Memorandum

To: CHAIR AND COMMISSIONERS **CTC Meeting**: March 20-21, 2025

From: TANISHA TAYLOR, Executive Director

Reference Number: 2.2c.(6), Action

Prepared By: Cherry Zamora
Associate Deputy Director

Published Date: March 7, 2025

Subject: Approval of Project for Future Consideration of Funding – South Bay Connect Project, Resolution E-25-21

Recommendation:

Staff recommends the California Transportation Commission (Commission), as a Responsible Agency under the California Environmental Quality Act (CEQA), approve the attached Resolution E-25-21 (Attachment A), which accepts the Final Environmental Impact Report and Addendum for the South Bay Connect Project (also identified as the Coast Subdivision Realignment) (Project) in the cities of Oakland, San Leandro, Hayward, Fremont, Union City, Newark, and Alameda County; approves the Project for future consideration of funding; and makes CEQA Findings (Attachment D).

Issue:

The Capitol Corridor Joint Powers Authority is the CEQA Lead Agency for the Project. The Project is located in the cities of Oakland, San Leandro, Hayward, Fremont, Union City, Newark, and Alameda County, between Elmhurst Junction, in Oakland, to Newark Junction, in Newark, along the Union Pacific Railroad Coast Subdivision. The Project would relocate Capitol Corridor passenger rail operations to the Union Pacific Railroad Coast Subdivision; improve the Coast Subdivision to accommodate additional passenger rail service; and construct a new passenger rail station at the existing Ardenwood Park & Ride in Fremont that would connect rail service with express buses, private shuttles, and the surrounding bicycle and pedestrian network.

For all projects that are seeking funding through a program under the purview of the Commission, full compliance with CEQA 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 consideration of funding.

Background:

On November 20, 2024, the Capitol Corridor Joint Powers Authority certified the Final Environmental Impact Report for the Project. The Capitol Corridor Joint Powers Authority found that the Project would not have a significant impact on the environment with implementation of mitigation measures.

Impacts that require mitigation measures in order to be reduced to less than significant levels relate to aesthetics, air quality, biological resources, cultural resources, geology, hydrology and water quality, noise, and recreation. Mitigation measures include visual screening; implementing lighting plans; vegetation replacement; landscaping; applying aesthetic treatments on bridges and other structures; requiring off-road equipment greater than 25 horsepower to have engines that meet or exceed U.S. Environmental Protection Agency or California Air Resources Board Tier 4 final off-road emission standards; requiring diesel-powered locomotives used for construction to have engines that meet or exceed U.S. Environmental Protection Agency or California Air Resources Board Tier 4 final off-road emission standards; biological monitoring; worker training for biological resources; use of Environmentally Sensitive Area fencing; maintaining construction equipment; avoiding wildlife entrapment; pre-construction plant surveys; establishing avoidance buffers for Congdon's Tarplant and California Seablite; compensatory mitigation; pre-construction surveys for Monarch Butterfly, Crotch's Bumble Bee, and Western Bumble Bee; if detected, obtaining an Incidental Take Permit for Crotch's Bumble Bee or Western Bumble Bee; seasonal restrictions for in-water work at Alameda Creek; dewatering within Alameda Creek; on-site restoration, in-lieu fee payment, or purchase of mitigation credits, or as defined by the National Marine Fisheries Service, for impacts on Steelhead and Green Sturgeon; pre-construction surveys for Western Pond Turtle; pre-construction bird surveys; conducting a Burrowing Owl habitat assessment; exclusionary barriers, surveys, monitoring, and habitat replacement for Salt Marsh Harvest Mouse; bat surveys; pre-construction tree surveys; conducting a fish passage analysis; implementing an Archaeological Testing and Evaluation Plan; implementing an Archaeological Monitoring, Avoidance, and Treatment Plan; monitoring by tribes; implementing a Paleontological Resource Mitigation Plan; flood flow mitigation through balancing cut and fill, installing equalizer pipes, implementing underground storage, or installing detention basins; obtaining a dewatering permit; construction noise control, such as use of sound barriers and monitoring; establishing noise quiet zones or implementing building sound insulation improvements; implementing a Construction Vibration Control Plan; and developing a detour plan for the Alameda Creek Regional Trail.

On December 23, 2024, the Capitol Corridor Joint Powers Authority finalized an Addendum to the Final Environmental Impact Report to revise a response to comment and to provide clarification of section references. On January 2, 2025, the Capitol Corridor Joint Powers Authority confirmed that the Final Environmental Impact Report and Addendum remain valid, there are no newly identified impacts or substantial increase in the severity of an impact requiring mitigation, and the Project analyzed in the Final Environmental Impact Report and Addendum is consistent with the Project scope of work programmed by the Commission.

The Commission, in its independent judgment as a CEQA responsible agency, has reviewed and considered the Final Environmental Impact Report, Findings, and Addendum prepared by the Capitol Corridor Joint Powers Authority. Based on this information, the Commission's Findings, included in Attachment C, have been prepared pursuant to CEQA.

The Project is estimated to cost $990,400,000 with $183,100,000 secured through Transit and Intercity Rail Capital Program ($51,000,000), State Rail Assistance ($2,100,000), Metropolitan Transportation Commission Regional Measure 3 ($90,000,000), and Alameda County Transportation Commission Measure BB ($40,000,000) funds.

Construction is estimated to begin in Fiscal Year 2029-30.

Attachments:

- Attachment A: Resolution E-25-21
- Attachment B: Capitol Corridor Joint Powers Authority – Findings of Fact
- Attachment C: California Transportation Commission – Findings of Fact
- Attachment D: Notice of Determination
- Attachment E: Project Location Map

CALIFORNIA TRANSPORTATION COMMISSION
Resolution for Future Consideration of Funding

4 – Alameda County
Resolution E-25-21

1.1 WHEREAS, the Capitol Corridor Joint Powers Authority has completed and certified a Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines for the South Bay Connect Project (Project) in the cities of Oakland, San Leandro, Hayward, Fremont, Union City, Newark, and Alameda County; and

1.2 WHEREAS, the Project is located in the cities of Oakland, San Leandro, Hayward, Fremont, Union City, Newark, and Alameda County between Elmhurst Junction, in Oakland, to Newark Junction, in Newark, along the Union Pacific Railroad Coast Subdivision; and

1.3 WHEREAS, the Project would relocate Capitol Corridor passenger rail operations to the Union Pacific Railroad Coast Subdivision; improve the Coast Subdivision to accommodate additional passenger rail service; and construct a new passenger rail station at the existing Ardenwood Park & Ride in Fremont that would connect rail service with express buses, private shuttles, and the surrounding bicycle and pedestrian network; and

1.4 WHEREAS, on November 20, 2024, the Capitol Corridor Joint Powers Authority certified the Final Environmental Impact Report for the Project. The Capitol Corridor Joint Powers Authority found that the Project would not have a significant impact on the environment with implementation of mitigation measures; and

1.5 WHEREAS, impacts that require mitigation measures in order to be reduced to less than significant levels relate to aesthetics, air quality, biological resources, cultural resources, geology, hydrology and water quality, noise, and recreation, and certain mitigation measures were adopted to address these impacts; and

1.6 WHEREAS, on December 23, 2024, the Capitol Corridor Joint Powers Authority finalized an Addendum to the Final Environmental Impact Report to revise a response to comment and to provide clarification of section references; and

1.7 WHEREAS, on January 2, 2025, the Capitol Corridor Joint Powers Authority confirmed that the Final EIR and Addendum remain valid; there are no new impacts requiring mitigation; there is no substantial increase in the severity of an environmental impact; and that the Project set forth in the Final Environmental Impact Report and Addendum is consistent with the scope of work programmed by the California Transportation Commission (Commission); and

1.8 WHEREAS, the Commission, as a Responsible Agency, has considered the information contained in the Final Environmental Impact Report and Addendum; and

1.9 WHEREAS, the Commission has made findings as required by California Code of Regulations, title 14, section 15096, subdivision (h);

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

South Bay Connect Project Final Environmental Impact Report CEQA Findings

Prepared By:

Capitol Corridor Joint Powers Authority
2150 Webster Street, 3rd Floor
Oakland, CA 94612
Contact: James R. Allison, CCJPA Manager of Planning
Contact: Shirley Qian, CCJPA Principal Planner, Project Manager
510.464.6994

November 2024

Table of Contents

1 Introduction

This Statement of Findings of Fact (Findings) addresses the environmental impacts associated with implementation of the South Bay Connect Project (Project). These Findings are made pursuant to the California Environmental Quality Act (CEQA) under Sections 21081, 21081.5, and 21081.6 of the Public Resources Code and Sections 15091 and 15093 of the CEQA Guidelines (Title 14, Cal. Code Regs. Section 15000 *et seq*.).

The Findings were based upon the conclusions reached on the potential environmental impacts of Project, as identified in the Environmental Impact Report (EIR) prepared for the Project. Public Resources Code 21081 and Section 15091 of the CEQA Guidelines require that the lead agency prepare written findings for identified significant impacts, accompanied by a brief explanation for the rationale for each finding. The Capitol Corridor Joint Powers Authority (CCJPA) is identified as the lead agency responsible for preparation of the EIR in compliance with CEQA and the CEQA Guidelines. The approving governing body is the CCJPA Board.

Section 15091 of the CEQA Guidelines states, in part, that:

A) 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.

In accordance with Public Resource Code 21081 and Section 15093 of the CEQA Guidelines, whenever significant impacts cannot be mitigated to below a level of significance, the decision-making agency is required to balance, as applicable, the benefits of the proposed project against its unavoidable environmental risks when determining whether to approve the project. If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable." In that case, the decision-making agency may prepare and adopt a Statement of Overriding Considerations, pursuant to the CEQA Guidelines. Section 15093 of the CEQA Guidelines state that:

1 In accordance with Public Resource Code 21081 and Section 15093 of the CEQA Guidelines, whenever significant impacts cannot be mitigated to below a level of significance, the decision-making agency is required to balance, as applicable, the benefits of the proposed project against its unavoidable environmental risks when determining whether to approve the project. If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable." In that case, the

decision-making agency may prepare and adopt a Statement of Overriding Considerations, pursuant to the CEQA Guidelines.

B) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the Final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

C) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

The Final EIR for the Project identified potentially significant effects that could result from Project implementation. However, the CCJPA Board finds that the inclusion of mitigation measures as part of the Project approval will reduce all impacts to levels that are less than significant. There are no impacts that would be considered significant and unavoidable. As such, there are no impacts that would require a Statement of Overriding Considerations per CEQA Guidelines Section 15093 should the Project be approved.

In accordance with CEQA and the CEQA Guidelines, the CCJPA Board adopts these Findings as part of its certification of the Final EIR for the Project. As required by CEQA, the CCJPA Board, in adopting these Findings, also adopts a Mitigation Monitoring and Reporting Program (MMRP) for the Project. The CCJPA Board finds that the MMRP, which is incorporated by reference and made a part of these Findings, meets the requirements of Section 21081.6 of the Public Resources Code by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the Project.

Pursuant to Section 21082.1(c)(3) of the Public Resources Code, the CCJPA Board also finds that the Final EIR reflects CCJPA's independent judgment as the approving governing body for the project.

1.1 Organization and Format of Findings

Section 1, Introduction, contains the purpose of these Findings and organization of this document.

Section 2, Background, provides a summary description of the Project and background facts relative to the environmental review process.

Section 3 discusses the CEQA findings of independent judgment. The remainder of this section is divided into the following subsections:

- Section 3.1, Impacts Determined to be Less than Significant, describes the environmental impacts determined in the EIR to be less than significant.
- Section 3.2, Impacts Determined to be Less than Significant with Mitigation Incorporated, identifies the potentially significant effects of the Project in the EIR, the mitigation measures identified in the MMRP that would reduce the impacts to a level that is less than significant, and the rationales for the findings.
- Section 3.3, Significant and Unavoidable Impacts. No impacts associated with the Project were determined to be significant and unavoidable.

Section 4 discusses the CEQA findings with respect to mitigation of significant impacts and adoption of the MMRP. The section also describes the certification of the Final EIR.

2 Background

2.1 Proposed Project

The proposed Project is located within the San Francisco Bay Area in Alameda County, California, primarily along the Union Pacific Railroad (UPRR) Coast Subdivision between Elmhurst Junction in the City of Oakland to the north and Newark Junction in the City of Newark to the south. The Project would also include some work on the UPRR Niles Subdivision where the Coast Subdivision connects to its north and south ends. Proceeding from north to south, the Project passes through the cities/communities of Oakland, San Leandro, Hayward, Union City, Fremont, and Newark.

The proposed Project proposes to relocate the Capitol Corridor intercity passenger rail service from the Niles Subdivision to the Coast Subdivision, between the Elmhurst Junction and the Newark Junction. The purpose of this relocation is to provide a more efficient and reliable passenger rail route between Oakland and San Jose. The Project would include rail infrastructure improvements on the Coast Subdivision to ensure operational capacity and reliability for existing freight and passenger rail service as well as the new Capitol Corridor passenger rail service proposed to be relocated from the Niles Subdivision. The Project also proposes improvements at 25 existing at-grade crossings and at seven grade-separated crossings. Existing railroad bridges would be replaced or modified to accommodate the addition of a track between Elmhurst and Newark. Retaining walls would be required at specific locations to accommodate railroad improvements on the Coast Subdivision.

The proposed Project also includes a new intermodal station on the Coast Subdivision adjacent to the existing Ardenwood Park-and-Ride to serve southern Alameda County passengers and to facilitate intermodal transfers between rail and Transbay transit services. The station location would be within the City of Fremont, except for the south pedestrian overcrossing, which would be within the City of Newark. The proposed Ardenwood Station would provide a new passenger platform, with a pedestrian overcrossing allowing access across the tracks and to the platform. The proposed passenger facility is currently configured to include a center boarding platform located between the two tracks. The platform would have grade-separated access across the tracks. The proposed north pedestrian overcrossing would be approximately 42 feet high. A south pedestrian overcrossing would be constructed to connect to adjacent business complexes, and a pedestrian pathway would be constructed under State Route 84 to provide access for passengers coming from the City of Newark. Parking for the new station would be built on a vacant parcel to the northwest.

The Project proposes to implement Best Management Practices (BMPs) that are designed to reduce the environmental impacts of Project construction and operations. These BMPs, described in more detail in the Draft EIR, include:

BMP AES-1: Special Permits and/or Variance from Local Jurisdictions where Work is Outside of UPRR Right-of-Way (ROW)

BMP AQ-1: Implement Bay Area Air Quality Management District (BAAQMD) Basic Construction Mitigation Measures

BMP BIO-1: Weed Abatement Program

BMP CUL-1: Conduct Cultural Resources Awareness Training Prior to Project-Related Ground Disturbance

BMP CUL-2: Stop Work if Archaeological Deposits and/or Human Remains are Encountered During Ground-Disturbing Activities

BMP GEO-1: Geotechnical Investigations

BMP GEO-2: Expansive Soil

BMP GHG-1: Implement BAAQMD Construction Measures

BMP HAZ-1: Prepare a Construction Hazardous Material Management Plan (HMMP)

BMP HAZ-2: Property Acquisition Phase 1 and Phase 2 Environmental Site Assessments

BMP HAZ-3: Prepare a General Construction Soil Management Plan

BMP HAZ-4: Prepare Parcel-Specific Soil Management Plans and Health and Safety Plans (HASP)

BMP HAZ-5: Leaking Underground Storage Tank (LUST) Sites and Coordination with DTSC

BMP HAZ-6: Halt Construction Work if Potentially Hazardous Materials/Abandoned Oil Wells are Encountered

BMP HAZ-7: Pre-Demolition Investigation

BMP HYD-1: Construction Stormwater Management

BMP HYD-2: Creek Diversion to Address In-Creek Construction

BMP HYD-3: Delineate Environmentally Sensitive Areas (ESAs) Near Construction Areas

BMP HYD-4: Permanent Erosion Control

BMP HYD-5: Permanent Stormwater Treatment and Pollution Prevention

BMP HYD-6: Addressing Hydromodification Impacts

BMP HYD-7: Dewatering of High Groundwater

BMP HYD-8: Monitoring Weather Forecast to Avoid Construction Impacts During Storm Events

BMP HYD-9: Soffit Elevations for New Bridges

BMP REC-1: Protection of Alameda Creek Regional Trail

BMP REC-2: Coordinate and Provide Advance Notice of Construction Activities Adjacent to Public Trails

BMP TR-1: Transportation Management Plan (TMP)

BMP UT-1: Utility Verification and Coordination with Utility Providers and California Public Utilities Commission (CPUC)

BMP UT-2: Minimize Potable Water Use

BMP UT-3: Water Efficient Landscaping

BMP UT-4: Public Notification

BMP UT-5: Coordinate with Hayward Water System (HWS) and Alameda County Water District (ACWD) in Dry Construction Years

BMP UT-6: Minimize Construction and Demolition (C&D) Debris

BMP UT-7: Treated Wood Waste (TWW) Handler Notification

BMP WF-1: Prepare Fire Prevention Plan

BMP WF-2: Use Drought-Tolerant and Fire-Resistant Native Plants

2.2 Project EIR Process

A Draft Environmental Impact Report (Draft EIR) was prepared for the Project. The Draft EIR assessed the potential environmental impacts of the Project on the physical and natural environments. A wide variety of resource areas have been studied during the environmental review to identify potential impacts, including aesthetics, air quality, biological resources, cultural resources, energy, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use/planning, noise and vibration, population/housing, public services, recreation, transportation, tribal cultural resources, utilities/service systems, and wildfire. Environmental justice was also discussed, as were the potential future impacts of sea level rise on the Project. Although these two subjects are not required to be discussed under CEQA, they were included in this EIR for informational purposes. Measures to avoid, minimize, and mitigate any potential adverse impacts were identified and evaluated in the Draft EIR.

On May 29, 2024, CCJPA released the Draft EIR for public review and comment for a period of 45 days, in accordance with the requirements of CEQA. When the public comment period closed on July 15, 2024, a total of 310 commenters submitted comments on the Draft EIR. Of this total, 159 were emails/letters sent to info@southbayconnect.com. Another 94 comments were received on the website. There were three hotline calls, and one letter received via FedEx. There were 53 public meeting comments, of which 37 were virtual public meeting comments via Court Reporter and 16 were submitted to the CCJPA Board during its meeting on June 26, 2024. There were 13 public agencies that commented on the Project.

The proposed Project Description in the Final EIR is consistent with the description provided in the Draft EIR, Chapter 2 Project Alternatives, and no changes have been made since the Draft EIR. A summary of clarifications, amendments, and revisions to the Draft EIR as a result of public comments received are included as part of the Final EIR. In accordance with State CEQA Guidelines Section 15132, the Final EIR for the Project consists of:

i) the Draft EIR and subsequent revisions;

ii) comments received on the Draft EIR;

iii) a list of the persons, organizations, and public agencies commenting on the Draft EIR; and

iv) written responses to significant environmental issues raised during the public review and comment period and related supporting materials.

Public Resources Code Section 21092.5(a) requires that written responses to comments submitted by public agencies be provided to those agencies at least 10 days prior to certification of the Final EIR. A notice with proposed responses to agency comments was distributed to public agencies on November 5, 2024, to fulfill the requirements under Public Resources Code Section 21092.5(a).

3 CEQA Findings of Independent Judgment

3.1 Impacts Determined to be Less than Significant

Section 15128 of the State CEQA Guidelines requires an EIR to contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant. CCJPA finds that, based upon substantial evidence in the record, including information in the Final EIR, the following impacts have been determined to be less than significant and no mitigation is required pursuant to Public Resources Code section 21081(a) and CEQA Guidelines section 15091(a):

3.1.1 Aesthetics and Visual Resources – Scenic Resources

An evaluation of the Project's impacts on aesthetics and visual resources is found in Draft EIR Section 3.2 - Aesthetics and Visual Resources. There are two officially designated/eligible state scenic highways in the vicinity of the Project Study Area as defined in Section 2.2.1 of the Draft EIR: I-580 and SR 84. The I-580 (McArthur Freeway) scenic highway segment runs in a north-south direction just east of the Project Study Area. The SR 84 (Niles Canyon Road) scenic highway segment is also just east of the Project Study Area. However, none of these officially designated/eligible state scenic highways occur within the aesthetics Resource Study Area (RSA) for the Project, as defined in the EIR. Construction and operation of the proposed Project would not take within the portions of I-580 and SR 84 that are designated as scenic. Therefore, there would be no impacts to scenic resources within a state scenic highway.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impact to scenic resources within a state scenic highway.

3.1.2 Agriculture and Forestry Resources

An evaluation of the Project's impacts on agriculture and forestry resources is found in Draft EIR Section 3.3 – Agriculture and Forestry Resources. The majority of the proposed Project improvements would occur within or adjacent to the existing UPRR ROW. Outside of the UPRR ROW, the proposed Project would construct a new passenger rail station adjacent to the existing Ardenwood park-and-ride facility, along the Coast Subdivision. None of the proposed Project improvements would occur within land identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

None of the proposed Project improvements would occur within agricultural lands identified as Zone A under Alameda County Code, Title 17, or lands under the Williamson Act contract. The nearest farmland to Project activities is the Ardenwood Historic Farm, which is located immediately adjacent to the Coast Subdivision. With a zoning of open space, the Ardenwood Historic Farm is not zoned for agriculture use despite being designated as Prime Farmland. Lands under Williamson Act contracts also parallel the Coast Subdivision near Central Avenue in Newark; however, the proposed Project will not directly or indirectly impact these parcels.

The majority of the land surrounding the Coast Subdivision is urbanized and built out, and the majority of the rail improvements proposed are located within the existing UPRR ROW. For improvements outside of the existing UPRR ROW, such improvements would occur on non-agricultural lands. None of the proposed Project improvements would result in impacts to farmland

at the Ardenwood Historic Farm. Although there are lands identified for agricultural use within the RSA, implementation of the proposed Project is not anticipated to result in changes in the existing environment which, due to their location or nature, could result in the conversion of farmland to nonagricultural use.

The RSA does not currently include areas designated or zoned for timberland production or other forestry-related uses, and it is not in a designated Timberland Production Zone. Therefore, the proposed Project would have no impacts on forestry.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impact regarding direct or indirect conversion of agricultural land or forest land, or on lands zoned for agriculture or with a Williamson Act contract.

3.1.3 Air Quality – Conflict with Air Quality Plan and Odors

An evaluation of the Project's impacts on air quality is found in Draft EIR Section 3.4 – Air Quality. BAAQMD adopted their 2017 Clean Air Plan on April 19, 2017. The purpose and need of the proposed Project support the primary goals of the 2017 Clean Air Plan by reducing passenger rail travel time between Oakland and San Jose to increase ridership on transit, ease congestion on the Bay Area's roadways, and reduce automobile commutes. The proposed Project directly supports and advances measure TR4: Local and Regional Rail Service, which is an applicable control measure from the 2017 Clean Air Plan. The proposed Project does not hinder the implementation of any control measures in the 2017 Clean Air Plan. Based on this, the proposed Project will not conflict with or obstruct implementation of the 2017 Clean Air Plan.

Sources of odor during construction include diesel exhaust from construction equipment and asphalt paving. Odors from equipment exhaust would be localized and generally confined to the immediate area surrounding the proposed Project site. The proposed Project would utilize typical construction techniques, and the equipment odors would be typical of most construction sites and temporary in nature. Project operations do not include any uses identified by the California Air Resources Board as being associated with odors and therefore would not produce objectionable odors. Any odors resulting from diesel fuel combustion along either route would be short-term, occurring as trains pass by, and are not considered significant during operations. In addition, implementation of the proposed Project would not introduce a new type of odor source in the proposed Project area and would not site sensitive receptors near sources of odor. Short-term odors from locomotives are already an existing part of the ambient environment. Accordingly, proposed Project operation is not expected to result in odor impacts that would adversely affect a substantial number of people.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts regarding conflicts with applicable air quality plans and with odors that would be less than significant.

3.1.4 Biological Resources – Invasive Species and Habitat Conservation Plans

An evaluation of the Project's impacts on biological resources is found in Draft EIR Section 3.5 - Biological Resources. Potential impacts from invasive species associated with the construction and

operation of transportation projects are considered permanent impacts. Implementation of the proposed Project has the potential to spread invasive species to adjacent native habitats in the RSA through the entering and exiting of contaminated construction equipment, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species causing seed to be spread along the rail corridor. To avoid potential direct or indirect effects attributable to the spread of invasive plant species within the RSA, BMP BIO-1 will be implemented.

There are no local, regional, or state habitat conservation plans within the RSA. Therefore, the proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impact to invasive species or to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.1.5 Cultural Resources – Built Environment Resources

An evaluation of the Project's impacts on cultural resources is found in Draft EIR Section 3.6 - Cultural Resources. The construction of the proposed Project would directly affect four built-environment historical resources: San Lorenzo Village Historic District, Hetch Hetchy Aqueduct Bay Division Pipelines 1 and 2, George Washington Patterson Ranch (Ardenwood), and Alameda Creek.

- The proposed Project features in the vicinity of the San Lorenzo Village Historic District include Americans with Disabilities Act (ADA) sidewalk improvements and signal modifications to an existing, at-grade crossing just within the boundaries of the historic district. The proposed Project would not impact any character-defining features of the historical resource and so would not impact the resource's integrity of materials, workmanship, or design. The proposed Project modifies existing features within the vicinity of the district and would not add new types of features.

- The proposed Project features in the vicinity of George Washington Patterson Ranch (Ardenwood) include temporary staging, which occurs in already-paved roadway and parking areas adjacent to Newark Boulevard. Temporary staging on the existing pavement has no potential to impact George Washington Patterson Ranch. While the proposed Project would impact the George Washington Patterson Ranch, the impact would be less than significant.

- The proposed Project features in the vicinity of the Hetch Hetchy Aqueduct Bay Division Pipelines 1 and 2 include proposed railroad track upgrades. All the historical resource's character-defining features in the vicinity of the proposed Project are below grade and include the below-grade alignment ROW and pipes. The proposed Project would not impact any of the resource's aspects of integrity.

- The proposed Project features in the vicinity of Alameda Creek include a new, approximately 750- linear-foot, two-track bridge to replace the existing single-track bridge across Alameda Creek. The structure cannot be a clear span and will require piers in the channel. The

resource's character-defining features are limited to its alignment, and no aspects of integrity were identified in the local designation of the creek as a historical resource; based on the character-defining features, it appears that the only key aspect of integrity of the resource is its location. The addition of transportation infrastructure would not impact any aspects of Alameda Creek's integrity.

The Project would facilitate shifting Capitol Corridor passenger service between Oakland and Newark from the current Niles Subdivision to the shorter, more direct route on the Coast Subdivision. No changes in freight rail services are anticipated as a result of the Project. The operational component of the Project is consistent within the current operational use of the overall railroad network, and no increase in train frequency is proposed. As such, the operation of the proposed Project has no potential to impact built-environment historical resources.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in less-than-significant impacts on built-environment historical resources.

3.1.6 Energy

An evaluation of the Project's impacts on energy is found in Draft EIR Section 3.7 - Energy. Construction-related energy consumption would be temporary in nature. Gasoline, diesel, and electricity would be consumed to produce and transport construction materials, operate construction equipment, and transport workers to/from the Project Study Area. Total construction-related energy consumption for the proposed Project was estimated at 109,532,900,000 Btu. When compared with the operational energy savings from decreased vehicle miles traveled (VMT), construction would negate four years of the proposed Project's operational energy savings. However, because construction represents a one-time energy expenditure, all subsequent years would represent an energy savings for the region and state.

Indirect construction-related energy consumption would include the manufacturing and transport of raw materials used for construction. This energy expenditure would be temporary in nature and end at the completion of construction. Even if, as a conservative estimate, indirect energy consumption equaled direct consumption during construction, their combined energy consumption would be overcome during the first eight years of the proposed Project' s operation. After considering potential indirect construction-related energy consumption, the proposed Project would not represent a wasteful, inefficient, or unnecessary consumption of energy resources during construction.

A decrease in VMT would occur as a result of the proposed Project, in part due to more auto-competitive travel times for intercity passenger rail trips throughout the area. This would result in reduced motor vehicle use, reduced traffic congestion, and reduced energy consumption. For the proposed Project, in both 2025 and 2040, decreased VMT would result in a reduction in energy consumption of 0.01 percent as compared to the No Project Alternative. The resulting energy savings associated with the proposed Project would equate to 27,357,900,000 Btu/year in 2025, and to 36,311,200,000 Btu/year in 2040.

The proposed Project's energy savings were compared to the transportation sector's annual energy consumption in California (3,036.8 trillion Btu/year). Increased rail ridership and decreased VMT, as a result of the proposed Project, would represent a statewide energy savings of approximately 0.001

percent in both 2025 and 2040. As a result, no impacts to energy resources would result from changes in VMT.

Operational energy consumption was evaluated for the proposed Project's changes to Capitol Corridor stations. From an operational perspective, the proposed Project would result in an increase in annual station energy consumption by approximately 329,000,000 Btu/year. When compared to Pacific Gas and Electric Company's PG&E's annual output of 260.0 trillion Btu/year, this would represent an increase of approximately 0.0001 percent; therefore, it was not considered to be a substantial change from existing conditions. The increase in operational energy consumption for stations was compared to the operational energy savings associated with decreased VMT. In both 2025 and 2040, additional station energy consumption represented approximately 1.2 percent to 0.9 percent, respectively, of the proposed energy savings associated with decreased VMT. Because the proposed Project reflected a net energy savings, no impact on energy resources is anticipated from proposed station changes.

Changes in Capitol Corridor rail service would be expected to result in a net reduction in locomotive fuel consumption, and therefore energy consumption, due to reduced overall travel time, one less station stop, and reduced idling time with the installation of new track. Improved access to transit services from the proposed Ardenwood station would encourage further mode shift from single-occupant vehicle travel, thereby reducing fuel (and associated energy) consumption. Pedestrian and bicycle infrastructure improvements would remove or minimize barriers to walking/biking, which would also encourage a mode shift from motor vehicles that would reduce fuel consumption.

The proposed Project would result in a net energy savings, and it would not obstruct a state or local plan for either renewable energy or energy efficiency. The proposed Project would promote the use of transit and decrease dependency on motor vehicles. Both outcomes are in line with the general plans for the cities within the RSA. The proposed Project also would comply with state and local CALGreen requirements for the proposed Ardenwood Station.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impact regarding wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, or on state or local plans for renewable energy or energy efficiency.

3.1.7 Geology, Soils, and Paleontological Resources – Seismic, Erosion and Soils

An evaluation of the Project's impacts on geology and soils is found in Draft EIR Section 3.8 – Geology, Soils, and Paleontological Resources. The proposed Project is not located within an Earthquake Fault Zone. In addition, no active earthquake faults cross the RSA. Because there are no active earthquake faults located within the RSA, and because the proposed Project is not located within an Earthquake Fault Zone, the rupture of a known earthquake fault during construction or operation of the proposed project would not occur.

The proposed Project is in a region with active faults that can cause strong ground shaking, which could contribute to loss, injury, or death during construction. Construction activities would be conducted for a limited period when considered in the timeframe of earthquake recurrence intervals of faults within the RSA. However, there is a chance that strong earthquakes could occur during

construction. In addition, seismic risks would apply to mobile (i.e., trains) and static Project components. The proposed Project includes implementation of Best Management Practice (BMP) GEO-1: Geotechnical Investigations, which requires CCJPA to conduct geotechnical investigations to inform Project design. In accordance with BMP GEO-1, the proposed Project would be designed to minimize risk of slope failure, settlement, and erosion as a result of strong seismic ground shaking, using recommended construction techniques and BMPs.

Risks associated with secondary seismic hazards such as liquefaction and lateral spreading, could affect Project construction and operations, increasing the risk of loss, injury, or death. The proposed Project includes implementation of BMP GEO-1: Geotechnical Investigations, which requires the Project to be designed to minimize slope failure, settlement, and erosion using recommended construction techniques and BMPs. With the implementation of BMP GEO-1, impacts related to liquefaction during construction would be less than significant. There would be no risk of seismically induced landslides to proposed Project operations, as the RSA is not located in areas with distinct landslide susceptibility, such as areas with steep slopes and unstable geological units.

Project earthwork activities would be conducted based on local and state regulations and would comply with appropriate permits such as the California Construction NPDES permit, which would reduce erosion and sedimentation though the implementation of BMP HYD-1: Construction Stormwater Management during construction. The Project would be operated in areas that are either paved, have previously stabilized soils, or where slopes are either flat or close to horizontal. Such areas would be returned to pavement or stabilized after construction. The proposed Project would also adhere to NPDES construction permitting requirements for post-construction stabilization to reduce the risk of soil erosion or loss of topsoil (BMP HYD-4: Permanent Erosion Control). Implementation of BMPs and compliance with industry standards and permit requirements would result in a less than significant impact.

Some soils within the Project footprint may fit the collapsible soil criteria such as coarse-grained rapidly deposited soils. However, soil collapse potential is considered low due to collapsible soils predominantly being associated with arid or semi-arid environments. The Project Footprint is not considered arid or semi-arid. Land subsidence could occur where dewatering is required, but dewatering would be limited in duration and depth. Dewatering for short-term construction would not cause deep-seated land subsidence. Lateral spreading is generally associated with seismic induced liquefaction in proximity to a free face. With the implementation of BMP GEO-1, impacts related to lateral spreading during construction of the proposed Project would be less than significant.

Where the design of the proposed Project includes new embankments and slopes such as the proposed Alameda Creek the risk of on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse of a geologic unit or soil could be affected. Geologic units at risk of these effects include those with a high or very high liquefaction susceptibility and shallow groundwater. Areas with high or very high liquefaction susceptibility are present within the RSA. With the implementation of BMP GEO-1, impacts related to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse of a geologic unit or soil during operations of the proposed Project would be less than significant.

Areas of the RSA are located on soils classified as having a very high or high expansive soil potential. The effect of the high expansive soil potential on the proposed Project would be the development of high soil pressures when these soils are wetted and consequently swell. The resulting high soil pressures can cause damage to structures such as foundations, pavements, and retaining walls.

However, the proposed Project includes implementation of BMP GEO-2. BMP GEO-2 requires that the Project structures be designed and constructed to withstand the earth pressure exerted by the expansive clays and to specifications determined by the geotechnical investigation prepared during final design. As necessary, BMP GEO-2 also requires expansive clays to be treated with lime to reduce shrink-swell potential or removed and replaced with a non-expansive material. With the implementation of BMP GEO-2, impacts related to expansive soils would be less than significant.

New rail infrastructure improvements are not anticipated to generate substantial amounts of wastewater during operation or maintenance activities. The new station or maintenance facilities could result in a minor new source of wastewater that would need to be treated by the local wastewater treatment facility. Therefore, construction and operation of the proposed Project would not require the use of septic tanks or alternative wastewater disposal systems because existing municipal sanitary systems would be utilized.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impacts or impacts that would be less than significant on fault rupture, strong seismic ground shaking, seismic-related ground failure, landslides, soil erosion and loss of topsoil, unstable geologic units or soils, expansive soils, and soils supporting septic tanks or alternative wastewater disposal systems.

3.1.8 Greenhouse Gas Emissions

An evaluation of the Project's impacts on greenhouse gas (GHG) emissions is found in Draft EIR Section 3.9 – Greenhouse Gas Emissions. Construction of the proposed Project has the potential to generate GHG emissions from heavy-duty construction equipment, construction worker vehicle trips, truck hauling trips, and locomotive trips. BAAQMD CEQA Guidelines do not identify a GHG emissions threshold for construction-related emissions; however, they do recommend that GHG emissions from construction be quantified and disclosed and a determination regarding the significance of the GHG emissions be made with respect to whether the project in question is consistent with state goals regarding reductions in GHG emissions. The proposed Project would result in annual GHG construction emissions of 8,266 metric tons carbon dioxide equivalent (MT CO2e).

BMP GHG-1: Implementing BAAQMD Construction Measures minimizes GHG emissions during construction. This measure would reduce GHG emissions by encouraging alternative-fueled construction vehicles and equipment, use of local building materials, and recycling or reuse of construction debris. Implementation of BMP GHG-1 would ensure that GHG emissions during construction would be minimized, which would avoid conflict with statewide emissions reduction goals.

The proposed Project has the potential to create GHG emissions impacts through operation of the new Ardenwood Station. However, proposed Project operations would also improve existing passenger rail services, which would reduce single-occupancy VMT in the region. GHG emissions and reductions generated by these sources were quantified for 2025 and 2040 conditions to evaluate the changes in regional emission as a result of the proposed Project. The proposed Project would result in a net reduction in vehicle-related emissions even though there is a minor increase in emissions from station operations. The overall net effect in 2025 and 2040 would be a GHG emissions decrease of 1,880 and 2,048 MT CO2e, respectively. Although there are no applicable

operational GHG significance thresholds for this type of project, it is clear that the proposed Project would not result in GHG emissions that would directly or indirectly have a significant impact on the environment, because the net negative emissions help achieve and are thus consistent with state and local GHG goals.

The California Air Resources Board (CARB) adopted the 2017 Climate Change Scoping Plan to meet the GHG reduction requirement set forth in SB 32 and the 2022 Scoping Plan to meet the GHG reduction requirement set forth in AB 1279. In addition, the MTC and ABAG have adopted their Regional Transportation Plan/Sustainable Communities Strategy to reduce transportation-related emissions throughout the region. Further, one of the primary goals of BAAQMD's 2017 Clean Air Plan is to protect the climate and reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Operation of the proposed Project would result in emission reductions that would facilitate attainment of state and regional GHG reduction goals, including SB 32, AB 1279, and the BAAQMD's 2017 Clean Air Plan goals. Additionally, a net reduction in annual GHG emissions from the proposed Project would also be consistent with the most recent long-term trajectory of statewide climate change planning, as represented by the long-term goal of carbon neutrality by 2045 per SB 1279. The proposed Project would be consistent with both the 2030 reduction goal and 2045 carbon neutral target.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts on greenhouse gas emissions and consistency applicable greenhouse gas plans, policies, or regulations that would be less than significant.

3.1.9 Hazards and Hazardous Materials

An evaluation of the Project's impacts on hazards and hazardous materials is found in Draft EIR Section 3.10 – Hazards and Hazardous Materials. Construction would involve the handling, storage, transport, and disposal of hazardous materials. During construction, the use of hazardous materials and substances would be required, and hazardous wastes would be generated during operation of construction equipment. Hazardous materials used in construction would include, but are not limited to, vehicle fuels, asphalt/concrete, lubricants, drilling fluids, and paints. Using these materials, including their routine transport and disposal, carries the potential for an accidental release into the local environment. Handling such materials would occur during short-term construction activities and would be subject to federal and state regulations and local health and safety requirements. Typical requirements include temporary storage BMPs, containment in closed containers, characterization of waste material for disposal, and disposal at facilities that are equipped and licensed to handle waste with specified characteristics.

Long-term operational activities and practices involving routine transport, use, and storage of potentially hazardous materials for railroad maintenance, including shipments in tankers on the railroads, would remain similar to existing conditions. Future operations within the RSA would continue to involve routine transport of hazardous materials and wastes, such as gasoline, brake fluids, and coolants. Heavy maintenance activities would continue off site at existing maintenance facilities and would not be affected by the proposed Project. The proposed Project would comply with standard regulations and policies regarding the routine transport, use, storage, handling, and disposal of potentially hazardous materials during operations in order to protect human health and the environment. Therefore, long-term impacts would be considered less than significant.

Known and unknown sources of contaminated soil and groundwater are expected to be encountered during soil excavations and dewatering activities, which would require specialized handling, treatment, and potentially off-site transport and disposal. Per California Code of Regulations Title 22, Division 4.5 regulations, excavation, handling, transport, and disposal must be conducted by a licensed hazardous waste transporter. Depending on the contaminant and concentrations encountered, contaminated soils and groundwater would be disposed of at an approved facility in accordance with all applicable local, state, and federal laws and regulations.

Ground-disturbing activities on the Coast and Niles Subdivisions, such as excavations, the removal and addition of tracks, modification of tracks, grade crossing improvements, new or extended siding, installation of new structures and construction of Ardenwood Station, may also have the potential to disturb known and unknown contaminated soil or groundwater. In addition, based on the age (pre-1970s) of many of the buildings within the RSA, it is possible that these buildings were constructed when asbestos containing material (ACM) and lead-based paint (LBP) were readily used. Demolition of structures containing LBP and ACM requires specific remediation activities regulated by federal, state, and local laws and regulations. As a result, the likelihood of the Project resulting in the accidental release of ACM or LBP into the environment is considered low. With the implementation of BMP HAZ-1 through BMP HAZ-7, any reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be avoided. Therefore, with the implementation of BMP HAZ-1 through BMP HAZ-7, impacts associated with construction activities would be considered less than significant.

The proposed Project involves multiple waterway crossings. Construction work over waterbodies would involve spill prevention and control BMPs. The proposed Project would require permitting for work near waterbodies and would be subject to compliance with standard federal, state, and local regulations and policies related to water quality during construction of the proposed Project.

The proposed Project could potentially result in hazardous releases near schools, as approximately 21 schools are located within 0.25 mile of the proposed Project. However, with the implementation of BMP HAZ-1 through BMP HAZ-7, short-term impacts would be considered less than significant. Multiple construction vehicles would be operated within the Project footprint over the construction duration, which could result in emissions of air pollutants in the vicinity of an existing school. As described in Draft EIR Section 3.4, Air Quality, BMPs would be implemented in order to reduce emissions and dust near schools and other sensitive receptors during construction.

The Coast and Niles Subdivisions are both located within two miles of the Oakland International Airport and the Hayward Executive Airport. The subdivisions are also located within the Airport Influence Areas set forth in the respective Airport Land Use Compatibility Plans of both airports. No Project activities are proposed that would create sources of thermal plumes, electrical interference, or water vapor. Proposed Project activities are industrial in nature and would not attract wildlife. Given the industrial nature of the proposed Project, the Project would be considered a noise-compatible land use and activities associated with the land use may be carried out with essentially no interference from aircraft noise. The proposed Project does not include structures that are tall enough to create a hazard to aircraft.

Implementation of BMP TR-1 would reduce potential traffic impacts during construction and would include detours and alternate routing. Additionally, the proposed Project would not change any emergency response plan routes. While no state or federal standards for response times have been established for the purposes of identifying CEQA thresholds of significance, the California High Speed Rail Authority San Jose to Merced Project Section Draft EIR/EIS (April 2020) indicated that a

conservative CEQA threshold of significance for change in emergency vehicle access times would be 30 seconds. The proposed Project would result in only a slight increase in access time.

Project construction would comply with UPRR standards as well as all state and local fire safety codes and regulations. Project operation would not exacerbate wildfire risks, as the Project would comply with UPRR design standards and maintenance practices. The design of the rail system would comply with National Fire Protection Association fire protection requirements. Ongoing vegetation removal is required by UPRR as part of its regular maintenance within its ROW.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts on hazards and hazardous materials that would be less than significant, including compatibility with airport operations and wildland fires.

3.1.10 Hydrology and Water Quality

An evaluation of the Project's impacts on hydrology and water quality is found in Draft EIR Section 3.11 – Hydrology and Water Quality. Proposed Project cut-and-fill, grading, and excavation activities have the potential to increase erosion and result in temporary water quality impacts for the proposed Project. Potential temporary impacts to water quality due to construction-related activities would be reduced or avoided by implementing BMPs HYD-1 HYD-2, and HYD-3 near construction areas. The proposed Project would disturb at least one acre of soil during construction, triggering the requirement to prepare a Storm Water Pollution Prevention Plan (SWPPP) as a condition of the Construction General Permit. Soil erosion, especially during heavy rainfall, can increase the suspended solids, dissolved solids, and organic pollutants in stormwater runoff generated within the Project limits. These risks would persist until completion of construction activities and implementation of long-term erosion control measures implemented as part of BMP HYD-4. Implementation of BMPs would minimize sediment within the waterways due to soil erosion or siltation.

The proposed Project would result in an increase in impervious surface area, potentially increasing runoff during significant weather events. Application of BMPs HYD-1, HYD-4, and HYD-5 would ensure that runoff from construction or operation of the proposed Project would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. In addition, the proposed Project discharges stormwater runoff into a tidally influenced/depositional area. As runoff from the project would flow into water bodies that regularly interact with the ocean, the proposed Project would be exempt from implementation of hydromodification management measures and would have impacts that are less than significant.

Regulated waterways within the proposed Project's footprint would be within the jurisdiction of FEMA and the Alameda County Flood Control and Water Conservation District (ACFCWCD). The U.S. Army Corps of Engineers (USACE) would have jurisdiction for those regulated waterways with levees that are managed by USACE. Any change to water surface elevation must be permitted with ACFCWCD and the USACE and controlled for during improvements. As ACFCWCD already oversees the floodplains, ACFCWCD requirements ensure that projects do not unintentionally change the level of obstruction so as to significantly change water surface elevation. Therefore, it would have no impact regarding impeding or redirecting flood flows.

Construction activities associated with the proposed Project could result in the potential release of pollutants in the event of flooding. If flooding of construction areas occurs, stockpiles of

construction materials could be inundated and result in pollution of on-site or off-site downstream surface waters. The impact would be addressed by implementing BMPs HYD-1 and HYD-8, which includes creation of a SWPPP that would define materials storage outside of floodplains.

With the implementation of appropriate construction BMPs for the proposed Project, the Project would meet NPDES CGP conditions and would not impact the beneficial uses or water quality objectives specified in the Basin Plan. Also, with the implementation of appropriate construction BMPs for the proposed Project, there would not be a significant impact to groundwater quality or quantity. Therefore, the proposed Project would not conflict with or obstruct the implementation of the sustainable groundwater management plan as a result of temporary proposed Project impacts.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impacts or impacts that would be less than significant on alterations to drainage patterns that may lead to soil erosion, runoff that exceeds capacity of the existing stormwater drainage system, impeding or redirecting flood flows, risk of release of pollutants in tsunamis or flood hazard zones, and conflict with water quality control or groundwater sustainability management plans.

3.1.11 Land Use and Planning

An evaluation of the Project's impacts on land use and planning is found in Draft EIR Section 3.12 – Land Use and Planning. The proposed Project would not result in direct permanent and temporary impacts to current land uses. The majority of the proposed improvements would occur within or adjacent to the existing UPRR ROW. The proposed Project would not require any full parcel acquisitions of residential-zoned property. With the implementation of BMP TR-1, the proposed Project would not result in permanent or temporary impacts to public access that would create a barrier or permanent disruption in connectivity.

The proposed Project would be generally consistent with the applicable goals, policies, and objectives related to land use and planning. This includes compliance with state, regional, and local goals and policies set forth by Alameda County and all respective cities. The proposed Project would increase connectivity and transportation options for the cities and jurisdictions within the RSA. This would support the plans and policies of complete neighborhoods and transit-oriented development. Additionally, the proposed Project would encourage fewer VMT. This would comply with SB 375 by supporting the reduction of greenhouse gas emissions, one of the proposed Project's identified needs. This would also follow CCJPA's 2014 Vision Plan Update and 2016 Vision Implementation Plan and the State's 2018 California State Rail Plan.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts on land use and planning that would be less than significant.

3.1.12 Mineral Resources

An evaluation of the Project's impacts on mineral resources is found in Draft EIR Section 3.13 – Mineral Resources. No active mining operations were identified within the RSA. A reclaimed mine was identified near Hayward, but the construction of residential units and a future park would likely prohibit additional mineral extraction at this location. No proposed ROW would be acquired from any

active or reclaimed mine. Because of this, no conversion of land from a mineral extraction use to transportation use would occur. With no active mining operations in the RSA, there would be no direct impacts to mining operations. Therefore, the proposed Project would not result in the loss of availability of a known mineral resource or of a locally important mineral resource recovery site.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impact on mineral resources.

3.1.13 Noise and Vibration

An evaluation of the Project's impacts on noise and vibration is found in Draft EIR Section 3.14 – Noise and Vibration. The Coast and Niles Subdivisions are both located within two miles of the Oakland International Airport and the Hayward Executive Airport. The subdivisions are also located within the Airport Influence Areas set forth in the respective Airport Land Use Compatibility Plans of both airports. The Airport Land Use Compatibility Plans include policies intended to reduce the risk from harm to people and property located within the Airport Influence Areas and focus on four impact areas: noise, safety, airspace protection, and overflight. Given the industrial nature of the proposed Project, it would be considered a noise compatible land use and activities associated with the land use may be carried out with essentially no interference from aircraft noise. Properties within an Airport Influence Area are routinely subject to overflights by aircraft. However, this would not result in excessive noise exposure for people working within the RSA during construction and operational activities. Overflights by aircraft would occur intermittently throughout the day and would therefore not result in increased noise hazards over an extended period of time.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts related to airport noise that would be less than significant.

3.1.14 Population and Housing

An evaluation of the Project's impacts on population and housing is found in Draft EIR Section 3.15 – Population and Housing. Implementation of the proposed Project rail improvements would improve regional connectivity by creating a more efficient and reliable passenger rail route and reducing the passenger rail travel time through the provision of at-grade and other rail infrastructure improvements. This would potentially increase rail ridership and allow for better connections between high-demand destinations, job centers, and affordable housing locations within the Northern California megaregion. The proposed Project would not construct infrastructure (e.g., expansion of the existing road network) or result in new development that would result in direct reason substantial and unplanned population growth in the area. Implementation of the proposed Project would generate employment opportunities during the construction and operational phases of the proposed Project. While the proposed Project would generate additional employment opportunities, the majority of these jobs are expected to be filled by residents within Alameda County.

With the proposed improvements associated with the new Ardenwood Station, the new station facility could encourage development in the surrounding area and the potential for transit-oriented development. However, the new Ardenwood Station is within a suburbanized area, with the majority of the surrounding parcels already developed with residential, office, and business uses. While there

are some vacant parcels adjacent to the site of the new Ardenwood Station, the type of development that could occur would be governed by the existing land use plan of the local jurisdiction (e.g., City of Fremont's General Plan). Any growth anticipated from the development of these vacant parcels is included as part of the City of Fremont's General Plan future growth projections.

The majority of proposed Project improvements would occur within or adjacent to the existing UPRR right-of-way and adjacent to a pre-existing transit facility (Ardenwood Park & Ride). The proposed Project would not require any full parcel acquisitions of residential zoned property. As a result, no residential relocations would be required under the proposed Project.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts on unplanned population growth that would be less than significant and no impact on displacement of residents and housing.

3.1.15 Public Services

An evaluation of the Project's impacts on public services is found in Draft EIR Section 3.16 – Public Services. The nearest fire stations to the Project footprint are ACFD Station 28, located at 7550 Thornton Avenue in Newark and ACFD Station 10, located at 14903 Catalina Street in San Leandro. Although ACFD Station 28 and AFCD Station 10 and other fire stations in the vicinity of the proposed Project would not be directly impacted during construction, indirect impacts may occur related to emergency vehicle access that may be impeded during construction due to nearby temporary lane or road closures and movement of construction equipment on local roads. However, these impacts would be temporary and would not result in lasting effects. The proposed Project would not significantly alter emergency vehicle access times in the Project Study Area (less than 30 seconds of change throughout the day), for each emergency vehicle response time. Implementation of BMP TR-1: Transportation Management Plan would reduce impacts on emergency vehicle access during proposed Project construction.

Project plans for the proposed Ardenwood station in the City of Fremont would be reviewed by the Fremont Fire Department, and the final design of the station would be required to incorporate Fire Department recommendations. The Ardenwood Station design would comply with National Fire Protection Association codes and standards. In addition, fire prevention measures would be incorporated into building plans in accordance with the California Fire Code and City of Fremont's Fire Code. The proposed Project would not result in substantial population growth and therefore would not contribute to the need for new fire protection facilities.

There are no police stations in the RSA; therefore, no police stations would be directly impacted during construction of the proposed Project. The proposed rail improvements would occur primarily within existing UPRR right-of-way. No residential or other development is proposed as part of the proposed Project that would result in a new or increased demand for police services. The proposed Project would not affect the ability of nearby police departments to maintain acceptable service ratios, response times, or other performance objectives.

Construction of the proposed Project would not result in any direct impacts on any schools or other public facilities such as libraries and hospitals, nor an increased demand for these facilities.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts on public services that would be less than significant, including temporary and indirect impacts.

3.1.16 Recreation

An evaluation of the Project's impacts on recreation is found in Draft EIR Section 3.17 – Recreation. The proposed improvements would occur primarily within the existing UPRR ROW as well as within existing public roads. Capitol Corridor passenger trains and goods movement via freight rail would not increase the use of existing parks and recreational facilities during operational activities. The existing parks and recreational facilities within the RSA that serve local communities would continue to serve these communities.

A new Ardenwood Station is proposed at the existing Ardenwood Park-and-Ride facility. The Ardenwood Historic Farm is located adjacent to the existing Coast Subdivision and is within ¼ mile of the proposed Ardenwood Station. As described in Section 3.15, Population and Housing, proposed improvements associated with the new Ardenwood Station could indirectly foster population growth; however, this indirect population growth is already planned for by the City of Fremont. Therefore, the proposed Project would not result in an increased demand for parks and recreational facilities, and it would not increase the use of the existing recreational facilities in the area or cause substantial or accelerate physical deterioration of these facilities.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impact on increased use of the existing recreational facilities in the area.

3.1.17 Transportation

An evaluation of the Project's impacts on recreation is found in Draft EIR Section 3.18 – Transportation. The proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including roadway, transit, bicycle, or pedestrian facilities. The proposed Project is a key element in CCJPA's 2014 Vision Plan Update and 2016 Vision Implementation Plan, both of which call for relocating Capitol Corridor service from Oakland and Newark Subdivisions to the Coast Subdivision to provide a shorter and more direct route from Oakland to San Jose and improve the rail network and operations between Oakland and San Jose. The proposed Project is also consistent with a key component of the 2018 California State Rail Plan, which calls for rerouting passenger rail service from the Niles Subdivision to the Coast Subdivision to facilitate faster travel times and a more direct route from Oakland to San Jose. In addition, based on the Level of Service (LOS) analysis of the Transportation Assessment for the Project, the proposed Project is consistent with the Fremont transportation handbook LOS goals for signalized intersections. Moreover, the proposed Project was designed to be consistent with all applicable regional and local plans, ordinances, and policies related to circulation, transportation, and mobility in Alameda County and the cities of Oakland, San Leandro, Hayward, Fremont, Newark, and Union City.

During construction of the proposed Project, BMPs would be implemented as part of the proposed Project. With implementation of BMP TR-1: Transportation Management Plan (TMP), a TMP would be developed during final design in coordination with local jurisdictions and first responders within the

RSA to maintain emergency, transit, roadway, bicycle, and pedestrian access and to avoid or reduce impacts to traffic circulation and minimize delays.

The proposed Project would result in changes in ridership patterns along the Capitol Corridor route due to the opening of new travel markets (e.g., Transbay travel connections at Ardenwood Station), reducing service travel times between Oakland and San Jose, using a more direct route for Capitol Corridor services. The proposed Project is anticipated to result in a reduction of regional VMT due to increases in passenger rail ridership. VMT is forecasted to decrease by 38,000 VMT in Opening Year 2025 and by 40,000 VMT by Horizon Year 2040 based on the Pre-COVID Basis model and by 20,000 VMT by Opening Year 2025 and 33,000 VMT by Horizon Year 2040 based on Post-COVID Basis model based upon the increased ridership associated with the implementation of the proposed Project. Therefore, based on CEQA and OPR guidance, the proposed Project would not conflict with CEQA Guidelines Section 15064.3, subdivision (b).

The proposed Project would not substantially increase hazards due to a geometric design feature or incompatible use. The proposed track, signal upgrades, and siding improvements would be located within or adjacent to existing rail or public transportation ROW and designed based on standards set forth by CCJPA, the local jurisdiction, and/or the host railroad. All at-grade crossings in the RSA are equipped with warning bells, crossing gates, and flashing lights. These rail corridors also currently serve passenger and/or freight rail trips, meaning that trains would run on rail lines that currently experience rail traffic. The proposed Project would be designed according to applicable passenger and freight rail criteria, city, safety, and ADA standards, codes and guidelines to maximize safety for both motorized and non-motorized forms of transportation.

An emergency vehicle access analysis was completed for the proposed Project, which considered the locations of existing fire and police stations and hospitals. While no established state or federal standards for response times have been established for the purposes of identifying CEQA thresholds of significance, for purposes of this analysis the CEQA threshold of significance for change in emergency vehicle access times would be an increase of 30 seconds (i.e., 10 percent of 300 seconds). Based upon the analysis, no areas would result in an increase by a significant amount.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in impacts on transportation that would be less than significant.

3.1.18 Utilities and Service Systems

An evaluation of the Project's impacts on utilities is found in Draft EIR Section 3.20 – Utilities and Service Systems. The proposed Project would require protection and relocation of utilities and potentially construction of new distribution connections to existing utilities. Utilities located in the Coast Subdivision that could be affected by the proposed Project include fiber optic and natural gas lines that parallel the alignment within the UPRR ROW for much of the length of the proposed Project. There are also shorter sections of other utilities that also parallel the alignment within the UPRR ROW, such as sanitary sewers, storm drains and channels, petroleum pipelines, and electric lines that may be affected. In addition, grade crossings are a common location for utilities that cross the ROW. For all utility conflicts, the proposed Project would coordinate with utility providers regarding the type of protection that is required for their facilities (BMP UT-1). CCJPA would coordinate with utilities and comply with General Order 131-D as needed during final design (BMP UT-1), as well as implement BMP UT-4: Public Notification. The modification, alteration, or addition of distribution

lines (i.e., electrical lines less than 50 kV) is not anticipated to require a certificate of public convenience and necessity or permit to construct. The proposed Project would implement all relevant BMPs to protect environmental resources, including measures to address impacts to noise, transportation, hazards and hazardous materials, hydrology and water quality, and biological resources.

The proposed Project would construct new connections to existing electrical, water, stormwater, and telecommunications distribution lines to Ardenwood Station and to new signals, switches, and grade crossing improvements. These new connections would be constructed within either existing UPRR or public roadway ROW to the extent feasible. New electrical connections would be needed to power signals and switches, as well as the new Ardenwood Station (e.g., lights and signage). The new station may also need connections to water lines for fire suppression, cleaning, and maintenance. The station may also require a telecommunications connection to provide ticketing and passenger information services. However, no new electrical transmission lines, high voltage lines, or major water lines are proposed. The proposed Project would implement all mitigation measures and BMPs identified in the Final EIR to avoid, minimize, and mitigate impacts to sensitive resources associated with construction activities, including utility relocations and installation of new utilities.

CCJPA would coordinate with Hayward Water System (HWS) and the Alameda County Water District (ACWD) on water use by proposed Project construction during dry years (BMP UT-5). Operational changes associated with the proposed Project that could affect water use are limited to station operation. Water use at the new Ardenwood Station would be limited to cleaning, maintenance, and irrigation, which would be obtained from ACWD. As a C.3 Regulated Project (per the Municipal Regional Permit [MRP] provision C.3.b), the proposed Project is required to include all Low Impact Development site design measures to increase on-site infiltration of stormwater and reduce stormwater runoff, including directing runoff into vegetated areas. Directing runoff into vegetated areas (BMP HYD-6), use of drought tolerant species (MM AES-4), and installation of water-efficient landscaping (BMP UT-3) would limit the need for irrigation at Ardenwood Station. Implementation of BMP UT-2: Minimize Potable Water Use would encourage the use of recycled water. Therefore, the Project would have a less than significant impact with respect to having available water supplies.

No wastewater treatment would be required during construction or operation of the proposed Project. Although dewatering would be required during construction, particularly for structural foundations, it is assumed that water from dewatering operations would be treated and discharged as specified in the dewatering permit, NPDES permits, and 401 Water Quality Certification. Treated water may be discharged to storm drains, sanitary sewers, or surface waters as permitted and within existing capacity. No new restrooms are proposed at the new Ardenwood Station. Therefore, the Project would have no impact with respect to exceeding existing wastewater capacity.

During construction, solid waste would be produced as part of site work (such as grading, earthwork, utility relocation/protection, and demolition), railroad preparation and follow-up work (such as track replacement), and excavation of structural foundations. The proposed Project would implement BMP UT-6, which would minimize construction and demolition debris by prioritizing reuse and recycling of materials. Based upon current and projected disposal rates, estimated volume of solid waste disposal by construction of the proposed Project, as well as the remaining capacity reported by Vasco Road and Altamont landfills, it is projected that Alameda County has sufficient landfill capacity. The proposed Project is not expected to result in new solid waste production during operation from track and systems. The Project would have a less than significant impact with respect

to generation of solid waste. The Project would have no impact with respect to complying with solid waste management regulations.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impacts or impacts that would be less than significant on utilities and service systems, including water, wastewater, and solid waste systems.

3.1.19 Wildfire

An evaluation of the Project's impacts on wildfire is found in Draft EIR Section 3.21 – Wildfire. The proposed Project operation would not exacerbate wildfire risks, as the proposed Project would comply with UPRR design standards and maintenance practices. Design of the rail system would comply with National Fire Protection Association fire protection requirements. Ongoing vegetation removal is required by UPRR as part of regular maintenance within its ROW. UPRR requires 12 feet on either side of track centers be cleared of vegetation for main lines, sidings, and industrial lead tracks. Additional vegetation clearance is required at bridges, public crossings, around buildings, stations and platforms, and around signs and signals. Further, implementation of BMP WF-2 factors in wildfire safety when developing and implementing landscape planting for crossing and roadway improvements by requiring the use of drought-tolerant plants and low-flammability materials.

Relocations of existing utilities would generally take place within or adjacent to rail or roadway ROW. UPRR requires overhead wires to have a minimum clearance of 27.5 feet above the top of rail for electrical lines of less than 750 volts and 29.5 feet for lines over 751 volts. Relocated utilities would meet all state and local standards with respect to safety and fire prevention, including California Public Resources Code Division 4, Chapter 3. New utility installation and relocation would comply with the California Code of Regulations regarding Power Line Safety and Fire Prevention, as well as the California Public Resources Code. Within grassy, brushy areas (such as may be found on roadsides, embankments, and adjacent to waterways), the Project would comply with vegetation clearances around the power lines supplying the Project required by the California Public Resources Code, along with BMP WF-1: Prepare Fire Prevention Plan that would apply to construction activities. Therefore, the addition of infrastructure would not increase wildfire risk.

After fires have impacted a watershed, substantial sediment and debris flows can result from surface erosion due to rainfall runoff, or land sliding due to rainfall infiltration into the soil. All slopes proposed by the proposed Project would meet UPRR standards and be engineered based on the results of site-specific geotechnical investigations. This would prevent the proposed Project from resulting in post-fire slope instability that could result in downslope landslides. The Project design is not expected to expose people or structures to downstream flooding as a result of runoff or drainage changes after wildfire.

The South Section of the Coast Subdivision parallels Ardenwood Historic Farm, which the City of Fremont has identified as a Very High Fire Hazard Severity Zone. Project features adjacent to the farm would include intersection improvements to facilitate multi-modal access to the new Ardenwood Station, which would be constructed on the opposite side of Ardenwood Boulevard from the farm entrance. Construction and operation of the proposed Project, including Ardenwood Station, would not affect emergency response to or evacuation from the Ardenwood Historic Farm. Implementation of BMP WF-1: Prepare Fire Prevention Plan would reduce risk of wildfire from construction activities in this area. With new passenger service at the Station, there would be a new evacuation route via

passenger train in the event of an emergency. Additionally, construction of new pedestrian access features (walkway and south pedestrian crossing) could be used as routes in the event of an emergency by pedestrians to cross the railroad tracks or pass under SR 84. Therefore, the project would have no impact with respect to impairing emergency response or evacuation plans.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, implementation of the Project would result in no impact on wildfire.

3.2 Impacts Determined to be Less than Significant with Mitigation Incorporated

3.2.1 Aesthetics and Visual Resources

Scenic Vistas

An evaluation of the Project's impacts on scenic vistas and resources is found in Draft EIR Section 3.2 - Aesthetics and Visual Resources. The Project proposes track improvements, at-grade crossings, new sidings, new second main track, grade-separated crossings, water crossings, and the proposed Ardenwood Station. Construction activities would introduce heavy equipment, associated vehicles, soil and material transport, and land clearing within and outside UPRR ROW, creating dust clouds that interrupt scenic vistas, although visual impacts resulting from these construction activities and equipment would be temporary. Additionally, these improvements would be visible from one or more visual receptors identified in Draft EIR Section 3.2.4.2, Local Setting.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to visual resources identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AES-1: Construction Area Visual Screening. Prior to the commencement of construction activities, Capitol Corridor Joint Powers Authority (CCJPA) will develop a visual resource construction plan for areas that may be affected by construction activities and will be distributed to relevant municipalities for their input to ensure areas that require screening are adequately identified. Construction areas subject to this mitigation measure would be refined by CCJPA based on the size of the area, the nature of the construction activity, the proximity or visibility of the area to public vantage points or residential uses, and the type of visual screening to be implemented during construction activities. Potential visual screening may include, but is not limited to, the following:

- Fence with vinyl or mesh banners
- Fence with privacy screens
- Chain link fence with slat panels

MM AES-2: Construction Lighting Plan. Prior to commencement of construction activities, CCJPA will develop a construction lighting plan for areas that could be affected by

construction activities. The construction lighting plan will be developed during the project design phase. Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that those areas that could be affected by construction activities have been identified. The construction lighting plan will consider the size of the area, the nature of the construction activity, the proximity or visibility of the area to sensitive receptors, and the type of lighting needed during construction activities. In addition, the construction lighting plan will evaluate the following:

- Lighting polices/requirements of the local jurisdiction;
- Use of glare-free lights, such as color corrected halide lights or balloon lights;
- Selection of light fixtures that meet or exceed industry standards for cutoff performance; and
- Installation of lights at the proper angle such that spill light is minimized beyond the construction site.

MM AES-3: Vegetation Impact, Protection, and Replacement Plan. During final design, CCJPA will develop a vegetation impact, protection, and replacement plan for areas outside of the UPRR right of way that would be affected by construction activities. The vegetation impact, protection, and replacement plan will be developed during the design phase. Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that those areas outside of the UPRR right of way that could be affected by construction activities have been identified. The Vegetation Impact, Protection, and Replacement plan will consider the following elements outside of UPRR ROW:

- Minimize size of area for clearing and grubbing;
- Require that any pruning activity be performed by a Certified Arborist;
- Including vegetation restoration requirements, including use of drought tolerant plant species and avoidance of invasive plant species in areas listed on Table 3.2-1 [of Draft EIR];
- Incorporating landscape design options to soften vertical structures, minimize surface glare, reduce the visual monotony of the structures, and enhance the aesthetics of the structure;
- Using California native species with strong emphasis on vegetation and natural habitat restoration and screening of the rail corridor in non-urbanized areas;
- Selecting plant species from local (city or county) jurisdictional plant lists, if available, with an emphasis on adaptability to urban conditions and placing plants in accordance with Crime Prevention Through Environmental Design principles for urbanized areas;
- Developing an irrigation design and a maintenance program that will maximize retention of selected plant species and minimize potential for takeover by local invasive species.
- Minimizing the introduction and spread of Phytophthora species during construction and habitat restoration activities.

Vegetation Replacement/Visual Softening Planting Area	Planting Character
Ardenwood Station area outside of UPRR ROW	Urbanized
North and South of Alameda Creek bridge outside of UPRR ROW	Urbanized
Alameda Creek bridge outside of UPRR ROW	Urbanized
Retaining Walls MP 30.0 to MP 27.65 outside of UPRR ROW	Urbanized
Retaining Walls MP 27.65 to MP 26.75 outside of UPRR ROW	Urbanized
Retaining Walls MP 26.65 to MP 26.00 outside of UPRR ROW	Urbanized
Lowry Road double-track bridge outside of UPRR ROW	Urbanized
Crandall Creek double-track bridge or culvert outside of UPRR ROW	Urbanized

MM AES-4: Landscape Plan for Ardenwood Station. During final design, CCJPA, in coordination with the City of Fremont, will develop a landscape plan for the proposed Ardenwood Station's surface parking lot, entrance plaza, and any disturbed vegetation at the Ardenwood Park and Ride or at other areas outside of UPRR ROW that would be affected by station construction. The landscape plan would include, at a minimum, the following measures:

- Shade trees and groundcovers at proposed surface parking lot, along the accessible walkways connecting south pedestrian overcrossing with the station, Dumbarton Court, and Overlake Place to improve aesthetics and to provide shade;
- Use of the City of Fremont's Landscape Development Requirements for all areas within the City's jurisdiction (City of Fremont 2019);
- Station entry plaza landscaping;
- Use of drought tolerant plant species and avoidance of invasive plant species;
- Mixed landscape plantings to provide multi-season visual interest while maintaining clear identification and visibility of the station for the public;
- Irrigation design and maintenance program to support landscaping and minimize takeover by invasive species.

MM AES-5: Aesthetic Plan for Proposed Bridge Structures. During final design, CCJPA will develop an aesthetic plan for proposed Project bridges that would replace single-track bridge structures with double-track bridge structures or where new bridges would be constructed adjacent to an existing bridge on the same roadway or waterway. The new bridge structures would

match the height and aesthetic treatments of the existing bridge structures to the extent possible, given that the new structure(s) must also be compliant with regulatory, rail operations, and constructability requirements.

Proposed Structure	Optimal Height	Color and Surface Finish
Alameda Creek bridge	Match existing Alameda Creek bridges removed as part of the proposed Project	Natural steel, CCJPA approved
Lowry Road double-track bridge	Match existing Lowry Road bridge adjacent to the proposed bridge	Natural steel, CCJPA approved
Crandall Creek double-track bridge or culvert	Approximately match existing Crandall Creek bridges removed as part of the proposed Project	Natural steel, CCJPA approved

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MM AES-6: Aesthetic Plan for Proposed Structural Features. During final design, CCJPA will develop an aesthetic plan for the coated new, relocated, and/or replaced ancillary features, fencing, and railings proposed along the proposed Project corridor, but outside of the UPRR ROW. The Aesthetic Plan will consider, but not be limited to, the following:

- Coloring or shading of ancillary features outside the UPRR ROW a shade that would be two to three shades darker than the general surrounding area using the prescribed color palette from U.S. Department of the Interior, Bureau of Land Management, with a finish to reduce the potential glare;
- Color and texturizing ancillary features, within or adjacent to UPRR ROW, such as signal equipment, safety gates, signal houses, and pavement markings, to be in accordance with UPRR requirements for consistency throughout the corridor;
- Constructing any new fences within the UPRR ROW to be in accordance with UPRR and CCJPA requirements. The existing fences affected by the proposed Project outside of the UPRR ROW to be replaced in kind or with black powder coated chain link fences or high security fences, as determined by CCJPA;
- Cable railing to be used to maintain corridor-wide railing design consistency and not to block scenic vistas where applicable.

MM AES-7: Aesthetic Plan for Ardenwood Station Structures, Pedestrian Overcrossings, Grade Separated Structures, Retaining Walls, and Bridges. During final design, CCJPA will develop an aesthetic plan for new structures with high visibility from SR 84 and Alameda Creek Regional Trail (Table 3.2-3 of Draft EIR). Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that design plans of the new high-visibility structures are consistent with existing general plan policies and local regulatory requirements. Aesthetic design treatments will consider but not be limited to the following:

- Selecting colors and textures to recede into views to reduce the overall apparent scale of the proposed structures. Use of earth-toned colors, such as light buff/tan or light gray colors to complement the surrounding vegetation and provide a subtle

foreground to surrounding scenic vistas. Using roughened concrete surfaces to provide visual texture, reduce glare, and deter graffiti;

- During design, considering the aesthetics of similar local structures to complement the existing cultural and natural landscape, and adhering to the local city or county jurisdictional regulations pertaining to aesthetics;
- Complying with UPRR requirements for railroad structures related to structural design and appearance and post-construction access to all facilities for inspection during operations;
- Incorporating aesthetics along the rail corridor for new, modified, or relocated retaining walls to correspond with existing retaining walls nearby or at the original locations, to the extent allowable by UPRR right-of-way design standards.

Proposed Structure	Aesthetic Design Treatments
Ardenwood Station Plaza and platforms	Design structure in a manner that provides a welcoming feel and a sense of arrival to the viewer groups. Incorporate Crime Prevention Through Environmental Design principles in the design. Incorporate design elements and/or public art reflective of community aesthetics in coordination with the City of Fremont. Select structure color and texture to be consistent with the surrounding built environment. Design railings to be visually transparent to soften the mass of the structure.
Ardenwood Station north overcrossing (Fremont)	To the extent possible, design overcrossing as a gateway element and incorporate design features reflective of the City of Fremont community aesthetics in coordination with the **C**ity**.** Select structure color and texture to be consistent with the surrounding built environment. Design railings **to extent possible** to be visually transparent to soften the mass of the structure.
Ardenwood Station south overcrossing (Hayward)	To the extent possible, design overcrossing as a gateway element and incorporate design features reflective of City of Newark community aesthetics **in coordination with the City**. Select structure color and texture to be consistent with the surrounding built environment. **To extent possible, design** railing to be visually transparent to soften the mass of the structure.
Retaining Walls	Add texture to concrete. Add cap to retaining walls.
Lowry Road double-track bridge	Concrete texture on abutments
Crandall Creek double-track bridge or culvert	Concrete texture on abutments

Degradation of Visual Character or Scenic Quality

An evaluation of the Project's impacts on existing visual character and scenic quality is found in Draft EIR Section 3.2 - Aesthetics and Visual Resources. Construction activities would introduce heavy equipment, associated vehicles, soil and material transport, and land clearing within and outside of the UPRR right-of-way into the viewshed of all user groups. Visual impacts resulting from these construction activities and equipment would be temporary, and with implementation of mitigation measures MM AES-1: Construction Area Visual Screening and MM AES-2: Construction Lighting Plan, construction impacts are anticipated to be less than significant.

The Project proposes new two-track bridges to replace the existing single-track bridges over Lowry Road and Alameda Creek. Also, the Project would include either new double-track bridges or culverts over Crandall Creek (an engineered channel), and a drainage channel at MP 29.57. In addition to the bridges (or culverts), the proposed Project would include replacing eight existing timber structures with culverts. Retaining walls will also be required to accommodate railroad improvements on the Coast Subdivision. These features would be prominent elements in the visual environment and would significantly alter the visual character of their surroundings. Implementation of MM AES-3: Vegetation Impact, Protection, and Replacement Plan and MM AES-7: Aesthetic Plan at Ardenwood station structures, Pedestrian Overcrossings, Grade Separated Structures, Retaining Walls, and Bridges would minimize clearing and grading, protect existing vegetation, soften the mass of these structures through vegetation screening outside of UPRR right-of-way and aesthetic design treatments, and aid in blending these structures with their surroundings.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to visual resources identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AES-1
MM AES-2
MM AES-3
MM AES-4
MM AES-5
MM AES-6
MM AES-7

Light and Glare

An evaluation of the Project's impacts on light and glare is found in Draft EIR Section 3.2 - Aesthetics and Visual Resources. The primary sources of existing daytime and nighttime light in this environment are residential lights, security lights, streetlights, parking lot lights, traffic signal lights, automobile headlights, and various sources of nighttime lighting. Sources of glare include sunlight reflected in the windows of buildings and cars and lighted signs on multistory buildings.

The Project would create new sources of both temporary and permanent light and glare. Temporary sources of light and glare would include construction vehicles and lighting for nighttime construction. MM AES-2: Construction Lighting Plan would be implemented during construction to minimize fugitive light from portable sources used for construction.

Permanent sources of light and glare would include lights at the new Ardenwood Station and pedestrian overcrossing, new rail crossing signals, and train lights during nighttime operating schedules. New lighting sources, such as signal lights, would be balanced with existing conditions, because where signal lights are added in some areas, they would be removed in others. Further, the existing visual environment in urbanized areas of the proposed Project already contains many sources of light and glare including vehicle headlights, streetlights, traffic signals, parking lot lighting, storefront and signage lighting, and other lighting on buildings, so a slight increase in signal and train lighting would be negligible overall. In both urbanized and non-urbanized areas of the proposed Project, MM AES-8: Lighting Plan would be applied to further minimize light trespassing and glare.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to light and glare identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AES-2

MM AES-8: Lighting Plan. During final design, CCJPA will develop a lighting plan for the proposed Project to minimize light trespassing and glare. Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that final design plans are consistent with existing general plan policies and local regulatory requirements. The lighting plan will consider, but not be limited to, the following:

- Lighting design will comply with the Illuminating Engineering Society's design guidelines. Lighting fixtures and lighting control systems will conform to the International Dark-Sky Association's Fixture Seal of Approval program.
- Downcast cut-off type fixtures that direct light only toward objects requiring illumination and shields will be used where needed to minimize light pollution. Shielding for lights in parking lots, along pathways, and station platforms will be used to minimize off-site light spillage, ambient light glow, and glare.
- Lights will be installed at the lowest allowable height to cast low-angle illumination that minimizes incidental light spill onto adjacent properties and open spaces or backscatter into the nighttime sky. Lights will be screened and directed away from adjacent uses to the highest degree possible.
- The lowest allowable illuminance level and intensity feasible will be used for security, safety, and personnel access. The number of nighttime lights will be minimized to the extent feasible.
- Non-glare finishes will be applied to light fixtures to avoid reflective daytime glare. Energy efficient design with daylight sensors or timed with an on/off program will be used. Aesthetically pleasing light color rendering and fixture types will be selected.
- Note that railroad and traffic signals are subject to operational and regulatory requirements and may not meet this mitigation measure.

3.2.2 Air Quality

Cumulatively Considerable Net Increase of Criteria Pollutants

An evaluation of the Project's impacts on air quality is found in Draft EIR Section 3.4 – Air Quality. Alameda County is currently designated as a nonattainment area for federal ozone and PM2.5 standards, and nonattainment for state ozone, PM10, and PM2.5 standards. 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. Additionally, fugitive emissions would result from site grading and asphalt paving. Unmitigated construction emissions would exceed BAAQMD's daily NOx threshold during all three years of construction. No other pollutant would exceed the BAAQMD thresholds. Due to the exceedances of NOx, emissions from Project construction may contribute to a cumulatively considerable net increase of a criteria pollutant within the San Francisco Bay Area Air Basin for which the region is designated a nonattainment area. Although construction emissions of other criteria pollutants would not exceed their respective BAAQMD significance thresholds, emissions of PM10 and PM2.5 would contribute to the existing non-attainment status of the Air Basin for these pollutants.

Mitigation Measure AQ-1 reduces emissions from off-road equipment and requires engines greater than 25 horsepower to meet Tier 4 emission standards. With construction equipment meeting Tier 4 standards, the rate of exhaust emissions, including NOx and particulate matter, will be substantially reduced relative to the average equipment fleet. Similarly, Mitigation Measure AQ-2 would reduce emissions from locomotives that would be used during construction to deliver materials, because it requires advanced emissions controls for locomotives used to deliver materials to the proposed Project site. In accordance with Mitigation Measure AQ-2, locomotives will be equipped with engines that meet or exceed Tier 4 emissions standards. Additionally, compliance with BAAQMD's best management practices for dust control (BMP AQ-1) would also be required to mitigate fugitive dust emissions.

With respect to the proposed Project's operational phase, there would be a net reduction in most pollutants once operations begin because the increased passenger ridership will result in reduced VMT. Thus, with Mitigation Measures AQ-1 and AQ-2, the proposed Project would not result in any exceedances of the pollutant thresholds during the construction period, and there would be a net reduction in daily pollutant emissions during the operational period, which would occur for a much longer duration than construction.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant cumulative environmental impacts on NOx emissions identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AQ-1: Implement Advanced Emissions Controls for Off-Road Equipment. CCJPA will require all off-road equipment greater than 25 horsepower have engines that meet or exceed either EPA or CARB Tier 4 final off-road emission standards.

MM AQ-2: Implement Advanced Emissions Controls for Locomotives Used for Construction. CCJPA will require all diesel-powered locomotives used for construction to have engines that meet or exceed either EPA or CARB Tier 4 locomotive emission standards.

Exposure of Sensitive Receptors to Pollutant Concentrations

An evaluation of the Project's impacts on air quality is found in Draft EIR Section 3.4 - Air Quality. 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 tracks. During construction, the cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other air toxic. However, the Draft EIR analysis concluded that diesel exhaust emissions from construction would not exceed the cancer risk threshold, the Chronic Hazard Index threshold, or the PM2.5 concentration thresholds for all sensitive receptors types with implementation of BMP AQ-1, MM AQ-1, and MM AQ-2, at the Ardenwood Station or Coast Subdivision. Thus, construction of the proposed Project would not result in health risks or PM2.5 concentrations that exceed the applicable thresholds. Thus, impacts would be less than significant with incorporation of these measures.

During operations, the proposed Project would generate diesel particulate matter and PM2.5 emissions from the introduction of Capitol Corridor passenger trains on the Coast Subdivision and an emergency generator at Ardenwood station. PM2.5 exhaust and fugitive dust emissions would be generated from on-road travel of passenger commuters to the Ardenwood station as well as the emergency generator. These activities could expose off-site receptors to incremental increases in health risks. The Draft EIR analysis concluded that the operations of the Ardenwood Station and Coast Subdivision would not exceed the adopted BAAQMD thresholds for cancer risk, chronic HI, and PM2.5 concentrations. Thus, the proposed Project would result in a less-than-significant operational toxic air contaminant risk at Ardenwood station.

The Draft EIR also analyzed the potential impacts of exposure of sensitive receptors to localized carbon monoxide emissions generated by traffic and to asbestos-containing materials released by structure demolition. In both cases, impacts were determined to be less than significant.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on sensitive receptors identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AQ-1
MM AQ-2

3.2.3 Biological Resources

Special-Status Species

An evaluation of the Project's impacts on special status species and habitat is found in Draft EIR Section 3.5 - Biological Resources. The Draft EIR evaluated the potential presence of special-status species within the biological Resource Study Area, as defined in Figure 3.5-1 of the Draft EIR. The

results indicated that 21 special-status plant and wildlife species have the potential to occur within the Resource Study Area:

- California seablite (federally endangered plant)
- Congdon's tarplant (rare plant)
- Crotch's bumble bee (State candidate endangered)
- Western bumble bee (State candidate endangered)
- Monarch butterfly (federal candidate)
- Central California coast steelhead (federally threatened)
- Green sturgeon – southern DPS (federally threatened, State Species of Special Concern)
- Western pond turtle (State Species of Special Concern)
- Western snowy plover (federally threatened, State Species of Special Concern)
- Bald eagle (State endangered, State Fully Protected)
- California Ridgway's rail (federally and State endangered, State Fully Protected)
- White-tailed kite (State Fully Protected)
- California black rail (State threatened, State Fully Protected)
- Burrowing owl (State Species of Special Concern)
- Northern harrier (State Species of Special Concern)
- Alameda song sparrow (State Species of Special Concern)
- San Francisco common yellowthroat (State Species of Special Concern)
- Salt marsh harvest mouse (federally endangered, State endangered, State Fully Protected)
- Pallid bat (State Species of Special Concern)
- Townsend's big-eared bat (State Species of Special Concern)
- Western mastiff bat (State Species of Special Concern)

Various activities associated with Project construction could affect these special-status species, both directly and indirectly. These include direct impacts on nesting and foraging habitats and indirect impacts of noise and lighting. Implementation of mitigation measures applicable to each of these special-status species, described below, would minimize construction impacts to levels that would be less than significant.

During operation of the proposed Project, maintenance activities could include, but are not limited to, cleaning, preventative maintenance to preserve and lengthen service life and technical or specialized repairs. These activities may involve the operation of support vehicles and equipment, pavement repair, welding and grinding operations and already occur within the existing rail corridor as part of existing rail operations. Implementation of the proposed Project would result in the continuation of current maintenance activities within the rail corridor. Therefore, operational impacts on most special-status species are anticipated to be less than significant. However, operational noise and vibration impacts, along with the installation of permanent piers in Alameda Creek, may affect special-status fish species, and additional shading of Alameda Creek from the new rail bridge may affect basking habits of western pond turtle. Implementation of Mitigation Measures BIO-8, BIO-10, BIO-17, and BIO-19 would minimize impacts on special-status fish species, while Mitigation Measure BIO-17 would also minimize impacts on western pond turtle.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to special status species identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1: Implement Biological Resource Protection Measures during Construction. CCJPA will implement the following measures during construction to minimize direct and indirect impacts on special-status species.

a. Prior to the commencement of construction, CCJPA will designate a Project biologist (approved by USFWS, CDFW, and/or the NMFS, as appropriate) (qualified biologist) who has familiarity with special-status plant and wildlife species with the potential to be impacted by the proposed Project. The Project biologist will be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of special-status species habitat. The Project biologist will be familiar with the local habitats, plants, and wildlife, and will maintain communications with the contractor to ensure that issues relating to biological resources are appropriately and lawfully managed. The Project biologist may designate qualified biologists or biological monitors to help oversee proposed Project compliance or conduct pre-construction surveys for special-status species. These biologists will have familiarity with the species for which they will be conducting pre-construction surveys or monitoring during construction activities.

b. The Project Biologist or qualified biologist shall review final plans, designate areas that need temporary fencing measures to identify ESAs (e.g., fencing or flagging), and monitor construction activities within and adjacent to areas with native vegetation communities or special-status plant and wildlife species and their habitats. The qualified biologist shall monitor activities within designated areas during critical times such as vegetation removal, initial ground-disturbing activities, and the installation of BMPs and fencing to protect native species. The qualified biologist will also track proposed Project wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall check construction barriers or exclusion fencing and shall provide corrective measures to the contractor to ensure that the barriers or fencing are maintained throughout construction.

c. The qualified biologist will have the authority to stop work if a special-status wildlife species is encountered within or adjacent to the proposed Project footprint during construction. The Project Biologist or qualified biologist will request that the resident engineer halt work within 100 feet of the encounter (or within an appropriate distance, as determined by the Project biologist or qualified biologist) and confer with CCJPA to confirm proper implementation of species and habitat protection measures. Construction activities shall cease until the Project biologist or qualified biologist determines that the animal will not be harmed or that it has left the construction area on its own. The Project biologist will report any encounters or other non-compliance issue(s) to CCJPA. CCJPA will notify the appropriate regulatory agency(is) within 24 hours of the occurrence.

d. Prior to the start of construction, all proposed Project personnel and contractors who will be on site during construction will complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new proposed Project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence work. The training will advise workers of potential impacts on special-status vegetation communities and special-status species, and the potential penalties for impacts

on such vegetation communities and species. At a minimum, the training will include the following topics:

i. Occurrences of special-status species and special-status vegetation communities in the proposed Project area (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction).

ii. The purposes for resource protection.

iii. Sensitivity of special-status species to human activities.

iv. Protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid special-status resource areas in the field (i.e., avoided areas delineated on maps or on the proposed Project site by fencing).

v. Environmentally responsible construction practices.

vi. The protocol to resolve conflicts that may arise at any time during the construction process.

vii. Reporting requirements and procedures to follow should a special-status species be encountered during construction.

viii. Avoidance and minimization measures designed to reduce the impacts on special-status species.

ix. The training program will include color photos of special-status species and special-status vegetation communities. Following the education program, the photos will be posted in the contractor and resident engineer's office, where the photos shall remain throughout the duration of proposed Project construction. Photos of the habitat in which special-status species are found will be posted onsite.

x. The contractor will be required to provide CCJPA with evidence of the employee training (e.g., a sign-in sheet) on request. Proposed Project personnel and contractors will be instructed to immediately notify the Project biologist or designated biologist of any incidents that could affect special-status vegetation communities or special-status species, and incidents that could include fuel leaks or injury to any wildlife. The Project biologist will notify CCJPA of any incident and CCJPA will notify the appropriate regulatory agency within 24 hours of notification.

e. The Project biologist will monitor the proposed Project site immediately prior to and during construction to identify the presence of invasive weeds and will recommend measures to avoid their inadvertent spread in association with the proposed Project. Such measures will include inspection and cleaning of construction equipment and use of eradication strategies. All heavy equipment will be washed and cleaned of debris prior to entering special-status species habitats to minimize the spread of invasive weeds.

f. At least ten days prior to initiating construction, the Contractor will submit to CCJPA proposed plans for ESA fencing/flagging and initial clearing and grubbing of the proposed Project footprint at that segment. Following implementation of CCJPA-approved delineation plan for ESA's and construction area perimeters in the field, and at least five days prior to initiating construction at that segment, CCJPA will submit final plans for initial clearing and

grubbing of the proposed Project footprint to the appropriate regulatory agencies for approval; these plans will also identify locations of established ESA protections and will include photographs that show the fenced and flagged ESA limits and all areas to be impacted or avoided, including perimeter fencing and flagging.

g. All native or special-status plant or wildlife habitat within and adjacent to the designated proposed Project footprint will be designated as ESAs on proposed Project maps. Following CCJPA approval of final plans for ESA fencing and flagging, and initial clearing and grubbing, and prior to construction, the Contractor will delineate the proposed Project footprint, including construction, staging, lay-down, and equipment storage areas, and establish construction boundaries, with fencing, along the perimeter of the identified construction area to protect adjacent special-status wildlife habitats and special-status plant populations. In areas where fencing cannot be installed, other means of identifying the ESA can be used, such as flagging or paint. ESAs within and adjacent to the proposed Project footprint will be clearly delineated with fencing or flagging prior to construction to inform construction personnel where the ESAs are located. ESA fencing may include orange plastic snow fence, orange silt fencing, or stakes and flagging in areas of flowing water. No personnel, equipment, or debris will be allowed within the ESAs. The Contractor will install fences and flagging in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot or operating equipment. Delineations will be approved by the Project biologist or qualified biologist prior to any ground disturbance. If work inadvertently occurs beyond the flagged or demarcated limits of impact, all work will cease until the problem has been remedied to the satisfaction of CCJPA and the appropriate regulatory agencies. Temporary construction fences, flagging, and markers will be maintained in good repair by the contractor throughout the duration of work at that segment and will be removed upon completion of proposed Project construction at that segment.

h. No work activities, materials or equipment storage or access will be permitted outside the proposed Project footprint. All parking and equipment storage by the contractor related to the proposed Project will be confined to the proposed Project footprint. Areas outside and adjacent to the proposed Project footprint will not be used for parking or equipment storage. Proposed Project-related vehicle traffic will also be restricted to the proposed Project footprint and established roads and construction access points.

i. When nighttime activities are required, then workers will direct all lights for nighttime lighting into the work area and will minimize the lighting of natural habitat areas adjacent to the work area. The contractor will use light glare shields to reduce the extent of illumination. If the work area is located near surface waters, the lighting will be shielded such that it does not shine directly into the water.

j. Vegetation clearing will be confined to the minimal area necessary to facilitate construction activities. Cleared vegetation and spoils will be disposed of daily at a permanent offsite disposal facility or at a temporary onsite location that will not create habitat for special-status wildlife species. Spoils and dredged material will be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations.

k. Garbage will be disposed of in wildlife-proof containers and will be removed from the proposed Project area daily during the construction period. Vehicles carrying trash will be required to have loads covered and secured to prevent trash and debris from falling onto roads and adjacent properties.

l. Construction equipment used for the proposed Project will be maintained in accordance with manufacturer's recommendations and requirements and will be maintained to comply with noise standards (e.g., exhaust mufflers, acoustically attenuating shields, shrouds, or enclosures).

m. The Contractor will store all construction-related vehicles and equipment in the designated staging areas. These areas will not contain native or sensitive natural communities and will not provide habitat for special-status plant or wildlife species.

n. The Contractor will avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches that are more than 1 foot deep at the end of each construction workday. The qualified biologist will inspect open trenches and holes and will remove or release any trapped wildlife found in the trenches or holes prior to being refilled by the construction contractor.

o. Wildlife species can be attracted to den-like structures and may enter stored materials or equipment and become trapped or injured. Construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by wildlife species that could occupy such structures will be inspected by a qualified biologist prior to being used for construction. Such inspections will occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the qualified biologist, the structure may be moved up to one time to isolate it from construction activities, until the wildlife species has moved from the structure of their own volition, has been captured and relocated, or has otherwise been removed from the structure.

p. Capture and relocation of trapped or injured special-status wildlife species will only be performed by personnel with appropriate state and/or federal permits. CCJPA and resource agencies will be notified by biologists within 24 hours of discovery of injury to or mortality of a special-status species that results from proposed Project-related construction activities or is observed at the construction site. Notification will include the date, time, and location of the incident or of the discovery of an individual special-status species that is dead or injured. For a special-status species that is injured, general information on the type or extent of injury will be included. The location of the incident will be clearly indicated on a USGS 7.5-minute quadrangle and/or similar map at a scale that will allow others to find the location in the field, or as requested by resource agencies. A follow-up report will be prepared for governing regulatory agencies, including dates, locations, habitat description, and any corrective measures taken to protect special-status species encountered. Any general sightings (no injury or mortality) will be recorded per monitoring requirements. For each special-status species encountered, the biologist will submit a completed CNDDB field survey form (or equivalent) to CDFW no more than 90 days after completing the last field visit to the proposed Project site.

q. The spread of dust from work sites to sensitive natural communities or habitats for special-status plant or wildlife species on adjacent lands will be minimized by use of a water truck. During dry conditions, dirt access roads, haul roads, and spoils areas will be watered at least twice each day when being used during construction.

r. The Contractor will strictly limit their activities, vehicles, equipment, and construction materials to established roads and the proposed Project footprint limits. Speed limit signs

posted on local roads and a 15 mile-per-hour speed limit along access and haul routes will be observed. Extra caution will be used when special-status reptile species may be basking on roads.

s. To avoid injury or death to wildlife, no firearms will be allowed on the proposed Project site except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

t. To prevent harassment, injury, or mortality of special-status wildlife species by dogs or cats, no canine or feline pets of workers will be permitted in the construction area.

u. Plastic monofilament netting or similar material will not be used for erosion control because smaller wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds. This limitation will be communicated to the contractor through specifications or special provisions included in the construction bid solicitation package.

v. Herbicides will be used in accordance with the manufacturer recommended uses and applications, and in such a manner as to prevent primary or secondary poisoning of special-status fish and wildlife species and depletion of prey populations or vegetation upon which they depend. All uses of such compounds will observe label and other restrictions mandated by the U.S. Environmental Protection Agency, the California Department of Pesticide Regulation, and other appropriate state and federal regulations. Rodenticides will not be used during construction.

w. Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel handheld equipment, will be stored within secondary containment at least 50 feet from open water to the fullest extent practicable.

x. The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter Waters of the U.S. or Waters of the State, and in areas that do not have suitable habitat to support special-status species. Fuel containers, repair materials including creosote treated wood, and/or stockpiled material that is left on site overnight will be secured in secondary containment within the construction work area or a staging area and covered with plastic at the end of each workday.

y. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor will remove all portable fuel containers from the proposed Project site or place them within a secured container.

z. Equipment and containers will be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan (SWPPP), Materials Safety Data Sheets, and any specifications required by other permits issued for the proposed Project.

aa. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks. Where feasible, maintenance of equipment will occur in upland areas where fuel cannot enter WOUS or WOS and in areas that do not have suitable habitat to support special-status species.

MM BIO-2: Rare Plant Pre-construction Surveys. At least one year prior to initial ground disturbance and during the appropriate blooming period (June through November), a focused

survey for rare plants, including Congdon's tarplant and California seablite, will be conducted by a qualified plant ecologist within suitable habitat in the proposed Project footprint (e.g., areas of ruderal grassland, estuarine, and saline emergent wetland habitat) and a 50-foot buffer around the identified suitable habitat. This buffer may be increased by the qualified plant ecologist depending on site-specific conditions and activities planned in the area but must be at least 50 feet wide for permanent impacts. Situations for which a greater buffer may be required include proximity to proposed activities expected to generate large volumes of dust that cannot be effectively mitigated, such as grading; potential for proposed Project activities to alter hydrology supporting the habitat for the species; or proximity to proposed structures that may shade areas farther than 50 feet away. The purpose of the survey will be to assess the presence or absence of Congdon's tarplant and California seablite. If the target species are not found in the impact area or the identified buffer, then no further mitigation will be warranted. If Congdon's tarplant and/or California seablite are observed on or in proximity to the proposed Project site, or during proposed Project surveys, CCJPA will submit California Natural Diversity Data Base (CNDDB) forms and maps to the CNDDB within five working days of the sightings. In addition, if California seablite is found, consultation with USFWS would be required.

MM BIO-3: Rare Plant Avoidance Buffers. To the extent feasible, and in consultation with a qualified plant ecologist and USFWS, CCJPA and/or its contractors will design and construct the proposed Project to avoid and minimize impacts on all populations of Congdon's tarplant and California seablite within the proposed Project footprint or within the identified buffer of the impact area. Avoided Congdon's tarplant and California seablite populations will be protected by establishing and enforcing ESAs with fencing and appropriate signage between plant populations and the impact area. If a reduced buffer is needed for temporary impacts, the qualified plant ecologist will work with the proposed Project construction team to minimize temporary indirect impacts (e.g., watering of construction areas periodically during construction to minimize dust mobilization). Such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, will be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around Congdon's tarplant and California seablite individuals to be avoided will be marked in the field (e.g., with flagging, fencing, paint, or other means appropriate for the site). This marking will be maintained intact and in good condition throughout proposed Project-related construction activities.

- If more than 10 percent of a population of Congdon's tarplant (by occupied area or individuals) would be impacted as determined by a qualified plant ecologist, then Mitigation Measure MM BIO-4 will be implemented.
- If complete avoidance of California seablite is not feasible, then Mitigation Measure MM BIO-4 will be implemented.

MM BIO-4: Rare Plant Mitigation/Habitat Mitigation Management Plan. If avoidance of more than 10 percent of the existing Congdon's tarplant is not feasible, and complete avoidance of California seablite individuals and/or populations is not feasible, CCJPA will consult relevant regulatory agency(ies) (e.g. CDFW/USFWS) regarding compensatory mitigation to be provided via the preservation, enhancement, and management of occupied habitat for the species, or the creation and management of a new population, or as directed by CDFW/USFWS.

- To compensate for impacts on Congdon's tarplant, off-site habitat occupied by the species will be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and at least one occupied acre preserved for each occupied acre affected), for any impact over the 10 percent significance threshold. Alternately, seed from the population to be impacted may be harvested and used either to expand an existing population (by a similar number/occupied area to compensate for impacts to Congdon's tarplant beyond the 10 percent significance threshold) or establish an entirely new population in suitable habitat.

- Areas proposed to be preserved as compensatory mitigation for impacts on Congdon's tarplant and/or California seablite must contain verified extant populations of the species, or in the event that enhancement of existing populations or establishment of a new population is selected, the area must contain suitable habitat for the species as identified by a qualified plant ecologist. Mitigation will be achieved through a combination of in-kind creation, restoration, and/or enhancement as determined to be appropriate through consultation with the resource agencies. Mitigation will first be considered on site, then with an approved mitigation bank, and thirdly through offsite mitigation. The appropriate permit applications will be submitted to state and federal regulatory agencies. The permits issued by these agencies will finalize the mitigation requirements. A habitat mitigation and monitoring plan (HMMP) will be developed and implemented for the mitigation lands. That plan will include, at a minimum, the following information:

- A summary of habitat impacts and the proposed mitigation;

- A description of the location and boundaries of the mitigation site and description of existing site conditions;

- A description of measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat) the mitigation site for Congdon's tarplant and California seablite;

- A description of measures to transplant individual plants or seeds from the impacted area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist);

- Proposed management activities to maintain high-quality habitat conditions for Congdon's tarplant and California seablite;

- A description of habitat and species monitoring measures on the mitigation site, including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, performance criteria will include demonstration that any plant population fluctuations over the monitoring period of a minimum of five years for preserved populations and a minimum of 10 years for enhanced or established populations do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (e.g., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management);

- If a new population is established, the new population must contain at least 200 individuals or the same number of impacted individuals, whichever is greater, by year five. This is to make sure the created population will be large enough to expect to persist and gain sufficient dedicated pollination services. If year five is a poor weather year for summer and fall-blooming annual plants and reference populations show a decline, these criteria can be measured in the next year occurring with average or better rainfall; and
- Contingency measures for mitigation elements that do not meet performance criteria.

The HMMP will be prepared by a qualified plant or restoration ecologist. CDFW and USFWS approval of the HMMP will be required before proposed Project impacts on Congdon's tarplant or California seablite occur.

MM BIO-5: Monarch Butterfly Avoidance. Prior to construction, CCJPA will make sure that a qualified biologist conducts a pre-construction survey for overwintering monarchs or milkweed plants within 50 feet of the Project. If overwintering monarchs are found to be present in any tree within 50 feet of any disturbance area or milkweed is found within 50 feet of any disturbance area during the pre-construction survey, the following guidelines will also be implemented:

- The tree and/or milkweed will be mapped, delineated with ESA fencing, and avoided;
- The modification and/or minimizing of herbicide usage to promote growth of milkweed and flowering plants outside of UPRR ROW; and
- Use local seed mixes that include a variety of flowering plants and milkweed.

MM BIO-6: Bumble Bee Pre-construction Surveys. Within one year prior to construction, CCJPA will perform a habitat assessment for Crotch's and western bumble bee be conducted within the proposed Project footprint and an appropriate survey buffer be established by a qualified biologist with experience surveying for and observing Crotch's and western bumble bee. If the qualified biologist determines that suitable habitat is present, surveys will be conducted to determine the presence/absence of Crotch's and western bumble bee. Surveys will be conducted during flying season when the species are most likely to be detected above ground, between March 1 to September 1. Survey results, including negative findings, will be submitted to the CDFW prior to implementing proposed Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's and/or western bumble bee. At minimum, a survey report will provide the following:

a) A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's and/or western bumble bee;

b) Field survey conditions including name(s) of qualified entomologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched;

c) Map(s) showing the location of nests/colonies; and,

d) A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found, a sufficient description of biological conditions, primarily impacted habitat, will include native plant composition

(e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species).

If the target species is not found in the impact area, then no further mitigation will be warranted. If Crotch's bumble bee or western bumble bee individuals are found within the survey area, then MM BIO-7 will be implemented.

MM BIO-7: Bumble Bee CESA Section 2080 Coordination. If a qualified biologist determines Crotch's and/or western bumble bees are present within the proposed Project footprint, CCJPA will develop a plan to minimize impacts to Crotch's and western bumble bee be developed in consultation with a qualified entomologist during final design. The plan will include effective, specific, enforceable, and feasible measures. An avoidance plan will be submitted to CDFW prior to implementing proposed Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's and/or western bumble bee. If Crotch's and/or western bumble bees are determined to be present within the proposed Project footprint and it is determined the species will be impacted by proposed Project implementation, appropriate mitigation will be determined in consultation with CDFW.

If Crotch's and/or western bumble bee is detected during the survey, and if impacts to Crotch's and/or western bumble bee cannot be feasibly avoided during proposed Project construction and activities, CCJPA and a designated qualified entomologist coordinate will coordinate with CDFW to obtain appropriate permit for incidental take of Crotch's and/or western bumble bee prior to commencement of proposed Project activities in habitat occupied by the bumble bees. The incidental take permit will quantify and provide appropriate mitigation for impacts on Crotch's and/or western bumble bee habitat. Mitigation for impacts to Crotch's and/or western bumble bee habitat would be at a ratio comparable to the proposed Project's level of impacts.

MM BIO-8: Steelhead and Green Sturgeon Work Window. In water work within and over Alameda Creek will be restricted to a seasonal window when surface water flows are lowest, and steelhead and green sturgeon are least likely to be present. The specific work windows (e.g., June 15 to October 15) will be in accordance with the terms identified during NMFS consultation, if warranted.

MM BIO-9: Dewatering and Aquatic Species Relocation Plan. To avoid and minimize effects to water quality and take of aquatic species, the project footprint within Alameda Creek will be dewatered prior to construction. During advanced design and permitting with regulatory agencies, CCJPA will prepare a Dewatering Plan and Aquatic Species Relocation Plan. The plans will be submitted as part of the regulatory permit applications required under the Clean Water Act Section 404 with the USACE, the Clean Water Act Section 401 with the RWQCB, and the Lake and Streambed Alteration Agreement with CDFW as well as USFWS and NMFS. The plans will include but not be limited to the following:

- Minimum qualifications for the Project biologist who will be responsible to monitor in-water construction activities, oversee dewatering, and implement relocation of aquatic species;
- Restrictions on work within the channel. Dewatering of the channel will be limited to the minimum footprint necessary to complete the work. The Dewatering Plan will include details noting type and location for placement of necessary fill, cofferdams, pipes, and

sequencing of activities. After completion of construction, materials used for dewatering will be removed and the channel restored to the original condition; and

Methods, best management practices, and release locations (i.e., Bay-side or landside) for the relocation of special-status fish and other aquatic species to appropriate suitable habitat. The Aquatic Species Relocation Plan will include provisions to limit stress to aquatic species, ensure the quickest relocation to appropriate habitat, and documentation requirements for reporting to permitting agencies.

MM BIO-10: Steelhead and Green Sturgeon Habitat Replacement. Prior to construction activities, CCJPA will coordinate with the NMFS to determine mitigation ratios for permanent impacts on Central California Coast Distinct Population Segment steelhead habitat and green sturgeon (Southern DPS) critical habitat. Mitigation may include on-site restoration, in-lieu fee payment, purchase of mitigation credits at a NMFS-approved mitigation bank, or as defined by NMFS as part of consultation, if warranted.

MM BIO-11: Western Pond Turtle Pre-construction Surveys. A qualified biologist will conduct a pre-construction survey for western pond turtle prior to any proposed ground disturbing activities occurring within 350 feet of Alameda Creek, and other waterways in the proposed Project footprint. The survey area will include all disturbance areas within 350 feet of water line. In areas of suitable habitat, the qualified biologist will conduct a pre-construction survey for the species within 48 hours prior to construction activities before construction equipment mobilizes to the proposed Project footprint. If any pond turtles or their nests are found, the biologist will prepare a relocation plan and submit it to the CDFW for written acceptance prior to starting proposed Project activities, and then implement the plan. Construction activities will avoid all pond turtles and their nests including an appropriate buffer as determined by the qualified biologist.

MM BIO-12: Nesting Migratory Birds, Special-Status Birds, and Raptor Pre-construction Surveys. CCJPA and its contractors will conduct vegetation removal, where required to construct proposed Project features, during the non-breeding season for migratory birds and raptors (generally between September 16 and January 14) to the extent feasible. If construction activities occur between January 15 and September 15, a qualified biologist will conduct a preconstruction survey (within seven days prior to construction activities) to determine whether any active bird nests are present and, if so, identify their locations. The results of the surveys will be submitted to CCJPA (and made available to the wildlife agencies [USFWS/CDFW], upon request) prior to initiation of any construction activities. Should nesting birds be found, the qualified biologist will determine exclusionary buffers. Proposed Project activity will not commence within the buffer areas until a qualified biologist has determined, that the young have fledged, the nest is no longer active, or reducing the buffer would not result in nest abandonment. The size of the buffer may be adjusted if a qualified biologist and CCJPA determine that such an adjustment would not be likely to adversely affect the nest. The qualified biologist will monitor active nests during construction to confirm that the buffer is adequate and will document and provide notification when the nest has fledged or failed. Consultation with CDFW may be required if species of state-listed special concern, or fully protected species are observed.

MM BIO-13: Burrowing Owl Habitat Assessment. Prior to the start of construction activities, CCJPA will retain a qualified biologist to conduct a focused burrowing owl habitat assessment in areas of ruderal and grassland habitat within the proposed Project footprint in

accordance with the methodologies outlined in the California Department of Fish and Wildlife's (CDFW's) 2012 Staff Report on Burrowing Owl Mitigation. If burrowing owls or the presence of suitable burrows are detected during the burrowing owl habitat assessment, the qualified biologist, in coordination with CCJPA and CDFW, will implement avoidance, minimization, and mitigation methodologies outlined in CDFW's 2012 Staff Report on Burrowing Owl Mitigation prior to initiating proposed Project-related activities that may impact burrowing owls or burrowing owl habitat.

MM BIO-14: Salt Marsh Harvest Mouse Avoidance. Salt marsh harvest mouse (SMHM) will be assumed present within the proposed Project footprint; therefore, the following measures below would be implemented:

- A barrier will be installed at limits of the construction work area to exclude SMHM from the construction area:
    - This exclusionary barrier, which will be shown on the proposed Project plans and will be constructed and installed under the guidance of a biologist qualified to survey for SMHM (must meet permit requirements and be approved by USFWS), will consist of a 3-foot tall, tight cloth, smooth plastic, or sheet-metal (or similar material approved by the USFWS) fence toed into the soil at least 3 inches deep and supported with stakes placed on the inside of the barrier;
    - A qualified biologist will conduct a preconstruction survey of the area every morning, prior to construction activities commencing for the day;
    - The qualified biologist will monitor the installation of the exclusionary barrier and will remain on site to monitor all work performed adjacent to SMHM ESAs;
    - Excavations or open trenches in or adjacent to SMHM habitat will either be backfilled or closed at the end of the construction day, or escape ramps will be provided;
    - Following the installation of the exclusionary barrier, the qualified biologist will check its integrity each morning that construction activities occur and will have construction personnel initiate repairs, under the supervision of a qualified biologist immediately as needed.

MM BIO-15: Salt Marsh Harvest Mouse Immediate Work Stoppage. If a salt marsh harvest mouse or an animal that could be a harvest mouse (e.g., a similar species of mouse), is observed within the work area during construction activities, all work will stop immediately, and the qualified biologist will be immediately notified. The animal will be allowed to leave the area on its own and will not be handled except by a qualified, permitted biologist.

MM BIO-16: Bat Habitat Suitability Assessment and Surveys. A qualified and CDFW-approved bat biologist will survey potentially suitable structures and vegetation during bat maternity season, prior to construction, to assess the potential for the structures' and vegetation's use for bat roosting and bat maternity roosting, as maternity roosts are generally formed in spring. The qualified bat biologist will also perform preconstruction surveys or temporary exclusion within 2 weeks prior to construction, as bat roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys.

If a roost is detected, a bat management plan will be prepared if it is determined that proposed Project construction would result in direct impacts on roosting bats. The bat management plan will be submitted to California Department Fish and Wildlife (CDFW) prior to implementation and include appropriate avoidance and minimization efforts such as:

- Temporary Exclusion. If recommended by the qualified bat biologist, to avoid indirect disturbance of roosting bats adjacent to construction activities, temporary bat eviction and exclusion devices will be installed under the supervision of a qualified and permitted bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion will be conducted during the fall (September or October) to avoid trapping flightless young bats inside during the summer months or hibernating/overwintering individuals during the winter. Exclusion efforts are dependent on weather conditions, take a minimum of 2 weeks to implement, and must be continued to keep the structures free of bats and birds until the completion of construction. All eviction and/or exclusion techniques will be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., CDFW) if the structure is occupied by bats. If deemed appropriate, the biologist may recommend installation of temporary bat panels during construction.

If a roost is detected but would only be subject to indirect impacts:

- Daytime Work Hours. All work conducted under the occupied roost will take place during the day. If this is not feasible, lighting and noise will be directed away from night roosting and foraging areas.

MM BIO-17: Compensate for the Loss of Sensitive Natural Communities. Prior to construction, CCJPA will make sure that permanent direct impacts on sensitive natural communities, including California Sensitive Natural Communities, Critical Habitat, EFH, and jurisdictional aquatic resources (e.g. waters of the State or waters of the U.S.) such as riverine, freshwater emergent wetland, lacustrine, estuarine, and saline emergent wetland, will be mitigated through the purchase of credits at a minimum ratio of 2:1 for native habitats and a minimum ratio of 1:1 for non-native habitats. This will be done through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration, and/or creation of riparian habitat within approved watersheds and/or funding of a minimum 1:1 ratio of habitat enhancement at approved conservation easements/mitigation banks. The final mitigation acreage will be confirmed during review of final engineering drawings and may be modified during the agency consultation and permitting process (e.g., CDFW, RWQCB, USFWS, USACE, NMFS). Per expected permit conditions, CCJPA will provide written evidence to the resource agencies that compensation has been acquired prior to construction. Alternatively, as part of the permitting process, CCJPA may provide a plan/proposal for regulatory resource approval to conduct on or offsite habitat creation/enhancement to compensate for the Project's direct impacts to sensitive natural communities. All sensitive natural communities subject to temporary construction disturbance will be restored by CCJPA and its contractors in accordance with a post construction Erosion Control and Habitat Restoration Plan (ECHRP). The ECHRP will address all temporarily disturbed areas, be prepared by a qualified biologist, be developed as part of the CDFW LSAA process and be reviewed and approved by relevant agencies prior to implementation. If mitigation banks are not available at the time that mitigation will be implemented, coordination with agencies would occur to identify appropriate mitigation (i.e., permittee responsible mitigation).**MM BIO-19: Fish Passage and**

Noise Analysis. To evaluate potential impacts to native fish species and fisheries resources, CCJPA will conduct a fish passage analysis during final proposed Project design. The proposed Project will be designed and constructed so that it does not present a barrier to fish passage, create predatory holding habitats or result in operational noise exceeding 150 dB. CCJPA will coordinate with the necessary regulatory agencies, including NMFS and CDFW prior to initiating the analysis, and will consult with NMFS and CDFW during development of conceptual through the final design plans. NMFS and CDFW will be engaged for coordination during design.

MM BIO-20: Salt Marsh Harvest Mouse Habitat Replacement. Prior to construction activities, CCJPA will coordinate with the USFWS to determine mitigation ratios for impacts on SMHM. Pending consultation with USFWS, mitigation may include on-site restoration, in-lieu fee payment, purchase of mitigation credits at a USFWS-approved mitigation bank, or as defined by USFWS as part of consultation.

Riparian Habitat and Sensitive Natural Communities

An evaluation of the Project's impacts on riparian habitat and sensitive natural communities is found in Draft EIR Section 3.5 - Biological Resources. The RSA contains designated critical habitat for southern distinct population segment green sturgeon and snowy plover. To avoid potential direct or indirect effects on critical habitat for green sturgeon (southern DPS), MM BIO-1, MM BIO-7, and MM BIO-8 would be implemented. Implementation of the mitigation measures would reduce construction related impacts on green sturgeon (Southern DPS) critical habitat to a less than significant level. No impact to snowy plover critical habitat is anticipated.

Essential Fish Habitat (EFH) for Pacific salmonids and groundfish occurs throughout the entire biological resource area, however, only a small amount of salmonid and groundfish EFH occurs within the proposed Project footprint. To avoid potential direct or indirect effects on EFH occurring within and adjacent to the proposed Project footprint, MM BIO-1, MM BIO-7, and MM BIO-8 would be implemented. Implementation of the mitigation measures would reduce construction related impacts on EFH to a less than significant level.

Construction and demolition of existing and new tracks would require ground disturbance, grading, possible removal of vegetation, relocation of existing utilities, and staging of equipment and materials. This could directly affect sensitive natural communities present in the RSA. The only California sensitive natural communities that are mapped as occurring within the RSA is mixed riparian forest and aquatic resources. With the implementation of MM BIO-1 and MM BIO-17, the proposed Project would avoid impacts on sensitive natural communities during construction. All temporary impacts on sensitive natural communities would be avoided, minimized, and/or mitigated. With the implementation of MM BIO-1 and MM BIO-17, construction and operational impacts would be reduced to a less than significant level.

Five jurisdictional aquatic resources were mapped within the RSA: estuarine, freshwater emergent wetland, lacustrine, riverine, and saline emergent wetland. To avoid potential direct or indirect effects on jurisdictional aquatic resources, MM BIO-1 would be implemented to reduce impacts to less than significant.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts

to riparian habitat and sensitive natural communities identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1
MM BIO-7
MM BIO-8

State and Federally Protected Wetlands

An evaluation of the Project's impacts on wetlands is found in Draft EIR Section 3.5 - Biological Resources. Construction and demolition of existing and new tracks would require ground disturbance, grading, possible removal of vegetation, relocation of existing utilities, and staging of equipment and materials that could directly affect aquatic resources through direct removal, filling, hydrological interruption, compaction, or sedimentation. Additionally, impacts in the form of dust and contaminant runoff (e.g., oil, grease, concrete) may occur as a result of construction activities and decrease the quality of aquatic resources within the RSA. Although the RSA is highly urbanized and disturbed in nature, direct impacts on state and federally protected wetlands and waters could occur during proposed Project construction under the proposed Project. This would occur at several locations, including Alameda Creek, and other stream crossings located within the RSA. Therefore, the proposed Project could result in permanent and temporary impacts on aquatic resources, Waters of the State, and Waters of the U.S. With the implementation of MM HYD-1 Stormwater Management and Treatment Plan, which avoids impacts on aquatic resources and MM BIO-17, which mitigates for the loss of aquatic resources, impacts on aquatic resources would be reduced to a less than significant level.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to state and federally protected wetlands identified in the EIR to a less than significant level.

Mitigation Measures

MM HYD-1: Stormwater Management and Treatment Plan. See Section 3.2.6, Hydrology and Water Quality, below.

MM BIO-17

Movement of Fish and Wildlife Species

An evaluation of the Project's impacts on fish and wildlife movement is found in Draft EIR Section 3.5 - Biological Resources. Several natural landscape blocks and essential habitat connectivity areas occur adjacent to the RSA. In addition, a corridor for fish passage is associated with Alameda Creek and other creeks occurring within the Coast Subdivision where new railroad bridges would be constructed or culverts installed. The proposed Project has the potential to impact natural landscape blocks or essential habitat connectivity areas identified by CDFW.

Permanent impacts on Alameda Creek associated with a new railroad bridge structure are anticipated under the proposed Project. Construction of in-channel bridge piers has potential to affect fish and wildlife passage during construction. If dewatering is needed as part of the pier construction in Alameda Creek, western pond turtle and other native fish and wildlife species may

be deterred from passing upstream or downstream. However, this deterrence would be a temporary impact. The installation of these new piers would not have a permanent impact on the movement of native fish and wildlife species through Alameda Creek. With implementation of MM BIO-1, MM BIO-8, MM BIO-9, MM BIO-10, and MM BIO-17, construction related impacts to wildlife movement would be considered less than significant. With implementation of MM BIO-19, final design of the proposed Project would ensure that any new bridges or culverts would not impede fish passage. Therefore, proposed Project-related construction would be considered less than significant with implementation of MM BIO-19.

During maintenance and operations, the installation of these new structures would not have a permanent impact on the movement of native fish and wildlife species through Alameda Creek.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on movement of fish and wildlife identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1
MM BIO-8
MM BIO-9
MM BIO-10
MM BIO-17
MM BIO-19

Conflict with Local Policies and Ordinances

An evaluation of the Project's impacts on local policies and ordinances is found in Draft EIR Section 3.5 - Biological Resources. The Cities of Hayward, Fremont, Newark, Oakland, San Leandro, and Union City all have policies and ordinances to protect and preserve certain trees and other sensitive native biological resources, such as wildlife habitat and native plant species. The proposed Project could result in permanent and temporary impacts on vegetation and aquatic communities. These habitats are protected by applicable City policies and ordinances as well as applicable resource agency rules and regulations. Protected trees covered under local jurisdiction ordinances could be impacted through removal and would require relocation or replacement. With implementation of MM BIO-1, MM BIO-2, and MM BIO-18, proposed Project-related construction impacts would be considered less than significant. During operation, the proposed Project would not include any activities that would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts related to conflict with local policies and ordinances protecting biological resources identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1

MM BIO-2

MM BIO-18: Protected Trees Pre-construction Surveys. Prior to the start of construction activities, CCJPA will retain a qualified arborist to conduct a pre-construction survey for protected trees (e.g., all historic trees, all mature native trees, or any mature trees) that may require removal, pruning or may otherwise be impacted by the proposed Project. The pre-construction survey will identify the types, location, sizes, health of protected trees and summarize survey findings in a tree protection report. The tree protection report will be submitted to the applicable city for review and concurrence. The report will include but not be limited to the following:

- Recommended avoidance and impact minimization measures, replacement value, and feasibility of relocation for protected trees subject to removal.

- Methods and measures for relocation of protected trees to appropriate suitable habitat. Identification of which of the surveyed trees these measures apply to, and if any other tree permit requirements are necessary to comply with municipal policies and ordinances.

3.2.4 Cultural Resources

Archaeological Resources

An evaluation of the Project's impacts on archaeological resources is found in Draft EIR Section 3.6 - Cultural Resources. Research conducted for the Draft EIR identified three pre-contact and four historic-period archaeological sites that may qualify as historical resources under CEQA. In addition, a review of geologic maps to assess the proposed Project's potential for containing as-yet undocumented buried archaeological resources indicates the proposed Project extends across numerous geologic units with varying degrees of archaeological sensitivity, but the majority has a high degree of sensitivity for containing buried archaeological resources.

Based on the records search results and the desktop archaeological sensitivity assessment, implementation of the proposed Project would result in substantial adverse changes to archaeological deposits that qualify as historical resources. However, due to constraints posed by property access and urban overlay of the proposed Project, the full nature, type, and extent of buried archaeological deposits and features are unknown and have not been evaluated for the California Register of Historical Resources; therefore, a phased identification and evaluation of archeological sites for the California Register of Historical Resources will be established at least at a 30-percent level of design and prior to the start of construction. The implementation of MM CUL-1, CUL-2, CUL-3, and CUL 4 would reduce potential construction impacts on archaeological resources to a less than significant level.

The operational component of the proposed Project is consistent within the current operational use of the overall railroad network and no increase in train frequency is proposed. As such, the operation of the proposed Project has no potential to impact archaeological resources.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on archaeological resources identified in the EIR to a less than significant level.

Mitigation Measures

MM CUL-1: Temporary Construction Easement Review and Installation of a Horizontal and Vertical Environmentally Sensitive Area for P-01-011558, as appropriate. At or before the 90-percent rail design phase, the need for the Temporary Construction Easement (TCE) at the location of P-01-11558 will be reviewed and if no longer needed, the TCE will be removed from the construction plans. If the TCE is still needed in the vicinity of P-01-011558, a horizontal and vertical ESA will be established to exclude project construction activities from the vicinity of P-01-011558. The method of ESA installation will be determined during the design phase and will be indicated on the construction documents. The ESA will be monitored by a qualified archaeologist (meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (SOI) (codified in 36 CFR Part 61; 48 FR 44739) during any ground disturbing preconstruction or construction work in the boundaries of the TCE.

MM CUL-2: Implement Archaeological Testing and Evaluation Plan. Once the Project footprint reaches a 30% percent level of rail design and prior to the start of construction, an Archaeological Testing and Evaluation Plan (ATEP) will be implemented by a qualified archaeologist in consultation with CCJPA to support the evaluation of the subsurface extent of cultural resources potentially impacted by the project. The ATEP should consist of a site-specific context, research design, and field methods to evaluate known resources, and identify resource types that may be encountered within areas of high sensitivity and deep ground disturbance. This plan should include, but not be limited to:

- Background and anticipated resource types;
- Research questions that can be addressed by the collection of data from the defined resource types;
- Field methods and procedures including:
    - Procedures to determine whether a buried component of a known site extends horizontally into the Project footprint;
    - Geoarchaeological trenching or coring; and
    - Cataloging and laboratory analysis.

The ATEP will be submitted to CCJPA and the local consulting tribal representatives for review prior to implementation. The results of the ATEP will be summarized in a technical document that will determine whether further study is necessary. The technical document will also determine whether additional mitigation will be needed. The technical document will be provided to CCJPA for review and approval and submitted to the Northwest Information Center (NWIC).

MM CUL-3: Installation of a Horizontal and Vertical Environmentally Sensitive Area for previously recorded and newly identified archaeological sites as appropriate. During the design phase, the Project plans will be reviewed to determine if the refinements in the project design allow for avoidance of previously recorded and additional sites identified during the archeological testing conducted for the project. If the sites can be avoided, a horizontal and vertical ESA will be established at designated locations to exclude project construction activities from the vicinity of these sites. The method of ESA installation will be determined

during the design phase and will be indicated on all plans, specifications and estimates. The ESA will be monitored by an archaeologist during any ground-disturbing preconstruction or construction work in the vicinity of the ESA.

MM CUL-4: Draft and Implement Archaeological Monitoring, Avoidance, and Treatment Plan. Upon completion of the archaeological testing and evaluation, and prior to the start of construction, an AMATP will be developed by a registered professional archaeologist in consultation with CCJPA and local tribal representatives. Monitoring will be required at all recorded site locations, including those proposed to be avoided by Project construction.

The AMATP will include protocols that outline archaeological roles and monitoring best practices, anticipated resource types and an Unanticipated Discovery Protocol. The Unanticipated Discovery Protocol will describe steps to follow if unanticipated archaeological discoveries are made during Project work and identify a chain of contact.

The AMATP will be submitted to consulting tribal representatives and CCJPA for review prior to implementation. Following the completion of ground disturbance associated with Project construction, the results of the archeological monitoring and avoidance pursuant to the AMATP will be summarized in a technical document. The technical document will be provided to CCJPA for review and approval and submitted to the NWIC. The final disposition of archaeological and historical resources recovered on State lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.

Human Remains

An evaluation of the Project's impacts on human remains is found in Draft EIR Section 3.6 - Cultural Resources. Based on the records search results and the desktop archaeological sensitivity assessment, implementation of the proposed Project could result in substantial adverse changes to archaeological deposits that may contain human remains. However, due to constraints posed by property access and urban overlay of the proposed Project, the full nature, type, and extent of buried archaeological deposits and features has not been assessed, including the presence of human remains.

In the event that human remains are identified during Project activities, these remains would be required to be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the PRC, as appropriate. Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Compliance with the California Health and Safety Code and implementation of MM CUL-1, CUL-2, CUL-3, CUL-4, and CUL-5 would reduce potential construction impacts on human remains to a less than significant level.

The operational component of the proposed Project is consistent within the current operational use of the overall railroad network and no overall increase in capacity is proposed. As such, the operation of the proposed Project has no potential to impact human remains.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on human remains identified in the EIR to a less than significant level.

Mitigation Measures

MM CUL-1
MM CUL-2
MM CUL-3
MM CUL-4

MM CUL-5: Tribal Monitoring. Tribal monitoring will be required during construction activities at all recorded precontact archaeological site locations, including those proposed to be avoided by Project construction. Tribal monitors will be provided a minimum of one week's notice prior to the commencement of ground-disturbing or construction work.

3.2.5 Geology, Soils, and Paleontological Resources

Paleontological Resources

An evaluation of the Project's impacts on paleontological resources is found in Draft EIR Section 3.8 – Geology, Soils, and Paleontological Resources. Paleontological resources have the potential to be affected during earthmoving activity of undisturbed sediment within the RSA. Though the sediment within the RSA is mostly of Holocene age, older sediment that may be paleontologically sensitive underlies it at an unknown depth. The greater the excavation depth, the greater the likelihood of encountering paleontological resources. The potential to encounter fossils is considered to be increased near known fossil localities. Several fossil localities are located along the East Bay Coastal Plain. In the Project vicinity, many but not all of the fossil localities are located closer to the hills. Open excavation deeper than 10 feet below the surface in previously undisturbed ground is considered to have the potential to encounter sensitive paleontological resources. To reduce impacts on paleontological resources, Mitigation Measure GEO-1 would be implemented. With the implementation of MM GEO-1, impacts on paleontological resources would be reduced to a less-than-significant level.

Operation and maintenance activities would occur in previously disturbed areas (within paved roads and rail corridors), resulting in no potential to impact paleontological resources. Therefore, impacts on paleontological resources during operation and maintenance of the proposed Project would be no impact.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on paleontological resources identified in the EIR to a less than significant level.

Mitigation Measures

MM GEO-1: Paleontological Resources Mitigation Plan. A Paleontological Resource Mitigation Plan (PRMP) will be prepared by a qualified paleontologist following Society of Vertebrate Paleontologists (SVP) guidelines and implemented during the construction phase of the Project (SVP 2010).

The PRMP will include provisions for construction workers to attend a paleontological resource awareness training session and establish the ground rules for the program. It will determine the extent to which paleontological mitigation is necessary and establishes the ground rules for the program. The PRMP will discuss fossil discovery, recovery, and subsequent handling.

The extent of any monitoring recommended would be dictated by the design of the proposed Project and would be determined during design by a qualified principal paleontologist (who holds a Master of Science or Doctorate degree in paleontology or geology and is familiar with paleontological procedures and techniques). The principal paleontologist would review the construction plans with proposed excavation sites to determine which, if any, Project components would involve earthmoving activities at depths sufficient to warrant monitoring. The principal paleontologist would review the construction schedule to develop the required monitoring schedule. Paleontological resources should also be discussed at the pre-bid meeting.

A qualified principal paleontologist would be made aware of the excavation schedule and remain on call during the period of construction specified in the PRMP. If fossils are discovered during construction, the construction crew would immediately notify the resident engineer, who would stop work within 60 feet of the finding. The resident engineer would notify the qualified principal paleontologist who will evaluate the find as soon as possible. If the resource were determined to be potentially significant, CCJPA would be notified, and a recovery program would be initiated. The final disposition of paleontological resources recovered on State lands under the jurisdiction of the California State Lands Commission must be approved by the Commission. The State Lands Commission will be notified by the Project's principal paleontologist or Resident Engineer in the event of a significant find. The PRMP will outline steps to follow to resolve disposition of finds under State Lands Commission jurisdiction.

3.2.6 Hydrology and Water Quality

Groundwater Supplies and Quality

An evaluation of the Project's impacts on groundwater quality is found in Draft EIR Section 3.11 – Hydrology and Water Quality. Due to anticipated high groundwater elevations, dewatering is anticipated for the proposed Project. This has the potential to result in a temporary decrease of the groundwater table in the localized areas where dewatering activities would occur. Construction dewatering would have minimal impacts on areas with high groundwater elevations because most excavations are anticipated to be shallow and widely spaced throughout the proposed Project corridor. Additionally, the impacts would be temporary, because dewatering would cease once the excavation has been backfilled or the specific task requiring dewatering has been completed.

The other potential impact to groundwater is for contaminated groundwater, or groundwater that may release contaminated plumes when disturbed, to recharge back into the groundwater subbasins within the proposed Project footprint. If the proposed Project footprint contains contaminated groundwater or groundwater that may release contaminated plumes when disturbed, Mitigation Measure HYD-2 would require a dewatering permit in compliance with the VOC and Fuel General Permit and Groundwater General Permit be obtained prior to construction. Compliance with these permits would prevent the mismanagement of any potentially contaminated groundwater during construction activities. An active treatment system may also be necessary to treat contaminated

groundwater exposed during excavation activities. Therefore, with implementation of MM HYD-2, impacts on groundwater during construction would be less than significant with mitigation incorporated.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on groundwater identified in the EIR to a less than significant level.

Mitigation Measures

MM HYD-2: Dewatering permit in case of contaminated groundwater. If the groundwater is found to be contaminated, a dewatering permit will be obtained from the San Francisco Regional Water Quality Control Board directly, and the Alameda County Water District. An Active Treatment Systems may be specified by the permit conditions if the quality of the groundwater warrants their use.

Alteration of Drainage Patterns

An evaluation of the Project's impacts on groundwater quality is found in Draft EIR Section 3.11 – Hydrology and Water Quality. The proposed Project proposes work within several floodplains that either result in an increase to floodplain elevations or occupy the floodplain with a structure. A hydraulic analysis of the impacts of the Project improvements within existing creek crossings indicates that such improvements could reduce the storage capacity of the creeks, thereby increasing the possibility of flooding. Implementation of Mitigation Measure HYD-1 would reduce the flooding possibility; therefore, Project impacts on alteration of drainage patterns resulting in flooding would be less than significant.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts of alteration of drainage patterns identified in the EIR to a less than significant level.

Mitigation Measures

MM HYD-1: Balancing cut and fill and increasing flow and detention capacity. Impacts within an existing floodplain or floodway will be mitigated by balancing cut and fill of earthwork, installing equalizer pipes to perpetuate flood flows, or implementing underground storage or add detention basins to provide more flood flow storage.

3.2.7 Noise and Vibration

Temporary or Permanent Increase in Ambient Noise Levels

An evaluation of the Project's impacts on noise is found in Draft EIR Section 3.14 – Noise and Vibration. Construction of track improvements would include three basic activities: (1) site work, (2) rail work, and (3) structures work. Because most track improvements are located on an active rail line, some construction work is anticipated to occur during the nighttime. The local noise ordinances for the cities and County along the rail corridor generally limit construction noise to particular time periods during weekday, weekend, and holiday daytime hours, with nighttime construction work generally prohibited. However, some jurisdictions allow for a noise variance. There are multiple areas

along the rail corridor where construction activities would generate noise levels in excess of Federal Transit Administration (FTA) thresholds at adjacent residential receptors. Mitigation Measure NOI-1 would require the preparation and implementation of a construction noise control plan to reduce the impacts of construction noise on nearby noise-sensitive receptors that could be exposed to noise in excess of FTA thresholds. With implementation of MM NOI-1, construction noise impacts associated with the proposed Project would be reduced to a less than significant level.

Implementation of the proposed Project would result in moderate noise impacts to 451 Category 2 noise receptors and severe noise impacts to 21 Category 2 noise receptors. Category 2 noise receptors, consisting of single-family and multifamily residences, are located adjacent to the existing railroad ROW along the Coast Subdivision. All the severe impacts identified at these locations are due to either the sounding of horns on at-grade crossings on the Coast Subdivision or the introduction or relocation of crossovers for the Project on the Coast Subdivision. The resulting noise level with Project implementation would meet or exceed the FTA severe noise impact criteria assigned with mitigation required. Implementation of MM NOI-2, which requires the creation of quiet zones at identified grade crossings or implementation of building sound insulation, would reduce impacts to a less than significant level.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts of noise identified in the EIR to a less than significant level.

Mitigation Measures

MM NOI-1: Construction Noise Control Plan. CCJPA, in coordination with the Construction Contractor and local jurisdiction(s), will prepare and implement a Construction Noise Control Plan (NCP) to reduce the impact of temporary construction-related noise on nearby noise-sensitive receptors. The plan will demonstrate how the contractor plans to limit the noise levels to below the thresholds for significant impacts. The NCP will include but may not be limited to the following best practices:

- Install temporary construction site sound barriers near noise sources.
- Use moveable sound barriers at the source of the construction activity.
- Avoid the use of impact pile drivers where possible near noise-sensitive areas or use quieter alternatives (e.g., drilled piles) where geological conditions permit.
- Locate stationary construction equipment as far as possible from noise-sensitive sites.
- Reroute construction-related truck traffic along roadways that will cause the least disturbance to residents.
- Use low-noise emission equipment.
- Implement noise-deadening measures for truck loading and operations.
- Line or cover storage bins, conveyors, and chutes with sound-deadening material.
- Use acoustic enclosures, shields, or shrouds for equipment and facilities.
- Use high-grade engine exhaust silencers and engine-casing sound insulation.

- Minimize the use of generators to power equipment.
- Limit use of public address systems.
- Grade surface irregularities on construction sites.
- Monitor and maintain equipment to meet noise limits.
- Establish an active community liaison program to keep residents informed about construction and to provide a procedure for addressing complaints.
- A Construction Noise Control Plan will be developed and implemented to measure noise during construction, including the type of equipment and sensors to be used, a location plan for monitoring equipment, and the following additional requirements:
  - Planned frequency of monitoring for all instruments.
  - Noise thresholds will be identified, that if exceeded, could be potentially harmful to sensitive receptors.
  - Corrective action plans will be identified prior to work start to be implemented should maximum noise threshold be reached or exceeded.
  - To the extent possible, the construction team will be required to conduct the work in such a manner that noise does not exceed threshold limits.
  - A Monitoring Exceedance Report for any exceedance occurrence will be completed by the construction team and submitted to CCJPA, which will describe:
  - what noise measurement values were recorded that exceeded the allowable limits,
  - where the impacted instruments are located,
  - when the exceedances occurred,
  - when work was stopped because of the exceedance(s),
  - what demolition and\or construction activities caused the exceedance(s),
  - what actions were taken to limit and reduce noise levels, and
  - when demolition and\or construction activities were resumed.

MM NOI-2: Creation of Noise Quiet Zones. Prior to the start of construction activities, if establishment of a Quiet Zone is determined to be feasible by the local jurisdiction(s), CCJPA will be responsible for reasonable costs associated with construction of the necessary at-grade crossing improvements to qualify for establishing a Quiet Zone, while recognizing that Quiet Zone approval is ultimately outside the authority of CCJPA. This phased program will include the development of engineering studies and coordination agreements to design, construct, and enforce potential quiet zones at the following grade crossings on the Coast Subdivision:

- Jarvis Avenue (City of Newark);
- Alvarado Boulevard (City of Union City);
- Dyer Street (City of Union City);
- Union City Boulevard (City of Union City);
- Grant Avenue (unincorporated community of San Lorenzo); and

- Lewelling Boulevard (unincorporated community of San Leandro).

CCJPA will consider options for establishing quiet zones including, but not limited to, the following FRA pre-approved supplemental safety measures:

- Four-quadrant gate system. This measure involves the installation of at least one gate for each direction of traffic to fully block vehicles from entering the crossing.
- Gates with medians or channelization devices. This measure keeps traffic in the proper travel lanes as it approaches the crossing, thus denying the driver the option of circumventing the gates by traveling in the opposite lane.
- One-way streets with gates. This measure consists of one-way streets with gates installed so that all approaching travel lanes are completely blocked. This option may not be feasible or acceptable to local jurisdictions at all locations.
- Road closure. This measure consists of closing the road to through travel at the at-grade crossing. This option may not be feasible or acceptable to local jurisdictions at all locations.

In addition to these pre-approved supplemental safety measures, FRA also identifies a range of other measures that may be used to establish a quiet zone. These could be modified supplemental safety measures or non-engineering measures, which might involve law enforcement or public awareness programs. Such alternative safety measures must be approved by FRA based on the prerequisite that they provide an equivalent level of safety as the sounding of horns.

This phased program will also consider the use of wayside horns as part of a quiet zone. While not avoiding the sounding of a horn, wayside horns affect a smaller area than train-mounted horn. Wayside horns can be used when the other measures above are not adequate to avoid the use of a horn.

If quiet zones are not feasible or unacceptable to the resident's community and/or jurisdiction, CCJPA will offer financial support for application of building sound insulation at the impacted residences at the following locations:

- Coast Subdivision North Section: 3 residences located on the southwest side of the existing railroad ROW between Farallon Drive and Lewelling Boulevard.
- Coast Subdivision North Section: 1 residence located on the northeast side of the existing railroad ROW between Lewelling Boulevard and Grant Avenue.
- Coast Subdivision Central Section: 1 residence located on the northeast side of the existing railroad ROW between Grant Avenue and Skywest Golf Course.
- Coast Subdivision Central Section: 2 residences located on the northeast side of the existing railroad ROW between Union City Boulevard and Smith Street.
- Coast Subdivision South Section: 9 residences located on the northeast side of the existing railroad ROW between Smith Street and Alameda Creek.
- Coast Subdivision South Section: 4 residences located on the southwest side of the existing railroad ROW between Jarvis Avenue and Cedar Boulevard Park.

- Coast Subdivision South Section: 1 residence located on the northeast side of the existing railroad ROW between Cedar Boulevard Park and Clark Avenue.

Building sound insulation improvements may include but not be limited to the following:

- Application of an extra layer of glazing to the windows;
- Sealing holes in exterior surfaces that act as sound leaks; and
- Provision of forced ventilation and air-conditioning so that windows do not need to be opened.

During final design of the project, CCJPA will coordinate with individual residents identified as candidates for sound insulation. The coordination will include testing of existing outdoor to indoor noise reduction and specific measures required to meet the interior noise level criterion.

Ground-Borne Vibration

An evaluation of the Project's impacts on vibration is found in Draft EIR Section 3.14 – Noise and Vibration. Construction of the proposed Project is expected to generate vibration levels from 25 feet away as high as 94 VdB due to compactors during site work, 87 VdB due to bulldozers during rail work, and 104 VdB due to 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 the potential for any damage. For pile driving, it is anticipated that the potential for damage will be limited to structures located at distances in the range of 30 to 75 feet from the pile driving operations, depending on the building category. None of the built environment buildings identified as historical resources are located within 30 to 75 feet of the project footprint. However, in terms of vibration annoyance effects or interference with the use of sensitive equipment, the potential extent of vibration impact from pile driving is expected to be even greater than for damage. It is possible that construction activities involving pile drivers occurring at the edge of or slightly outside of the current rail ROW could result in vibration damage, and damage from construction vibration would be a potentially significant impact.

To mitigate these potential impacts, MM NOI-3 will be implemented. With implementation of MM NOI-3, impacts resulting from construction vibration structural damage would be minimized to a less-than-significant level. All of the operational vibration impacts identified for the proposed Project are due to the introduction or relocation of crossovers for the proposed Project. With the inclusion of low-impact rail frogs at the new train crossovers in Project design, operational impacts would be less than significant.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts of noise identified in the EIR to a less than significant level.

Mitigation Measures

MM NOI-3: Construction Vibration Control Plan. CCJPA, in coordination with the Construction Contractor and local jurisdiction(s), and cooperating railroad operator(s), will prepare and implement a Construction Vibration Control Plan (CVCP) to reduce the impact

of temporary construction related vibration on nearby sensitive receptors. The CVCP will include, but not be limited to the following:

- Avoid the use of impact pile drivers where possible near vibration-sensitive areas or use alternative construction methods (e.g., drilled piles) where geological conditions permit.
- Avoid vibratory compacting/rolling in close proximity to structures.
- Require vibration monitoring during vibration-intensive activities.
- A Vibration Monitoring Plan will be developed and implemented to measure vibration during construction, including the type of equipment and sensors to be used, a location plan for monitoring equipment, and the following additional requirements:
  - Identify frequency of monitoring for all instruments,
  - Vibration and deformation thresholds that if exceeded, could be potentially damaging to sensitive receptors and/or structures,
  - Corrective action plans identified prior to work start to be implemented should maximum vibration be reached or exceeded,
  - To the extent possible, the construction team will be required to conduct the work in such a manner that vibrations do not exceed threshold limits,
  - A Monitoring Exceedance Report for exceedance occurrences will be completed by the construction team and submitted to CCJPA, which will describe:
    - what vibration measurements values were recorded that exceeded the allowable limits,
    - where the impacted instruments are located,
    - when the exceedances occurred,
    - when work was stopped because of the exceedance(s),
    - what demolition and\or construction activities caused the exceedance(s),
    - what actions were taken to limit and reduce vibrations, and
    - when demolition and\or construction activities were resumed.

3.2.8 Recreation

Construction/Expansion of Recreation Facilities

An evaluation of the Project's impacts on recreational facilities is found in Draft EIR Section 3.17 – Recreation. Project construction activities would occur adjacent to and over Alameda Creek, which would affect the use of a segment of the Alameda Creek Regional Trail. All efforts would be made to keep this segment of the trail open to the public; however, there may be occasions when this segment of the Alameda Creek Regional Trail would need to be closed to facilitate construction activities and to ensure the safety of the public and construction workers. To reduce direct impacts to the Alameda Creek Regional Trail during construction activities, Mitigation Measure REC-1 is proposed. With implementation of MM REC-1, short-term impacts to the Alameda Creek Regional Trail during construction activities would be reduced to less than significant.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on recreational facilities identified in the EIR to a less than significant level.

Mitigation Measures

MM REC-1: Detour Plan for the Alameda Creek Regional Trail. Two weeks prior to temporary trail closures, CCJPA, in coordination with the EBRPD, BCDC, and MTC, as possible, will develop a detour plan for short-term closures of the Alameda Creek Regional Trail and any affected bridges or waterways. The detour plan will be available to the public on EBRPD and CCJPA's websites. To the extent feasible, short-term closures will be scheduled during off-peak trail use days or times.

3.2.9 Tribal Cultural Resources

Change in Significance of a Tribal Cultural Resource

An evaluation of the Project's impacts on tribal cultural resources is found in Draft EIR Section 3.19 – Tribal Cultural Resources. Since no tribal cultural resources were identified through consultation with potentially interested tribes, impacts would only be associated with new and unanticipated discovery of an eligible archaeological resource during construction of the proposed Project. There is potential for inadvertent discovery of tribal cultural resources, including human remains, previously unknown as a result of the historic and ongoing tribal use of the Project Study area, as well as indirect impacts through increased access to the area. Impacts would be potentially significant during construction. Once in operation, the proposed Project would not involve additional ground-disturbing activities that could impact potential tribal cultural resources.

The potential for discovery of tribal cultural resources, including human remains, during construction of the proposed Project would be mitigated to less than significant with incorporation of mitigation measures MM-CUL-1 through MM-CUL-5, as discussed in Section 3.2.4 of these Findings.

Finding

The CCJPA Board finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on tribal cultural resources identified in the EIR to a less than significant level.

Mitigation Measures (see Section 3.2.4, Cultural Resources)

MM CUL-1
MM CUL-2
MM CUL-3
MM CUL-4
MM CUL-5

3.3 Significant and Unavoidable Impacts

As previously stated, no impacts associated with the revised Project were determined to be significant and unavoidable.

4 General CEQA Findings

4.1 Environmental Mitigation Monitoring and Reporting Program (MMRP)

Based on the entire record before the CCJPA Board, CCJPA hereby determines that all feasible mitigation within the responsibility and jurisdiction of CCJPA has been adopted to reduce or avoid the potentially significant impacts identified in the Final EIR, and that no additional feasible mitigation is available to further reduce significant impacts. The feasible mitigation measures are discussed in Section 3.2, above, and are set forth in the MMRP. Section 21081.6 of the Public Resources Code requires the CCJPA Board to adopt a monitoring or compliance program regarding the Project and mitigation measures imposed to lessen or avoid significant effects on the environment. The MMRP for the Project is hereby adopted by the CCJPA Board because it fulfills the CEQA mitigation monitoring requirements:

- The MMRP is designed to ensure compliance with the mitigation measures imposed on the Project during Project implementation; and
- Measures to mitigate or avoid significant effects on the environment are fully enforceable through conditions of approval, permit conditions, agreements, or other measures.

4.2 CEQA Guidelines Section 15091 and 15092 Findings

Based on the foregoing findings and the information contained in the administrative record, the CCJPA Board has made one or more of the following findings with respect to each of the significant effects of the project:

1. Changes or alterations have been required in, or incorporated into, the revised Project which mitigate or avoid the significant effects on the environment.
2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been adopted by such other agency or can and should be adopted by such other agency.

Based on the foregoing finding and the information contained in the administrative record, and as conditioned by the foregoing:

1. All significant effects on the environment due to the project have been eliminated or substantially lessened where feasible.

4.3 CCJPA Board Independent Judgment

The Final EIR for the revised Project reflects the CCJPA Board's independent judgment. The CCJPA Board has exercised independent judgment in accordance with Public Resources Code 21082.1(c)(3) in retaining its own environmental consultant in the preparation of the EIR, as well as reviewing, analyzing, and revising material prepared by the consultant. Having received, reviewed, and considered the information in the Final EIR, as well as all other information in the record, the CCJPA Board hereby makes findings pursuant to and in accordance with Sections 21081, 21081.5, and 21081.6 of the Public Resources Code.

4.4 Nature of Findings

Any findings made by the CCJPA Board shall be deemed made, regardless of where it appears in this document. All the language included in this document constitutes findings by the CCJPA Board, whether any particular sentence or clause includes a statement to that effect. The CCJPA Board intends that these findings be considered as an integrated whole and, whether or not any part of these findings fail to cross-reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by the CCJPA Board with respect to any particular subject matter of the Final EIR, shall be deemed to be made if it appears in any portion of these findings.

4.5 Reliance on Record

Each and all the findings and determinations contained herein are based on substantial evidence, both oral and written, contained in the administrative record relating to the Project.

4.5.1 Record of Proceedings

In accordance with Public Resources Code Section 21167.6(e), the record of proceedings for the CCJPA Board of Trustees' decision on the project includes the following documents:

- The Draft EIR for the Project and all appendices;
- All comments submitted by agencies or members of the public during the comment period on the Draft EIR;
- The Final EIR for the Project, including comments received on the Draft EIR and responses to those comments;
- Documents cited or referenced in the Draft EIR and Final EIR;
- The MMRP for the Project;
- All findings and resolutions adopted by the CCJPA Board in connection with the Project and all documents cited or referred to therein;
- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the Project prepared in compliance with the requirements of CEQA and with respect to the CCJPA Board's action on the Project;
- All documents submitted by other public agencies or members of the public in connection with the Project, up through the close of the final public hearing;
- Any and all resolutions adopted by CCJPA regarding the Project, and all staff reports, analyses, and summaries related to the adoption of those resolutions;
- Matters of common knowledge, including, but not limited to federal, state, and local laws and regulations;
- Any documents expressly cited in these findings and any documents incorporated by reference, in addition to those cited above;
- Any other written materials relevant to CCJPA's compliance with CEQA or its decision on the merits of the Project, including any documents or portions thereof, that were released for

public review, relied upon in the environmental documents prepared for the Project, or included in CCJPA's non-privileged retained files for the EIR or the Project;

- Any other materials required for the record of proceedings by Public Resources Code Section 21167.6(e); and
- The Notice of Determination.

The CCJPA Board intends that only those documents relating to the Project and its compliance with CEQA and prepared, owned, used, or retained by the CCJPA Board and listed above shall comprise the administrative record for the Project. Only that evidence was presented to, considered by, and ultimately before the CCJPA Board prior to reviewing and reaching its decision on the Final EIR and Project.

4.5.2 Custodian of Records

The custodian of the documents or other material that constitute the record of proceedings upon which the CCJPA Board decision is based is identified as follows:

Capitol Corridor Joint Powers Authority (CCJPA)
2150 Webster Street, 3rd Floor
Oakland, CA 92612

4.5.3 Certification of the Final EIR

Pursuant to CEQA Guidelines Section 15090, the CCJPA Board of Trustees certifies that:

- The Final EIR, dated November 2024, has been completed in compliance with CEQA and the CEQA Guidelines,
- The Final EIR was presented to the CCJPA Board, and that the CCJPA Board reviewed and considered the information contained therein before approving the Project, and
- The Final EIR reflects the independent judgment and analysis of the CCJPA Board.

Environmental Document: Final Environmental Impact Report for the South Bay Connect Project

Project Name: South Bay Connect Project

SCH# 2020060655

CALIFORNIA TRANSPORTATION COMMISSION
FINDINGS OF FACT

FOR THE

SOUTH BAY CONNECT PROJECT

The following information is presented to comply with California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations, title 14, sections 15091 and 15096, and also title 21, section 1501 et seq. Reference is made to the Final Environmental Impact Report (EIR) for the South Bay Connect Project (Project).

The California Transportation Commission (Commission), in its independent judgment as a CEQA responsible agency, reviewed and considered the Final EIR prepared by the Capitol Corridor Joint Powers Authority and finds that the Final EIR contains a complete, objective, and substantiated reporting of the Project's potential impacts.

The following impacts have been identified in the Final EIR as resulting from the Project. No impacts were determined to be significant and unavoidable. Impacts found not to be significant have not been included.

1 Findings for Impacts Determined to be Less than Significant with Mitigation

1.1 Aesthetics and Visual Resources

Scenic Vistas

An evaluation of the Project's impacts on scenic vistas and resources is found in Draft EIR Section 3.2 - Aesthetics and Visual Resources. The Project proposes track improvements, at-grade crossings, new sidings, new second main track, grade-separated crossings, water crossings, and the proposed Ardenwood Station. Construction activities would introduce heavy equipment, associated vehicles, soil and material transport, and land clearing within and outside Union Pacific Railroad right-of-way, creating dust clouds that interrupt scenic vistas, although visual impacts resulting from these construction activities and equipment would be temporary. Additionally, these improvements would be visible from one or more visual receptors identified in Draft EIR Section 3.2.4.2, Local Setting.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to visual resources identified in the EIR to a level that would be less than significant.

Mitigation Measures

Mitigation Measure (MM) Aesthetics (AES)-1: Construction Area Visual Screening. Prior to the commencement of construction activities, the Capitol Corridor Joint Powers Authority will develop a visual resource construction plan for areas that may be affected by construction activities and will be distributed to relevant municipalities for their input to ensure areas that require screening are adequately identified. Construction areas subject to this mitigation measure would be refined by the Capitol Corridor Joint Powers Authority based on the size of the area, the nature of the construction activity, the proximity or visibility of the area to public vantage points or residential uses, and the type of visual screening to be implemented during construction activities. Potential visual screening may include, but is not limited to, the following:

- Fence with vinyl or mesh banners
- Fence with privacy screens
- Chain link fence with slat panels

MM AES-2: Construction Lighting Plan. Prior to commencement of construction activities, the Capitol Corridor Joint Powers Authority will develop a construction lighting plan for areas that could be affected by construction activities. The construction lighting plan will be developed during the project design phase. Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that those areas that could be affected by construction activities have been identified. The construction lighting plan will consider the size of the area, the nature of the construction activity, the proximity or visibility of the area to sensitive receptors, and the type of lighting needed during construction activities. In addition, the construction lighting plan will evaluate the following:

- Lighting polices/requirements of the local jurisdiction;
- Use of glare-free lights, such as color corrected halide lights or balloon lights;
- Selection of light fixtures that meet or exceed industry standards for cutoff performance; and
- Installation of lights at the proper angle such that spill light is minimized beyond the construction site.

MM AES-3: Vegetation Impact, Protection, and Replacement Plan. During final design, the Capitol Corridor Joint Powers Authority will develop a vegetation impact, protection, and replacement plan for areas outside of the Union Pacific Railroad right-of-way that would be affected by construction activities. The vegetation impact, protection, and replacement plan will be developed during the design phase. Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that those areas outside of the Union Pacific Railroad right-of-way that could be affected by construction activities have been identified. The Vegetation Impact, Protection, and Replacement plan will consider the following elements outside of the Union Pacific Railroad right-of-way:

- Minimize size of area for clearing and grubbing;
- Require that any pruning activity be performed by a Certified Arborist;
- Including vegetation restoration requirements, including use of drought tolerant plant species and avoidance of invasive plant species in areas listed on Table 3.2-1 [of Draft EIR];

- Incorporating landscape design options to soften vertical structures, minimize surface glare, reduce the visual monotony of the structures, and enhance the aesthetics of the structure;

- Using California native species with strong emphasis on vegetation and natural habitat restoration and screening of the rail corridor in non-urbanized areas;

- Selecting plant species from local (city or county) jurisdictional plant lists, if available, with an emphasis on adaptability to urban conditions and placing plants in accordance with Crime Prevention Through Environmental Design principles for urbanized areas;

- Developing an irrigation design and a maintenance program that will maximize retention of selected plant species and minimize potential for takeover by local invasive species.

- Minimizing the introduction and spread of Phytophthora species during construction and habitat restoration activities.

Vegetation Replacement/Visual Softening Planting Area	**Planting Character**
Ardenwood Station area outside of Union Pacific Railroad right-of-way	Urbanized
North and South of Alameda Creek bridge outside of Union Pacific Railroad right-of-way	Urbanized
Alameda Creek bridge outside of Union Pacific Railroad right-of-way	Urbanized
Retaining Walls MP 30.0 to MP 27.65 outside of Union Pacific Railroad right-of-way	Urbanized
Retaining Walls MP 27.65 to MP 26.75 outside of Union Pacific Railroad right-of-way	Urbanized
Retaining Walls MP 26.65 to MP 26.00 outside of Union Pacific Railroad right-of-way	Urbanized
Lowry Road double-track bridge outside of Union Pacific Railroad right-of-way	Urbanized
Crandall Creek double-track bridge or culvert outside of Union Pacific Railroad right-of-way	Urbanized

MM AES-4: Landscape Plan for Ardenwood Station. During final design, the Capitol Corridor Joint Powers Authority, in coordination with the City of Fremont, will develop a landscape plan for the proposed Ardenwood Station's surface parking lot, entrance plaza, and any disturbed vegetation at the Ardenwood Park

and Ride or at other areas outside of Union Pacific Railroad right-of-way that would be affected by station construction. The landscape plan would include, at a minimum, the following measures:

- Shade trees and groundcovers at proposed surface parking lot, along the accessible walkways connecting south pedestrian overcrossing with the station, Dumbarton Court, and Overlake Place to improve aesthetics and to provide shade;
- Use of the City of Fremont's Landscape Development Requirements for all areas within the City's jurisdiction;
- Station entry plaza landscaping;
- Use of drought tolerant plant species and avoidance of invasive plant species;
- Mixed landscape plantings to provide multi-season visual interest while maintaining clear identification and visibility of the station for the public;
- Irrigation design and maintenance program to support landscaping and minimize takeover by invasive species.

MM AES-5: Aesthetic Plan for Proposed Bridge Structures. During final design, the Capitol Corridor Joint Powers Authority will develop an aesthetic plan for proposed Project bridges that would replace single-track bridge structures with double-track bridge structures or where new bridges would be constructed adjacent to an existing bridge on the same roadway or waterway. The new bridge structures would match the height and aesthetic treatments of the existing bridge structures to the extent possible, given that the new structure(s) must also be compliant with regulatory, rail operations, and constructability requirements.

Proposed Structure	Optimal Height	Color and Surface Finish
Alameda Creek bridge	Match existing Alameda Creek bridges removed as part of the proposed Project	Natural steel, Capitol Corridor Joint Powers Authority approved
Lowry Road double-track bridge	Match existing Lowry Road bridge adjacent to the proposed bridge	Natural steel, Capitol Corridor Joint Powers Authority approved
Crandall Creek double-track bridge or culvert	Approximately match existing Crandall Creek bridges removed as part of the proposed Project	Natural steel, Capitol Corridor Joint Powers Authority approved

MM AES-6: Aesthetic Plan for Proposed Structural Features. During final design, the Capitol Corridor Joint Powers Authority will develop an aesthetic plan for the coated new, relocated, and/or replaced ancillary features, fencing, and railings proposed along the proposed Project corridor, but outside of the Union Pacific

Railroad right-of-way. The Aesthetic Plan will consider, but not be limited to, the following:

- Coloring or shading of ancillary features outside the Union Pacific Railroad right-of-way a shade that would be two to three shades darker than the general surrounding area using the prescribed color palette from U.S. Department of the Interior, Bureau of Land Management, with a finish to reduce the potential glare;

- Color and texturizing ancillary features, within or adjacent to Union Pacific Railroad right-of-way, such as signal equipment, safety gates, signal houses, and pavement markings, to be in accordance with Union Pacific Railroad requirements for consistency throughout the corridor;

- Constructing any new fences within the Union Pacific Railroad right-of-way to be in accordance with Union Pacific Railroad and Capitol Corridor Joint Powers Authority requirements. The existing fences affected by the proposed Project outside of the Union Pacific Railroad right-of-way to be replaced in kind or with black powder coated chain link fences or high security fences, as determined by the Capitol Corridor Joint Powers Authority;

- Cable railing to be used to maintain corridor-wide railing design consistency and not to block scenic vistas where applicable.

MM AES-7: Aesthetic Plan for Ardenwood Station Structures, Pedestrian Overcrossings, Grade Separated Structures, Retaining Walls, and Bridges. During final design, the Capitol Corridor Joint Powers Authority will develop an aesthetic plan for new structures with high visibility from State Route 84 and Alameda Creek Regional Trail (Table 3.2-3 of Draft EIR). Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that design plans of the new high-visibility structures are consistent with existing general plan policies and local regulatory requirements. Aesthetic design treatments will consider but not be limited to the following:

- Selecting colors and textures to recede into views to reduce the overall apparent scale of the proposed structures. Use of earth-toned colors, such as light buff/tan or light gray colors to complement the surrounding vegetation and provide a subtle foreground to surrounding scenic vistas. Using roughened concrete surfaces to provide visual texture, reduce glare, and deter graffiti;

- During design, considering the aesthetics of similar local structures to complement the existing cultural and natural landscape, and adhering to the local city or county jurisdictional regulations pertaining to aesthetics;

- Complying with Union Pacific Railroad requirements for railroad structures related to structural design and appearance and post-construction access to all facilities for inspection during operations;

- Incorporating aesthetics along the rail corridor for new, modified, or relocated retaining walls to correspond with existing retaining walls nearby or at the original locations, to the extent allowable by Union Pacific Railroad right-of-way design standards.

Proposed Structure	**Aesthetic Design Treatments**
Ardenwood Station Plaza and platforms	Design structure in a manner that provides a welcoming feel and a sense of arrival to the viewer groups. Incorporate Crime Prevention Through Environmental Design principles in the design. Incorporate design elements and/or public art reflective of community aesthetics in coordination with the City of Fremont. Select structure color and texture to be consistent with the surrounding built environment. Design railings to be visually transparent to soften the mass of the structure.
Proposed Structure (continued)	**Aesthetic Design Treatments (continued)**

Proposed Structure	Aesthetic Design Treatments
Ardenwood Station north overcrossing (Fremont)	To the extent possible, design overcrossing as a gateway element and incorporate design features reflective of the City of Fremont community aesthetics in coordination with the City. Select structure color and texture to be consistent with the surrounding built environment. Design railings to extent possible to be visually transparent to soften the mass of the structure.
Ardenwood Station south overcrossing (Hayward)	To the extent possible, design overcrossing as a gateway element and incorporate design features reflective of City of Newark community aesthetics in coordination with the City. Select structure color and texture to be consistent with the surrounding built environment. To extent possible, design railing to be visually transparent to soften the mass of the structure.
Retaining Walls	Add texture to concrete. Add cap to retaining walls.
Lowry Road double-track bridge	Concrete texture on abutments
Crandall Creek double-track bridge or culvert	Concrete texture on abutments

Degradation of Visual Character or Scenic Quality

An evaluation of the Project's impacts on existing visual character and scenic quality is found in Draft EIR Section 3.2 - Aesthetics and Visual Resources. Construction activities would introduce heavy equipment, associated vehicles, soil and material transport, and land clearing within and outside of the Union Pacific Railroad right-of-way into the viewshed of all user groups. Visual impacts resulting from these construction activities and equipment would be temporary, and with implementation of mitigation measures MM AES-1: Construction Area Visual Screening and MM AES-2: Construction Lighting Plan, construction impacts are anticipated to be less than significant.

The Project proposes new two-track bridges to replace the existing single-track bridges over Lowry Road and Alameda Creek. Also, the Project would include either new double-track bridges or culverts over Crandall Creek (an engineered channel), and a drainage channel at MP 29.57. In addition to the bridges (or culverts), the proposed Project would include replacing eight existing timber structures with culverts. Retaining walls will also be required to accommodate railroad improvements on the Coast Subdivision. These

features would be prominent elements in the visual environment and would significantly alter the visual character of their surroundings. Implementation of MM AES-3: Vegetation Impact, Protection, and Replacement Plan and MM AES-7: Aesthetic Plan at Ardenwood station structures, Pedestrian Overcrossings, Grade Separated Structures, Retaining Walls, and Bridges would minimize clearing and grading, protect existing vegetation, soften the mass of these structures through vegetation screening outside of Union Pacific Railroad right-of-way and aesthetic design treatments, and aid in blending these structures with their surroundings.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to visual resources identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AES-1 (see above)

MM AES-2 (see above)

MM AES-3 (see above)

MM AES-4 (see above)

MM AES-5 (see above)

MM AES-6 (see above)

MM AES-7 (see above)

Light and Glare

An evaluation of the Project's impacts on light and glare is found in Draft EIR Section 3.2 - Aesthetics and Visual Resources. The primary sources of existing daytime and nighttime light in this environment are residential lights, security lights, streetlights,

parking lot lights, traffic signal lights, automobile headlights, and various sources of nighttime lighting. Sources of glare include sunlight reflected in the windows of buildings and cars and lighted signs on multistory buildings.

The Project would create new sources of both temporary and permanent light and glare. Temporary sources of light and glare would include construction vehicles and lighting for nighttime construction. MM AES-2: Construction Lighting Plan would be implemented during construction to minimize fugitive light from portable sources used for construction.

Permanent sources of light and glare would include lights at the new Ardenwood Station and pedestrian overcrossing, new rail crossing signals, and train lights during nighttime operating schedules. New lighting sources, such as signal lights, would be balanced with existing conditions, because where signal lights are added in some areas, they would be removed in others. Further, the existing visual environment in urbanized areas of the proposed Project already contains many sources of light and glare including vehicle headlights, streetlights, traffic signals, parking lot lighting, storefront and signage lighting, and other lighting on buildings, so a slight increase in signal and train lighting would be negligible overall. In both urbanized and non-urbanized areas of the proposed Project, MM AES-8: Lighting Plan would be applied to further minimize light trespassing and glare.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to light and glare identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AES-2 (see above)

MM AES-8: Lighting Plan. During final design, the Capitol Corridor Joint Powers Authority will develop a lighting plan for the proposed Project to minimize light trespassing and glare. Prior to being finalized, the plan will be reviewed with relevant municipalities to verify that final design plans are consistent with existing general plan policies and local regulatory requirements. The lighting plan will consider, but not be limited to, the following:

- Lighting design will comply with the Illuminating Engineering Society's design guidelines. Lighting fixtures and lighting control systems will conform to the International Dark-Sky Association's Fixture Seal of Approval program.

- Downcast cut-off type fixtures that direct light only toward objects requiring illumination and shields will be used where needed to minimize light pollution. Shielding for lights in parking lots, along pathways, and station platforms will be used to minimize off-site light spillage, ambient light glow, and glare.

- Lights will be installed at the lowest allowable height to cast low-angle illumination that minimizes incidental light spill onto adjacent properties and open spaces or backscatter into the nighttime sky. Lights will be screened and directed away from adjacent uses to the highest degree possible.

- The lowest allowable illuminance level and intensity feasible will be used for security, safety, and personnel access. The number of nighttime lights will be minimized to the extent feasible.

- Non-glare finishes will be applied to light fixtures to avoid reflective daytime glare. Energy efficient design with daylight sensors or timed with an on/off program will be used. Aesthetically pleasing light color rendering and fixture types will be selected.

- Note that railroad and traffic signals are subject to operational and regulatory requirements and may not meet this mitigation measure.

1.2 Air Quality

Cumulatively Considerable Net Increase of Criteria Pollutants

An evaluation of the Project's impacts on air quality is found in Draft EIR Section 3.4 – Air Quality. Alameda County is currently designated as a nonattainment area for federal ozone and fine particles standards, and nonattainment for state ozone, particles and fine particle standards. 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. Additionally, fugitive emissions would result from site grading and asphalt paving. Unmitigated construction emissions would exceed Bay Area Air Quality Management District's daily nitrogen oxides threshold during all three years of construction. No other pollutant would exceed the Bay Area Air Quality Management District thresholds. Due to the exceedances of nitrogen oxides,

emissions from Project construction may contribute to a cumulatively considerable net increase of a criteria pollutant within the San Francisco Bay Area Air Basin for which the region is designated a nonattainment area. Although construction emissions of other criteria pollutants would not exceed their respective Bay Area Air Quality Management District significance thresholds, emissions of particles and fine particles would contribute to the existing non-attainment status of the Air Basin for these pollutants.

Mitigation Measure Air Quality (AQ)-1 reduces emissions from off-road equipment and requires engines greater than 25 horsepower to meet Tier 4 emission standards. With construction equipment meeting Tier 4 standards, the rate of exhaust emissions, including nitrogen oxides and particulate matter, will be substantially reduced relative to the average equipment fleet. Similarly, Mitigation Measure AQ-2 would reduce emissions from locomotives that would be used during construction to deliver materials, because it requires advanced emissions controls for locomotives used to deliver materials to the proposed Project site. In accordance with Mitigation Measure AQ-2, locomotives will be equipped with engines that meet or exceed Tier 4 emissions standards. Additionally, compliance with Bay Area Air Quality Management District's best management practices for dust control (BMP AQ-1) would also be required to mitigate fugitive dust emissions.

With respect to the proposed Project's operational phase, there would be a net reduction in most pollutants once operations begin because the increased passenger ridership will result in reduced vehicle miles traveled. Thus, with Mitigation Measures AQ-1 and AQ-2, the proposed Project would not result in any exceedances of the pollutant thresholds during the construction period, and there would be a net reduction in daily pollutant emissions during the operational period, which would occur for a much longer duration than construction.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant cumulative environmental impacts on nitrogen oxides emissions identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AQ-1: Implement Advanced Emissions Controls for Off-Road Equipment. The Capitol Corridor Joint Powers Authority will require all off-road equipment greater than 25 horsepower have engines that meet or exceed either U.S. Environmental

Protection Agency or California Air Resources Board Tier 4 final off-road emission standards.

MM AQ-2: Implement Advanced Emissions Controls for Locomotives Used for Construction. The Capitol Corridor Joint Powers Authority will require all diesel-powered locomotives used for construction to have engines that meet or exceed either U.S. Environmental Protection Agency or California Air Resources Board Tier 4 locomotive emission standards.

Exposure of Sensitive Receptors to Pollutant Concentrations

An evaluation of the Project's impacts on air quality is found in Draft EIR Section 3.4 - Air Quality. 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 tracks. During construction, the cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other air toxic. However, the Draft EIR analysis concluded that diesel exhaust emissions from construction would not exceed the cancer risk threshold, the Chronic Hazard Index threshold, or the fine particles concentration thresholds for all sensitive receptors types with implementation of best management practices AQ-1, MM AQ-1, and MM AQ-2, at the Ardenwood Station or Coast Subdivision. Thus, construction of the proposed Project would not result in health risks or fine particle concentrations that exceed the applicable thresholds. Thus, impacts would be less than significant with incorporation of these measures.

During operations, the proposed Project would generate diesel particulate matter and fine particles, emissions from the introduction of Capitol Corridor passenger trains on the Coast Subdivision and an emergency generator at Ardenwood station. Fine particles, exhaust and fugitive dust emissions would be generated from on-road travel of passenger commuters to the Ardenwood station as well as the emergency generator. These activities could expose off-site receptors to incremental increases in health risks. The Draft EIR analysis concluded that the operations of the Ardenwood Station and Coast Subdivision would not exceed the adopted Bay Area Air Quality Management District thresholds for cancer risk, chronic hazard index, and fine particle concentrations. Thus, the proposed Project would result in a less-than-significant operational toxic air contaminant risk at Ardenwood station.

The Draft EIR also analyzed the potential impacts of exposure of sensitive receptors to localized carbon monoxide emissions generated by traffic and to asbestos-containing

materials released by structure demolition. In both cases, impacts were determined to be less than significant.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on sensitive receptors identified in the EIR to a level that would be less than significant.

Mitigation Measures

MM AQ-1 (see above)

MM AQ-2 (see above)

1.3 Biological Resources

Special-Status Species

An evaluation of the Project's impacts on special status species and habitat is found in Draft EIR Section 3.5 - Biological Resources. The Draft EIR evaluated the potential presence of special-status species within the biological Resource Study Area, as defined in Figure 3.5-1 of the Draft EIR. The results indicated that 21 special-status plant and wildlife species have the potential to occur within the Resource Study Area:

- California seablite (federally endangered plant)
- Congdon's tarplant (rare plant)
- Crotch's bumble bee (State candidate endangered)
- Western bumble bee (State candidate endangered)
- Monarch butterfly (federal candidate)
- Central California coast steelhead (federally threatened)
- Green sturgeon – southern DPS (federally threatened, State Species of Special Concern)
- Western pond turtle (State Species of Special Concern)
- Western snowy plover (federally threatened, State Species of Special Concern)
- Bald eagle (State endangered, State Fully Protected)

- California Ridgway's rail (federally and State endangered, State Fully Protected)
- White-tailed kite (State Fully Protected)
- California black rail (State threatened, State Fully Protected)
- Burrowing owl (State Species of Special Concern)
- Northern harrier (State Species of Special Concern)
- Alameda song sparrow (State Species of Special Concern)
- San Francisco common yellowthroat (State Species of Special Concern)
- Salt marsh harvest mouse (federally endangered, State endangered, State Fully Protected)
- Pallid bat (State Species of Special Concern)
- Townsend's big-eared bat (State Species of Special Concern)
- Western mastiff bat (State Species of Special Concern)

Various activities associated with Project construction could affect these special-status species, both directly and indirectly. These include direct impacts on nesting and foraging habitats and indirect impacts of noise and lighting. Implementation of mitigation measures applicable to each of these special-status species, described below, would minimize construction impacts to levels that would be less than significant.

During operation of the proposed Project, maintenance activities could include, but are not limited to, cleaning, preventative maintenance to preserve and lengthen service life and technical or specialized repairs. These activities may involve the operation of support vehicles and equipment, pavement repair, welding and grinding operations and already occur within the existing rail corridor as part of existing rail operations. Implementation of the proposed Project would result in the continuation of current maintenance activities within the rail corridor. Therefore, operational impacts on most special-status species are anticipated to be less than significant. However, operational noise and vibration impacts, along with the installation of permanent piers in Alameda Creek, may affect special-status fish species, and additional shading of Alameda Creek from the new rail bridge may affect basking habits of western pond turtle. Implementation of Mitigation Measures Biological (BIO)-8, BIO-10, BIO-17, and BIO-19 would minimize impacts on special-status fish species, while Mitigation Measure BIO-17 would also minimize impacts on western pond turtle.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant

environmental impacts to special status species identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1: Implement Biological Resource Protection Measures during Construction. The Capitol Corridor Joint Powers Authority will implement the following measures during construction to minimize direct and indirect impacts on special-status species.

a. Prior to the commencement of construction, the Capitol Corridor Joint Powers Authority will designate a Project biologist (approved by the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and/or the National Marine Fisheries Service, as appropriate) (qualified biologist) who has familiarity with special-status plant and wildlife species with the potential to be impacted by the proposed Project. The Project biologist will be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of special-status species habitat. The Project biologist will be familiar with the local habitats, plants, and wildlife, and will maintain communications with the contractor to ensure that issues relating to biological resources are appropriately and lawfully managed. The Project biologist may designate qualified biologists or biological monitors to help oversee proposed Project compliance or conduct pre-construction surveys for special-status species. These biologists will have familiarity with the species for which they will be conducting pre-construction surveys or monitoring during construction activities.

b. The Project Biologist or qualified biologist shall review final plans, designate areas that need temporary fencing measures to identify Environmentally Sensitive Areas (e.g., fencing or flagging), and monitor construction activities within and adjacent to areas with native vegetation communities or special-status plant and wildlife species and their habitats. The qualified biologist shall monitor activities within designated areas during critical times such as vegetation removal, initial ground-disturbing activities, and the installation of Best Management Practices and fencing to protect native species. The qualified biologist will also track proposed Project wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly

implemented and followed. The qualified biologist shall check construction barriers or exclusion fencing and shall provide corrective measures to the contractor to ensure that the barriers or fencing are maintained throughout construction.

c. The qualified biologist will have the authority to stop work if a special-status wildlife species is encountered within or adjacent to the proposed Project footprint during construction. The Project Biologist or qualified biologist will request that the resident engineer halt work within 100 feet of the encounter (or within an appropriate distance, as determined by the Project biologist or qualified biologist) and confer with the Capitol Corridor Joint Powers Authority to confirm proper implementation of species and habitat protection measures. Construction activities shall cease until the Project biologist or qualified biologist determines that the animal will not be harmed or that it has left the construction area on its own. The Project biologist will report any encounters or other non-compliance issue(s) to the Capitol Corridor Joint Powers Authority. The Capitol Corridor Joint Powers Authority will notify the appropriate regulatory agency(is) within 24 hours of the occurrence.

d. Prior to the start of construction, all proposed Project personnel and contractors who will be on site during construction will complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new proposed Project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence work. The training will advise workers of potential impacts on special-status vegetation communities and special-status species, and the potential penalties for impacts on such vegetation communities and species. At a minimum, the training will include the following topics:

i. Occurrences of special-status species and special-status vegetation communities in the proposed Project area (including vegetation communities subject to U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board jurisdiction).

ii. The purposes for resource protection.

iii. Sensitivity of special-status species to human activities.

iv. Protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid special-status resource areas in the field (i.e., avoided areas delineated on maps or on the proposed Project site by fencing).

v. Environmentally responsible construction practices.

vi. The protocol to resolve conflicts that may arise at any time during the construction process.

vii. Reporting requirements and procedures to follow should a special-status species be encountered during construction.

viii. Avoidance and minimization measures designed to reduce the impacts on special-status species.

ix. The training program will include color photos of special-status species and special-status vegetation communities. Following the education program, the photos will be posted in the contractor and resident engineer's office, where the photos shall remain throughout the duration of proposed Project construction. Photos of the habitat in which special-status species are found will be posted onsite.

x. The contractor will be required to provide the Capitol Corridor Joint Powers Authority with evidence of the employee training (e.g., a sign-in sheet) on request. Proposed Project personnel and contractors will be instructed to immediately notify the Project biologist or designated biologist of any incidents that could affect special-status vegetation communities or special-status species, and incidents that could include fuel leaks or injury to any wildlife. The Project biologist will notify the Capitol Corridor Joint Powers Authority of any incident and the Capitol Corridor Joint Powers Authority will notify the appropriate regulatory agency within 24 hours of notification.

e. The Project biologist will monitor the proposed Project site immediately prior to and during construction to identify the presence of invasive weeds and will recommend measures to avoid their inadvertent spread in association with the proposed Project. Such measures will include inspection and cleaning of construction equipment and use of eradication strategies. All heavy equipment will be washed and cleaned of debris prior to entering special-status species habitats to minimize the spread of invasive weeds.

f. At least ten days prior to initiating construction, the Contractor will submit to the Capitol Corridor Joint Powers Authority proposed plans for Environmentally Sensitive Area fencing/flagging and initial clearing and grubbing of the proposed Project footprint at that segment. Following implementation of the Capitol Corridor Joint Powers Authority-approved delineation plan for Environmentally Sensitive Areas and construction area perimeters in the field, and at least five days prior to initiating construction at that segment, the Capitol Corridor Joint Powers Authority will submit final plans for initial clearing and grubbing of the proposed Project footprint to the appropriate regulatory agencies for approval; these plans will also identify locations of established Environmentally Sensitive Area protections and will include photographs that show the fenced and flagged Environmentally Sensitive Area limits and all areas to be impacted or avoided, including perimeter fencing and flagging.

g. All native or special-status plant or wildlife habitat within and adjacent to the designated proposed Project footprint will be designated as Environmentally Sensitive Areas on proposed Project maps. Following the Capitol Corridor Joint Powers Authority approval of final plans for Environmentally Sensitive Area fencing and flagging, and initial clearing and grubbing, and prior to construction, the Contractor will delineate the proposed Project footprint, including construction, staging, lay-down, and equipment storage areas, and establish construction boundaries, with fencing, along the perimeter of the identified construction area to protect adjacent special-status wildlife habitats and special-status plant populations. In areas where fencing cannot be installed, other means of identifying the Environmentally Sensitive Areas can be used, such as flagging or paint. Environmentally Sensitive Areas within and adjacent to the proposed Project footprint will be clearly delineated with fencing or flagging prior to construction to inform construction personnel where the Environmentally Sensitive Areas are located. Environmentally Sensitive

Area fencing may include orange plastic snow fence, orange silt fencing, or stakes and flagging in areas of flowing water. No personnel, equipment, or debris will be allowed within the Environmentally Sensitive Areas. The Contractor will install fences and flagging in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot or operating equipment. Delineations will be approved by the Project biologist or qualified biologist prior to any ground disturbance. If work inadvertently occurs beyond the flagged or demarcated limits of impact, all work will cease until the problem has been remedied to the satisfaction of the Capitol Corridor Joint Powers Authority and the appropriate regulatory agencies. Temporary construction fences, flagging, and markers will be maintained in good repair by the contractor throughout the duration of work at that segment and will be removed upon completion of proposed Project construction at that segment.

h. No work activities, materials or equipment storage or access will be permitted outside the proposed Project footprint. All parking and equipment storage by the contractor related to the proposed Project will be confined to the proposed Project footprint. Areas outside and adjacent to the proposed Project footprint will not be used for parking or equipment storage. Proposed Project-related vehicle traffic will also be restricted to the proposed Project footprint and established roads and construction access points.

i. When nighttime activities are required, then workers will direct all lights for nighttime lighting into the work area and will minimize the lighting of natural habitat areas adjacent to the work area. The contractor will use light glare shields to reduce the extent of illumination. If the work area is located near surface waters, the lighting will be shielded such that it does not shine directly into the water.

j. Vegetation clearing will be confined to the minimal area necessary to facilitate construction activities. Cleared vegetation and spoils will be disposed of daily at a permanent offsite disposal facility or at a temporary onsite location that will not create habitat for special-status wildlife species. Spoils and dredged material will be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations.

k. Garbage will be disposed of in wildlife-proof containers and will be removed from the proposed Project area daily during the construction period. Vehicles carrying trash will be required to have loads covered and secured to prevent trash and debris from falling onto roads and adjacent properties.

l. Construction equipment used for the proposed Project will be maintained in accordance with manufacturer's recommendations and requirements and will be maintained to comply with noise standards (e.g., exhaust mufflers, acoustically attenuating shields, shrouds, or enclosures).

m. The Contractor will store all construction-related vehicles and equipment in the designated staging areas. These areas will not contain native or sensitive natural communities and will not provide habitat for special-status plant or wildlife species.

n. The Contractor will avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches that are more than 1 foot deep at the end of each construction workday. The qualified biologist will inspect open trenches and holes and will remove or release any trapped wildlife found in the trenches or holes prior to being refilled by the construction contractor.

o. Wildlife species can be attracted to den-like structures and may enter stored materials or equipment and become trapped or injured. Construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by wildlife species that could occupy such structures will be inspected by a qualified biologist prior to being used for construction. Such inspections will occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the qualified biologist, the structure may be moved up to one time to isolate it from construction activities, until the wildlife species has moved from the structure of their own volition, has been captured and relocated, or has otherwise been removed from the structure.

p. Capture and relocation of trapped or injured special-status wildlife species will only be performed by personnel with appropriate state and/or federal permits. The Capitol Corridor Joint Powers Authority and resource

agencies will be notified by biologists within 24 hours of discovery of injury to or mortality of a special-status species that results from proposed Project-related construction activities or is observed at the construction site. Notification will include the date, time, and location of the incident or of the discovery of an individual special-status species that is dead or injured. For a special-status species that is injured, general information on the type or extent of injury will be included. The location of the incident will be clearly indicated on a U.S. Geological Survey 7.5-minute quadrangle and/or similar map at a scale that will allow others to find the location in the field, or as requested by resource agencies. A follow-up report will be prepared for governing regulatory agencies, including dates, locations, habitat description, and any corrective measures taken to protect special-status species encountered. Any general sightings (no injury or mortality) will be recorded per monitoring requirements. For each special-status species encountered, the biologist will submit a completed California Natural Diversity Database field survey form (or equivalent) to California Department of Fish and Wildlife no more than 90 days after completing the last field visit to the proposed Project site.

q. The spread of dust from work sites to sensitive natural communities or habitats for special-status plant or wildlife species on adjacent lands will be minimized by use of a water truck. During dry conditions, dirt access roads, haul roads, and spoils areas will be watered at least twice each day when being used during construction.

r. The Contractor will strictly limit their activities, vehicles, equipment, and construction materials to established roads and the proposed Project footprint limits. Speed limit signs posted on local roads and a 15 mile-per-hour speed limit along access and haul routes will be observed. Extra caution will be used when special-status reptile species may be basking on roads.

s. To avoid injury or death to wildlife, no firearms will be allowed on the proposed Project site except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

t. To prevent harassment, injury, or mortality of special-status wildlife species by dogs or cats, no canine or feline pets of workers will be permitted in the construction area.

u. Plastic monofilament netting or similar material will not be used for erosion control because smaller wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds. This limitation will be communicated to the contractor through specifications or special provisions included in the construction bid solicitation package.

v. Herbicides will be used in accordance with the manufacturer recommended uses and applications, and in such a manner as to prevent primary or secondary poisoning of special-status fish and wildlife species and depletion of prey populations or vegetation upon which they depend. All uses of such compounds will observe label and other restrictions mandated by the U.S. Environmental Protection Agency, the California Department of Pesticide Regulation, and other appropriate state and federal regulations. Rodenticides will not be used during construction.

w. Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel handheld equipment, will be stored within secondary containment at least 50 feet from open water to the fullest extent practicable.

x. The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter Waters of the U.S. or Waters of the State, and in areas that do not have suitable habitat to support special-status species. Fuel containers, repair materials including creosote treated wood, and/or stockpiled material that is left on site overnight will be secured in secondary containment within the construction work area or a staging area and covered with plastic at the end of each workday.

y. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor will remove all portable fuel containers from the proposed Project site or place them within a secured container.

z. Equipment and containers will be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan, Materials Safety Data Sheets, and any specifications required by other permits issued for the proposed Project.

aa. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks. Where feasible, maintenance of equipment will occur in upland areas where fuel cannot enter Waters of the U.S. or Waters of the State and in areas that do not have suitable habitat to support special-status species.

MM BIO-2: Rare Plant Pre-construction Surveys. At least one year prior to initial ground disturbance and during the appropriate blooming period (June through November), a focused survey for rare plants, including Congdon's tarplant and California seablite, will be conducted by a qualified plant ecologist within suitable habitat in the proposed Project footprint (e.g., areas of ruderal grassland, estuarine, and saline emergent wetland habitat) and a 50-foot buffer around the identified suitable habitat. This buffer may be increased by the qualified plant ecologist depending on site-specific conditions and activities planned in the area but must be at least 50 feet wide for permanent impacts. Situations for which a greater buffer may be required include proximity to proposed activities expected to generate large volumes of dust that cannot be effectively mitigated, such as grading; potential for proposed Project activities to alter hydrology supporting the habitat for the species; or proximity to proposed structures that may shade areas farther than 50 feet away. The purpose of the survey will be to assess the presence or absence of Congdon's tarplant and California seablite. If the target species are not found in the impact area or the identified buffer, then no further mitigation will be warranted. If Congdon's tarplant and/or California seablite are observed on or in proximity to the proposed Project site, or during proposed Project surveys, the Capitol Corridor Joint Powers Authority will submit California Natural Diversity Data Base forms and maps to the California Natural Diversity Data Base within five working days of the sightings. In addition, if California seablite is found, consultation with U.S. Fish and Wildlife Service would be required.

MM BIO-3: Rare Plant Avoidance Buffers. To the extent feasible, and in consultation with a qualified plant ecologist and the U.S. Fish and Wildlife Service, the Capitol Corridor Joint Powers Authority and/or its contractors will design and construct the proposed Project to avoid and minimize impacts on all populations of Congdon's tarplant and California seablite within the proposed Project footprint or within the identified buffer of the impact area. Avoided Congdon's tarplant and California seablite populations will be protected by establishing and enforcing Environmentally Sensitive Areas with fencing and appropriate signage between plant populations and the impact area. If a reduced buffer is needed for temporary impacts, the qualified plant ecologist will work with the proposed Project

construction team to minimize temporary indirect impacts (e.g., watering of construction areas periodically during construction to minimize dust mobilization). Such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, will be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around Congdon's tarplant and California seablite individuals to be avoided will be marked in the field (e.g., with flagging, fencing, paint, or other means appropriate for the site). This marking will be maintained intact and in good condition throughout proposed Project-related construction activities.

- If more than 10 percent of a population of Congdon's tarplant (by occupied area or individuals) would be impacted as determined by a qualified plant ecologist, then Mitigation Measure MM BIO-4 will be implemented.

- If complete avoidance of California seablite is not feasible, then Mitigation Measure MM BIO-4 will be implemented.

MM BIO-4: Rare Plant Mitigation/Habitat Mitigation Management Plan. If avoidance of more than 10 percent of the existing Congdon's tarplant is not feasible, and complete avoidance of California seablite individuals and/or populations is not feasible, the Capitol Corridor Joint Powers Authority will consult relevant regulatory agency(ies) (e.g. California Department of Fish and Wildlife/U.S. Fish and Wildlife Service) regarding compensatory mitigation to be provided via the preservation, enhancement, and management of occupied habitat for the species, or the creation and management of a new population, or as directed by the California Department of Fish and Wildlife/U.S. Fish and Wildlife Service.

- To compensate for impacts on Congdon's tarplant, off-site habitat occupied by the species will be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and at least one occupied acre preserved for each occupied acre affected), for any impact over the 10 percent significance threshold. Alternately, seed from the population to be impacted may be harvested and used either to expand an existing population (by a similar number/occupied area to compensate for impacts to Congdon's tarplant beyond the 10 percent significance threshold) or establish an entirely new population in suitable habitat.

- Areas proposed to be preserved as compensatory mitigation for impacts on Congdon's tarplant and/or California seablite must contain verified extant populations of the species, or in the event that enhancement of existing populations or establishment of a new population is selected, the area must contain suitable habitat for the species as identified by a qualified plant ecologist. Mitigation will be achieved through a combination of in-kind creation, restoration, and/or enhancement as determined to be appropriate through consultation with the resource agencies. Mitigation will first be considered on site, then with an approved mitigation bank, and thirdly through offsite mitigation. The appropriate permit applications will be submitted to state and federal regulatory agencies. The permits issued by these agencies will finalize the mitigation requirements. A Habitat Mitigation and Monitoring Plan will be developed and implemented for the mitigation lands. That plan will include, at a minimum, the following information:

- A summary of habitat impacts and the proposed mitigation;

- A description of the location and boundaries of the mitigation site and description of existing site conditions;

- A description of measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat) the mitigation site for Congdon's tarplant and California seablite;

- A description of measures to transplant individual plants or seeds from the impacted area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist);

- Proposed management activities to maintain high-quality habitat conditions for Congdon's tarplant and California seablite;

- A description of habitat and species monitoring measures on the mitigation site, including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, performance criteria will include demonstration that any plant population fluctuations over the monitoring period of a minimum of five years for preserved populations and a minimum of 10 years for enhanced or established populations do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (e.g., that are not the result

of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management);
If a new population is established, the new population must contain at least 200 individuals or the same number of impacted individuals, whichever is greater, by year five. This is to make sure the created population will be large enough to expect to persist and gain sufficient dedicated pollination services. If year five is a poor weather year for summer and fall-blooming annual plants and reference populations show a decline, these criteria can be measured in the next year occurring with average or better rainfall; and

- Contingency measures for mitigation elements that do not meet performance criteria.

The Habitat Mitigation and Monitoring Plan will be prepared by a qualified plant or restoration ecologist. California Department of Fish and Wildlife and U.S. Fish and Wildlife Service approval of the Habitat Mitigation and Monitoring Plan will be required before proposed Project impacts on Congdon's tarplant or California seablite occur.

MM BIO-5: Monarch Butterfly Avoidance. Prior to construction, the Capitol Corridor Joint Powers Authority will make sure that a qualified biologist conducts a pre-construction survey for overwintering monarchs or milkweed plants within 50 feet of the Project. If overwintering monarchs are found to be present in any tree within 50 feet of any disturbance area or milkweed is found within 50 feet of any disturbance area during the pre-construction survey, the following guidelines will also be implemented:

- The tree and/or milkweed will be mapped, delineated with Environmentally Sensitive Area fencing, and avoided;

- The modification and/or minimizing of herbicide usage to promote growth of milkweed and flowering plants outside of Union Pacific Railroad right-of-way; and

- Use local seed mixes that include a variety of flowering plants and milkweed.

MM BIO-6: Bumble Bee Pre-construction Surveys. Within one year prior to construction, the Capitol Corridor Joint Powers Authority will perform a habitat assessment for Crotch's and western bumble bee be conducted within the proposed Project footprint and an appropriate survey buffer be established by a

qualified biologist with experience surveying for and observing Crotch's and western bumble bee. If the qualified biologist determines that suitable habitat is present, surveys will be conducted to determine the presence/absence of Crotch's and western bumble bee. Surveys will be conducted during flying season when the species are most likely to be detected above ground, between March 1 to September 1. Survey results, including negative findings, will be submitted to the California Department of Fish and Wildlife prior to implementing proposed Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's and/or western bumble bee. At minimum, a survey report will provide the following:

a) A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's and/or western bumble bee;

b) Field survey conditions including name(s) of qualified entomologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched;

c) Map(s) showing the location of nests/colonies; and,

d) A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found, a sufficient description of biological conditions, primarily impacted habitat, will include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species).

If the target species is not found in the impact area, then no further mitigation will be warranted. If Crotch's bumble bee or western bumble bee individuals are found within the survey area, then MM BIO-7 will be implemented.

MM BIO-7: Bumble Bee California Endangered Species Act Section 2080 Coordination. If a qualified biologist determines Crotch's and/or western bumble bees are present within the proposed Project footprint, the Capitol Corridor Joint Powers Authority will develop a plan to minimize impacts to Crotch's and western bumble bee be developed in consultation with a qualified entomologist during final design. The plan will include effective, specific, enforceable, and feasible measures. An avoidance plan will be submitted to the California Department of Fish and Wildlife prior to implementing proposed Project-related ground-disturbing

activities and/or vegetation removal where there may be impacts to Crotch's and/or western bumble bee. If Crotch's and/or western bumble bees are determined to be present within the proposed Project footprint and it is determined the species will be impacted by proposed Project implementation, appropriate mitigation will be determined in consultation with the California Department of Fish and Wildlife.

If Crotch's and/or western bumble bee is detected during the survey, and if impacts to Crotch's and/or western bumble bee cannot be feasibly avoided during proposed Project construction and activities, the Capitol Corridor Joint Powers Authority and a designated qualified entomologist coordinate will coordinate with the California Department of Fish and Wildlife to obtain appropriate permit for incidental take of Crotch's and/or western bumble bee prior to commencement of proposed Project activities in habitat occupied by the bumble bees. The incidental take permit will quantify and provide appropriate mitigation for impacts on Crotch's and/or western bumble bee habitat. Mitigation for impacts to Crotch's and/or western bumble bee habitat would be at a ratio comparable to the proposed Project's level of impacts.

MM BIO-8: Steelhead and Green Sturgeon Work Window. In water work within and over Alameda Creek will be restricted to a seasonal window when surface water flows are lowest, and steelhead and green sturgeon are least likely to be present. The specific work windows (e.g., June 15 to October 15) will be in accordance with the terms identified during National Marine Fisheries Service consultation, if warranted.

MM BIO-9: Dewatering and Aquatic Species Relocation Plan. To avoid and minimize effects to water quality and take of aquatic species, the project footprint within Alameda Creek will be dewatered prior to construction. During advanced design and permitting with regulatory agencies, the Capitol Corridor Joint Powers Authority will prepare a Dewatering Plan and Aquatic Species Relocation Plan. The plans will be submitted as part of the regulatory permit applications required under the Clean Water Act Section 404 with the U.S. Army Corps of Engineers, the Clean Water Act Section 401 with the Regional Water Quality Control Board, and the Lake and Streambed Alteration Agreement with the California Department of Fish and Wildlife as well as the U.S. Fish and Wildlife Service and National Marine Fisheries Service. The plans will include but not be limited to the following:

- Minimum qualifications for the Project biologist who will be responsible to monitor in-water construction activities, oversee dewatering, and implement relocation of aquatic species;

- Restrictions on work within the channel. Dewatering of the channel will be limited to the minimum footprint necessary to complete the work. The Dewatering Plan will include details noting type and location for placement of necessary fill, cofferdams, pipes, and sequencing of activities. After completion of construction, materials used for dewatering will be removed and the channel restored to the original condition; and

Methods, best management practices, and release locations (i.e., Bay-side or landside) for the relocation of special-status fish and other aquatic species to appropriate suitable habitat. The Aquatic Species Relocation Plan will include provisions to limit stress to aquatic species, ensure the quickest relocation to appropriate habitat, and documentation requirements for reporting to permitting agencies.

MM BIO-10: Steelhead and Green Sturgeon Habitat Replacement. Prior to construction activities, the Capitol Corridor Joint Powers Authority will coordinate with the National Marine Fisheries Service to determine mitigation ratios for permanent impacts on Central California Coast Distinct Population Segment steelhead habitat and green sturgeon (Southern Distinct Population Segment) critical habitat. Mitigation may include on-site restoration, in-lieu fee payment, purchase of mitigation credits at a National Marine Fisheries Service-approved mitigation bank, or as defined by the National Marine Fisheries Service as part of consultation, if warranted.

MM BIO-11: Western Pond Turtle Pre-construction Surveys. A qualified biologist will conduct a pre-construction survey for western pond turtle prior to any proposed ground disturbing activities occurring within 350 feet of Alameda Creek, and other waterways in the proposed Project footprint. The survey area will include all disturbance areas within 350 feet of water line. In areas of suitable habitat, the qualified biologist will conduct a pre-construction survey for the species within 48 hours prior to construction activities before construction equipment mobilizes to the proposed Project footprint. If any pond turtles or their nests are found, the biologist will prepare a relocation plan and submit it to the California Department of Fish and Wildlife for written acceptance prior to starting proposed Project activities, and then implement the plan. Construction activities

will avoid all pond turtles and their nests including an appropriate buffer as determined by the qualified biologist.

MM BIO-12: Nesting Migratory Birds, Special-Status Birds, and Raptor Pre-construction Surveys. The Capitol Corridor Joint Powers Authority and its contractors will conduct vegetation removal, where required to construct proposed Project features, during the non-breeding season for migratory birds and raptors (generally between September 16 and January 14) to the extent feasible. If construction activities occur between January 15 and September 15, a qualified biologist will conduct a preconstruction survey (within seven days prior to construction activities) to determine whether any active bird nests are present and, if so, identify their locations. The results of the surveys will be submitted to the Capitol Corridor Joint Powers Authority (and made available to the wildlife agencies [U.S. Fish and Wildlife Service/California Department of Fish and Wildlife], upon request) prior to initiation of any construction activities. Should nesting birds be found, the qualified biologist will determine exclusionary buffers. Proposed Project activity will not commence within the buffer areas until a qualified biologist has determined, that the young have fledged, the nest is no longer active, or reducing the buffer would not result in nest abandonment. The size of the buffer may be adjusted if a qualified biologist and the Capitol Corridor Joint Powers Authority determine that such an adjustment would not be likely to adversely affect the nest. The qualified biologist will monitor active nests during construction to confirm that the buffer is adequate and will document and provide notification when the nest has fledged or failed. Consultation with the California Department of Fish and Wildlife may be required if species of state-listed special concern, or fully protected species are observed.

MM BIO-13: Burrowing Owl Habitat Assessment. Prior to the start of construction activities, the Capitol Corridor Joint Powers Authority will retain a qualified biologist to conduct a focused burrowing owl habitat assessment in areas of ruderal and grassland habitat within the proposed Project footprint in accordance with the methodologies outlined in the California Department of Fish and Wildlife's 2012 Staff Report on Burrowing Owl Mitigation. If burrowing owls or the presence of suitable burrows are detected during the burrowing owl habitat assessment, the qualified biologist, in coordination with the Capitol Corridor Joint Powers Authority and California Department of Fish and Wildlife, will implement avoidance, minimization, and mitigation methodologies outlined in the California Department of Fish and Wildlife's 2012 Staff Report on Burrowing Owl Mitigation prior to initiating proposed Project-related activities that may impact burrowing owls or burrowing owl habitat.

MM BIO-14: Salt Marsh Harvest Mouse Avoidance. Salt Marsh Harvest Mouse will be assumed present within the proposed Project footprint; therefore, the following measures below would be implemented:

- A barrier will be installed at limits of the construction work area to exclude Salt Marsh Harvest Mouse from the construction area:
    - This exclusionary barrier, which will be shown on the proposed Project plans and will be constructed and installed under the guidance of a biologist qualified to survey for Salt Marsh Harvest Mouse (must meet permit requirements and be approved by the U.S. Fish and Wildlife Service), will consist of a 3-foot tall, tight cloth, smooth plastic, or sheet-metal (or similar material approved by the U.S. Fish and Wildlife Service) fence toed into the soil at least 3 inches deep and supported with stakes placed on the inside of the barrier;
    - A qualified biologist will conduct a preconstruction survey of the area every morning, prior to construction activities commencing for the day;
    - The qualified biologist will monitor the installation of the exclusionary barrier and will remain on site to monitor all work performed adjacent to Salt Marsh Harvest Mouse Environmentally Sensitive Areas;
    - Excavations or open trenches in or adjacent to Salt Marsh Harvest Mouse habitat will either be backfilled or closed at the end of the construction day, or escape ramps will be provided;
    - Following the installation of the exclusionary barrier, the qualified biologist will check its integrity each morning that construction activities occur and will have construction personnel initiate repairs, under the supervision of a qualified biologist immediately as needed.

MM BIO-15: Salt Marsh Harvest Mouse Immediate Work Stoppage. If a salt marsh harvest mouse or an animal that could be a harvest mouse (e.g., a similar species of mouse), is observed within the work area during construction activities, all work will stop immediately, and the qualified biologist will be immediately notified. The animal will be allowed to leave the area on its own and will not be handled except by a qualified, permitted biologist.

MM BIO-16: Bat Habitat Suitability Assessment and Surveys. A qualified and California Department of Fish and Wildlife-approved bat biologist will survey potentially suitable structures and vegetation during bat maternity season, prior to construction, to assess the potential for the structures' and vegetation's use for bat roosting and bat maternity roosting, as maternity roosts are generally formed in spring. The qualified bat biologist will also perform preconstruction surveys or temporary exclusion within 2 weeks prior to construction, as bat roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys.

If a roost is detected, a bat management plan will be prepared if it is determined that proposed Project construction would result in direct impacts on roosting bats. The bat management plan will be submitted to California Department Fish and Wildlife prior to implementation and include appropriate avoidance and minimization efforts such as:

- Temporary Exclusion. If recommended by the qualified bat biologist, to avoid indirect disturbance of roosting bats adjacent to construction activities, temporary bat eviction and exclusion devices will be installed under the supervision of a qualified and permitted bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion will be conducted during the fall (September or October) to avoid trapping flightless young bats inside during the summer months or hibernating/overwintering individuals during the winter. Exclusion efforts are dependent on weather conditions, take a minimum of 2 weeks to implement, and must be continued to keep the structures free of bats and birds until the completion of construction. All eviction and/or exclusion techniques will be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., California Department of Fish and Wildlife) if the structure is occupied by bats. If deemed appropriate, the biologist may recommend installation of temporary bat panels during construction.

If a roost is detected but would only be subject to indirect impacts:

- Daytime Work Hours. All work conducted under the occupied roost will take place during the day. If this is not feasible, lighting and noise will be directed away from night roosting and foraging areas.

MM BIO-17: Compensate for the Loss of Sensitive Natural Communities. Prior to construction, the Capitol Corridor Joint Powers Authority will make sure that permanent direct impacts on sensitive natural communities, including California Sensitive Natural Communities, Critical Habitat, Essential Fish Habitat, and jurisdictional aquatic resources (e.g. waters of the State or waters of the U.S.) such as riverine, freshwater emergent wetland, lacustrine, estuarine, and saline emergent wetland, will be mitigated through the purchase of credits at a minimum ratio of 2:1 for native habitats and a minimum ratio of 1:1 for non-native habitats. This will be done through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration, and/or creation of riparian habitat within approved watersheds and/or funding of a minimum 1:1 ratio of habitat enhancement at approved conservation easements/mitigation banks. The final mitigation acreage will be confirmed during review of final engineering drawings and may be modified during the agency consultation and permitting process (e.g., California Department of Fish and Wildlife, Regional Water Quality Control Board, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, National Marine Fisheries Service). Per expected permit conditions, the Capitol Corridor Joint Powers Authority will provide written evidence to the resource agencies that compensation has been acquired prior to construction. Alternatively, as part of the permitting process, the Capitol Corridor Joint Powers Authority may provide a plan/proposal for regulatory resource approval to conduct on or offsite habitat creation/enhancement to compensate for the Project's direct impacts to sensitive natural communities. All sensitive natural communities subject to temporary construction disturbance will be restored by the Capitol Corridor Joint Powers Authority and its contractors in accordance with a post construction Erosion Control and Habitat Restoration Plan. The Erosion Control and Habitat Restoration Plan will address all temporarily disturbed areas, be prepared by a qualified biologist, be developed as part of the California Department of Fish and Wildlife's Lake and Streambed Alteration Agreement process and be reviewed and approved by relevant agencies prior to implementation. If mitigation banks are not available at the time that mitigation will be implemented, coordination with agencies would occur to identify appropriate mitigation (i.e., permittee responsible mitigation).

MM BIO-19: Fish Passage and Noise Analysis. To evaluate potential impacts to native fish species and fisheries resources, the Capitol Corridor Joint Powers Authority will conduct a fish passage analysis during final proposed Project design. The proposed Project will be designed and constructed so that it does not present a barrier to fish passage, create predatory holding habitats or result in operational noise exceeding 150 decibels the Capitol Corridor Joint Powers

Authority will coordinate with the necessary regulatory agencies, including the National Marine Fisheries Service and California Department of Fish and Wildlife prior to initiating the analysis, and will consult with the National Marine Fisheries Service and California Department of Fish and Wildlife during development of conceptual through the final design plans. The National Marine Fisheries Service and California Department of Fish and Wildlife will be engaged for coordination during design.

MM BIO-20: Salt Marsh Harvest Mouse Habitat Replacement. Prior to construction activities, the Capitol Corridor Joint Powers Authority will coordinate with the U.S. Fish and Wildlife Service to determine mitigation ratios for impacts on Salt Marsh Harvest Mouse. Pending consultation with the U.S. Fish and Wildlife Service, mitigation may include on-site restoration, in-lieu fee payment, purchase of mitigation credits at a U.S. Fish and Wildlife Service-approved mitigation bank, or as defined by U.S. Fish and Wildlife Service as part of consultation.

Riparian Habitat and Sensitive Natural Communities

An evaluation of the Project's impacts on riparian habitat and sensitive natural communities is found in Draft EIR Section 3.5 - Biological Resources. The Resource Study Area contains designated critical habitat for southern distinct population segment green sturgeon and snowy plover. To avoid potential direct or indirect effects on critical habitat for green sturgeon (Southern Distinct Population Segment), MM BIO-1, MM BIO-7, and MM BIO-8 would be implemented. Implementation of the mitigation measures would reduce construction related impacts on green sturgeon (Southern Distinct Population Segment) critical habitat to a less than significant level. No impact to snowy plover critical habitat is anticipated.

Essential Fish Habitat for Pacific salmonids and groundfish occurs throughout the entire biological resource area, however, only a small amount of salmonid and groundfish Essential Fish Habitat occurs within the proposed Project footprint. To avoid potential direct or indirect effects on Essential Fish Habitat occurring within and adjacent to the proposed Project footprint, MM BIO-1, MM BIO-7, and MM BIO-8 would be implemented. Implementation of the mitigation measures would reduce construction related impacts on Essential Fish Habitat to a less than significant level.

Construction and demolition of existing and new tracks would require ground disturbance, grading, possible removal of vegetation, relocation of existing utilities, and

staging of equipment and materials. This could directly affect sensitive natural communities present in the Resource Study Area. The only California sensitive natural communities that are mapped as occurring within the Resource Study Area is mixed riparian forest and aquatic resources. With the implementation of MM BIO-1 and MM BIO-17, the proposed Project would avoid impacts on sensitive natural communities during construction. All temporary impacts on sensitive natural communities would be avoided, minimized, and/or mitigated. With the implementation of MM BIO-1 and MM BIO-17, construction and operational impacts would be reduced to a less than significant level.

Five jurisdictional aquatic resources were mapped within the Resource Study Area: estuarine, freshwater emergent wetland, lacustrine, riverine, and saline emergent wetland. To avoid potential direct or indirect effects on jurisdictional aquatic resources, MM BIO-1 would be implemented to reduce impacts to less than significant.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to riparian habitat and sensitive natural communities identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1 (see above)

MM BIO-7 (see above)

MM BIO-8 (see above)

State and Federally Protected Wetlands

An evaluation of the Project's impacts on wetlands is found in Draft EIR Section 3.5 - Biological Resources. Construction and demolition of existing and new tracks would require ground disturbance, grading, possible removal of vegetation, relocation of existing utilities, and staging of equipment and materials that could directly affect aquatic resources through direct removal, filling, hydrological interruption, compaction, or sedimentation. Additionally, impacts in the form of dust and contaminant runoff (e.g., oil,

grease, concrete) may occur as a result of construction activities and decrease the quality of aquatic resources within the Resource Study Area. Although the Resource Study Area is highly urbanized and disturbed in nature, direct impacts on state and federally protected wetlands and waters could occur during proposed Project construction under the proposed Project. This would occur at several locations, including Alameda Creek, and other stream crossings located within the Resource Study Area. Therefore, the proposed Project could result in permanent and temporary impacts on aquatic resources, Waters of the State, and Waters of the U.S. With the implementation of MM Hydrology (HYD)-1 Stormwater Management and Treatment Plan, which avoids impacts on aquatic resources and MM BIO-17, which mitigates for the loss of aquatic resources, impacts on aquatic resources would be reduced to a less than significant level.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts to state and federally protected wetlands identified in the EIR to a less than significant level.

Mitigation Measures

MM HYD-1: Stormwater Management and Treatment Plan. See Section 3.2.6, Hydrology and Water Quality, below.

MM BIO-17 (see above)

Movement of Fish and Wildlife Species

An evaluation of the Project's impacts on fish and wildlife movement is found in Draft EIR Section 3.5 - Biological Resources. Several natural landscape blocks and essential habitat connectivity areas occur adjacent to the Resource Study Area. In addition, a corridor for fish passage is associated with Alameda Creek and other creeks occurring within the Coast Subdivision where new railroad bridges would be constructed or culverts installed. The proposed Project has the potential to impact natural landscape blocks or essential habitat connectivity areas identified by the California Department of Fish and Wildlife.

Permanent impacts on Alameda Creek associated with a new railroad bridge structure are anticipated under the proposed Project. Construction of in-channel bridge piers has potential to affect fish and wildlife passage during construction. If dewatering is needed as part of the pier construction in Alameda Creek, western pond turtle and other native fish and wildlife species may be deterred from passing upstream or downstream. However, this deterrence would be a temporary impact. The installation of these new piers would not have a permanent impact on the movement of native fish and wildlife species through Alameda Creek. With implementation of MM BIO-1, MM BIO-8, MM BIO-9, MM BIO-10, and MM BIO-17, construction related impacts to wildlife movement would be considered less than significant. With implementation of MM BIO-19, final design of the proposed Project would ensure that any new bridges or culverts would not impede fish passage. Therefore, proposed Project-related construction would be considered less than significant with implementation of MM BIO-19.

During maintenance and operations, the installation of these new structures would not have a permanent impact on the movement of native fish and wildlife species through Alameda Creek.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on movement of fish and wildlife identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1 (see above)

MM BIO-8 (see above)

MM BIO-9 (see above)

MM BIO-10 (see above)

MM BIO-17 (see above)

MM BIO-19 (see above)

Conflict with Local Policies and Ordinances

An evaluation of the Project's impacts on local policies and ordinances is found in Draft EIR Section 3.5 - Biological Resources. The Cities of Hayward, Fremont, Newark, Oakland, San Leandro, and Union City all have policies and ordinances to protect and preserve certain trees and other sensitive native biological resources, such as wildlife habitat and native plant species. The proposed Project could result in permanent and temporary impacts on vegetation and aquatic communities. These habitats are protected by applicable City policies and ordinances as well as applicable resource agency rules and regulations. Protected trees covered under local jurisdiction ordinances could be impacted through removal and would require relocation or replacement. With implementation of MM BIO-1, MM BIO-2, and MM BIO-18, proposed Project-related construction impacts would be considered less than significant. During operation, the proposed Project would not include any activities that would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts related to conflict with local policies and ordinances protecting biological resources identified in the EIR to a less than significant level.

Mitigation Measures

MM BIO-1 (see above)

MM BIO-2 (see above)

MM BIO-18: Protected Trees Pre-construction Surveys. Prior to the start of construction activities, the Capitol Corridor Joint Powers Authority will retain a qualified arborist to conduct a pre-construction survey for protected trees (e.g., all historic trees, all mature native trees, or any mature trees) that may require removal, pruning or may otherwise be impacted by the proposed Project. The pre-construction survey will identify the types, location, sizes, health of protected trees and summarize survey findings in a tree protection report. The tree protection report will be submitted to the applicable city for review and concurrence. The report will include but not be limited to the following:

- Recommended avoidance and impact minimization measures, replacement value, and feasibility of relocation for protected trees subject to removal.

- Methods and measures for relocation of protected trees to appropriate suitable habitat. Identification of which of the surveyed trees these measures apply to, and if any other tree permit requirements are necessary to comply with municipal policies and ordinances.

1.4 Cultural Resources

Archaeological Resources

An evaluation of the Project's impacts on archaeological resources is found in Draft EIR Section 3.6 - Cultural Resources. Research conducted for the Draft EIR identified three pre-contact and four historic-period archaeological sites that may qualify as historical resources under CEQA. In addition, a review of geologic maps to assess the proposed Project's potential for containing as-yet undocumented buried archaeological resources indicates the proposed Project extends across numerous geologic units with varying degrees of archaeological sensitivity, but the majority has a high degree of sensitivity for containing buried archaeological resources.

Based on the records search results and the desktop archaeological sensitivity assessment, implementation of the proposed Project would result in substantial adverse changes to archaeological deposits that qualify as historical resources. However, due to constraints posed by property access and urban overlay of the proposed Project, the full nature, type, and extent of buried archaeological deposits and features are unknown and have not been evaluated for the California Register of Historical Resources; therefore, a phased identification and evaluation of archeological sites for the California Register of Historical Resources will be established at least at a 30-percent level of design and prior to the start of construction. The implementation of mitigation measures CUL-1, CUL-2, CUL-3, and CUL 4 would reduce potential construction impacts on archaeological resources to a less than significant level.

The operational component of the proposed Project is consistent within the current operational use of the overall railroad network and no increase in train frequency is proposed. As such, the operation of the proposed Project has no potential to impact archaeological resources.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on archaeological resources identified in the EIR to a less than significant level.

Mitigation Measures

MM CUL-1: Temporary Construction Easement Review and Installation of a Horizontal and Vertical Environmentally Sensitive Area for P-01-011558, as appropriate. At or before the 90-percent rail design phase, the need for the Temporary Construction Easement at the location of P-01-11558 will be reviewed and if no longer needed, the Temporary Construction Easement will be removed from the construction plans. If the Temporary Construction Easement is still needed in the vicinity of P-01-011558, a horizontal and vertical Environmentally Sensitive Area will be established to exclude project construction activities from the vicinity of P-01-011558. The method of Environmentally Sensitive Area installation will be determined during the design phase and will be indicated on the construction documents. The Environmentally Sensitive Area will be monitored by a qualified archaeologist (meeting the minimum professional qualifications standards set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44739) during any ground disturbing preconstruction or construction work in the boundaries of the Temporary Construction Easement.

MM CUL-2: Implement Archaeological Testing and Evaluation Plan. Once the Project footprint reaches a 30% percent level of rail design and prior to the start of construction, an Archaeological Testing and Evaluation Plan will be implemented by a qualified archaeologist in consultation with the Capitol Corridor Joint Powers Authority to support the evaluation of the subsurface extent of cultural resources potentially impacted by the project. The Archaeological Testing and Evaluation Plan should consist of a site-specific context, research design, and field methods to evaluate known resources, and identify resource types that may be encountered within areas of high sensitivity and deep ground disturbance. This plan should include, but not be limited to:

- Background and anticipated resource types;

- Research questions that can be addressed by the collection of data from the defined resource types;

- Field methods and procedures including:

    - Procedures to determine whether a buried component of a known site extends horizontally into the Project footprint;

    - Geoarchaeological trenching or coring; and

    - Cataloging and laboratory analysis.

The Archaeological Testing and Evaluation Plan will be submitted to the Capitol Corridor Joint Powers Authority and the local consulting tribal representatives for review prior to implementation. The results of the Archaeological Testing and Evaluation Plan will be summarized in a technical document that will determine whether further study is necessary. The technical document will also determine whether additional mitigation will be needed. The technical document will be provided to the Capitol Corridor Joint Powers Authority for review and approval and submitted to the Northwest Information Center.

MM CUL-3: Installation of a Horizontal and Vertical Environmentally Sensitive Area for previously recorded and newly identified archaeological sites as appropriate. During the design phase, the Project plans will be reviewed to determine if the refinements in the project design allow for avoidance of previously recorded and additional sites identified during the archeological testing conducted for the project. If the sites can be avoided, a horizontal and vertical Environmentally Sensitive Area will be established at designated locations to exclude project construction activities from the vicinity of these sites. The method of Environmentally Sensitive Area installation will be determined during the design phase and will be indicated on all plans, specifications and estimates. The Environmentally Sensitive Area will be monitored by an archaeologist during any ground-disturbing preconstruction or construction work in the vicinity of the Environmentally Sensitive Area.

MM CUL-4: Draft and Implement Archaeological Monitoring, Avoidance, and Treatment Plan. Upon completion of the archaeological testing and evaluation, and prior to the start of construction, an Archaeological Monitoring, Avoidance, and Treatment Plan will be developed by a registered professional archaeologist in consultation with the Capitol Corridor Joint Powers Authority and local tribal

representatives. Monitoring will be required at all recorded site locations, including those proposed to be avoided by Project construction.

The Archaeological Monitoring, Avoidance, and Treatment Plan will include protocols that outline archaeological roles and monitoring best practices, anticipated resource types and an Unanticipated Discovery Protocol. The Unanticipated Discovery Protocol will describe steps to follow if unanticipated archaeological discoveries are made during Project work and identify a chain of contact.

The Archaeological Monitoring, Avoidance, and Treatment Plan will be submitted to consulting tribal representatives and the Capitol Corridor Joint Powers Authority for review prior to implementation. Following the completion of ground disturbance associated with Project construction, the results of the archeological monitoring and avoidance pursuant to the Archaeological Monitoring, Avoidance, and Treatment Plan will be summarized in a technical document. The technical document will be provided to the Capitol Corridor Joint Powers Authority for review and approval and submitted to the Northwest Information Center. The final disposition of archaeological and historical resources recovered on State lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.

Human Remains

An evaluation of the Project's impacts on human remains is found in Draft EIR Section 3.6 - Cultural Resources. Based on the records search results and the desktop archaeological sensitivity assessment, implementation of the proposed Project could result in substantial adverse changes to archaeological deposits that may contain human remains. However, due to constraints posed by property access and urban overlay of the proposed Project, the full nature, type, and extent of buried archaeological deposits and features has not been assessed, including the presence of human remains.

In the event that human remains are identified during Project activities, these remains would be required to be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resource Code, as appropriate. Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the

county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Compliance with the California Health and Safety Code and implementation of MM CUL-1, CUL-2, CUL-3, CUL-4, and CUL-5 would reduce potential construction impacts on human remains to a less than significant level.

The operational component of the proposed Project is consistent within the current operational use of the overall railroad network and no overall increase in capacity is proposed. As such, the operation of the proposed Project has no potential to impact human remains.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on human remains identified in the EIR to a less than significant level.

Mitigation Measures

MM CUL-1 (see above)

MM CUL-2 (see above)

MM CUL-3 (see above)

MM CUL-4 (see above)

MM CUL-5: Tribal Monitoring. Tribal monitoring will be required during construction activities at all recorded precontact archaeological site locations, including those proposed to be avoided by Project construction. Tribal monitors will be provided a minimum of one week's notice prior to the commencement of ground-disturbing or construction work.

1.5 Geology, Soils, and Paleontological Resources

Paleontological Resources

An evaluation of the Project's impacts on paleontological resources is found in Draft EIR Section 3.8 – Geology, Soils, and Paleontological Resources. Paleontological resources have the potential to be affected during earthmoving activity of undisturbed sediment within the Resource Study Area. Though the sediment within the Resource Study Area is mostly of Holocene age, older sediment that may be paleontologically sensitive underlies it at an unknown depth. The greater the excavation depth, the greater the likelihood of encountering paleontological resources. The potential to encounter fossils is considered to be increased near known fossil localities. Several fossil localities are located along the East Bay Coastal Plain. In the Project vicinity, many but not all of the fossil localities are located closer to the hills. Open excavation deeper than 10 feet below the surface in previously undisturbed ground is considered to have the potential to encounter sensitive paleontological resources. To reduce impacts on paleontological resources, Mitigation Measure GEO-1 would be implemented. With the implementation of MM GEO-1, impacts on paleontological resources would be reduced to a less-than-significant level.

Operation and maintenance activities would occur in previously disturbed areas (within paved roads and rail corridors), resulting in no potential to impact paleontological resources. Therefore, impacts on paleontological resources during operation and maintenance of the proposed Project would be no impact.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on paleontological resources identified in the EIR to a less than significant level.

Mitigation Measures

MM GEO-1: Paleontological Resources Mitigation Plan. A Paleontological Resource Mitigation Plan will be prepared by a qualified paleontologist following Society of Vertebrate Paleontologists guidelines and implemented during the construction phase of the Project.

The Paleontological Resources Mitigation Plan will include provisions for construction workers to attend a paleontological resource awareness training session and establish the ground rules for the program. It will determine the extent to which paleontological mitigation is necessary and establishes the ground rules for the program. The Paleontological Resources Mitigation Plan will discuss fossil discovery, recovery, and subsequent handling.

The extent of any monitoring recommended would be dictated by the design of the proposed Project and would be determined during design by a qualified principal paleontologist (who holds a Master of Science or Doctorate degree in paleontology or geology and is familiar with paleontological procedures and techniques). The principal paleontologist would review the construction plans with proposed excavation sites to determine which, if any, Project components would involve earthmoving activities at depths sufficient to warrant monitoring. The principal paleontologist would review the construction schedule to develop the required monitoring schedule. Paleontological resources should also be discussed at the pre-bid meeting.

A qualified principal paleontologist would be made aware of the excavation schedule and remain on call during the period of construction specified in the Paleontological Resources Mitigation Plan. If fossils are discovered during construction, the construction crew would immediately notify the resident engineer, who would stop work within 60 feet of the finding. The resident engineer would notify the qualified principal paleontologist who will evaluate the find as soon as possible. If the resource were determined to be potentially significant, the Capitol Corridor Joint Powers Authority would be notified, and a recovery program would be initiated. The final disposition of paleontological resources recovered on State lands under the jurisdiction of the California State Lands Commission must be approved by the Commission. The State Lands Commission will be notified by the Project's principal paleontologist or Resident Engineer in the event of a significant find. The Paleontological Resources Mitigation Plan will outline steps to follow to resolve disposition of finds under State Lands Commission jurisdiction.

1.6 Hydrology and Water Quality

Groundwater Supplies and Quality

An evaluation of the Project's impacts on groundwater quality is found in Draft EIR Section 3.11 – Hydrology and Water Quality. Due to anticipated high groundwater

elevations, dewatering is anticipated for the proposed Project. This has the potential to result in a temporary decrease of the groundwater table in the localized areas where dewatering activities would occur. Construction dewatering would have minimal impacts on areas with high groundwater elevations because most excavations are anticipated to be shallow and widely spaced throughout the proposed Project corridor. Additionally, the impacts would be temporary, because dewatering would cease once the excavation has been backfilled or the specific task requiring dewatering has been completed.

The other potential impact to groundwater is for contaminated groundwater, or groundwater that may release contaminated plumes when disturbed, to recharge back into the groundwater subbasins within the proposed Project footprint. If the proposed Project footprint contains contaminated groundwater or groundwater that may release contaminated plumes when disturbed, Mitigation Measure HYD-2 would require a dewatering permit in compliance with the Volatile Organic Compound and Fuel General Permit and Groundwater General Permit be obtained prior to construction. Compliance with these permits would prevent the mismanagement of any potentially contaminated groundwater during construction activities. An active treatment system may also be necessary to treat contaminated groundwater exposed during excavation activities. Therefore, with implementation of MM HYD-2, impacts on groundwater during construction would be less than significant with mitigation incorporated.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on groundwater identified in the EIR to a less than significant level.

Mitigation Measures

MM HYD-2: Dewatering permit in case of contaminated groundwater. If the groundwater is found to be contaminated, a dewatering permit will be obtained from the San Francisco Regional Water Quality Control Board directly, and the Alameda County Water District. An Active Treatment Systems may be specified by the permit conditions if the quality of the groundwater warrants their use.

Alteration of Drainage Patterns

An evaluation of the Project's impacts on groundwater quality is found in Draft EIR Section 3.11 – Hydrology and Water Quality. The proposed Project proposes work within several floodplains that either result in an increase to floodplain elevations or occupy the floodplain with a structure. A hydraulic analysis of the impacts of the Project improvements within existing creek crossings indicates that such improvements could reduce the storage capacity of the creeks, thereby increasing the possibility of flooding. Implementation of Mitigation Measure HYD-1 would reduce the flooding possibility; therefore, Project impacts on alteration of drainage patterns resulting in flooding would be less than significant.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts of alteration of drainage patterns identified in the EIR to a less than significant level.

Mitigation Measures

MM HYD-1: Balancing cut and fill and increasing flow and detention capacity. Impacts within an existing floodplain or floodway will be mitigated by balancing cut and fill of earthwork, installing equalizer pipes to perpetuate flood flows, or implementing underground storage or add detention basins to provide more flood flow storage.

1.7 Noise and Vibration

Temporary or Permanent Increase in Ambient Noise Levels

An evaluation of the Project's impacts on noise is found in Draft EIR Section 3.14 – Noise and Vibration. Construction of track improvements would include three basic activities: (1) site work, (2) rail work, and (3) structures work. Because most track improvements are located on an active rail line, some construction work is anticipated to occur during the nighttime. The local noise ordinances for the cities and County along the rail corridor generally limit construction noise to particular time periods during weekday, weekend, and holiday daytime hours, with nighttime construction work generally prohibited. However, some jurisdictions allow for a noise variance. There are multiple areas along the rail corridor where construction activities would generate noise levels in excess of Federal Transit Administration thresholds at adjacent residential

receptors. Mitigation Measure Noise (NOI)-1 would require the preparation and implementation of a construction noise control plan to reduce the impacts of construction noise on nearby noise-sensitive receptors that could be exposed to noise in excess of Federal Transit Administration thresholds. With implementation of MM NOI-1, construction noise impacts associated with the proposed Project would be reduced to a less than significant level.

Implementation of the proposed Project would result in moderate noise impacts to 451 Category 2 noise receptors and severe noise impacts to 21 Category 2 noise receptors. Category 2 noise receptors, consisting of single-family and multifamily residences, are located adjacent to the existing railroad right-of-way along the Coast Subdivision. All the severe impacts identified at these locations are due to either the sounding of horns on at-grade crossings on the Coast Subdivision or the introduction or relocation of crossovers for the Project on the Coast Subdivision. The resulting noise level with Project implementation would meet or exceed the Federal Transit Administration severe noise impact criteria assigned with mitigation required. Implementation of MM NOI-2, which requires the creation of quiet zones at identified grade crossings or implementation of building sound insulation, would reduce impacts to a less than significant level.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts of noise identified in the EIR to a less than significant level.

Mitigation Measures

MM NOI-1: Construction Noise Control Plan. The Capitol Corridor Joint Powers Authority, in coordination with the Construction Contractor and local jurisdiction(s), will prepare and implement a Construction Noise Control Plan to reduce the impact of temporary construction-related noise on nearby noise-sensitive receptors. The plan will demonstrate how the contractor plans to limit the noise levels to below the thresholds for significant impacts. The Noise Control Plan will include but may not be limited to the following best practices:

- Install temporary construction site sound barriers near noise sources.
- Use moveable sound barriers at the source of the construction activity.

- Avoid the use of impact pile drivers where possible near noise-sensitive areas or use quieter alternatives (e.g., drilled piles) where geological conditions permit.

- Locate stationary construction equipment as far as possible from noise-sensitive sites.
- Reroute construction-related truck traffic along roadways that will cause the least disturbance to residents.

- Use low-noise emission equipment.

- Implement noise-deadening measures for truck loading and operations.

- Line or cover storage bins, conveyors, and chutes with sound-deadening material.

- Use acoustic enclosures, shields, or shrouds for equipment and facilities.

- Use high-grade engine exhaust silencers and engine-casing sound insulation.

- Minimize the use of generators to power equipment.

- Limit use of public address systems.

- Grade surface irregularities on construction sites.

- Monitor and maintain equipment to meet noise limits.

- Establish an active community liaison program to keep residents informed about construction and to provide a procedure for addressing complaints.

- A Construction Noise Control Plan will be developed and implemented to measure noise during construction, including the type of equipment and sensors to be used, a location plan for monitoring equipment, and the following additional requirements:

    - Planned frequency of monitoring for all instruments.

    - Noise thresholds will be identified, that if exceeded, could be potentially harmful to sensitive receptors.

- Corrective action plans will be identified prior to work start to be implemented should maximum noise threshold be reached or exceeded.

- To the extent possible, the construction team will be required to conduct the work in such a manner that noise does not exceed threshold limits.

- A Monitoring Exceedance Report for any exceedance occurrence will be completed by the construction team and submitted to the Capitol Corridor Joint Powers Authority, which will describe:

    - what noise measurement values were recorded that exceeded the allowable limits,
    - where the impacted instruments are located,
    - when the exceedances occurred,
    - when work was stopped because of the exceedance(s),
    - what demolition and\or construction activities caused the exceedance(s),
    - what actions were taken to limit and reduce noise levels, and
    - when demolition and\or construction activities were resumed.

MM NOI-2: Creation of Noise Quiet Zones. Prior to the start of construction activities, if establishment of a Quiet Zone is determined to be feasible by the local jurisdiction(s), the Capitol Corridor Joint Powers Authority will be responsible for reasonable costs associated with construction of the necessary at-grade crossing improvements to qualify for establishing a Quiet Zone, while recognizing that Quiet Zone approval is ultimately outside the authority of the Capitol Corridor Joint Powers Authority. This phased program will include the development of engineering studies and coordination agreements to design, construct, and enforce potential quiet zones at the following grade crossings on the Coast Subdivision:

- Jarvis Avenue (City of Newark);

- Alvarado Boulevard (City of Union City);

- Dyer Street (City of Union City);

- Union City Boulevard (City of Union City);

- Grant Avenue (unincorporated community of San Lorenzo); and

- Lewelling Boulevard (unincorporated community of San Leandro).

The Capitol Corridor Joint Powers Authority will consider options for establishing quiet zones including, but not limited to, the following Federal Railroad Administration pre-approved supplemental safety measures:

- Four-quadrant gate system. This measure involves the installation of at least one gate for each direction of traffic to fully block vehicles from entering the crossing.

- Gates with medians or channelization devices. This measure keeps traffic in the proper travel lanes as it approaches the crossing, thus denying the driver the option of circumventing the gates by traveling in the opposite lane.

- One-way streets with gates. This measure consists of one-way streets with gates installed so that all approaching travel lanes are completely blocked. This option may not be feasible or acceptable to local jurisdictions at all locations.

- Road closure. This measure consists of closing the road to through travel at the at-grade crossing. This option may not be feasible or acceptable to local jurisdictions at all locations.

In addition to these pre-approved supplemental safety measures, Federal Railroad Administration also identifies a range of other measures that may be used to establish a quiet zone. These could be modified supplemental safety measures or non-engineering measures, which might involve law enforcement or public awareness programs. Such alternative safety measures must be approved by Federal Railroad Administration based on the prerequisite that they provide an equivalent level of safety as the sounding of horns.

This phased program will also consider the use of wayside horns as part of a quiet zone. While not avoiding the sounding of a horn, wayside horns affect a smaller area than train-mounted horn. Wayside horns can be used when the other measures above are not adequate to avoid the use of a horn.

If quiet zones are not feasible or unacceptable to the resident's community and/or jurisdiction, the Capitol Corridor Joint Powers Authority will offer financial support

for application of building sound insulation at the impacted residences at the following locations:

- Coast Subdivision North Section: 3 residences located on the southwest side of the existing railroad right-of-way between Farallon Drive and Lewelling Boulevard.
- Coast Subdivision North Section: 1 residence located on the northeast side of the existing railroad right-of-way between Lewelling Boulevard and Grant Avenue.
- Coast Subdivision Central Section: 1 residence located on the northeast side of the existing railroad right-of-way between Grant Avenue and Skywest Golf Course.
- Coast Subdivision Central Section: 2 residences located on the northeast side of the existing railroad right-of-way between Union City Boulevard and Smith Street.
- Coast Subdivision South Section: 9 residences located on the northeast side of the existing railroad right-of-way between Smith Street and Alameda Creek.
- Coast Subdivision South Section: 4 residences located on the southwest side of the existing railroad right-of-way between Jarvis Avenue and Cedar Boulevard Park.
- Coast Subdivision South Section: 1 residence located on the northeast side of the existing railroad right-of-way between Cedar Boulevard Park and Clark Avenue.

Building sound insulation improvements may include but not be limited to the following:

- Application of an extra layer of glazing to the windows;
- Sealing holes in exterior surfaces that act as sound leaks; and
- Provision of forced ventilation and air-conditioning so that windows do not need to be opened.

During final design of the project, the Capitol Corridor Joint Powers Authority will coordinate with individual residents identified as candidates for sound insulation. The coordination will include testing of existing outdoor to indoor noise reduction and specific measures required to meet the interior noise level criterion.

Ground-Borne Vibration

An evaluation of the Project's impacts on vibration is found in Draft EIR Section 3.14 – Noise and Vibration. Construction of the proposed Project is expected to generate vibration levels from 25 feet away as high as 94 vibration decibels due to compactors during site work, 87 vibration decibels due to bulldozers during rail work, and 104 vibration decibels due to 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 the potential for any damage. For pile driving, it is anticipated that the potential for damage will be limited to structures located at distances in the range of 30 to 75 feet from the pile driving operations, depending on the building category. None of the built environment buildings identified as historical resources are located within 30 to 75 feet of the project footprint. However, in terms of vibration annoyance effects or interference with the use of sensitive equipment, the potential extent of vibration impact from pile driving is expected to be even greater than for damage. It is possible that construction activities involving pile drivers occurring at the edge of or slightly outside of the current rail right-of-way could result in vibration damage, and damage from construction vibration would be a potentially significant impact.

To mitigate these potential impacts, MM NOI-3 will be implemented. With implementation of MM NOI-3, impacts resulting from construction vibration structural damage would be minimized to a less-than-significant level. All of the operational vibration impacts identified for the proposed Project are due to the introduction or relocation of crossovers for the proposed Project. With the inclusion of low-impact rail frogs at the new train crossovers in Project design, operational impacts would be less than significant.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts of noise identified in the EIR to a less than significant level.

Mitigation Measures

MM NOI-3: Construction Vibration Control Plan. The Capitol Corridor Joint Powers Authority, in coordination with the Construction Contractor and local jurisdiction(s), and cooperating railroad operator(s), will prepare and implement a Construction Vibration Control Plan to reduce the impact of temporary construction related vibration on nearby sensitive receptors. The Construction Vibration Control Plan will include, but not be limited to the following:

- Avoid the use of impact pile drivers where possible near vibration-sensitive areas or use alternative construction methods (e.g., drilled piles) where geological conditions permit.
- Avoid vibratory compacting/rolling in close proximity to structures.
- Require vibration monitoring during vibration-intensive activities.
- A Vibration Monitoring Plan will be developed and implemented to measure vibration during construction, including the type of equipment and sensors to be used, a location plan for monitoring equipment, and the following additional requirements:
    - Identify frequency of monitoring for all instruments,
    - Vibration and deformation thresholds that if exceeded, could be potentially damaging to sensitive receptors and/or structures,
    - Corrective action plans identified prior to work start to be implemented should maximum vibration be reached or exceeded,
    - To the extent possible, the construction team will be required to conduct the work in such a manner that vibrations do not exceed threshold limits,
    - A Monitoring Exceedance Report for exceedance occurrences will be completed by the construction team and submitted to the Capitol Corridor Joint Powers Authority, which will describe:
        - what vibration measurements values were recorded that exceeded the allowable limits,

- where the impacted instruments are located,
- when the exceedances occurred,
- when work was stopped because of the exceedance(s),
- what demolition and\or construction activities caused the exceedance(s),
- what actions were taken to limit and reduce vibrations, and
- when demolition and\or construction activities were resumed.

1.8 Recreation

Construction/Expansion of Recreation Facilities

An evaluation of the Project's impacts on recreational facilities is found in Draft EIR Section 3.17 – Recreation. Project construction activities would occur adjacent to and over Alameda Creek, which would affect the use of a segment of the Alameda Creek Regional Trail. All efforts would be made to keep this segment of the trail open to the public; however, there may be occasions when this segment of the Alameda Creek Regional Trail would need to be closed to facilitate construction activities and to ensure the safety of the public and construction workers. To reduce direct impacts to the Alameda Creek Regional Trail during construction activities, Mitigation Measure Recreation (REC)-1 is proposed. With implementation of Mitigation Measure REC-1, short-term impacts to the Alameda Creek Regional Trail during construction activities would be reduced to less than significant.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on recreational facilities identified in the EIR to a less than significant level.

Mitigation Measures

MM REC-1: Detour Plan for the Alameda Creek Regional Trail. Two weeks prior to temporary trail closures, the Capitol Corridor Joint Powers Authority, in coordination with the EBRPD, BCDC, and MTC, as possible, will develop a detour plan for short-term closures of the Alameda Creek Regional Trail and any affected bridges or waterways. The detour plan will be available to the public on EBRPD

and the Capitol Corridor Joint Powers Authority's websites. To the extent feasible, short-term closures will be scheduled during off-peak trail use days or times.

1.9 Tribal Cultural Resources

Change in Significance of a Tribal Cultural Resource

An evaluation of the Project's impacts on tribal cultural resources is found in Draft EIR Section 3.19 – Tribal Cultural Resources. Since no tribal cultural resources were identified through consultation with potentially interested tribes, impacts would only be associated with new and unanticipated discovery of an eligible archaeological resource during construction of the proposed Project. There is potential for inadvertent discovery of tribal cultural resources, including human remains, previously unknown as a result of the historic and ongoing tribal use of the Project Study area, as well as indirect impacts through increased access to the area. Impacts would be potentially significant during construction. Once in operation, the proposed Project would not involve additional ground-disturbing activities that could impact potential tribal cultural resources.

The potential for discovery of tribal cultural resources, including human remains, during construction of the proposed Project would be mitigated to less than significant with incorporation of mitigation measures MM-CUL-1 through MM-CUL-5, as discussed in Section 3.2.4 of these Findings.

Finding

The Commission finds that, based upon substantial evidence in the record, the mitigation measures identified below are feasible and will avoid or reduce potentially significant environmental impacts on tribal cultural resources identified in the EIR to a less than significant level.

Mitigation Measures (see Section 3.2.4, Cultural Resources)

MM CUL-1 (see above)

MM CUL-2 (see above)

MM CUL-3 (see above)

MM CUL-4 (see above)

MM CUL-5 (see above)

Documents or other material which constitute the record of the proceedings upon which the California Transportation Commission's decision is based are available at the Capitol Corridor Joint Powers Authority, 2150 Webster Street, 3rd Floor, Oakland, CA 92612.

Tanisha Taylor		
Executive Director	Signature	Date

NOTICE OF DETERMINATION

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

From: California Transportation Commission
Attn: Cherry Zamora
1120 N Street, MS 52
Sacramento, CA 95814
(916) 654-4245

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

Project Title: South Bay Connect Project

2020060655	Shirley Qian	(510) 368-4767
State Clearinghouse Number	**Lead Agency Contact Person**	**Area Code/Telephone**

Project Location (include county): The project is located in the cities of Oakland, San Leandro, Hayward, Fremont, Union City, Newark, and Alameda County, between Elmhurst Junction, in Oakland, to Newark Junction, in Newark, along the Union Pacific Railroad Coast Subdivision.

Project Description: The project would relocate Capitol Corridor passenger rail operations to the Union Pacific Railroad Coast Subdivision; improve the Coast Subdivision to accommodate additional passenger rail service; and construct a new passenger rail station at the existing Ardenwood Park & Ride in Fremont that would connect rail service with express buses, private shuttles, and the surrounding bicycle and pedestrian network.

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

(☐ Lead Agency / ☒ Responsible Agency)

project on March 20-21, 2025, and has made the following determinations regarding the above-described project:

1. The project (☐ will/ ☒ will not) have a significant effect on the environment.
2. ☒A Final 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 (☒ were / ☐ were not) made a condition of the approval of the project.
4. Mitigation reporting or monitoring plan (☒ was / ☐ was not) adopted for this project.
5. A Statement of Overriding Considerations (☐ was / ☒ was not) adopted for this project.
6. Findings (☒ 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: Capitol Corridor Joint Powers Authority, 2150 Webster Street, 3rd Floor, Oakland, CA 92612.

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

Date received for filing at OPR:

Project Location Map

South Bay Connect, Alameda County