion of agricultural uses to non-agricultural uses, which would be inconsistent with City of Merced and Merced County policies related to agricultural preservation. Even though this would be a land use impact due to an inconsistency with a policy to reduce environmental impacts (by preserving agricultural farmland), in order to not double-count this impact with Impact C-AG-1, this impact is not included for a second time in this section as a land use impact.

3.3.2.10 Noise and Vibration

Significant Effect: Impact NOI-3. Construction of the Proposed Project could generate excessive groundborne vibration or groundborne noise levels.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction activities can be expected to generate vibration levels at 25 feet as high as 94 VdB from compactors during site work, 87 VdB from bulldozers during rail work, and 104 VdB from impact pile drivers during structures work. Except for pile drivers, it is unlikely that such equipment would be used close enough to sensitive structures to have any damage effects. For pile driving, it is anticipated that the potential for damage effects would be limited to structures located at distances in the range of 30 to 75 feet from construction activities, depending on the building category.

In terms of vibration annoyance effects or interference with the use of sensitive equipment, the potential extent of vibration effects from pile driving is expected to be even greater than for damage effects. Table 3.12-8 of the Draft EIR provides the approximate distances within which receptors could experience construction-related vibration annoyance effects based on FTA methodology. The results of the analysis indicate that vibration impacts would extend to distances of 230 to 630 feet from pile driving operations, 100 to 240 feet for compacting, and less than 130 feet for bulldozers, depending on the vibration sensitivity of the land use category.

It is possible that construction activities involving pile drivers occurring at the edge of or slightly outside of the current right-of-way could result in vibration damage, and damage from construction vibration due to the Proposed Project would be a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- NOI-3.1: Implement a construction vibration control plan

With implementation of Mitigation Measure NOI-3.1, vibration impacts would be avoided or minimized; if building damage occurs due to construction, then repairs would be made or compensation provided. With implementation of Mitigation Measure NOI-3.1, impacts resulting from construction vibration structural damage would be less than significant for the Proposed Project.

Significant Effect: Impact NOI-4. Operation of the Proposed Project could generate excessive groundborne vibration or groundborne noise levels.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Operational vibration impacts are present at up to three locations along the Proposed Project alignment where there is a new turnout (south of West F Street in Turlock) adjacent to sensitive receptors. Table 3.12-11 of the Draft EIR, provides detailed information regarding impacts in locations where there are vibration sensitive receptors near new crossovers, including locations, vibration levels with project operations, impact thresholds, and numbers of impacts. Gaps in the rails at turnouts generate around 10 dB of increased vibration for locations close to the track. As a result, operation of the Proposed Project could generate excessive groundborne vibration or groundborne noise levels, and the impact would be potentially significant.

The following measure mitigates this impact to a less than significant level.

- NOI-4.1: Implement special trackwork

Vibration mitigation is primarily applied at the source, generally the track structure, and is dependent on the frequency content of the vibration and any resonances of the materials. With implementation of Mitigation Measure NOI-4.1, which would implement the proposed special trackwork, the impacts on vibration from operation would be less than significant for the Proposed Project.

With implementation of Mitigation Measure NOI-4.1, impacts resulting from construction vibration structural damage would be less than significant for the Proposed Project.

Significant Effect: Impact C-NOI-1. Operation of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on vibration. Operation of the Project would not contribute considerably to a significant cumulative impact on vibration after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: As described in Section 4.2.5.14, *Noise and Vibration*, the Proposed Project in conjunction with cumulative rail project would potentially result in cumulatively considerable operational vibration impacts along the Proposed Project alignment. Because there would be at least a doubling of train events as result of the Proposed Project and cumulative rail projects, there would be the potential for cumulative operational vibration impacts for sensitive receptors located within 100 feet. This would be a potentially significant impact.

The following measures mitigate these impacts to a less than considerable level.

- NOI-4.1: Implement special trackwork

The Proposed Project would implement special trackwork per Mitigation Measure NOI-4.1 to minimize vibration impacts to a less than significant level near three sensitive receptors. The Project would utilize an existing railroad corridor that is already utilized for freight rail traffic. Because of the high volume of existing freight train traffic in the area where Proposed Project operations would occur, the increase in passenger trains with Proposed Project operations would be very small. Thus, the Proposed Project's contribution to cumulative vibration impacts as a result of operations would be less than considerable with mitigation.

3.3.2.11 Public Services

Significant Effect: Impact PS-1. Construction of the Proposed Project could increase fire protection, emergency responders and law enforcement service ratios, response times, or other performance objectives but would not result in the need for new or physically altered fire protection or law enforcement facilities.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project includes roadway and at-grade crossing modifications, which could affect local roadways and streets, and increase emergency response times. Modifications of at-grade crossings entail installing concrete crossing panel where the new main track crosses the roadway; relocating railroad crossing signals, guards/gates, and signal houses; and installing stop bars. Based on similar rail projects, construction associated with new or modified at-grade crossings would last approximately 7 to 15 days, with an average of 9 days. Roadway realignment and modifications, and construction of bridges over roadways, may last three to four months and could interfere with roadway access and disrupt traffic. Construction activities in streets and roadways could interfere with emergency response by increasing traffic congestion and vehicle wait time. This would be a potentially significant impact.

The following measure mitigates this impact to a less than significant level.

- TR-4.1: Implement construction road traffic control plan

Mitigation Measure TR-4.1 requires the preparation of a construction road traffic control plan that describes protocols for coordinating with local jurisdictions on emergency vehicle access and maintaining access for fire protection, law enforcement, and emergency service responders. The construction road traffic control plan would address temporary road closures, detour provisions, allowable routes, and alternative access. Implementation of Mitigation Measure TR-4.1 would address construction-related effects on traffic, which would ensure that access is maintained for fire protection, law enforcement, and emergency service providers; and would reduce these impacts to less than significant.

3.3.2.12 Recreation

Significant Effect: Impact REC-1. Construction of the Proposed Project could impair access to or quality of existing recreational facilities.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Users of four recreational resources within 300 feet of the Proposed Project (due to the Ceres to Merced Extension Alignment) would experience impacts involving visual degradation, and increased noise and dust during the construction period. These four recreational resources include the Merced River, Summerfaire Park, Broadway Park, and Central Park . The duration of construction-period impacts varies between a few days to a week (track work) and 10 to 36 months (station and railroad bridges), depending on the improvement being constructed. Although construction would be temporary, the duration of construction activities

could impair access to or the quality of existing recreational facilities and impacts would be potentially significant.

In addition, the Ceres to Merced Extension Alignment would involve construction activities within portion of the Merced River. The Ceres to Merced Extension Alignment would require construction activities within the Merced River to construct a new railroad bridge supporting the new track crossing these waterways. Use and accessibility of these recreational resources would be temporarily disrupted during the construction period, and could impair the quality of existing recreational facilities. Impacts on the Merced River would be potentially significant.

The following measures mitigate this impact to a less than significant level.

- AES-1.1: Install visual barriers between construction work areas and sensitive receptors
- AQ-2.1: Implement advanced emissions controls for off-road equipment
- AQ-2.2: Implement advanced emissions controls for locomotives used for construction
- NOI-1.1: Implement a construction noise control plan
- REC-1.1: Coordinate with Merced County and California Department of Parks and Recreation to provide advance notice of and maintain a safe open channel in the Merced River during construction activities

Potential visual degradation and increased noise and dust impacts experienced by users of nearby recreational resources during the construction period would be minimized by Mitigation Measures AES-1.1, AQ-2.1, AQ-2.2, and NOI-1.1. Mitigation Measure AES-1.1 would require the installation of visual barriers between stationary construction work areas and sensitive receptors, including recreational areas, thus limiting the visual exposure of construction activities to users of nearby recreational resources. Mitigation Measures AQ-2.1 through AQ-2.2 require advanced emissions controls for construction equipment to minimize potential construction air quality and dust impacts on users of nearby recreational resources. In addition, San Joaquin Valley Air Pollution Control District Regulation VIII would require implementation of fugitive dust controls, which would minimize potential dust impacts on users of nearby recreational resources. Mitigation Measure NOI-1.1 would require the preparation of a construction noise plan, thus limiting the noise of construction activities for users of nearby recreational resources. In addition, Mitigation Measures REC-1.1 requires SJRRC to coordinate with agencies with jurisdiction over the affected recreational resource to ensure that advanced notification of construction activities and safe access is provided for users of the Merced River. Implementation of Mitigation Measures AES-1.1, AQ-2.1, AQ-2.2, NOI-1.1, and REC-1.1 would reduce potential impacts on recreational resources to a less-than-significant level due to the construction of the Proposed Project.

Significant Effect: Impact C-REC-1. Construction of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on recreation. Construction of the Proposed Project would not contribute considerably to a significant cumulative impact on recreation after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Users of recreational resources in the vicinity of the Proposed Project would experience impacts involving visual degradation, and increased noise and dust during the

construction period. Likewise, construction of the projects listed in Tables 4-3, 4-5, and 4-6 of the Draft EIR could result in similar impacts to the recreational resources that would be affected by construction of the Proposed Project.

The duration of construction-period impacts varies between a few days to a week (track work) and 12 to 36 months (station and railroad bridges), depending on the facility being constructed. Although construction would be temporary, the duration of construction activities could impair access to or the quality of existing recreational facilities. For a cumulative impact to occur, the construction period for the Proposed Project and the construction period for the identified project would have to overlap for a substantial period, such that access would be impaired. As summarized in Section 4.2.5.17 of the Draft EIR, the potential for a cumulative impact to recreational resources located near the Ceres to Merced Extension Alignment would be low, since construction along the alignment would last only a few days to a week. However, there are some locations where construction for the Project would last months; where the construction is located near a recreational resource; and where there is also another cumulative project located nearby. Thus, the Project in combination with the construction of other nearby projects, would constitute a potentially significant cumulative impact

The following measures mitigate these impacts to a less than considerable level.

- AES-1.1: Install visual barriers between construction work areas and sensitive receptors
- AQ-2.1: Implement advanced emissions controls for off-road equipment
- AQ-2.2: Implement advanced emissions controls for locomotives used for construction
- NOI-1.1: Implement a construction noise control plan

The Proposed Project would implement Mitigation Measures AES-1.1, AQ-2.1, AQ-2.2, and NOI-1.1, which would require the installation of visual barriers between stationary construction work areas and sensitive recreational receptors; require advanced emissions controls, and the preparation of a construction noise plan. These mitigation measures would limit the visual exposure of construction activities, minimize potential construction air quality and dust impacts, and noise of construction activities to users of nearby recreational resources. Thus, the Proposed Project's contribution to cumulative impacts on recreational resources because of construction would be less than considerable with mitigation.

3.3.2.13 Safety and Security

Significant Effect: Impact SAF-2. Construction of the Proposed Project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project has the potential to cause significant impacts on emergency response by increasing traffic congestion and vehicle wait time. Although added construction traffic would be short-term and temporary, and in some cases periodic over multiple seasons, the construction impact on traffic operations would be potentially significant.

The following measure mitigates this impact to a less than significant level.

- TR-4.1: Implement construction road traffic control plan

Implementation of Mitigation Measure TR-4.1 would address construction-related effects on traffic, which would ensure that adequate local emergency access would be maintained throughout the entire construction duration, and would reduce these impacts to less than significant.

Significant Effect: Impact C-SAF-1: Construction of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on safety and security. Construction and Operations of the Project would not contribute considerably to a significant cumulative impact on safety and security after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Considering the Proposed Project in conjunction with identified projects, potential effects on emergency response times and evacuation routes may be amplified where construction activities are in proximity or when they take place concurrently. Increased traffic volumes and circulation and traffic obstructions could affect the ability of emergency responders to reach their destinations in a timely manner, thereby potentially interfering with evacuation capabilities in constrained areas in the event of an emergency. Where one or more projects has construction activities occurring at the same time and in the same area, impacts to emergency response times and evacuation routes could be significant.

The following measure mitigates these impacts to a less than considerable level.

- TR-4.1: Implement construction road traffic control plan

Implementation of Mitigation Measure TR-4.1 would require the preparation of a construction road traffic control plan, which would ensure that adequate local emergency access would be maintained throughout the entire construction duration. While this mitigation measure would reduce the significant construction impact to less than significant, it would also reduce the Proposed Project's contribution to the impact to less than considerable.

3.3.2.14 Transportation

Significant Effect: Impact TR-1. Construction and operation of the Proposed Project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities .

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: As discussed in Section 3.17, *Transportation and Traffic* of the Draft EIR, the Proposed Project would conform to—and not conflict with—programs, plans, ordinances, and policies addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities, and impacts of Proposed Project operation related to the regulatory setting would be less than significant.

However, in recognition of potential disruptions during construction of the Proposed Project to mainline freight rail operations along the UPRR ROW, the impacts from construction of the Proposed Project have been deemed potentially significant.

The following measure mitigates this impact to a less than significant level.

- TR-1.1: Implement construction railway disruption control plan

Implementation of Mitigation Measure TR-1.1 would reduce the temporary construction impact from the Proposed Project on freight service disruption to a less-than-significant level by implementing a railway disruption control plan during construction.

Significant Effect: Impact TR-4. Construction of the Proposed Project could result in inadequate emergency access and operations of the Proposed Project would not result in inadequate emergency access.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Construction of the Proposed Project could impact emergency vehicle access if an emergency occurs at the same time and locations when construction activities would result in temporary access or egress limitations.

The following measure mitigates this impact to a less than significant level.

- TR-4.1: Implement construction road traffic control plan

Mitigation Measure TR-4.1 will require the preparation of a traffic control plan to ensure continued emergency access to at-grade crossings, and all nearby properties. SJRRC will coordinate with local public works departments, local emergency access providers, and Caltrans in the development of the traffic control plan to specifically address emergency response concerns. Thus, with mitigation, impacts related to emergency access during construction of Proposed Project would be less than significant.

Significant Effect: Impact C-TRA-1: Construction of the Proposed Project, in combination with other foreseeable projects in the surrounding area, could result in a significant cumulative impact on transportation. Construction and Operations of the Project would not contribute considerably to a significant cumulative impact on transportation after mitigation.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: Considering the Proposed Project in conjunction with identified projects, potential effects on transportation may be amplified where construction activities are in proximity or when they take place concurrently. Standard construction practices and regulations require construction contractors to work with relevant parties (e.g., public works departments, transportation agencies, transit service providers) to coordinate construction activities and identify, avoid, and minimize disruptions to the circulation system. Despite these requirements, however, it is possible that cumulative construction effects could reach the level of a significant impact.

Additionally, Project improvements include constructing a new main track within the UPRR ROW, upgrading existing track within the UPRR ROW, and establishing new stations along the alignment. Construction of the Project improvements would involve construction equipment operating within the UPRR ROW, with the potential in many locations for temporary disruptions to UPRR freight service, particularly along existing single-track alignment sections. Construction of Project improvements in conjunction with identified projects would result in cumulative impacts related to existing freight rail services.

The following measures mitigate these impacts to a less than considerable level.

- TR-1.1: Implement construction railway disruption control plan
- TR-4.1: Implement construction road traffic control plan

Implementation of Mitigation Measures TRA-1.1 and TRA-4.1 would mitigate Project-specific construction impacts to less than significant levels by maximizing planning and coordination between the Proposed Project and other transportation and freight services. While these mitigation measures would reduce the significant construction impact to less than significant, they would also reduce the Proposed Project's contribution to the impact to less than considerable.

3.3.2.15 Utilities and Service Systems

Significant Effect: Impact USS-1. Construction of the Proposed Project could require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Finding: The SJRRC hereby makes finding (a)(1) (described above), as required by PUB. RES. CODE 21081 and stated in State CEQA Guidelines Section 15091, with respect to the above identified effect.

Facts in Support of Findings: As discussed in Section 3.18, *Utilities and Service Systems* of the Draft EIR, construction of the Proposed Project could disrupt utilities or require utilities to be relocated. It is possible that relocation or accidental disruption during construction could disrupt utility service or damage utilities, resulting in a potentially significant impact on utilities infrastructure.

The following measure mitigates this impact to a less than significant level.

- USS-1: Implement utility relocation and disruption plans

Implementation of mitigation measures USS-1.1 would ensure that the potential for disruption of utilities or utility relocation is minimized by pre-planning and coordination between the SJRRC and the utility providers.

3.4 Findings Regarding the Alternatives

As required by CEQA, a discussion of possible alternatives to the Proposed Project, including the No-Project Alternative, was included in the Draft EIR and Final EIR. With adoption of the Proposed Project, the SJRRC makes the following findings to support its rejection of the No Project Alternative, Atwater Station Alternative, Merced Layover Facility Alternative, and Merced Station Alternative.

As noted above, Section 15091 (a)(3) of the State CEQA Guidelines describes that one of the findings that a lead agency can make concerning significant project impacts is that specific economic, legal, social, technological, or other considerations, make infeasible the Project alternatives identified in the Final EIR. In the Final EIR, Chapter 5, *Alternatives*, the alternatives were screened for potential technical, logistical, and financial feasibility, but the alternatives were not evaluated for all economic, legal, social or other considerations that make up the broader definition of "feasibility" in Section 15091 (a)(3). In these findings, the decision-making body is making a final determination of feasibility.

An alternative may have been determined to be potentially technically, logistically, and financially "feasible" in the Final EIR and still ultimately be concluded by the SJRRC to meet the definition of "infeasibility" per Section 15091 (a)(3) when all considerations are considered. The final determination of infeasibility "involves a balancing of various 'economic, environmental, social, and technological factors.'" (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417). Where there are competing and conflicting interests to be resolved, the determination of infeasibility "is not a case of straightforward questions of legal or economic feasibility," but rather, based on policy considerations. (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001-02). "[A]n alternative that is impractical or undesirable from a policy standpoint may be rejected as infeasible." (*Id*. at p. 1002, citing 2 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act, (Cont. Ed. Bar 2010) section 17.29, p. 824).

For this EIR, the following basic objectives are the primary purposes of the Project identified in Chapter 1, *Introduction,* of the Draft EIR. These are integrated objectives, meaning that an alternative must satisfy all of them to meet the standard of the Project. Improved rail service is intended to provide an alternative to vehicle travel that will meet statewide objectives for air quality improvement and greenhouse gas (GHG) reduction (as expressed in the air quality standards of the San Joaquin Valley Air Pollution Control District and the Air Resources Board's SB 32 Scoping Plan), as well as regional objectives for reducing traffic congestion and improving transportation sustainability (as expressed in the Regional Transportation Plans/Sustainable Communities Strategies adopted by the Stanislaus and Merced County Metropolitan Planning Organizations).

- Enhance commuter rail and intercity service and transit connections in the San Joaquin Valley.
- Reduce traffic congestion, improve regional air quality, and reduce greenhouse gas emissions.
- Promote local and regional land use and transportation sustainability goals.

3.4.1 No Project Alternative

Findings: The SJRRC hereby finds that this alternative is determined to be infeasible for the following reasons.

Facts in Support of Findings: The No Project Alternative would largely maintain existing levels of service. The No Project Alternative would not meet the first two of the project's objectives listed above. Intercity service and transit connections would remain at existing levels and therefore would not be enhanced. Traffic congestion, regional air quality, and GHG emissions would not be improved beyond existing baseline levels. Further, the No Project Alternative would not substantially reduce vehicle miles travelled (VMT) from baseline levels. That will impede progress in reducing GHG levels to meet statewide goals under Assembly Bill 32 and Senate Bill 32. For these reasons, the No Project Alternative is determined to be infeasible.

3.4.2 Atwater Station Alternative

Findings: The SJRRC hereby finds that, for the ACE Ceres–Merced Extension Project as it is presently defined and designed, this alternative is determined to be infeasible as an alternative to the proposed Livingston Station for the purposes of CEQA for the following reasons.

Facts in Support of Findings: The Atwater Station Alternative was identified as an alternative to the proposed Livingston Station. The SJRRC has identified the following challenges associated with the Atwater Station Alternative as an alternative to the Livingston Station.

- *Spacing between stations.* The Livingston Station would be 14 miles from the Merced Station and 11 miles from the Turlock Station, which allows better freight operations than the Atwater Station Alternative. The Atwater Station Alternative is located only 7 miles from the Merced Station, which could create more freight bottlenecks. Because freight trains and ACE passenger trains would share the tracks that are being proposed as a part of the Project, stations that are closer together pose some challenges related to congestion from passenger trains and freight trains using the same rail line. ACE passenger trains using the tracks that are shared with freight would slow down and stop as they approach stations and take time to accelerate leaving stations. When ACE trains are slowing, stopping, and accelerating, the freight trains that would be using the same railroad line would need to take this into account. Also, more evenly spaced stations allow for more consistent average speeds for train operations over the route which also helps with managing the combined movements of passenger and freight trains. Thus, more space between train stations would have less potential for train congestion than stations closer together.

- *Parking accessibility.* The Atwater Station Alternative would require two parking lots, with one adjacent to the station and another across the street, which would require passengers to cross roadways to access the station. In comparison, with the Livingston Station, ACE riders would be able to access the station platform from one contiguous lot and would not need to cross a roadway to access the station.

- *Number of Parcels.* The Atwater Station Alternative would require the acquisition of ten parcels. In comparison, the Livingston Station would require the acquisition of one parcel and one area that is Caltrans excess ROW.

- *Demolition and Business Impacts.* The Atwater Station Alternative would require the demolition of four existing buildings and the potential relocation of any associated active business operations. In comparison, the Livingston Station would require the demolition of only one existing building and the potential relocation of any associated active business operations.

- *Cost.* The cost associated with the Atwater Station Alternative is expected to be $6.4 million greater than with the proposed Livingston Station.

Furthermore, this alternative would not avoid or reduce any significant unavoidable environmental impacts of the Proposed Project and the Livingston Station. This alternative is rejected at this time as an alternative to the Livingston Station for these reasons.

While the Atwater Station is rejected as an alternative to the proposed Livingston Station for the reasons described above, nonetheless, the potential exists that in the future an Atwater Station could be developed, in addition to the Livingston Station. The ACE Ceres-Merced Extension Project was

developed assuming that only one station would be built at either Livingston or Atwater. As such, the track infrastructure along the Ceres to Merced Extension Alignment that was identified for this Project was developed assuming only one station at either Livingston or Atwater. The EIR, therefore, sufficiently covers all potential environmental impacts for a Project with only one station at either Livingston or Atwater. If two stations (one at Livingston and one at Atwater) are proposed in the future, this may require additional infrastructure along the Ceres to Merced Extension Alignment and additional environmental review would be required to assess the potential environmental impacts from any additional infrastructure, as well as any changes to the Atwater Station (compared to what was included in the EIR) in a separate CEQA document. The kind of environmental document to be prepared would be determined when the additional infrastructure and any changes to the Atwater Station have been identified. The current EIR can be used to tier from, as necessary. A two-station alternative would require more construction than the Proposed Project and would not avoid or reduce any significant unavoidable environmental impacts of the Proposed Project, and as such, there is no requirement to adopt a two-station alternative in relation to environmental effects.

This finding does not preclude the advancement of an Atwater Station as a potential additional station in the future. If in the future, an Atwater Station as a potential additional station is advanced, then the additional and appropriate environmental review would be prepared at that time.

3.4.3 Merced Layover Facility Alternative

Findings: The SJRRC hereby finds that this alternative is determined to be infeasible for the following reasons.

Facts in Support of Findings: The Merced Layover Facility Alternative was identified as an alternative to the proposed Merced Layover & Maintenance Facility. The Merced Layover Facility Alternative is expected to result in greater permanent long-term effects than the proposed Merced Layover & Maintenance Facility, including conversion of prime farmland to non-agricultural resources, land use consistency, and impacts on biological resources. For agricultural resources, the Merced Layover Facility Alternative would impact prime farmland, which is farmland of greater value than the farmland that would be impacted by the proposed Merced Layover & Maintenance Facility (i.e., Farmland of Local Importance). For land use consistency, both the proposed Merced Layover & Maintenance Facility and the Merced Layover Facility Alternative would have potential inconsistencies with the Merced General Plan. However, the Merced Layover Facility Alternative would be less consistent with land use planning and would have greater impacts on aesthetics because the Merced Layover Facility Alternative would be located in an agricultural area, as opposed to an industrial park for the proposed Merced Layover & Maintenance Facility. For biological resources, the Merced Layover Facility Alternative is expected to result in greater impacts on biological resources than the proposed Merced Layover & Maintenance Facility because of its potential impacts to aquatic habitat. Although the Merced Layover Facility Alternative is expected to result in slightly less construction noise, air quality, energy, and greenhouse gas emissions impacts; these impacts would be short-term and would cease after construction would be completed. The permanent long-term effects for the Merced Layover Facility Alternative (identified above) would, however, be permanent and would continue to affect the area even after construction has been completed. The alternative is rejected for these reasons.

3.4.4 Merced Station Alternative

Findings: The SJRRC hereby finds that this alternative is determined to be infeasible for the following reasons.

Facts in Support of Findings: The Merced Station Alternative was identified as an alternative to the proposed Merced Station. The Merced Station Alternative would have less potential for transit-oriented-development than the proposed Merced Station and would be, therefore, less consistent with City of Merced's long-term planning direction. The Merced Station Alternative would require more trackwork than the proposed Merced Station and thus would result in more construction air quality and greenhouse gas emissions than the proposed Merced Station. The Merced Station Alternative would have slightly higher train criteria pollutant and GHG emissions than the proposed Merced Station because the Merced Station Alternative is located slightly south of the proposed Merced Station and thus trains would have a longer distance to travel. Although the Merced Station Alternative is expected to result in slightly less construction noise; this impact would be short-term and would cease after construction would be completed. The permanent long-term effects of reduced potential for transit-oriented-development would, however, be permanent and would continue to affect the City of Merced after construction has been completed. The alternative is rejected for these reasons.

3.4.5 Other Alternatives Considered

As described in Chapter 5, *Alternatives* of the Draft EIR, a wide range of other alternatives were considered, including alignment alternatives, station alternatives, layover facility alternatives, operational alternatives (including split trains, diesel multiple units, or buses) and several alternatives suggested by the Train Riders of California including consolidation of San Joaquin service on the same corridor with ACE, implementing the Altamont Corridor Vision, and/or use of the West Side Line. Separate from the other alternatives analyzed in the EIR noted above, the other alternatives were considered and screened out of the range of alternatives analyzed in the EIR for either not meeting the Project's goals and objectives, not being feasible, or not lowering one or more of the significant environmental impacts of the Proposed Project. The specific reasons why each alternative was screened out are presented in Section 5.6 of the Draft EIR and/or in the responses to comments (Chapter 3 of the Final EIR), which are hereby incorporated by reference as evidence to why these alternatives are determined to be infeasible.

Section 4
Overriding Considerations

4.1 Introduction

CEQA requires decision-makers to balance the economic, legal, social, technological, or other benefits of a project against its unavoidable environmental risks when determining whether to approve a project. If the specific economic, legal, social, technological or other benefits of the project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable (State CEQA Guidelines 15093). In this case, the lead agency must state in writing the specific reasons to support its action. This "statement of overriding considerations" shall be supported by substantial evidence in the record, shall be included in the record of the project approval, and should be mentioned in the notice of determination. Pursuant to Section 15093 of the CEQA Guidelines, the following Statement of Overriding Considerations has been prepared for the Proposed Project.

4.2 Statements of Fact in Support of Overriding Considerations

The SJRRC hereby finds that the following social, legal, environmental and economic benefits of the Proposed Project outweigh the significant unavoidable impacts for the following reasons. These benefits, viewed both individually and collectively, outweigh the significant unavoidable adverse effects of implementing the Proposed Project:

- The Proposed Project will help meet transportation demand driven by the economic relationships between the Bay Area, and the Sacramento area and northern San Joaquin Valley counties. Between 1990 and 2013, the number of people commuting from the northern San Joaquin Valley to the Bay Area more than doubled, growing from 32,000 to nearly 65,000 commuters (Bay Area Council Economic Institute 2016). Since then, the number of people commuting from the northern San Joaquin Valley to the Bay Area has grown to 86,445 in 2017 and 93,398 in 2018 (Bay Area Council Economic Institute 2017 and 2018). In 2015, approximately 1.33 million annual riders traveled on ACE. The annual ridership (calculated between July 2018 and June 2019), prior to the COVID-19 pandemic, was calculated to be 1.50 million riders (San Joaquin Regional Rail Commission 2020a).

  The need for ACE passenger rail intercity and commuter service stems from the social and economic ties that bind together the San Joaquin Valley and the Bay Area (specifically the Tri-Valley and the Silicon Valley/South Bay regions). To date, the most characteristic ACE trips are journeys to and from employment areas during peak commute times, from riders' places of residence in the San Joaquin Valley or the Tri-Valley to riders' places of work in the Tri-Valley or Silicon Valley/South Bay.

  Table 1-2 (excerpted from the Draft EIR) summarizes the anticipated increases in population and employment growth in the counties within the existing ACE corridor. Population growth in Santa Clara, Alameda, and San Joaquin Counties was projected to grow at a generally steady rate from

2020 to 2030, with San Joaquin County experiencing the greatest population growth among the three counties. Employment growth within the three counties was anticipated to be the highest from 2020 to 2025, with San Joaquin County also experiencing the greatest employment growth among the three counties during this time. San Joaquin County will also continue to have the greatest discrepancy in the ratio of employment opportunities to population (jobs/person ratio) compared to Santa Clara and Alameda Counties. The jobs/person ratio for Santa Clara and Alameda Counties remains stable at 1:1.6 and 1:1.3 jobs/person respectively, from 2020 to 2035. San Joaquin County has a greater discrepancy in the jobs/person ratio than in the Bay Area counties, with 1:2.9 jobs/person in 2020 and 1:2.8 jobs/person in 2025 and 2030. Although San Joaquin County was projected to have the greatest employment growth of the three counties from 2020 to 2025 and from 2025 to 2030, this would not substantially reduce the discrepancy in the county's jobs/person ratio. The primary drivers of these imbalances are the relative robust economy in the Bay Area (Santa Clara and Alameda Counties) combined with dramatic increases in housing prices compared to historically lower employment opportunities and lower housing prices in San Joaquin County. These population and employment projections support the general characteristics of current ACE trips and contribute to the need for future increased ACE service from San Joaquin County.

Table 1-2. Projected Population and Employment Growth in the Existing ACE Service Areas

Counties	2020	2025	2030	% Change 2020–2025	% Change 2025–2030
Population					
Santa Clara County	1,967,585	2,023,194	2,094,936	2.8	3.6
Alameda County	1,685,886	1,756,709	1,832,576	4.2	4.3
San Joaquin County	782,545	832,480	879,055	6.4	5.6
Employment					
Santa Clara County	1,200,520	1,268,920	1,337,320	5.7	5.4
Alameda County	1,269,560	1,339,260	1,408,960	5.5	5.2
San Joaquin County	274,100	293,100	312,100	6.9	6.5

Source: California Department of Finance 2020; California Employment Development Department 2019a, 2019b, 2019c.
Note: 2020, 2025, and 2030 employment figures are based upon a linear interpolation of 2016 and 2026 employment estimates from the California Employment Development Department (California Employment Development Department 2019a, 2019b, 2019c).

- Extending ACE service from Ceres to Turlock, Livingston or Atwater, and Merced will meet the growing needs of commuters travelling from those locales to the Bay Area and the Sacramento Area. As described in the 2013 San Joaquin Council of Governments' *Interregional Multi-Modal Commute Trip Planning Study*, a large number of employed residents of San Joaquin, Stanislaus, and Merced Counties work outside the region or in a county other than their county of residence (San Joaquin Council of Governments 2013). Since the three-county region in the San Joaquin Valley has fewer jobs than workers, this imbalance leads to significant proportions of the workforce commuting out of the three-county region for work. Residents of the three-county region who work outside the county in which they reside travel mostly to the Bay Area (approximately 14 percent of all employed residents in the region) or commute within the three-county region but to a different county from their county of residence (approximately 9 percent of all employed residents in the region) (San Joaquin Council of Governments 2013). Given these travel characteristics, there is an existing and growing demand for transit services between the Bay Area and the San Joaquin Valley.

Table 1-3 (excerpted from the Draft EIR) summarizes the anticipated increases in population and employment in Stanislaus and Merced Counties, where the Project would be located. As shown, the anticipated populations in Stanislaus, and Merced Counties are significantly greater than the number of jobs offered in the respective counties for 2020, 2025, and 2030. This population and employment growth pattern are likely to increase the existing trend for commutes from the three-county region to the Bay Area and commutes within the three-county region. These population and employment growth patterns contribute to the need for future increased ACE service from Stanislaus and Merced Counties.

This Project will allow ACE riders to travel from Merced to Sacramento. ACE service to Sacramento currently does not exist but is planned and has been environmentally cleared under CEQA as a part of the Valley Rail Sacramento Extension Project. As described in the Final EIR for the Valley Rail Sacramento Extension Project, there is a need to increase service between the San Joaquin Valley and Sacramento due to the region's unbalanced ratio of housing and jobs, which will continue to diverge, with even more people moving out of the Sacramento to find affordable housing in the San Joaquin Valley (San Joaquin Regional Rail Commission 2020b).

Table 1-3. Projected Population and Employment Growth in the Extended ACE Service Areas

Counties	2020	2025	2030	% Change 2020–2025	% Change 2025–2030
Population					
Stanislaus County	562,303	584,055	606,900	3.9	3.9
Merced County	287,420	307,981	329,635	7.2	7.0
Employment					
Stanislaus County	213,460	220,240	231,540	3.2	5.1
Merced County	90,100	92,500	96,500	2.7	4.3

Source: California Department of Finance 2020; California Employment Development Department 2019d and 2019e.
Note: 2020, 2025, and 2030 employment figures are based upon a linear interpolation of 2016 and 2026 employment estimates from the California Employment Development Department (California Employment Development Department 2019d and 2019e).

- The Proposed Project will help reduce commute traffic on heavily travelled routes between the Bay Area, northern San Joaquin Valley, and Sacramento Area. The rapid increase in travel demand between the San Joaquin Valley, the Tri-Valley, the Silicon Valley/South Bay, and the Sacramento area coupled with the growth in population in the surrounding areas, has placed increasing pressures on the highways serving the region. Santa Clara and Alameda are the first and second most congested counties within the nine-county Bay Area (California Department of Transportation 2020).

  The congestion experienced on the freeway segments in the Bay Area carry over onto freeway segments in the San Joaquin Valley. As it connects with I-580 near the Alameda–San Joaquin County line, I-205 serves as a major interregional connector for moving people and goods between the northern San Joaquin Valley and the Bay Area. The commute pattern on I-205 is unidirectional, with San Joaquin Valley residents commuting to jobs in the Bay Area during the morning period and returning in the afternoon period. Congestion on I-205 correlates with this travel pattern, which stems from the growing jobs and housing imbalance within the San Joaquin Valley. In the future, this commute pattern from the San Joaquin Valley to the Bay Area is expected to continue and become even more pronounced. With this pattern, congestion and bottlenecking on I-205 is anticipated to worsen. In the northern San Joaquin Valley, congestion locations occur

most frequently in urban areas where the annual average daily traffic tends to be higher, exit and entry ramps or interchanges are more frequent, and the risk of crashes is more prominent. Congestion on SR 99 primarily occurs near urban centers, such as Stockton, Modesto, and Merced (Fresno Council of Governments 2017).

Congestion on freeway corridors in the vicinity of ACE are anticipated to increase to the point at which travel peak periods would spread into midday and to later in the evening, even if planned roadway improvements take place. Bottlenecks would continue to constrain movement through the corridor. As shown in Table 1-2 (above), job growth in the Bay Area was expected to increase between 5 and 6 percent between 2020 and 2025 and between 2025 and 2030. As shown in Tables 1-2 and 1-3 (above), population growth and job growth are expected to increase in both the Bay Area and the San Joaquin Valley. The resultant new transportation demand will lead to high levels of congestion that will take a toll on economic development by constraining goods and people movement.

Opportunities to improve highway capacity are constrained by a number of factors, including funding availability, the need for extensive and costly right-of-way acquisitions, and potential environmental impacts, such as displacement of residences and businesses, and impacts on natural resources and redesign of local roadways beyond the interchanges. For these reasons, substantial capacity improvements to I-880, I-680, SR 84, I-580, I-205, SR 120, I-5, and SR 99 cannot be relied upon to fully address long-term travel demands in the corridor. In this environment, ACE provides an essential and viable transportation alternative to costly highway capacity expansion. By reducing trip times and increasing transit ridership, the Proposed Project would help to ease congestion on the Bay Area and San Joaquin Valley freeways.

This Proposed Project will allow ACE riders to travel from Merced to Sacramento. The benefits associated with relieving traffic congestion for travelers in the San Joaquin Valley to the Sacramento area has been identified previously in the Final EIR for the Valley Rail Sacramento Extension Project (San Joaquin Regional Rail Commission 2020b). The Proposed Project would contribute to the overall benefit of relieving traffic congestion along I-5 and SR-99.

- The Proposed Project, by displacing vehicle trips with commuter rail trips, will reduce future air quality deterioration, particularly in the San Joaquin Valley Air Basin. The SJVAB is designated an extreme nonattainment area for the 8-hour federal standard for ozone and a nonattainment area for the federal PM2.5 standard. With respect to California standards, the SJVAB is currently a severe nonattainment area for the 1-hour ozone standard and a nonattainment area for the 8-hour ozone, PM2.5, and PM10 standards.
- Section 3.3, Air Quality, provides a summary of data collected at the air quality monitoring stations nearest to the ACE corridor and a discussion of the total number of days that state and federal ambient air quality standards were exceeded. Because transportation is the major contributor to ozone precursors, increasing auto travel threatens the area's improvement in air quality. Growing traffic generation and congestion will add to the potential problems because of increased emissions due to increased number of vehicles operating and also due to this increased traffic being subjected to increased frequency of stop-and go traffic. Shifting commuters and other travelers to higher occupancy modes is highly desirable as a means to partially offset the effects on air quality produced by the growth in auto travel. Expanded ACE service offers the greatest potential for increased high-occupancy travel from the San Joaquin Valley to the Bay Area and the Sacramento area, including in areas with the most severe air quality problems in the corridor. Compared to the conditions without the Project, by 2040, the Proposed Project would result in

reduction in emissions of up to 0.2 tons per year of ozone precursors and 9.6 tons per year of PM10 in the BAAQMD and up to 6.9 tons per year of PM10 in the SJVAPCD as a result of extended ACE service (see Section 3.3, Air Quality). The Proposed Project would also result in reductions to air pollutants in the Sacramento area.

- The Project will enhance intercity service and transit connections in the Central Valley. Project improvements would support enhanced intercity transit connectivity and provide additional surface passenger transportation capacity in the Central Valley. The Proposed Project would service the existing intercity and commuter transportation needs of the Central Valley, and would support transit-oriented development. The extension from Ceres to Merced would provide a future opportunity to connect with the California HSR System which would integrate ACE into a unified Northern California rail system eventually connecting the San Francisco Bay Area and Los Angeles Basin. These intercity transit connections are expected to stimulate additional ACE ridership.
- The State has adopted AB 32, the Global Warming Solutions Act of 2006, which seeks to make a first step in reducing statewide greenhouse gas (GHG) emissions. The long-term effects of climate change, if unchecked, could have substantial adverse effects on the economy, health, welfare and natural heritage of the San Francisco Bay Area, San Joaquin Valley, and Sacramento Area, including sea level rise and more frequent droughts. The SJRRC, in adopting the Project, desires to modernize the ACE system in a way that contributes most substantially to reducing GHG emissions to support California, national, and global efforts by reducing vehicle miles travelled (VMT) associated with commuting between the Bay Area and the northern San Joaquin Valley. Implementation of the Proposed Project is expected to reduce VMT annually by 24.0 million miles in 2030 and 30.7 million miles in 2040. The Project would have substantially lower GHG emissions than under No Project Conditions (see Table 3.8-7 of the Draft EIR). Estimated annual GHG reductions under Proposed Project operations for 2030 and 2040 conditions would be 4,027 and 4,082 metric tons CO2e, respectively, relative to the No Project Conditions.

Section 5
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Attachment C
May 17-18, 2023
Reference 2.2c.(11)

NOTICE OF DETERMINATION

To: Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: California Transportation Commission
Attn: Jose Oseguera
1120 N Street, MS 52
Sacramento, CA 95814
(916) 653-2094

Subject: Filing of Notice of Determination in compliance with Section 21108 of the Public Resources Code.

Project Title: ACE Ceres-Merced Extension Project

2018012014	Laurence Farrel	(510) 358-0001
State Clearinghouse Number	**Lead Agency Contact Person**	**Area Code/Telephone**

Project Location (include county): The project is located within and along the Union Pacific Railroad right-of-way in Stanislaus and Merced Counties.

Project Description: Project will extend ACE passenger rail service from Ceres to Merced by upgrading some existing tracks and constructing new track at certain locations within the existing Union Pacific Railroad (UPRR) Fresno Subdivision right-of-way over a total distance of approximately 34 miles. Three new stations and a layover and maintenance facility will be constructed along the extension alignment. The project will include acquisition of additional right-of-way for the new stations, layover yards, maintenance facilities, and construction or access areas located outside the existing railroad right-of-way.

This is to advise that the California Transportation Commission has approved the above-described project on:

(_ Lead Agency/ **X** Responsible Agency)

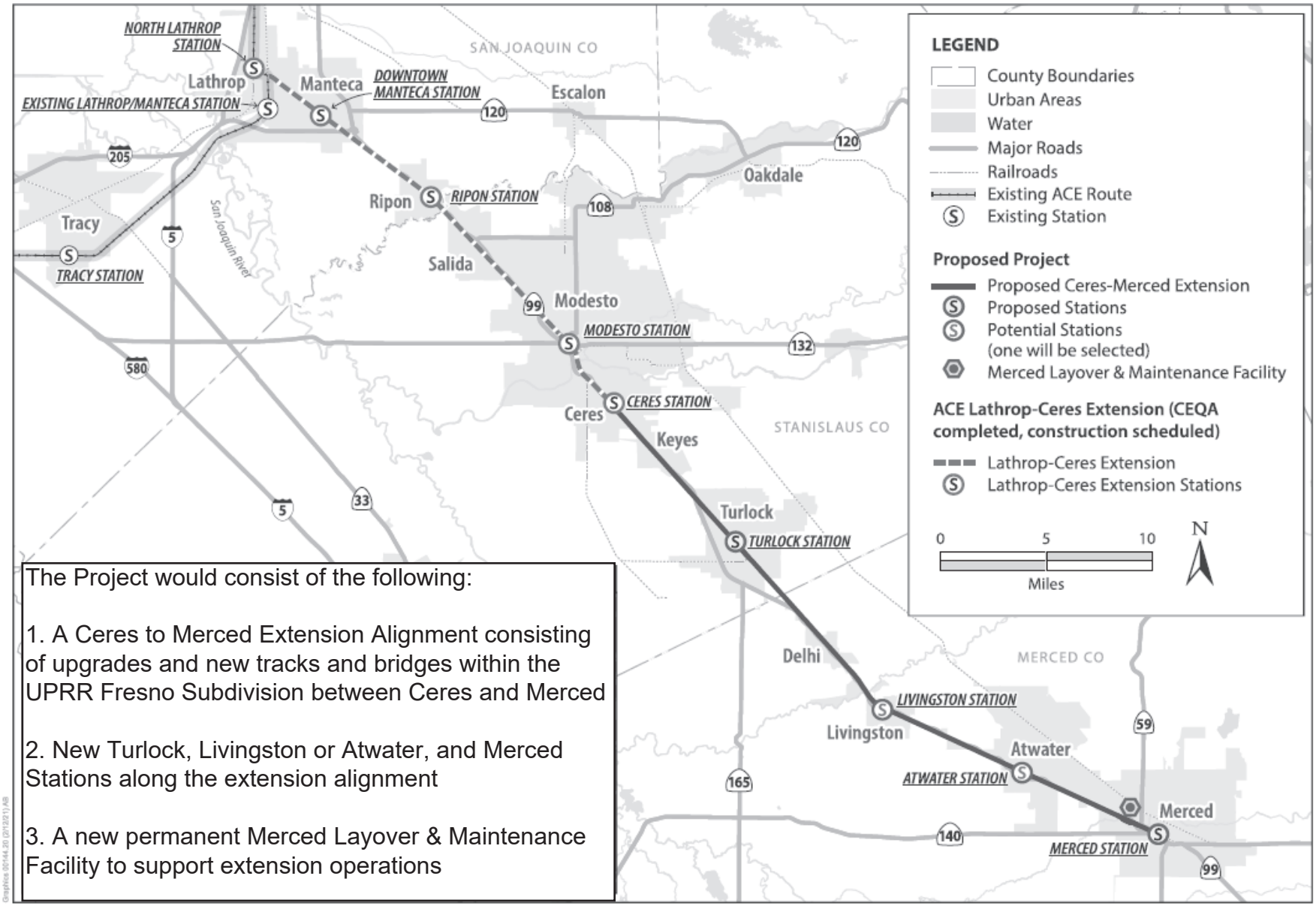
May 17-18, 2023, and has made the following determinations regarding the above-described project:

1. The project (_X_will/ ___will not) have a significant effect on the environment.
2. _X__A Final Environmental Impact Report, Addendum, Subsequent Environmental Impact Report, and Addendum were prepared for this project pursuant to the provisions of CEQA.
   ____A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures (_X_were/____were not) made a condition of the approval of the project.
4. Mitigation reporting or monitoring plan (_X_was / ____was not) adopted for this project.
5. A Statement of Overriding Considerations (_X_was / ___was not) adopted for this project.
6. Findings (_X_were/ ____were not) made pursuant to the provisions of CEQA.

The above identified document with comments and responses and record of project approval is available to the General Public at: 949 East Channel Street, Stockton, CA 95202

TANISHA TAYLOR		Interim Executive Director California Transportation Commission
Signature (Public Agency)	*Date*	*Title*

Date received for filing at OPR:



The Project would consist of the following:

1. A Ceres to Merced Extension Alignment consisting of upgrades and new tracks and bridges within the UPRR Fresno Subdivision between Ceres and Merced

2. New Turlock, Livingston or Atwater, and Merced Stations along the extension alignment

3. A new permanent Merced Layover & Maintenance Facility to support extension operations

ACE
ALTAMONT CORRIDOR EXPRESS

Project Location
ACE Ceres-Merced Extension Project