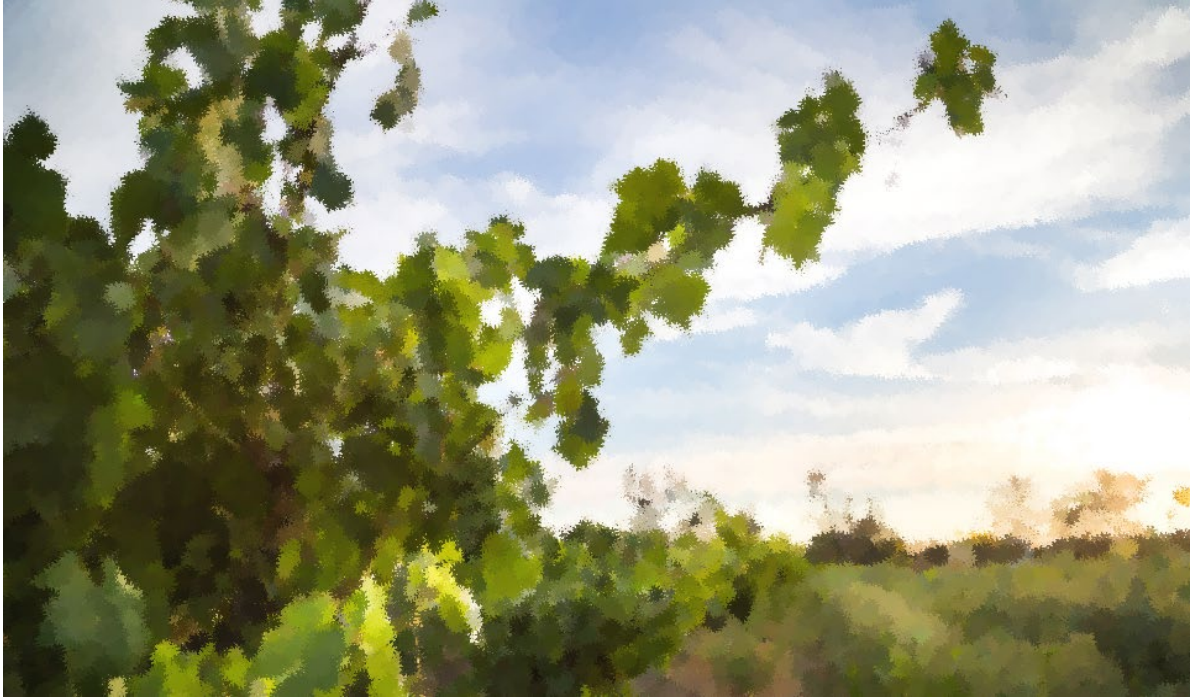




2022 Regional Transportation Plan & Sustainable Communities Strategy

Final Programmatic Environmental Impact Report SCH #2020120482

prepared by

San Joaquin Council of Governments

555 East Weber Avenue
Stockton, California 95202

Contact: Timothy Kohaya, Senior Regional Planner

prepared with the assistance of

Rincon Consultants, Inc.

7080 North Whitney Avenue, Suite 101
Fresno, California 93720

August 2022

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1 Introduction

1.1 Final EIR Contents

This Final Environmental Impact Report (Final EIR) is an informational document prepared by the San Joaquin Council of Governments (SJCOG) to evaluate the potential environmental impacts of the proposed 2022 Regional Transportation Plan Sustainable Communities Strategy (2022 RTP/SCS) (“Plan” or “project”).

As prescribed by the California Environmental Quality Act (CEQA) *Guidelines* Sections 15088 and 15132, the lead agency, SJCOG, is required to evaluate comments on environmental issues received from persons/agencies who have reviewed the Draft EIR and to prepare written responses to those comments. This document, together with the Draft EIR, as revised, comprise the Final EIR for this project. This Final EIR includes individual responses to each letter received during the public review period for the Draft EIR. In accordance with CEQA *Guidelines* Section 15088(c), the written responses describe the disposition of significant environmental issues raised.

The Final EIR also includes amendments to the Draft EIR consisting of changes suggested by certain comments, as well as minor clarifications, corrections, or revisions to the Draft EIR. The Final EIR includes the following contents:

- Section 1: Introduction
- Section 2: Responses to Comments on the Draft EIR, which also includes a list of all commenters and public comment letters
- Section 3: Amendments to the Draft EIR
- Section 4: Mitigation Monitoring and Reporting Program

1.2 Draft EIR Public Review Process

The Draft EIR was circulated for a 45-day public review period in accordance with CEQA *Guidelines* Section 15087 on June 24, 2022. The public comment period closed on August 8, 2022. The Draft EIR was made available on the SJCOG website. Additional options were made available to the public to view the Draft EIR by contacting SJCOG, in accordance with COVID-19 pandemic recommendations and requirements.

1.3 EIR Certification Process and Project Approval

In accordance with the requirements of CEQA (CEQA *Guidelines* Section 15090), SJCOG will consider certifying the Final EIR as having been prepared in compliance with CEQA. Following Final EIR certification, SJCOG will consider making findings of fact for each significant impact (CEQA *Guidelines* Section 15091) and approving the project or an alternative (CEQA *Guidelines* Section 15092).

1.4 Draft EIR Recirculation Not Required

CEQA Guidelines Section 15088.5 requires Draft EIR recirculation when “significant new information” is added to the EIR after public notice is given of the availability of the Draft EIR for public review but before certification. Significant new information is defined as including:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The comments, responses, and Draft EIR revisions presented in this document do not constitute such “significant new information.” Instead, they clarify, amplify, or make insignificant modifications to the Draft EIR. For example, none of the comments, responses, and Draft EIR amendments disclose new or substantially more severe significant environmental effects of the project, or new feasible mitigation measures or alternatives considerably different than those analyzed in the Draft EIR that would clearly lessen the project’s significant effects.

2 Responses to Comments on the Draft EIR

This section includes comments received during the circulation of the Draft Environmental Impact Report (EIR) prepared for the 2022 RTP/SCS (project).

The Draft EIR was circulated for a 45-day public review period that began on June 24, 2022 and ended on August 8, 2022. SJCOG received two (2) comment letters on the Draft EIR.

The commenters and the date of the commenter's letter appear are listed below.

Letter No	Commenter	Date	Page No.
1	Jeff Henderson, Deputy Executive Officer, Delta Stewardship Council	8/1/2022	2-2
2	Regional Transportation District	7/29/22	2-11

Written responses to each comment received on the Draft EIR are provided in this section. All letters received during the public review period on the Draft EIR are provided in their entirety. The comment letters have been numbered sequentially and each separate issue raised by the commenter, if more than one, has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response 1.2, for example, indicates that the response is for the second issue raised in comment Letter 1).

Revisions to the Draft EIR necessary in light of the comments received and responses provided, or necessary to amplify or clarify material in the Draft EIR, are included in the responses. Underlined text represents language that has been added to the Draft EIR; text with ~~strikeout~~ has been deleted from the Draft EIR.



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August 1, 2022

San Joaquin County Council of Governments
Attn: Kim Anderson, Deputy Director
555 East Weber Avenue
Stockton, CA 95202

Delivered via [email]:anderson@sjcog.org

RE: Comments on Draft 2022 Regional Transportation Plan/Sustainable Communities Strategy and Draft Environmental Impact Report SCH# 2020120482

Dear Kim Anderson:

Thank you for the opportunity to review and comment on the San Joaquin County Council of Governments (SJCOG) Draft 2022 Regional Transportation Plan/Sustainable Communities Strategy Project (2022 Draft RTP/SCS) and the associated Draft Environmental Impact Report (Draft EIR). The Delta Stewardship Council (Council) recognizes SJCOG's objective to prepare a regional transportation plan that links land use, air quality, and transportation needs to meet federal and state air quality standards. SJCOG's 2022 RTP/SCS provides a long-range plan for transportation in San Joaquin County and the cities of Stockton, Lodi, Manteca, Tracy, Ripon, Escalon, and Lathrop.

The Council is an independent state agency established by the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act), which is codified in Division 35 of the California Water Code, sections 85000-85350. The Delta Reform Act charges

the Council with furthering California's coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Sacramento-San Joaquin River Delta (Delta) ecosystem, to be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. (Cal. Water Code § 85054.) Pursuant to the Delta Reform Act, the Council has adopted the Delta Plan, a legally enforceable management framework for achieving the coequal goals. (Cal. Water Code § 85001(c).)

The Delta Reform Act also requires the Council to review and provide advice and input to local and regional planning agencies regarding the consistency of local and regional planning documents, including sustainable communities strategies and alternative planning strategies. The Council's input shall include, but not be limited to, reviewing the consistency of local and regional planning documents with the ecosystem restoration needs of the Delta and reviewing whether the lands set aside for natural resource protection are sufficient to meet the Delta's ecosystem needs (Cal. Water Code § 85212.). This letter constitutes the Council's review and advice on the Draft 2022 RTP/SCS pursuant to Water Code section 85212, as well as the Council's comments on the associated Draft EIR.

Delta Reform Act Requirements for Regional Transportation Plans and Sustainable Communities Strategies

The Delta Reform Act requires that metropolitan planning organizations preparing a regional transportation plan that includes land within the primary or secondary zones of the Delta consult with the Council early in the planning process. (Cal. Water Code § 85212.) Council staff and SJCOG staff met on September 6, 2021.

The Delta Reform Act also requires that the metropolitan planning organization provide a draft SCS and an alternative planning strategy, if any, to the Council, no later than 60 days prior to adoption of the final regional transportation plan, along with concurrent notice of the submission in the same manner as an agency filing a certification of consistency. (Cal. Water Code § 85212.) SJCOG submitted its Draft 2022 RTP/SCS to the Council on June 24 2022.

If the Council concludes that the draft sustainable communities strategy or alternative planning strategy is inconsistent with the Delta Plan, the Council is required to provide written notice of the claimed inconsistency to the metropolitan planning organization no later than 30 days prior to the adoption of the final regional transportation plan. If the Council provides timely notice of a claimed

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inconsistency, the metropolitan planning organization's adoption of the final regional transportation plan shall include a detailed response to the Council's notice.

Council Review of and Input on the Draft 2022 RTP/SCS and Draft EIR

This section presents the Council's review of and input on the submitted Draft 2022 RTP/SCS pursuant to Water Code section 85212. It also presents the Council's comments on the Draft EIR.

1. Consistency with Ecosystem Restoration Needs and Sufficiency of Lands Set Aside

The Biological Resources chapter of the Draft EIR provides discussion and applicable mitigation regarding potential conflicts with applicable land use plans, policies, and regulations.

a. Consistency with Restoration Needs

The Delta Plan designates six priority habitat restoration areas (PHRAs) that have the greatest potential for large-scale habitat restoration (Delta Plan, Chapter 4, p. 136-138). Delta Plan Policy **ER P3** (Cal. Code Regs., tit. 23, § 5007) states that significant adverse impacts to the opportunity to restore habitat must be avoided or mitigated in these areas (depicted in Appendix 5:

<http://deltacouncil.ca.gov/sites/default/files/2015/09/Appendix%205.pdf>). Two

PHRAs are located partially within the 2022 RTP/SCS planning area: (1) Consumnes/Mokelumne Confluence and (2) Lower San Joaquin River Floodplain. The consistency of the RTP/SCS with the ecosystem restoration needs of the Delta is based on its potential to impact the opportunity to restore habitat in these PHRAs.

In its January 27, 2021 comments on the NOP, the Council requested that SJCOG's EIR for the project analyze whether the RTP/SCS would induce growth in these PHRAs. Such discussion was not provided in the growth-inducing impacts section of the Draft EIR. Nevertheless, the Draft EIR Biological Resources analysis in Section 4.3 identifies that growth projected within the 2022 RTP/SCS is concentrated primarily on development within existing urbanized areas. Therefore, the 2022 RTP/SCS would not accommodate urban growth in either of these PHRAs.

Council staff have reviewed the proposed land uses in the Draft 2022 RTP/SCS within and adjacent to the Delta, and has not identified any conflict between proposed uses and PHRAs depicted in Delta Plan Policy ER P3.

b. Sufficiency of Lands Set Aside

The Draft 2022 RTP/SCS does not specifically address setting aside lands for natural resource protection. The Draft EIR, Section 2.3.4 Sustainable Communities Strategy identifies that it is a prerogative of lead agencies to adopt land use plans and implement projects (i.e., city and county agencies, transit providers). However, SJCOG does incentivize natural resource protection by encouraging new growth to occur in existing population centers and by maximizing the efficiency of the existing transportation network. The Council appreciates that the Draft 2022 RTP/SCS Performance Metrics (compared to 2018 RTP/SCS) aim to achieve this by accommodating 5,196 acres less area of land developed, 3,735 less acres of Prime Farmland developed, a residential net density of 9.9, a 42% share of multi-family housing, 50 gal/day less water used per household, and 8 MBTU less energy used from new growth. The Draft EIR assesses whether the RTP transportation projects and SCS land use pattern and strategies could conflict with any applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. This review focused on the process used by SJCOG to develop regional growth projections, the transportation network and programs, housing needs estimates, and the SCS land use strategies. The Draft 2022 RTP/SCS incentivizes natural resource protection by encouraging infill, mixed use, and transit-oriented development within existing urbanized areas.

Senate Bill 375 (Chapter 728, Statutes of 2008) provides California Environmental Quality Act (CEQA) streamlining benefits for certain projects that are consistent with the RTP/SCS land use and transportation pattern. The Draft 2022 RTP/SCS and associated Draft EIR aims to facilitate these CEQA streamlining benefits for qualifying residential, mixed-use, and transit priority projects that are consistent with the general use designation, density, building intensity and applicable policies specified in the SCS. The Draft 2022 RTP/SCS Executive Summary Highlighted Projects map illustrates the location of these areas. Based on the mapped locations, the 2022 RTP/SCS would not afford CEQA streamlining benefits to projects outside of existing city boundaries, within the Delta, or within any PHRA. Based on the locations of the high-frequency transit areas, the Draft 2022 RTP/SCS is not likely to incentivize development in areas within the Delta which are necessary to meet the Delta's ecosystem needs.

Finding: Based on review of the Draft 2022 RTP/SCS and the Draft EIR, in compliance with the Water Code section 85212, the Council has not identified that

lands set aside for conservation and restoration in the Draft 2022 RTP/SCS are inconsistent with the ecosystem restoration needs of the Delta.

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2. Consistency with the Delta Plan

The Delta Reform Act requires the Council to review and provide timely advice to planning agencies regarding the consistency of local and regional planning documents, including sustainable communities strategies and alternative planning strategies, with the Delta Plan (Wat. Code § 85212).

a. Land Use Pattern

Delta Plan Policy **DP P1** (Cal. Code Regs., tit. 23, § 5010) places certain limits on new urban development within the Delta. New residential, commercial, and industrial development must be limited to areas that city or county general plans designate for such development as of the date of the Delta Plan's adoption (May 16, 2013). This policy is intended to strengthen existing Delta communities while protecting farmland and open space, providing land for ecosystem restoration needs, and reducing flood risk.

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A state or local agency that proposes to carry out, approve, or fund an action that occurs in whole or in part in the Delta (a "covered action") is required to prepare a written Certification of Consistency with detailed findings as to whether the covered action is consistent with the Delta Plan and submit that certification to the Council prior to implementation of the project. (Cal. Water Code § 85225.) The Delta Reform Act exempts from this requirement actions within the Secondary Zone of the Delta that a metropolitan planning organization determines are consistent with its sustainable community strategy (or alternative planning strategy) and that the California Air Resources Board has determined would achieve regional greenhouse gas emission reduction targets. (Cal. Water Code § 85057.5(b)(4).) SJCOG is the metropolitan planning organization for the San Joaquin County region, which contains portions of the Secondary Zone of the Delta. Thus, Water Code section 85057.5(b)(4) provides SJCOG with a significant role in shaping the State's Delta policy.

As previously stated, the 2022 RTP/SCS Performance Metrics (compared to 2018 RTP/SCS) would encourage infill, mixed use, and transit-oriented development within existing urban areas and aims to achieve this by accommodating a 9.9% increase in residential net density, and 42% share of multi-family housing. The 2022 RTP/SCS land use scenario would accommodate development within existing

communities, would not divide existing communities, would locate people closer to available employment, and would locate services within established communities. New transportation projects and new development envisioned within the land use scenario would occur along existing transportation corridors in urbanized areas. The Draft EIR includes a list of planned and programmed projects including local and regional capital improvements that have been anticipated or accounted for in local general plans which are summarized in Section 2.2, Project Description, Table 2-1: 2022 Planned and Programmed Projects . Therefore, the planned and programmed projects are not inconsistent with DP P1 because they fit within the exemption for planned development depicted in general plans set forth in DP P1. As such, the Draft 2022 RTP/SCS land use pattern would not promote development within the Secondary Zone of the Delta that is inconsistent with Delta Plan Policy DP P1.

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Finding: Based on the review of the Draft 2022 RTP/SCS and associated Draft EIR, in compliance with Water Code section 85212, the Council has not identified any inconsistency of the Draft 2022 RTP/SCS with Delta Plan policy **DP P1**.

b. Transportation Investment

The recommended transportation projects in the Draft 2022 RTP/SCS (Chapter 4) include a variety of investments in urban areas located within the Legal Delta. These transportation projects would advance Delta Plan recommendation **DP R5**, which states that “The California Department of Transportation, local agencies, and utilities should plan infrastructure, such as roads and highways, to meet needs of development consistent with sustainable community strategies, local plans, the Delta Protection Commission’s Land Use and Resource Management Plan for the Primary Zone of the Delta, and the Delta Plan.” A number of planned transportation investments in the 2022 RTP/SCS would improve the capacity and safety of roads and highways in the Delta. The 2022 RTP/SCS includes multiple projects within the Delta, such as new and improved existing bicycle and pedestrian routes, construction and reconstruction of interchanges, widening and realignment of roadway lanes, reconstruction of the Delta-Mendota Canal and California Aqueduct bridges from I-205 to I-580 , and intersection signalization described in the Draft EIR Section 4.1 Visual Resources.

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Finding: Based on review of the Draft 2022 RTP/SCS and associated Draft EIR, in compliance with Water Code section 85212, the Council has not identified any inconsistency of the recommended transportation projects identified in the 2022

RTP/SCS with Delta Plan policies and recommendations concerning transportation in the Delta.

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Closing Comments

Pursuant to Water Code section 85212, the Council has reviewed and provided advice and input on the Draft PEIR 2022 RTP/SCS as outlined in the letter. The Council has not identified any inconsistency with the Delta Plan. The Council considered and approved the findings in this comment letter at its monthly meeting on July 28, 2022.

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The Council invites you to continue to engage Council staff following the adoption of the 2022 RTP/SCS to coordinate implementation and subsequent updates. Please contact Pat Kelly at patricia.kelly@deltacouncil.ca.gov or (916-445-5511) with any additional questions.

Sincerely,



Jeff Henderson, AICP
Deputy Executive Officer
Delta Stewardship Council

Letter 1

COMMENTER: Jeff Henderson, Deputy Executive Officer, Delta Stewardship Council

DATE: 8/1/2022

Response 1.1

The commenter summarizes the purpose of the Council and the Delta Reform Act requirements with furthering California's coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Sacramento-San Joaquin River Delta (Delta) ecosystem. It is further explained that the Delta Reform Act also requires the Council to review and provide advice and input to local and regional planning agencies regarding the consistency of local and regional planning documents, including sustainable communities strategies and alternative planning strategies.

The comment does not raise an environmental issue related EIR adequacy, and no further response is required.

Response 1.2

The commenter explains the Delta Plan Policy ER P3, which states that significant adverse impacts to the opportunity to restore habitat must be avoided or mitigated in priority habitat restoration areas (PHRAs) and reiterated the Council's comments on the NOP to analyze whether the RTP/SCS would induce growth in these PHRAs. The commenter states the Council did not identify any conflict between proposed land uses in the Draft RTP/SCS and PHRAs depicted in Delta Plan Policy ER P3.

The comment does not raise an environmental issue related EIR adequacy, and no further response is required.

Response 1.3

The commenter summarizes the topic of setting aside lands for natural resource protection in the Draft 2022 RTP/SCS and Draft EIR. The commenter notes the plan incentivizes new growth to occur in existing population centers and works to maximize efficiency of existing transportation network. The commenter also notes the Draft 2022 RTP/SCS and Draft EIR shows projects which would benefit from Senate Bill 375 CEQA streamlining, none of which fall outside of existing city boundaries, within the Delta, or within any PHRA. The commenter states the Council did not find inconsistencies with the ecosystem restoration needs of the Delta.

The comment does not raise an environmental issue related EIR adequacy, and no further response is required.

Response 1.4

The commenter summarizes Delta Plan Policy DP P1 regarding land use intended to strengthen existing Delta communities while protecting farmland and open space, preserving land for ecosystem restoration needs, and reducing flood risk. The commenter reiterates the 2022 RTP/SCS aims of increasing residential net density and transit-oriented development. The commenter concludes by stating the Council has not identified any inconsistency of the Draft 2022 RTP/SCS with Delta Plan policy DP P1.

The comment does not raise an environmental issue related EIR adequacy, and no further response is required

Response 1.5

The commenter summarizes Delta Plan recommendation DP R5. The commenter notes the planned transportation investments in the 2022 RTP/SCS, many of which would provide improvements within the Delta. The commenter concludes by stating the Council has not identified inconsistencies between recommended transportation projects in the 2022 RTP/SCS and the Delta Plan policies and recommendations concerning transportation.

The comment does not raise an environmental issue related EIR adequacy, and no further response is required.

Response 1.6

The commenter provides closing comments and concludes the Council has not identified any inconsistency with the Delta Plan.

The comment does not raise an environmental issue related EIR adequacy, and no further response is required.

*SJCOG Draft 2022 RTP/SCS
 Draft EIR, Executive Summary*

*7/29/23
 RTD's Comments*

Impact	Mitigation Measure(s)	Impact Finding
levels in excess of standards established in the local general plan or noise ordinance. This impact would be significant and unavoidable.	Insulation techniques shall be utilized to reduce indoor noise levels to thresholds set in applicable State and/or local standards. Such measures may include but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and siting exterior doors away from roads. The noise study and determination of appropriate mitigation measures shall be completed during the project's individual environmental review.	
Transportation		
Impact T-1. transportation projects and land use projects envisioned by the proposed 2022 RTP/SCS would not conflict with any program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. This impact would be less than significant.	None required.	Less than Significant
Impact T-2. The proposed 2022 RTP/SCS would result in an overall increase in regional VMT above baseline (2016) conditions. The proposed 2022 RTP/SCS would result in an increase in VMT per capita below the above baseline (2016) conditions. Regional VMT and VMT per capita impacts from implementation of the proposed 2022 RTP/SCS would be significant and unavoidable. The induced travel impact at the regional level would be less than significant.	<i>← RTP/SCS</i> T-2(a) Regional VMT Reduction Programs. Implementing agencies shall require implementation of VMT reduction strategies through TDM programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, and other land use project conditions that reduce VMT. Programs shall be designed to reduce VMT from existing land uses, where feasible, and from new discretionary residential or employment land use projects. The design of programs and project specific mitigation shall focus on VMT reduction strategies that increase travel choices and improve the comfort and convenience of sharing rides in private vehicles, using public transit, biking, or walking. Modifications may include but are not limited to: ▪ Provide car-sharing, vanpool, bike sharing, and ride-sharing programs ▪ Implement or provide access to commute reduction programs ▪ Provide a bus rapid transit system ▪ Improve pedestrian or bicycle networks, or transit service ▪ Provide transit passes ▪ Encourage telecommute programs ▪ Incorporate affordable housing into the project ▪ Increase density ▪ Increase mixed uses within the project area ▪ Incorporate improved pedestrian connections within the project/neighborhood ▪ Incentivize development in low VMT communities ▪ Incentivize housing near commercial and offices	Significant and Unavoidable

San Joaquin Council of Governments
2022 Regional Transportation Plan & Sustainable Communities Strategy

Comment/Request	How and Where it was Addressed
CDFW requests the EIR identify reasonably foreseeable future projects in the project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the project's contribution to the impact.	The EIR includes a discussion of potential direct, indirect, and cumulative biological resource impacts in Section 4.3, <i>Biological Resources</i> .
CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary	SJCOG, as Lead Agency, will be required to pay any necessary filing fees to CDFW, as applicable.
Native American Heritage Commission (NAHC) The NAHC states that the project is subject to the requirements and provisions under Assembly Bill (AB 52) for tribal cultural resources. The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.	The EIR includes a discussion of consultation efforts with tribes in the area and potential project impacts in Section 4.12, <i>Tribal Cultural Resources</i> .
San Joaquin Regional Transit District The District requests that the EIR include an analysis and discussion pertaining to any potential impacts on San Joaquin RTD's current transit system including the following: safety; security; bus, bus rapid transit, intercity, and commuter services; transit stations; and accessibility. The District requests that the EIR include a discussion of equity pertaining to all modes of transportation and analyze any negative impacts concerning disproportionate impacts on communities.	The EIR includes a discussion of these impacts in Section 4.14, <i>Transportation</i> . Please refer to Chapter 5 and Appendix P of the RTP/SCS, for a discussion of identified communities of concern and impacts of the 2022 RTP/SCS on low-income populations, minority individuals and populations, and low mobility populations.
The District requests that all existing and planned intra and inter-county transportation systems, including rail (such as Altamont Corridor Express (ACE)) and express bus services such as San Joaquin RTD's Commuter Bus service should be evaluated for impacts pertaining to public access and service connections to important destinations for the travelling public.	The EIR includes a discussion of impacts to active transportation in Section 4.11, <i>Transportation</i> .
The District requests that the EIR discuss future highway capacity projects, such as the I-205 managed lanes project, and include potential impacts to regional transit and opportunities for express bus lanes.	The EIR includes a list of proposed transportation projects in Section 2.0, <i>Project Description</i> and a discussion of transportation related impacts in Section 4.11, <i>Transportation</i> .
Delta Protection Commission The Delta Protection Commission requests that the EIR consider the Commission's Land Use and Resource Management Plan and its policies when assessing the project's consistency with applicable land use plans, policies, and regulations and to discuss the Delta Trail in the recreation and transportation setting sections.	The EIR includes a discussion of applicable land use plans, policies, and regulations Section 4.9, <i>Land Use and Planning</i> . In addition, the EIR includes a discussion of impacts to recreational facilities in Section 4.14, <i>Effects Considered to be Less than Significant</i> .
Delta Stewardship Council The Delta Stewardship Council requests consultation as part of the process in developing the RTP/SCS.	This comment pertains to the preparation of the RTP/SCS and does not relate to the EIR. The Delta Stewardship Council will be afforded the opportunity to comment on the EIR during public review as required under the CEQA process.

Section 4.14

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Altamont Corridor Express (ACE) provides direct commuter rail service to Silicon Valley (with stops in Stockton, Lathrop, Manteca, and Tracy).

Regional public transit is provided by San Joaquin Regional Transit District (SJRTD) bus service. The SJRTD offers fixed-route buses, intercity buses, interregional buses, and dial-a-ride services. Transit operators provide local bus services in most of the local jurisdictions throughout the county. A variety of Class I-III bicycle routes in many areas provide additional transit alternatives.

3.4 EIR Baseline, Approach for Direct and Cumulative Analyses

3.4.1 Mitigation Approach

This EIR includes proposed mitigation measures to reduce impacts and identifies agencies for implementation of those mitigation measures. SJCOG has lead agency status; and therefore, authority to enforce mitigation measures for projects for which they have discretionary authority. However, SJCOG does not have authority to require recommended mitigation measures be implemented by other implementing agencies (e.g., Caltrans, cities, transit agencies, etc.) that are responsible agencies for this 2022 RTP/SCS EIR, but for applicable, project specific review, those implementing agencies will be Lead Agency under CEQA/NEPA for future transportation and land use development projects. It is the responsibility of the lead agency implementing specific 2022 RTP/SCS projects to conduct environmental review consistent with CEQA and where applicable, incorporate mitigation measures provided herein and developed specifically for the project to reduce impacts. Project-specific environmental documents may adjust the mitigation measures identified in this EIR as necessary to respond to site-specific conditions.

3.4.2 EIR Baseline

Under CEQA, the impacts of a proposed project must be evaluated by comparing expected environmental conditions after project implementation to conditions at a point in time referred to as the baseline. State CEQA Guidelines Section 15125 states that an EIR should describe physical environmental conditions of the project as they exist at the time the Notice of Preparation (NOP) is published, or if no NOP is published, then at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

As the State CEQA Guidelines Section 15125 states, ordinarily the appropriate baseline will be the actual environmental conditions existing at the time of CEQA analysis, typically when the NOP is published. However, the CEQA Guidelines also contemplate times when a deviation from the use of the NOP date to establish the baseline is appropriate to present an accurate description of the expected environmental impacts of a proposed project.

This EIR evaluates impacts against existing conditions which are generally conditions existing at the time of the release of the NOP in December 2020. It was determined that a comparison to current, existing baseline conditions would provide the most relevant information for the public, responsible agencies and SJCOG decisionmakers. However, the release date of the NOP in December 2020 was during an unplanned global pandemic caused by the COVID-19 coronavirus. Beginning in March 2020, the SJCOG region was in varying stages of compliance with shelter-in-place orders directed by various county health officers. These orders modified commercial and office business operations,

Public Transit

RTD → The San Joaquin Regional Transit District (SJRTD) provides bus service throughout the County with the Hopper service. The Hopper provides fixed-route service to the cities of Stockton, Lathrop, and Manteca as well as to the community of French Camp. Additional intercity bus lines provide service to Tracy. SJRTD also offers dial-a-ride services for both the general public and for the elderly/disabled throughout the County. These dial-a-ride services provide transportation seven days a week during nontraditional bus hours in rural areas not served by fixed-route lines. The dial-a-ride programs provide connection services to fixed-route lines and to passenger rail (such as Altamont Corridor Express (ACE) and Amtrak).

RTD! → SJRTD's Interregional Commuter Service offers bus service to passengers traveling to Alameda, Contra Costa, Santa Clara, and Sacramento counties, including feeder service to BART for employees working in San Francisco and the East Bay. The SJRTD intercity route 91 connects Ripon, Manteca, and Stockton and route 26 and 90 connect Tracy, Lathrop, French Camp, and Stockton. Route 93 and 23 link Stockton to Lodi. The interregional service is designed to meet the needs of commuters who travel distances greater than 50 miles one way. Greyhound and Amtrak also provide interregional bus service.

route 90 → Lodi's Grapeline, the Tracy Tracer, Manteca Transit, and smaller transit services in the cities of Escalon (eTrans) and Ripon (Blossom Express) also provide bus service. The combination of services supports local transit systems, bus rapid transit, intercity and interregional bus transit services, and needed services such as demand response for both those who need transit for medical purposes and those in the rural areas of the County.

Within the 2022 RTP/SCS, approximately \$2.9 billion in passenger bus transit operations and \$323.8 million in passenger bus transit capital investments are planned. Over half of these funds are targeted for expanding passenger bus service.

Rail

Rail lines in San Joaquin County are used for both passenger and freight services. Several major railways stretch through large portions of the County, including the Union Pacific and BNSF Railroads. Stockton serves as a hub for many of these railways and acts as a major distribution center for freight shipped to locations throughout California and the United States.

The Altamont Corridor Express (ACE), formerly the Altamont Commuter Express, is a commuter rail service in California connecting Stockton with San Jose. It is named for the Altamont Pass, an area through which it travels. The service commenced on October 19, 1998, with two trains daily in each direction (weekdays only). The frequency was increased in November 2009 to three trains daily in each direction and then increased to four trains daily in each direction in September 2012. There are 10 stops along its 86 miles route; present travel time is about 2 hours and 10 minutes from end-to-end. The tracks are owned by Union Pacific. The ACE transit service uses Bombardier Bi-Level Coaches and "MPI F40PH-3C" locomotives. It is managed by the San Joaquin Regional Rail Commission. ACE has planned to extend service south to Ripon, Ceres, Modesto, and Sacramento starting in 2023.

Within the 2022 RTP/SCS, approximately \$604 million in passenger rail transit operations and \$554.5 million in passenger rail transit capital investments are planned. Over half of these funds are targeted for expanding the current passenger rail system

1
Cont

Chapter 2 - Project Description

Table 2-1 - Planned & Programmed Projects

San Joaquin Council of Governments

2022 Regional Transportation Plan & Sustainable Communities Strategy

Comment 2-2

Project Title	Project Type	Description
RTD		
RTD-1: Bus Electrification / Power Distribution	Transit	Solar Energy System Phase I.
RTD-2: Bus Electrification / Power Distribution	Transit	Construction of hydrogen fueling infrastructure for use with Hydrogen Fuel Cell Electric buses and invest in Electrolyzer (\$10M to build).
RTD-3: Bus Electrification / Power Distribution	Transit	Charging infrastructure will be needed if RTD replaces commuter bus with zero-emission electric bus. Depending on the bus purchase the following is an estimated infrastructure cost: Hydrogen: \$750K to 1M for on-site tank dispenser (1-5 buses); Hydrogen: \$1.5M to 2M for Full service station (5-30 buses); Electric: \$1M to 1.5M for Depot charger/Induction Charger 5 FCEB pilot at \$1.5 Million per Bus.
RTD-4: Bus Electrification / Power Distribution	Transit	Hydrogen and Lease of the Trailer (5 Years @ \$350K per Year)
RTD-5: Bus Electrification / Power Distribution	Transit	Battery Energy Storage Systems at Regional Transportation Center (RTC), County Transportation Center (CTC), and possibly Downtown Transit Center (DTC) for peak saving energy initiatives.
RTD-5: Bus Electrification / Power Distribution	Transit	Replace 2 existing 500kW overhead charger (DTC).
RTD-6: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (1) MCI D4500 (Commuter)
RTD-7: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace nine (14) GILLIG diesel-electric hybrid buses with zero-emission battery electric buses in SMA fleet. (\$1.2 M per Bus)
RTD-8: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace eight (13) GILLIG diesel-electric hybrid buses with zero-emission electric buses in BRT fleet.
RTD-9: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (2) Proterra - EcoRide BE-35 (SMA)
RTD-10: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (2) MCI 34500 (Commuter)
RTD-11: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (6) Nova Hybrid LF Articulated (SMA)
RTD-12: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (6) Seacraft/Ford Transit 350 HD (VanGo)
RTD-13: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (22) Glaval Titan II LF (Hopper)
RTD-14: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (14) Glaval/Ford Transit 350 HD (VanGo)
RTD-15: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (6) ADA Cut-away gasoline (Replaces Item I9)
RTD-16: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace one (1) diesel bus over the-road coach with either a zero-emission electric bus or diesel bus in Commuter fleet.
RTD-17: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace 12 cutaway Buses used by United Cerebral Palsy to transport individuals who would otherwise use SMA Paratransit.
RTD-18: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Bus component rebuild and parts.

Replace with new info

See revised two page RTD Proj. update after this section.

2

Project Title	Project Type	Description
RTD-19: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Hybrid Electric Buses (5 new/additional buses)
RTD-20: Safety & Security	Transit	To upgrade surveillance/security camera system at RTD's facilities and bus stations/stops; to purchase assessment service, management tool, software and equipment to improve RTD's cyber security.
RTD-21: Safety & Security	Transit	Purchase and/or replace disinfecting chemical vehicle foggers and other misc. safety-related equipment.
RTD-22: Safety & Security	Transit	Radios for security Guards to connect with dispatch and customer service
RTD-23: Safety & Security	Transit	Pedestrian Collision and Avoidance Detection System and other safety/security related project with 5% annual increase
RTD-24: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment	Transit	To purchase and install support equipment for bus and facilities, including Bus Video Standardization System, contactless fare collection across all fixed route buses and other support tools/equipment related to buses and facility, such as operator barriers, bus air purification systems and Trapeze replacement.
RTD-25: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment	Transit	RTD will hire consultant to provide plans for a new ERP System. Scoping consulting to provide suggestions/planning on new ERP that will provide Integrated Financial and administrative solution (Financial, Budget, HR & Employee Online, Grants management, Procurement & Contracts Management, Inventory, & Retirement database)
RTD-26: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment	Transit	To purchase and install support equipment for bus and facilities. This includes computers and software, ERP, procurement and HR management systems and other misc. equipment.
RTD-27: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment	Transit	Computer, printer, scanner, camera, video, smartphone, office furniture, Transit Vehicle Public Display Monitor System, non-revenue vehicle GPS and other misc. items. 5% annual increase
RTD-28: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment	Transit	Transit Vehicle Public Display Monitor System Project
RTD-29: Planning/Study/Training, Outreach and Research Projects	Transit	Zero-Emission Blueprint.
RTD-30: Planning/Study/Training, Outreach and Research Projects	Transit	TAM Upgrade.
RTD-31: Planning/Study/Training, Outreach and Research Projects	Transit	Hydrogen Fuel Cell Electric Bus training.
RTD-32: Planning/Study/Training, Outreach and Research Projects	Transit	Integrated Mobility Innovation Research Project.
RTD-33: Planning/Study/Training, Outreach and Research Projects	Transit	System Redesign Study / Service Equity Analysis. Perform an analysis of the service disruptions in the County Hoppers due to the shortage of drivers that was effective July 1, 2021.
RTD-34: Planning/Study/Training, Outreach and Research Projects	Transit	RTD's Title VI Procedure Upgrade and Service Equity Analysis

Replace
See revised RTD list project

San Joaquin Council of Governments
2022 Regional Transportation Plan & Sustainable Communities Strategy

Project Title	Project Type	Description
RTD-35: Operating Costs	Transit	Costs associated with Bus Rapid Transit (BRT), Stockton Metropolitan Area (SMA), Intercity and County Hopper, Interregional Commuter, Dial-A-Ride, Van GO! Operations
RTD-36: Facilities Improvement and Upgrade	Transit	Bus Stations/Stops/Terminals: Costs associated with upgrade and improvement at RTD's bus stations and stops, including bus passenger information signage, bus shelter solar lights, HVAC replacement, roof/window replacement, trash cans and benches, and other miscellaneous upgrade and improvement.
RTD-37: Facilities Improvement and Upgrade	Transit	Install new BRT bus shelters and bus stop amenities (trash cans and benches) for the NEXTGEN route 49 recommendation.
RTD-38: Facilities Improvement and Upgrade	Transit	Costs associated with capital improvement and upgrade at RTD's Admin and Maintenance facilities. This includes the upgrades in electrical gear switch, fire alarm and LED lighting systems at RTC; storm drain emergency shutoff valve construction at RTC; maintenance shop retrofit and floor repair at RTC; HVAC units replacement at DTC and wrought fence construction at CTC, pavement re-seal at CTC, bird netting at Regional Transportation Center (RTC), RTC Floor repair and other refurbishment improvement. with 5% annual increase
RTD-39: Facilities Improvement and Upgrade	Transit	Projection for the next 5 year rehabilitation/renovation at RTD's Admin and Maintenance facilities (CTC, DTC, Hammer Transit Station [HTS] and RTC). This includes capital improvements/remodel to extend useful life of CTC and HTS buildings; installation of generator at DTC to power building during emergency; replacement of portable bus lifts and lube pumps at RTC; replacement of building exhaust fans and gas heaters and furniture.
RTD-40: Support Vehicles – Acquisition/Rehab/Renovation	Transit	To purchase, refurb and rehab support vehicles for RTD's Admin/Maintenance. Approximately 12- non-revenue vehicles to replace in the next 5 years , with an average cost of \$75K per vehicle.
RTD-41: Future Operations	Transit	Future Operations
RTD-42: Future Capital	Transit	Future Capital
San Joaquin County		
SJC-1: Howard Road	ST/RDS	Passing lanes and channelization from Tracy Boulevard to Matthews Road
SJC-2: Grant Line Road Corridor Improvements	ST/RDS	Realign roadway and widen from 2 to 4 lanes with operational and safety improvements from Tracy City Limits to 11 th Street
SJC-3: Tracy Boulevard	ST/RDS	Passing lanes and channelization from I-205 to Howard Road
SJC-4: Eleventh Street	ST/RDS	Operational and safety improvements along corridor and at intersections from Tracy City limits to I-5
SJC-5: Roth Road	ST/RDS	Widen from 2 to 4 lanes with shoulders from UPRR to Airport Way
SJC-6: Airport Way	ST/RDS	Widen from 2 to 4 lanes from Roth Road to French Camp Road
SJC-7: Escalon Bellota Road	ST/RDS	Widen from 2 to 4 lanes with shoulders from Escalon City limits to Mariposa Road
SJC-8: Mariposa Road	ST/RDS	Widen roadway from 2 to 3 lanes and widen BNSF railroad grade separation from 2 to 4 lanes from Austin Road to Jack Tone Road

*Replace
See revised
RTD project
list*

2

San Joaquin Regional Transit District (RTD) Cap/Ops Project List for the SJCOG 2022 RTP-SCS Constrained Project List

7/29/22

2

Note regarding project list revisions below - The highlighted cells are the ones that were changed or added and the stricken-out items are to be removed.

ANNUAL COST

Project Information	Project Description	Project Limits (Enter Location)	FY23	FY24	FY25	FY26	FY27	Total Cost to Deliver	Estimated Completion Date
Bus Electrification/Power Distribution	Renewable energy solutions for facility and fleet energy consumption.	San Joaquin County	\$ 3,375,000.00	\$ 1,500,000.00	\$ 1,500,000.00	\$ 1,500,000.00		\$ 7,875,000.00	10/30/2022
	Construction of hydrogen-fueling infrastructure for use with hydrogen fuel cell electric buses and invest in electrolyzer (\$10M to build).	San Joaquin County	\$ 10,000,000.00					\$ 10,000,000.00	TBD
	Charging infrastructure will be needed if RTD replaces commuter bus with zero-emission electric bus. Depending on the bus purchase the following is an estimated infrastructure cost: Hydrogen: \$750K to 1M for on-site tank dispenser (1-5 buses); Hydrogen: \$1.5M to 2M for Full service station (5-30 buses); Electric: \$1M to 1.5M for Depot charger/induction Charger 5 FCEB pilot at \$1.5 Million per bus.	San Joaquin County	\$ 7,500,000.00					\$ 7,500,000.00	TBD
	Hydrogen and Lease of the Trailer (5 Years @ \$350K per Year)	San Joaquin County	\$ 350,000.00	\$ 350,000.00	\$ 350,000.00	\$ 350,000.00	\$ 350,000.00	\$ 1,750,000.00	6/30/2023
	Battery Energy Storage Systems	San Joaquin County		\$ 1,936,000.00	\$ 2,032,800.00	\$ 2,134,440.00	\$ 2,241,162.00	\$ 8,344,402.00	TBD
	Total Bus Electrification/Power Distribution								
	Replace (1) MCI D4500 (Commuter)	San Joaquin County to Bay Area	\$ 1,200,000.00					\$ 1,200,000.00	6/30/2023
	Replace twenty-two (22) Gillig diesel-electric hybrid buses with zero-emission battery electric buses in SMA fleet. (\$1.4M per Bus)	Stockton Metropolitan Area			\$ 30,800,000.00			\$ 30,800,000.00	6/30/2026
	Replace fourteen (14) Gillig diesel-electric hybrid buses with zero-emission electric buses in BRT fleet.	Stockton Metropolitan Area	\$ 11,200,000.00	\$ 8,400,000.00				\$ 19,600,000.00	TBD
	Replace (2) Proterra - EcoRide BE-35 (SMA)	San Joaquin County			\$ 2,800,000.00			\$ 2,800,000.00	TBD
Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Replace (2) MCI 34500 (Commuter)	San Joaquin County to Bay Area			\$ 2,800,000.00			\$ 2,800,000.00	TBD
	Replace (6) Nova Hybrid LF Articulated (SMA)	San Joaquin County				\$ 9,600,000.00		\$ 9,600,000.00	TBD
	Replace (6) Starcraft/Ford Transit 350 HD (VanGo)	San Joaquin County		\$ 1,650,000.00				\$ 1,650,000.00	TBD
	Replace (22) Glaval Titan II LF (Hopper)	San Joaquin County			\$ 6,050,000.00			\$ 6,050,000.00	TBD
	Replace (14) Glaval/Ford Transit 350 HD (VanGo)	San Joaquin County	\$ 3,850,000.00					\$ 3,850,000.00	TBD
	Replace (6) ADA Cut-away gasoline (Replaces Item 9)	San Joaquin County				\$ 1,650,000.00		\$ 1,650,000.00	TBD
	Replace one (1) diesel bus over the road coach with either a zero-emission electric bus or diesel bus in Commuter fleet.	San Joaquin County to Bay Area	\$ 1,200,000.00					\$ 1,200,000.00	6/30/2023
	Replace 12 cutaway Buses used by United Cabral Paly to transport individuals who would otherwise use SMA Paratransit.	San Joaquin County	\$ 310,000.00	\$ 620,000.00	\$ 620,000.00	\$ 310,000.00		\$ 1,860,000.00	6/30/2027
	Provide infrastructure to accommodate future replacement of cutaway buses.	San Joaquin County	\$ 586,000.00	\$ 268,000.00	\$ 294,800.00	\$ 147,400.00		\$ 1,576,200.00	6/30/2027
	Bus component rebuild and parts.	San Joaquin County	\$ 250,000.00	\$ 262,500.00	\$ 275,625.00	\$ 289,406.25	\$ 303,876.56	\$ 1,381,407.81	FY23-27
Safety & Security	Hybrid Electric Buses (5 new/additional buses).	San Joaquin County	\$ 2,750,000.00					\$ 2,750,000.00	TBD
	Total Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild								
	To upgrade surveillance/security camera system at RTD's facilities and bus stations (scopes: to purchase assessment service, management tool, software and equipment to improve RTD's cyber security.	San Joaquin County	\$ 17,776,000.00	\$ 15,050,500.00	\$ 43,640,425.00	\$ 11,996,806.25	\$ 303,876.56	\$ 88,767,607.81	
	Purchase and/or replace disinfecting chemical vehicle foggers and other misc. safety-related equipment.	San Joaquin County	\$ 157,500.00	\$ 112,000.00	\$ 150,000.00	\$ 495,000.00	\$ 150,000.00	\$ 1,064,500.00	6/30/2028
	Security Guard Radios	San Joaquin County	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 250,000.00	FY23-27
	Pedestrian Collision and Avoidance Detection System and other safety/security related project with 5% annual increase	San Joaquin County	\$ 18,000.00					\$ 18,000.00	FY23
	Total Safety & Security								
	To purchase and install support equipment for bus and facilities, including Bus Video Standardization System, contactless fare collection across all fixed route buses and other support tools/equipment related to buses and facility, such as operator barriers, bus air purification systems and Tapes replacement.	San Joaquin County	\$ 919,767.00	\$ 965,755.35	\$ 1,014,043.12	\$ 1,064,745.27	\$ 1,117,982.54	\$ 5,082,293.28	FY23-27
	RTD will hire consultant to provide plans for a new ERP System. Scoping consulting to provide suggestions/planning on new ERP that will provide integrated Financial and administrative solution (Financial, Budget, HR & Employee Online, Grants management, Procurement & Contracts Management, Inventory, & Retirement Database)	San Joaquin County	\$ 1,145,267.00	\$ 1,127,755.35	\$ 1,214,043.12	\$ 1,609,745.27	\$ 1,317,982.54	\$ 6,414,793.28	
	To purchase and install support equipment for bus and facilities. This includes computers and software, ERP, procurement and HR management systems and other misc. equipment.	San Joaquin County	\$ 320,000.00	\$ 1,815,000.00	\$ 2,000,000.00	\$ 1,000,000.00		\$ 5,135,000.00	6/30/2027

Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment

pg 1 of 2

Comment 2-2 Cont.

	Computer, printer, scanner, camera, video, smartphone, office furniture, Transit Vehicle Public Display Monitor System, non-revenue vehicle GPS and other misc. items. 5% annual increase	San Joaquin County	\$ 844,032.00	\$ 886,212.60	\$ 930,523.23	\$ 977,049.39	\$ 1,025,901.86	\$ 4,663,699.08	TBD
	Transit Vehicle Public Display Monitor System Project	San Joaquin County		\$ 750,000.00				\$ 750,000.00	FY24
Total	Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment		\$ 4,738,714.00	\$ 4,476,914.60	\$ 2,930,523.23	\$ 1,977,049.39	\$ 1,025,901.86	\$ 15,149,103.08	
Planning/Study/Training, Outreach and Research Projects	Zero-Emission Blueprint:	San Joaquin County	\$ 1,348,249.00					\$ 1,348,249.00	FY24
	Transit Asset Management System Update	San Joaquin County	\$ 28,000.00					\$ 28,000.00	TBD
	Hydrogen Fuel Cell Electric Bus training	San Joaquin County	\$ 269,000.00					\$ 269,000.00	TBD
	Integrated Mobility Innovation Research Project:	San Joaquin County	\$ 350,000.00					\$ 350,000.00	FY24
	Service Equity Analysis of the future changes including service restoration and expansions for Fixed Route in the Stockton Metropolitan Area and Intercity Service	San Joaquin County	\$ 75,000.00					\$ 75,000.00	TBD
	RTD's Title VI Program Update as required by FTA every four years	San Joaquin County	\$ 100,000.00					\$ 100,000.00	TBD
Total	Planning/Study/Training, Outreach and Research Projects		\$ 2,170,249.00	\$ -	\$ -	\$ -	\$ -	\$ 2,170,249.00	
Operating Costs	Costs associated with Bus Rapid Transit (BRT), Stockton Metropolitan Area (SMA), Intercity and County Hopper, Interregional Commuter, Dial-A-Ride, Van GO, Operations	Stockton Metropolitan Area, San Joaquin County, San Joaquin County, Contra Costa, Butte, Colusa, Yuba, Sutter, Placer, El Dorado, Nevada, and San Bernardino Counties	\$ 48,691,252.00	\$ 50,051,436.00	\$ 51,628,482.00	\$ 53,415,758.00	\$ 55,068,472.00	\$ 258,855,400.00	FY23-27
	Operating Costs		\$ 48,691,252.00	\$ 50,051,436.00	\$ 51,628,482.00	\$ 53,415,758.00	\$ 55,068,472.00	\$ 258,855,400.00	
Facilities Improvement and Upgrade	Bus Stations/Stops/Terminals: Costs associated with upgrade and improvement at RTD's bus stations and stops, including bus passenger information signage, bus shelter solar lights, HVAC replacement, roof/window replacement, trash cans and benches, and other miscellaneous upgrade and improvement.	San Joaquin County	\$ 301,368.00	\$ 316,436.40	\$ 332,258.22	\$ 348,871.13	\$ 366,314.69	\$ 1,665,248.44	FY23-27
	Install new benches, shelters, and other amenities in alignment to service restoration and expansions for Fixed Route in the Stockton Metropolitan Area and Intercity Service	San Joaquin County	\$ 350,000.00	\$ 350,000.00	\$ 350,000.00	\$ 350,000.00	\$ 350,000.00	\$ 1,750,000.00	TBD
	Costs associated with capital improvement and upgrade at RTD's Admin and Maintenance facilities. This includes the upgrades in electrical gear switch, fire alarm and LED lighting systems at RTC; storm drain emergency shutoff valve construction at RTC; maintenance shop retrofit and floor repair at RTC; HVAC units replacement at DTC and wrought fence construction at CTC; pavement re-seal at CTC, RTC floor repair and other refurbishment improvement.	San Joaquin County	\$ 2,000,000.00					\$ 2,000,000.00	FY23
	Projection for the next 5 year rehabilitation/renovation at RTD's Admin and Maintenance facilities (CTC, DTC, Hammer Transit Station (HTS) and RTC). This includes capital improvements/remodel to extend useful life of CTC and HTS buildings: installation of generator at DTC to power building during emergency; replacement of portable bus lifts and lube pumps at RTC; replacement of building exhaust fans and gas heaters and furniture.	San Joaquin County	\$ 3,408,905.00	\$ 3,408,905.00	\$ 3,408,905.00	\$ 3,408,905.00	\$ 3,408,905.00	\$ 17,044,525.00	FY23-27
	Facilities Improvement and Upgrade		\$ 6,060,273.00	\$ 4,075,341.40	\$ 4,091,163.22	\$ 4,107,776.13	\$ 4,125,219.69	\$ 22,459,773.44	
Total	Support Vehicles - Acquisition/Rehab/Renovation		\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 1,500,000.00	FY23-27
Total	Support Vehicles - Acquisition/Rehab/Renovation		\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 1,500,000.00	
Total	Support Vehicles - Acquisition/Rehab/Renovation		\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 1,500,000.00	

Comment 2-2 Cont.

pg 2 of 2

Letter 2

COMMENTER: Regional Transportation District (RTD)

DATE: 7/29/22

Response 2.1

The commenter has identified text corrections to the text in the Draft EIR on the following pages:

- ES-38
- 1-6
- 2-24
- 3-4
- 4.14-3

These edits are to update the acronym being used to identify the Regional Transportation District to RTD from SJRTD, and correcting section and bus route references. These edits have been completed and are shown in Chapter 3 of this FEIR. These revisions do not alter the analysis or conclusions in the Draft EIR.

Response 2.2

RTD has identified requested changes to Table 2-1 in the Draft EIR for transit projects listed under RTD found on pages 2-25 and 2-26. RTD provided an updated project list to replace what is currently in Table 2-1. This section of the table, projects under the RTD heading, has been updated to reflect the list of RTD projects found in the final version of the 2022 RTP/SCS. These edits are shown in Chapter 3 of this FEIR. These revisions do not alter the analysis or conclusions in the Draft EIR.

3 Amendments to the Draft EIR

This section provides a summary record of all text amendments to the Draft EIR. Most amendments are the result of comments received during the public review period, and directly respond to those comments, or correct typographical errors within the Draft EIR. None of the changes would warrant recirculation of the EIR pursuant to CEQA Guidelines Section 15088.5. The amendments serve to clarify and strengthen the content of the EIR, but do not introduce significant new information.

Changes in text are signified by strikeouts (~~strikeouts~~) where text is removed and by underlined font (underline font) where text is added. Other minor clarifications and corrections to typographical errors are also shown as corrected in this format, including corrections not based on responses to comments.

Below are the corrections made to the text of the Draft EIR included as amendments in this FEIR.

Executive Summary

Page ES-38

Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact
Transportation
Impact T-2. The proposed 2022 RTP/SCS would result in an overall increase in regional VMT above baseline (2016) conditions. The proposed 2022 RTP/SCS would result in an increase in VMT per capita below the above baseline (2016) conditions.
Regional VMT and VMT per capita impacts from implementation of the proposed 2022 RTP/SCS would be significant and unavoidable. The induced travel impact at the regional level would be less than significant.

Section 1.5, Environmental Impact Report Background

Page 1-6

Table 1-1 NOP Comments and EIR Response

Comment/Request	How and Where it was Addressed
San Joaquin Regional Transit District	
The District requests that the EIR include an analysis and discussion pertaining to any potential impacts on San Joaquin RTD's current transit system including the following: safety; security; bus, bus rapid transit, intercity, and commuter services; transit stations; and accessibility.	The EIR includes a discussion of these impacts in Section 4.11 <u>4.14</u> , <i>Transportation</i> .
The District requests that all existing and planned intra and inter-county transportation systems, including rail (such as Altamont Corridor Express (ACE)) and express bus services such as San Joaquin RTD's Commuter Bus service should be evaluated for impacts pertaining to public access and service connections to important destinations for the travelling public.	The EIR includes a discussion of impacts to active transportation in Section 4.11 <u>4.14</u> , <i>Transportation</i> .

Comment/Request	How and Where it was Addressed
The District requests that the EIR discuss future highway capacity projects, such as the I-205 managed lanes project, and include potential impacts to regional transit and opportunities for express bus lanes.	The EIR includes a list of proposed transportation projects in Section 2.0, <i>Project Description</i> and a discussion of transportation related impacts in Section 4.11 <u>4.14</u> , <i>Transportation</i> .

Section 2.4.3 Action Element

Page 2-24

Table 2-1 The 2022 RTP/SCS Planned and Programmed Projects

Project Title	Project Type	Description
RTD		
RTD-1: Bus Electrification / Power Distribution	Transit	Solar Energy System Phase I. <u>Renewable energy solutions for facility & fleet energy consumption</u>
RTD-2: Bus Electrification / Power Distribution	Transit	Construction of hydrogen fueling infrastructure for use with Hydrogen Fuel Cell Electric buses and invest in Electrolyzer (\$10M to build). <u>Charging infrastructure will be needed if RTD replaces commuter bus with zero-emission electric bus. Depending on the bus purchase the following is an estimated infrastructure cost.</u>
RTD-3: Bus Electrification / Power Distribution	Transit	Charging infrastructure will be needed if RTD replaces commuter bus with zero-emission electric bus. Depending on the bus purchase the following is an estimated infrastructure cost: Hydrogen: \$750K to 1M for on-site tank dispenser (1-5 buses); Hydrogen: \$1.5M to 2M for Full service station (5-30 buses); Electric: \$1M to 1.5M for Depot charger/Induction Charger 5 FCEB pilot at \$1.5 Million per Bus. <u>Hydrogen and lease of the trailer</u>
RTD-4: Bus Electrification / Power Distribution	Transit	Hydrogen and Lease of the Trailer (5 Years @ \$350K per Year) <u>Battery energy storage systems</u>
RTD-5: Bus Electrification / Power Distribution Bus Rolling Stock – Buy/Replacement/Rehab/Rebuild	Transit	Battery Energy Storage Systems at Regional Transportation Center (RTC), County Transportation Center (CTC), and possibly Downtown Transit Center (DTC) for peak saving energy initiatives. <u>Replace 14 GILLIG diesel-electric hybrid buses with zero-emission - electric buses in BRT fleet</u>
RTD-5: Bus Electrification / Power Distribution RTD-6: Bus Rolling Stock – Buy/Replacement/Rehab/Rebuild	Transit	Replace 2 existing 500kW overhead charger (DTC). <u>Replace 2 Protera – EcoRide BE-35 (SMA)</u>
RTD-6: RTD-7: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (1) MCI D4500 (Commuter) <u>Replace 2 MCI 34500 (Commuter)</u>

Project Title	Project Type	Description
RTD-7: RTD-8: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace nine (14) GILLIG diesel electric hybrid buses with zero emission battery electric buses in SMA fleet. (\$1.2 M per Bus) <u>Replace 6 Nova Hybrid LF Articulated (SMA)</u>
RTD-8: RTD-9: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace eight (13) GILLIG diesel electric hybrid buses with zero emission electric buses in BRT fleet. <u>Replace 6 Starcraft/Ford Transit 350 HD (Van Go)</u>
RTD-9: RTD-10: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (2) Protera – EcoRide BE-35 (SMA) <u>Replace 22 Glabal Titan II LF (Hopper)</u>
RTD-10: RTD-11: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (2) MCI 34500 (Commuter) <u>Replace 14 Glaval/Ford Transit 350 HD (Van Go)</u>
RTD-11: RTD-12: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (6) Nova Hybrid LF Articulated (SMA) <u>Replace 6 ADA cut-away gasoline</u>
RTD-12: RTD-13: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (6) Seacraft/Ford Transit 350 HD (VanGo) <u>Replace 12 cutaway buses used by United Cebreal Palsy to transport individuals who would otherwise use SMA paratransit</u>
RTD-13: RTD-14: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (22) Glaval Titan II LF (Hopper) <u>Provide infrastructure to accommodate future replacement of cutaway buses</u>
RTD-14: RTD-15: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (14) Glaval/Ford Transit 350 HD (VanGo) <u>Bus component rebuild and parts</u>
RTD-15: RTD-16: Bus Rolling Stock - Buy/Replacement/Rehab/Rebuild	Transit	Replace (6) ADA Cut-away gasoline (Replaces Item 19) <u>Hybrid electric buses (r new/additional buses)</u>
RTD-16: Bus Rolling Stock – Buy/Replacement/Rehab/Rebuild <u>RTD-17: Safety and Security</u>	Transit	Replace one (1) diesel bus over the road coach with either a zero emission electric bus or diesel bus in Commuter fleet. <u>To upgrade surveillance/security camera system at RTD's facilities and bus station/stops; to purchase assessment service, management tool, software and equipment to improve RTD's cyber security</u>
RTD-17: Bus Rolling Stock – Buy/Replacement/Rehab/Rebuild <u>RTD-18: Safety and Security</u>	Transit	Replace 12 cutaway Buses used by United Cebreal Palsy to transport individuals who would otherwise use SMA Paratransit. Purchase and/or replace disinfecting chemical vehicle foggers and other misc. safety-related equipment
RTD-18: Bus Rolling Stock – Buy/Replacement/Rehab/Rebuild <u>RTD-19: Safety and Security</u>	Transit	Bus component rebuild and parts. <u>Security guard radios</u>

Table 2-1 The 2022 RTP/SCS Planned and Programmed Projects

Project Title	Project Type	Description
<u>RTD-19: Bus Rolling Stock–Buy/Replacement/Rehab/Rebuild</u> <u>RTD-20: Safety and Security</u>	Transit	<u>Hybrid Electric Buses (5 new/additional buses)</u> <u>Pedestrian collision and avoidance detection system and other safety/security related project with 5% annual increase</u>
<u>RTD-20: Safety & Security</u> <u>RTD-21: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment</u>	Transit	<u>To upgrade surveillance/security camera system at RTD's facilities and bus stations/stops; to purchase assessment service, management tool, software and equipment to improve RTD's cyber security.</u> <u>Bus video standardization system</u>
<u>RTD-21: Safety & Security</u> <u>RTD-22: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment</u>	Transit	<u>Purchase and/or replace disinfecting chemical vehicle foggers and other misc. safety-related equipment.</u> <u>Scoping consulting to provide suggestions/planning on new ERP that will provide Integrated Financial and administrative solution</u>
<u>RTD-22: Safety & Security</u> <u>RTD-23: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment</u>	Transit	<u>Radios for security Guards to connect with dispatch and customer service</u> <u>To purchase and install support equipment for bus and facilities. This includes computers and software, ERP, procurement and HR management systems and other misc. equipment</u>
<u>RTD-23: Safety & Security</u> <u>RTD-24: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment</u>	Transit	<u>Pedestrian Collision and Avoidance Detection System and other safety/security related project with 5% annual increase</u> <u>Computer, printer, scanner, camera, video, smartphone, office furniture. Transit vehicle public display monitor system, non-revenue vehicle GPS and other misc. items</u> <u>5% annual increase</u>
<u>RTD-24RTD-25: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment</u>	Transit	<u>To purchase and install support equipment for bus and facilities, including Bus Video Standardization System, contactless fare collection across all fixed route buses and other support tools/equipment related to buses and facility, such as operator barriers, bus air purification systems and Trapeze replacement.</u> <u>Transit vehicle public display monitor system project</u>
<u>RTD-25: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment</u> <u>RTD-26: Planning/Study/Training, Outreach and Research Projects</u>	Transit	<u>RTD will hire consultant to provide plans for a new ERP System. Scoping consulting to provide suggestions/planning on new ERP that will provide Integrated Financial and administrative solution (Financial, Budget, HR & Employee Online, Grants management, Procurement & Contracts Management, Inventory, & Retirement database)</u> <u>Transit asset management system update</u>
<u>RTD-26: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment</u> <u>RTD-27: Planning/Study/Training, Outreach and Research Projects</u>	Transit	<u>To purchase and install support equipment for bus and facilities. This includes computers and software, ERP, procurement and HR management systems and other misc. equipment.</u> <u>Hydrogen fuel cell electric bus training</u>

Project Title	Project Type	Description
RTD-27: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment	Transit	Computer, printer, scanner, camera, video, smartphone, office furniture, Transit Vehicle Public Display Monitor System, non-revenue vehicle GPS and other misc. items. 5% annual increase
RTD-28: Planning/Study/Training, Outreach and Research Projects		Service equity analysis of the future changes including service restoration and expansions for Fixed Route in Stockton Metropolitan Area and Intercity
RTD-28: Communication System, Fare Collection (Mobile), Computer Software & Hardware, and Misc. Equipment	Transit	Transit Vehicle Public Display Monitor System Project
RTD-29: Planning/Study/Training, Outreach and Research Projects		RTD's Title VI Program update as required by FTA every 4 years
RTD-29: Planning/Study/Training, Outreach and Research Projects	Transit	Zero-Emission Blueprint.
RTD-30: Operating Costs		Costs associated with BRT, SMA, Intercity and County Hopper, Interregional Commuter, Dial-A-Ride, Van GO!, Operations
RTD-30: Planning/Study/Training, Outreach and Research Projects	Transit	TAM Upgrade.
RTD-31: Facilities Improvement and Update		Bus stations/stops/terminals
RTD-31: Planning/Study/Training, Outreach and Research Projects	Transit	Hydrogen Fuel Cell Electric Bus training.
RTD-32: Facilities Improvement and Update		Install new benches, shelters, and other amenities
RTD-32: Planning/Study/Training, Outreach and Research Projects	Transit	Integrated Mobility Innovation Research Project.
RTD-33: Facilities Improvement and Update		Costs associated with capital improvement and upgrade at RTD's admin and maintenance facilities
RTD-33: Planning/Study/Training, Outreach and Research Projects	Transit	System Redesign Study / Service Equity Analysis. Perform an analysis of the service disruptions in the County Hoppers due to the shortage of drivers that was effective July 1, 2021.
RTD-34: Support Vehicles – Acquisition/Rehab/Renovation		To purchase, refurb and rehab support vehicles for RTD's admin/maintenance
RTD-34: Planning/Study/Training, Outreach and Research Projects	Transit	RTD's Title VI Procedure Upgrade and Service Equity Analysis
RTD-35: Future Operations		Future Operations

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Table 2-1 The 2022 RTP/SCS Planned and Programmed Projects

Project Title	Project Type	Description
RTD-35: Operating Costs	Transit	Costs associated with Bus Rapid Transit (BRT), Stockton Metropolitan Area (SMA), Intercity and County Hopper, Interregional Commuter, Dial A Ride, Van GO! Operations
RTD-36: Future Capital		Future Capital
RTD-36: Facilities Improvement and Upgrade	Transit	Bus Stations/Stops/Terminals: Costs associated with upgrade and improvement at RTD's bus stations and stops, including bus passenger information signage, bus

Project Title	Project Type	Description
		shelter solar lights, HVAC replacement, roof/window replacement, trash cans and benches, and other miscellaneous upgrade and improvement.
RTD-37: Facilities Improvement and <u>Update/Upgrade</u>	Transit	Install new BRT bus shelters and bus stop amenities (trash cans and benches) for the NEXTGEN route 49 recommendation. <u>Projection for the next 5 year rehabilitation/renovations at RTD's admin and maintenance facilities</u>
RTD-38: Facilities Improvement and Upgrade	Transit	Costs associated with capital improvement and upgrade at RTD's Admin and Maintenance facilities. This includes the upgrades in electrical gear switch, fire alarm and LED lighting systems at RTC; storm drain emergency shutoff valve construction at RTC; maintenance shop retrofit and floor repair at RTC; HVAC units replacement at DTC and wrought fence construction at CTC; pavement re-seal at CTC; bird netting at Regional Transportation Center (RTC); RTC Floor repair and other refurbishment improvement with 5% annual increase
RTD-39: Facilities Improvement and Upgrade	Transit	Projection for the next 5 year rehabilitation/renovation at RTD's Admin and Maintenance facilities (CTC, DTC, Hammer Transit Station [HTS] and RTC). This includes capital improvements/remodel to extend useful life of CTC and HTS buildings; installation of generator at DTC to power building during emergency; replacement of portable bus lifts and lube pumps at RTC; replacement of building exhaust fans and gas heaters and furniture.
RTD-40: Support Vehicles — Acquisition/Rehab/Renovation	Transit	To purchase, refurb and rehab support vehicles for RTD's Admin/Maintenance. Approximately 12 non-revenue vehicles to replace in the next 5 years, with an average cost of \$75K per vehicle.
RTD-41: Future Operations	Transit	Future Operations
RTD-42: Future Capital	Transit	Future Capital

Section 3.3.1 San Joaquin County

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Regional public transit is provided by San Joaquin Regional Transit District (SJRTD) bus service. The SJRTD offers fixed-route buses, intercity buses, interregional buses, and dial-a-ride services. Transit operators provide local bus services in most of the local jurisdictions throughout the county. A variety of Class I-III bicycle routes in many areas provide additional transit alternatives.

Section 4.14.1 Setting

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Public Transit

The San Joaquin Regional Transit District (SJRTD) provides bus service throughout the County with the Hopper service. The Hopper provides fixed-route service to the cities of

Stockton, Lathrop, and Manteca as well as to the community of French Camp. Additional intercity bus lines provide service to Tracy. SJRTD also offers dial-a-ride services for both the general public and for the elderly/disabled throughout the County. These dial-a-ride services provide transportation seven days a week during nontraditional bus hours in rural areas not served by fixed-route lines. The dial-a-ride programs provide connection services to fixed-route lines and to passenger rail (such as Altamont Corridor Express (ACE) and Amtrak).

SJRTD's Interregional Commuter Service offers bus service to passengers traveling to Alameda, Contra Costa, ~~Santa Clara~~, and Sacramento counties, including feeder service to BART for employees working in San Francisco and the East Bay. The SJRTD intercity route 91 connects Ripon, Manteca, and Stockton and routes ~~26 and 90~~ connects Tracy, Lathrop, French Camp, and Stockton. Routes ~~93 and 23~~ links Stockton to Lodi. The interregional service is designed to meet the needs of commuters who travel distances greater than 50 miles one way. Greyhound and Amtrak also provide interregional bus service.

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4 Mitigation Monitoring and Reporting Program

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). This mitigation monitoring and reporting program is intended to track and ensure compliance with adopted mitigation measures during the project implementation phase. For each mitigation measure recommended in the Final Environmental Impact Report (Final EIR), specifications are made herein that identify the action required, the monitoring that must occur, and the agency or department responsible for oversight.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Visual Resources				
AES-1 (a) Tree Protection and Replacement				
The implementing agency for new roadways, extensions and widenings of existing roadways, trails and facility improvement projects shall, or can and should, avoid the removal of existing mature trees to the extent possible consistent with adopted local City and County policies as applicable. The implementing agency of a particular proposed 2022 RTP/SCS project shall replace any trees lost at a minimum 2:1 basis and incorporate them into the landscaping design for the roadway when feasible, or as required by local or County requirements. The implementing agency also shall ensure the continued vitality of replaced trees through periodic maintenance.	Grading and site plans shall avoid the removal of existing mature trees to the extent possible. Place conditions of approval on project to require tree replacement at a minimum 2:1 ratio. Maintain replacement trees to ensure their success.	During project permitting and environmental review for roadway extensions and widening projects.	Site Plan Review and during construction.	Implementing agencies/ project sponsor.
AES-1 (b) Discouragement of Architectural Features that Block Scenic Views				
Implementing agencies shall, or can and should, design projects to minimize contrasts in scale and massing between the project and surrounding natural forms and development. Setbacks and acoustical design of adjacent structures shall be preferentially used as mitigation for potential noise impacts arising from increased traffic volumes associated with adjacent land development. The use of sound walls, or any other architectural features that could block views from the scenic highways or other view corridors, shall be discouraged to the extent possible. Where use of sound walls is found to be necessary, walls shall incorporate offsets, accents, and landscaping to prevent monotony. In addition, sound walls shall be complementary in color and texture to surrounding natural features.	Ensure that architectural features compliment with surrounding natural forms and development. Implement mitigation measures for potential noise impacts.	During project permitting and environmental review.	Site Plan Review and during construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
AES-2 Design Measures for Visual Compatibility				
The implementing agency shall, or can and should, require measures that minimize contrasts in scale and massing between the project and surrounding natural forms and developments. Strategies to achieve this include: ▪ Siting or designing projects to minimize their intrusion into important viewsheds; ▪ Avoiding large cuts and fills when the visual environment (natural or urban) would be substantially disrupted; ▪ Ensuring that re-contouring provides a smooth and gradual transition between modified landforms and existing grade; ▪ Developing transportation systems to be compatible with the surrounding environments (e.g., colors and materials of construction material; scale of improvements); ▪ Designing and installing landscaping to add natural elements and visual interest to soften hard edges, as well as to restore natural features along corridors where possible after widening, interchange modifications, re-alignment, or construction of ancillary facilities; and ▪ Designing new structures to be compatible in scale, mass, character, and architecture with existing structures.	Confirm that structures minimize contrast in scale and massing between the project and surrounding natural forms and development. Confirm structures and walls are constructed consistent with plans.	During project permitting and environmental review.	Site Plan Review and during construction.	Implementing agencies/ project sponsor.
AES-3 (a) Roadway Lighting				
Implementing agencies shall, or can and should, minimize roadway lighting to the extent possible, consistent with safety and security objectives, and shall not exceed the minimum height requirements of the local jurisdiction in which the project is proposed. This may be accomplished through the use of back shields, hoods, low intensity lighting, and using as few lights as necessary to achieve the goals of the project.	Confirm that site plans satisfy the lighting requirements listed in the mitigation measure. Confirm lights are installed as described and shown on site plans.	During project permitting and environmental review.	Once during plan review. Once at completion of construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
AES-3 (b) Lighting Design Measures				
As part of planning, design, and engineering for projects, project sponsors shall, or can and should, ensure that projects proposed near light-sensitive uses avoid substantial spillover lighting. Potential design measures include, but are not limited to, the following: ▪ Lighting shall consist of cutoff-type fixtures that cast low-angle illumination to minimize incidental spillover of light into adjacent properties and undeveloped open space. Fixtures that project light upward or horizontally shall not be used. ▪ Lighting shall be directed away from habitat and open space areas adjacent to the project site. ▪ Light mountings shall be downcast, and the height of the poles minimized to reduce potential for backscatter into the nighttime sky and incidental spillover of light onto adjacent private properties and undeveloped open space. Light poles will be 20 feet high or shorter. Luminary mountings shall have non-glare finishes. ▪ Exterior lighting features shall be directed downward and shielded in order to confine light to the boundaries of the subject project. Where more intense lighting is necessary for safety purposes, the design shall include landscaping to block light from sensitive land uses, such as residences.	Confirm that development and building plans satisfy the lighting requirements listed in the mitigation measure. Confirm lights are installed as described and shown on plans.	During project permitting and environmental review.	Once during plan review. Once at completion of construction.	Implementing agencies/ project sponsor.
AES-3(c) Glare Reduction Measures				
Implementing agencies shall, or can and should, minimize and control glare from transportation and land use projects near glare-sensitive uses through the adoption of project design features such as: ▪ Creating tree wells in existing sidewalks; ▪ Planting trees along transportation corridors to reduce glare from the sun; ▪ Adding trees in new curb extensions and traffic circles;	Confirm that development and building plans satisfy the lighting requirements listed in the mitigation measure. Confirm lights are installed as described and shown on plans.	During project permitting and environmental review.	Once during plan review. Once at completion of construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▪ Adding trees to public parks and greenways; ▪ Landscaping off-street parking areas, loading areas, and service areas; ▪ Limiting the use of reflective materials, such as metal; ▪ Using non-reflective material, such as paint, vegetative screening, matte finish coatings, and masonry; ▪ Screening parking areas by using vegetation or trees; ▪ Using low-reflective glass; ▪ Complying with applicable general plan policies, municipal code regulations, city or local controls related to glare; and ▪ Tree species planted to comply with this measure shall provide substantial shade cover when mature. Utilities shall be installed underground along these routes wherever feasible to allow trees to grow and provide shade without need for severe pruning.				
Agriculture and Forestry Resources				
AG-1 Impact Avoidance and Minimization				
Project sponsors shall implement measures, where feasible and necessary based on project- and site-specific considerations that include but are not limited to those identified below. ▪ Require project relocation or corridor realignment, where feasible, to avoid Important Farmland; ▪ Manage project construction to minimize the introduction of invasive species or weeds that may affect agricultural production on agricultural land adjacent to project sites. Managing project construction may include washing construction equipment before bringing equipment on-site, using certified weed-free straw bales for construction Best Management Practices (BMPs), and other similar measures.	Require project relocation or corridor realignment into project-specific design plans or environmental review. Require use of BMPs to minimize invasive species introduction during construction. Require the use of design features to protect surrounding agriculture. Require acquisition of conservation easements at a minimum 1:1 ratio.	During project permitting and environmental review.	Once	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
- Provide buffers, berms, setbacks, fencing, or other project design measures to protect surrounding agriculture, and to reduce conflict with farming that could result from implementation of transportation improvements and/or development included as a part of the RTP/SCS; - Achieve compensatory mitigation in advance of impacts through purchase or creation of mitigation credits or the implementation of mitigation projects through Regional Advance Mitigation Planning, as deemed appropriate by permitting agencies; and/or - Require acquisition of conservation easements on land in the same jurisdiction, if feasible, and at least equal in quality and size to converted Important Farmland, to offset the loss of Important Farmland.				
Air Quality				
AQ-2 (a) Application of SJVAPCD Feasible Mitigation Measures				
For all projects, the implementing agency shall incorporate the most recent SJVAPCD feasible construction mitigation measures and/or technologies for reducing inhalable particles based on analysis of individual sites and project circumstances. Additional and/or modified measures may be adopted by SJVAPCD prior to implementation of individual projects under the proposed 2022 RTP/SCS; therefore, the most current list of feasible mitigation measures at the time of project implementation shall be used. The current SJVAPCD feasible mitigation measures include the following (SJVAPCD 2015b):	Construction plans shall show SJVAPCD standard dust control measures; implementing agency shall ensure implementation.	During project permitting and environmental review. Prior to issuance of grading permits; during construction	Once during plan review; periodically during construction	Implementing agencies/ project sponsor
All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▪ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, tarp cover, or other suitable cover or vegetative ground cover. ▪ When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. ▪ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. ▪ An owner/operator of any site with 150 or more vehicle trips per day, or 20 or more vehicle trips per day by vehicles with three or more axles shall implement measures to prevent carryout and trackout. ▪ Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.				
AQ-2 (b) Diesel Equipment Emissions Standards				
The implementing agency shall ensure, to the maximum extent feasible, that diesel construction equipment meeting CARB Tier 4 emission standards for off-road heavy-duty diesel engines is used. If use of Tier 4 equipment is not feasible, diesel construction equipment meeting Tier 3 (or if infeasible, Tier 2) emission standards shall be used. These measures shall be noted on all construction plans, and the	Construction plans shall ensure that that construction equipment is subject to the CARB Regulation for In-use Off-road Diesel Vehicles and, if feasible, construction equipment meets Tier 4 standards or at least Tier 2 standards with retrofitted Level 3 VDECS, if available; and perform periodic site inspections.	During project permitting and environmental review. Prior to issuance of grading permits; during construction.	Once during project plan review; periodically during construction	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
implementing agency shall perform periodic site inspections.				
AQ-2 (c) Electric Construction Equipment				
The implementing agency shall ensure that to the extent feasible, construction equipment utilizes electricity from power poles rather than temporary diesel power generators and/or gasoline power generators.	Construction plans shall ensure that electricity from power poles is used to the extent possible.	During project permitting and environmental review. Prior to issuance of grading permits; during construction	Once during project plan review; periodically during construction	Implementing agencies/ project sponsor.
AQ-3 Long-term Regional Operational Emissions				
Implementing agencies can and should implement long-term operational emissions reduction measures. Such reduction measures include the following: - Require that all interior and exterior architectural coatings for all developments utilize coatings following SJVAPCD Rule 4601, <i>Architectural Coatings</i>. - Increase building envelope energy efficiency standards in excess of applicable building standards and encourage new development to achieve zero net energy use. - Install energy-efficient appliances, interior lighting, and building mechanical systems. Encourage installation of solar panels for new residential and commercial development. - Locate sensitive receptors more than 500 feet of a freeway, 500 feet of urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. - Locate sensitive receptors more than 1,000 feet of a major diesel rail service or railyards. Where adequate buffer cannot be implemented, implement the following: - Install air filtration (as part of mechanical ventilation systems or stand-alone air cleaners) to indoor reduce pollution exposure for residents and other sensitive populations in buildings that	Require coatings compliant with SJVAPCD Rule 4601.	During project permitting and environmental review. Periodically during operation.	Once during project-level environmental review; periodically during operation.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
	are close to transportation network improvement projects.			
	▫ Use air filtration devices rated MERV-13 or higher. ▪ Plant trees and/or vegetation suited to trapping roadway air pollution and/or sound walls between sensitive receptors and the pollution source. The vegetation buffer should be thick, with full coverage from the ground to the top of the canopy Install higher efficacy public street and exterior lighting. ▪ Use daylight as an integral part of lighting systems in buildings. ▪ Use passive solar designs to take advantage of solar heating and natural cooling. ▪ Install light colored “cool” roofs, cool pavements. ▪ Install solar and tankless hot water heaters. ▪ Exclude wood-burning fireplaces and stoves. ▪ Incorporate design measures and infrastructure that promotes safe and efficient use of alternative modes of transportation (e.g., neighborhood electric vehicles, bicycles) pedestrian access, and public transportation use. Such measures may include incorporation of electric vehicle charging stations, bike lanes, bicycle-friendly intersections, and bicycle parking and storage facilities. ▪ Incorporate design measures that promote ride sharing programs (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides).			

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
AQ-4 Health Risk Reduction Measures				
Transportation project sponsor agencies shall implement the following measures for projects that could facilitate an increase in vehicle trips: - During project-specific design and CEQA review, the potential localized particulate (PM₁₀ and PM_{2.5}) impacts and their health risks shall be evaluated for individual projects. Localized particulate matter concentrations shall be estimated using procedures and guidelines consistent with U.S. EPA 2015's <i>Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas</i>. If required based on the project-level hotspot analysis, project-specific mitigation shall be added to the project design concept or scope to ensure that local particulate (PM₁₀ and PM_{2.5}) emissions would not reach a concentration at any location that would cause estimated cancer risk to exceed the SJVAPCD threshold of 20 in one million. Per the U.S. EPA guidance (2015), potential mitigation measures to be considered may include but shall not be limited to: providing a retrofit program for older higher emitting vehicles, anti-idling requirements or policies, controlling fugitive dust, routing traffic away from populated zones and replacing older buses with cleaner buses. These measures can and should be implemented to reduce localized particulate impacts as needed. - For projects that do not meet screening criteria, retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with CARB and OEHHHA requirements to determine the exposure of nearby residents to TAC concentrations. - If impacts result in increased risks to sensitive receptors above significance thresholds, plant trees and/or vegetation suited to trapping TACs and/or	Retain air quality consultant to conduct project-level hot spot analysis. Ensure a project-level HRA is prepared by a qualified air quality consultant. Ensure project-level environmental review and site plans incorporate the measures to reduce particulate impacts, as listed in this mitigation measure	During project permitting and environmental review; during construction as applicable; during operation.	Once during project-level environmental review; periodically during construction; following construction, during operation.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
sound walls between sensitive receptors and the pollution source. In addition, consistent with the general guidance contained in CARB's <i>Air Quality and Land Use Handbook</i> (2005) and <i>Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways</i> (2017), cities and counties shall incorporate appropriate and feasible measures into project building design for land use projects including residential, school and other sensitive uses located within 500 feet (or other appropriate distance as determined by the lead agency) of freeways, heavily travelled arterials, railways and other sources of diesel particulate matter, including roadways experiencing significant vehicle delays. The appropriate measures shall include one or more of the following methods, as applicable and as determined by a qualified professional. The implementing agency shall incorporate health risk reduction measures based on an analysis of individual sites and project circumstances. These measures may include: ▪ Avoid siting new sensitive land uses within 500 feet of a freeway or railway. ▪ Require development projects for new sensitive land uses to be designed to minimize exposure to roadway-related pollutants to the maximum extent feasible through inclusion of design components including air filtration and physical barriers. ▪ Do not locate sensitive receptors near the entry and exit points of a distribution center. ▪ Locate structures and outdoor living areas for sensitive uses as far as possible from the source of emissions. As feasible, locate doors, outdoor living areas and air intake vents primarily on the side of the building away from nearby high volume roadways or other pollution source. As feasible, incorporate dense, tiered vegetation that regains				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
foliage year-round and has a long life span between the pollution source and the project. ▪ Maintain a 50-foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year). ▪ Install, operate, and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the MERV 13. The HV system should include the following features: ▫ Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building. ▫ Use of either HEPA filters or ASHRAE 85 percent supply filters. ▫ Completion of ongoing maintenance. ▪ Retain a qualified HV consultant or Home Energy Rating Systems rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources. ▪ Maintain positive pressure within the building. ▪ Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air. ▪ Achieve a performance standard of at least four air exchanges per hour of recirculation. Achieve a performance standard of 0.25 air exchanges per hour of unfiltered infiltration if the building is not positively pressurized. ▪ Require project owners to provide a disclosure statement to occupants and buyers summarizing technical studies that reflect health concerns about exposure to highway/freeway exhaust emissions.				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Biological Resources				
BIO-1 (a) Biological Resources Screening and Assessment				
On a project-by-project basis, a preliminary biological resource screening shall be performed as part of the environmental review process to determine whether the project has any potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) to document the existing biological resources within the project footprint plus a buffer and to determine the potential impacts to those resources. The biological resources assessment shall evaluate the potential for impacts to all biological resources including, but not limited to: special-status species, nesting birds, wildlife movement, sensitive plant communities, critical habitat, Essential Fish Habitat, and other resources judged to be sensitive by local, state, and/or federal agencies. In addition, the assessment shall document potential modifications to existing infrastructure suitable for wildlife movement (e.g., culvert, underpass, etc.) Pending the results of the BRA, design alterations, further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be required. If the project cannot be designed without complete avoidance, the sponsor agency shall coordinate with the appropriate regulatory agency (i.e., USFWS, NMFS, CDFW, USACE) to obtain regulatory permits and implement project - specific mitigation prior to any construction activities. The following mitigation measures [BIO-1(b) through BIO-1(j)] shall be incorporated only as applicable into the BRA for projects where specific resources are present or may be present and impacted by the project. Note that specific surveys described in the mitigation measures below may be	Ensure preliminary biological resource screening to determine whether the project has any potential to impact biological resources and incorporate measures listed in this mitigation measure if impacts are found. Retain a qualified biologist to conduct a biological resources assessment (BRA) if the project would have potential to impact biological resources.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
completed as part of the biological resources assessment where suitable habitat is present. The results of the biological resources screening and assessment shall be provided to the implementing agency for review and approval.				
BIO-1(b) Special-Status Plant Species Surveys				
If completion of the project-specific biological resources assessment determines that special-status plant species have potential to occur on-site, surveys for special-status plants shall be completed prior to any vegetation removal, grubbing, or other construction activity of each project (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species identified in the project-specific BRA. All plant surveys shall be conducted by a qualified biologist approved by the implementing agency no more than two years prior to project implementation. All special-status plant species identified on-site shall be mapped onto a site-specific aerial photograph or topographic map. Surveys shall be conducted in accordance with the most current protocols established by the CNPS, CDFW, and/or USFWS. A report of the survey results shall be submitted to the implementing agency for review. If special-status plant species are identified, mitigation measure BIO-1(c) shall apply.	If there is a potential for special-status plant species to occur on site, surveys for special status plants shall be completed. Ensure a report of the survey is provided to the implementing agency for review.	During project permitting and environmental review; prior to construction but no earlier than one year before construction commences.	Once.	Implementing agencies/ project sponsor.
BIO-1(c) Special-Status Plant Species Avoidance, Minimization, and Mitigation				
If state or federally listed and/or CRPR 1 and 2 species are found during special-status plant surveys [pursuant to mitigation measure BIO-1(b)], then the project shall be re-designed to avoid impacting these plant species to the maximum extent feasible. Occurrences of these species that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect	Ensure redesign of the project to avoid impacting rare plant species if state or federally listed and/or CRPR 1 and 2 species are found. Ensure biologist evaluates CRPR 3 and 4 species to determine whether special-status. If avoidance is not possible, mitigation to fully offset project impacts shall be required pursuant to a qualified biologist.	During project permitting and environmental review; prior to issuance of project construction permits and approvals.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
them from harm. If CRPR 3 and 4 species are found, the biologist shall evaluate to determine if they meet criteria to be considered special-status, and if so, the same process as identified for CRPR 1 and 2 species shall apply. If special-status plants species cannot be avoided and would be impacted by a project implemented under the 2022 RTP/SCS, all impacts shall be mitigated at a minimum ratio of 1:1 (number of acres or individuals restored to number of acres or individuals impacted) for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted to SJCOG, and/or the local jurisdiction overseeing the project for approval. The restoration plan shall include, at a minimum, the following components. ▪ Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type); ▪ Goal(s) of the compensatory mitigation project [type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved]; ▪ Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values); ▪ Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan); ▪ Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule); ▪ Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be	Ensure a restoration plan be developed for the project.			

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
established, restored, enhanced, and/or preserved, annual monitoring reports); - Success criteria based on the goals and measurable objectives; said criteria to include numeric criteria to be selected based on the scale of the restoration effort and the restoration technique used: - At least 80 percent survival of container plants, and/or - Successful establishment the required number of individuals planted from seed to meet required replacement ratios; and/or - Sampling-based recruitment/survival criteria to achieve vegetative cover or total number of surviving individuals equal to at least 70 percent of the equivalent metric in reference sites for the same habitat type; sampling-based criteria must use a scientifically valid vegetation sampling method; - An adaptive management program and remedial measures to address any shortcomings in meeting success criteria; - Notification of completion of compensatory mitigation and agency confirmation; and - Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism).				
BIO-1(d) Endangered/Threatened Animal Species Habitat Assessment and Protocol Surveys				
Specific habitat assessment and survey protocol surveys are established for several federally and/or state endangered or threatened species. If the results of the biological resources assessment determine that suitable habitat may be present for any such species, protocol habitat assessments/surveys shall be completed in accordance with CDFW and/or USFWS/MNFS protocols prior to issuance of any construction permits/project approvals.	If suitable habitat for federally and/or state endangered or threatened animal species exists, protocol habitat assessments/ surveys shall be completed in accordance with CDFW and/or USFWS/MNFS protocols.	During project permitting and environmental review; prior to commencement of project construction.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Alternatively, in lieu of conducting protocol surveys, the implementing agency may choose to assume presence within the project footprint and proceed with development of appropriate avoidance measures, consultation, and permitting, as applicable. If the target species is detected during protocol surveys, or protocol surveys are not conducted and presence assumed based on suitable habitat, mitigation measure BIO-1(e) shall apply.				
BIO-1 (e) Endangered/Threatened Animal Species Avoidance and Compensatory Mitigation				
If habitat is occupied or presumed occupied by federal and/or state listed species and would be impacted by the project, the implementing agency shall re-design the project in coordination with a qualified biologist to avoid impacting occupied/presumed occupied habitat to the maximum extent feasible. Disturbance limits shall have bright orange protective fencing installed at least 50 feet beyond their extent, or other distance as approved by a qualified biologist, to protect the habitat. If occupied or presumed occupied habitat cannot be avoided, the implementing agency shall provide the total acreages for habitat that would be impacted prior to the issuance of construction permits/approvals. The implementing agency shall purchase credits at a USFWS, and/or CDFW approved conservation bank and/or establish conservation easements or funds for acquisition of conservation easements as compensatory mitigation to offset impacts to federal and/or state listed species habitat. Compensatory mitigation shall be provided at the following ratios for permanent impacts in accordance with the <i>San Joaquin County Multi-Species Habitat Conservation and Open Space Plan</i> (SJMSCP 2000) of not less than 1:1 (area mitigated: area impacted) for agricultural habitat lands and 3:1 for natural lands (non-wetland). Compensatory mitigation may be combined/nested with special-status plant species and	If habitat is occupied by federal and/or state listed species, implementing agency shall require project plans include project-specific mitigation measures to avoid and minimize impacts to habitat for endangered or threatened species. If avoidance is not possible, credits shall be purchased according to the mitigation measure, and a qualified biologist must provide a HMMP.	During project permitting and environmental review; prior to issuance of construction permits and approvals.	In accordance with project HMMP, as applicable.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
sensitive community restoration where applicable. Temporary impact areas shall be restored to pre-project conditions. If the implementing agency establishes conservation easement(s) (on- and/or off-site) to serve as compensatory mitigation for federal and/or state listed species habitat impacts, compensatory mitigation areas shall have a restrictive covenant prohibiting future development/disturbance and shall be managed in perpetuity to encourage persistence and enhancement of the preserved target species. Compensatory mitigation lands cannot be located on land that is currently held publicly for resource protection. The compensatory mitigation areas shall be managed by a conservation lands management entity or other qualified easement holder. In addition, the implementing agency shall retain a qualified biologist to prepare a Habitat Mitigation and Monitoring Plan (HMMP) to ensure the success of compensatory mitigation sites that are to be conserved for compensation of permanent impacts to federal and/or state listed species. The HMMP shall identify long term site management needs, routine monitoring techniques, techniques, and success criteria, and shall determine if the conservation site requires restoration to function as a suitable mitigation site. If restoration is required on the conservation site, the HMMP shall contain the restoration components outlined under the Restoration Plan listed in measure BIO-1(c). The HMMP shall be submitted to the implementing agency for approval.				
BIO-1(f) Endangered/Threatened Species Avoidance and Minimization				
The following measures shall be applied to aquatic and terrestrial species, where appropriate. Project sponsors shall select from these measures as appropriate depending on site conditions, the species with potential for occurrence, and the results of the biological resources screening and assessment (measure BIO-1[a]).	If applicable, project plans shall include project-specific mitigation measures to avoid and minimize impacts to endangered or threatened species.	During project permitting and environmental review; prior to and ongoing throughout project construction.	Periodically through construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
- Preconstruction surveys for federal and/or state listed species with potential to occur shall be conducted where suitable habitat is present by a qualified biologist not more than 48 hours prior to the start of construction activities. The survey area shall include the proposed disturbance area and all proposed ingress/egress routes, plus a 100-foot buffer. If any life stage of federal and/or state listed species is found within the survey area, the qualified biologist shall recommend an appropriate course of action, which may include consultation with USFWS, NMFS and/or CDFW. The results of the pre-construction surveys shall be submitted to the implementing agency for review and approval prior to start of construction. - Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern shall have highly visible orange construction fencing. - All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, to avoid impacts to sensitive aquatic species. - All projects occurring within or adjacent to sensitive habitats that may support federally and/or state endangered/threatened species shall have a qualified biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for endangered/threatened species. Alternatively, and upon approval of the CDFW and/or USFWS/NMFS or as outlined in project permits, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are begun fully implemented.	Implement the plans preconstruction and during construction of the project, and post construction monitoring as required.			

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▪ No endangered/threatened species shall be captured and relocated without authorization from the CDFW and/or USFWS. ▪ If pumps are used for dewatering activities, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system. ▪ If at any time during construction of the project an endangered/threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. At that point, a qualified biologist shall recommend an appropriate course of action, which may include consultation with USFWS, NMFS and/or CDFW. ▪ All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. ▪ No equipment shall be permitted to enter wetted portions of any affected drainage channel. ▪ All equipment operating within streambeds (restricted to conditions in which water is not present) shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access. ▪ At the end of each workday, excavations shall be secured with a cover, or a ramp shall be provided to prevent wildlife entrapment. ▪ All trenches, pipes, culverts, or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
BIO-1(g) Non-Listed Special-status Animal Species Avoidance and Minimization				
Depending on the species identified in the BRA, measures shall be selected from among the following to reduce the potential for impacts to non-listed special-status animal species: - Preconstruction clearance surveys shall be conducted within 14 days prior to the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 100-foot buffer and shall identify all special-status animal species that may occur on-site. All non-listed special-status species shall be relocated from the site either through direct capture or through passive exclusion. A report of the preconstruction survey shall be submitted to the implementing agency for their review and approval prior to the start of construction. - A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal, to recover special-status animal species unearthed by construction activities. - Upon completion of the project, a qualified biologist shall prepare a final compliance report documenting all compliance activities implemented for the project, including the preconstruction survey results. - If special-status bat species may be present and impacted by the project, within 30 days of the start of construction a qualified biologist shall conduct presence/absence surveys for special-status bats, in consultation with the CDFW, where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active bat roosts or colonies are present, the biologist shall evaluate the type of roost to determine the next step.	If applicable, project plans shall include project-specific mitigation measures to reduce impacts to non-listed special status species.	During project permitting and environmental review; prior to, during and after project construction.	During all initial ground disturbance, as applicable.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▫ If a maternity colony is present, all construction activities shall be postponed within a 250-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed or as recommended by CDFW through consultation. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately. ▫ If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), alternative roosts, such as bat boxes if appropriate for the species, shall be designed and installed near the project site. The number and size of alternative roosts installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. ▫ If other active roosts are located, exclusion devices such as valves, sheeting or flap-style one-way devices that allow bats to exit but not re-enter roosts discourage bats from occupying the site.				
BIO-1(h) Preconstruction Surveys for Nesting Birds				
For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the CFGC, the MBTA, and Bald and Golden Eagle Protection Act shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal activities. A qualified biologist shall conduct preconstruction surveys for raptors. The survey for the presence of bald and golden eagles, shall cover all areas within of the disturbance footprint plus a one-mile buffer where access can be secured. The survey area for all other nesting bird and raptor species shall include the disturbance footprint plus a 300-foot and 500-foot buffer, respectively.	If applicable, a survey for nesting birds shall be completed; if necessary, a buffer shall be created.	During project permitting and environmental review; prior to construction activities; during construction activities if required. ornithologist determines a given nest has failed.	Once prior to construction; as needed during construction activities.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer ranging from 50 to 300 feet based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest. The objective of the buffer shall be to reduce disturbance of nesting birds. All buffers shall be marked using high-visibility flagging or fencing, and, unless approved by the qualified biologist, no construction activities shall be allowed within the buffers until the young have fledged from the nest or the nest fails. For bald or golden eagle nests identified during the preconstruction surveys, an avoidance buffer of up to one mile shall be established on a case-by-case basis in consultation with the USFWS and CDFW. The size of the buffer may be influenced by the existing conditions and disturbance regime, relevant landscape characteristics, and the nature, timing, and duration of the expected disturbance. The buffer shall be established between February 1 and September 15; however, buffers may be relaxed earlier than September 15 if a qualified ornithologist determines that a given nest has failed or that all surviving chicks have fledged, and the nest is no longer in use. A report of these preconstruction nesting bird surveys and nest monitoring (if applicable) shall be submitted to the implementing agency for review and approval prior to the start of construction.				
BIO-1 (i) Fence and Signpost Restriction				
Any fencing posts or signs installed temporarily or permanently throughout the course of the project shall have the top three post holes covered or filled with screws or bolts to prevent the entrapment of wildlife, specifically the talons of birds of prey. Also, fencing shall incorporate wildlife friendly design elements, such as smooth wires and having a 6-inch or greater gap above grade. Fencing shall also be designed to be wildlife	Appropriate fencing posts and signage shall be utilized.	Prior to start of construction and as new construction staff start working on project.	Once prior to construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
friendly (e.g., smooth top wire, smooth bottom wire at 6 inches above grade, etc.).				
BIO-1 (j) Worker Environmental Awareness Program (WEAP)				
Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special-status resources that may occur in the project area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting that they have attended the WEAP and understand the information presented to them.	Construction personnel shall attend WEAP training prior to working on the project and receive a fact sheet. Fact sheet to be made available at the project site.	Prior to start of construction and as new construction staff start working on project.	Once prior to construction.	Implementing agencies/ project sponsor.
BIO-2(a) Aquatic Resources Jurisdictional Delineation and Impact Avoidance				
If the results of measure BIO-1(a) indicates projects implemented under the 2022 RTP/SCS occur within or adjacent to wetland, drainages, riparian habitats, or other areas that may fall under the jurisdiction of the CDFW, USACE, and RWQCB, a qualified biologist shall complete an aquatic resources delineation in accordance with the requirement set forth by each agency. The result shall be submitted to the implementing agency, USACE, RWQCB, CDFW as appropriate, for review and approval, and the project shall be designed to minimize impacts to jurisdictional areas to the extent feasible. The delineation shall serve as the basis to identify potentially jurisdictional areas to be protected during construction, through	If applicable, a jurisdictional delineation shall be completed and submitted to the applicable agencies listed in this mitigation measure.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
implementation of the avoidance and minimization identified in measure BIO-2(f). If jurisdictional areas are expected to be impacted, then the RWQCB would require a Waste Discharge Requirements (WDR) permit and/or Section 401 Water Quality Certification (depending upon whether the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the Clean Water Act would likely be required.				
BIO-2(b) Wetland, Drainages, and Riparian Habitat Restoration				
Impacts to jurisdictional drainages, wetlands and riparian habitat shall be mitigated in accordance with the SJMSCP at a minimum ratio of 2:1 preservation plus 1:1 creation for vernal pools within the <i>Vernal Pool Zone</i>, as mapped by the SJMSCP Zone Map, and at least 1:1 creation plus 2:1 preservation for wetlands other than vernal pools (acres of habitat restored to acres impacted) and shall occur on-site or as close to the impacted habitat as possible. A mitigation and monitoring plan shall be developed by a qualified biologist in accordance with the restoration plan component requirements in mitigation measure BIO-1(c) above and shall be implemented for no less than five years after construction of the segment, or until the implementing agency and/or the permitting authority (e.g., CDFW or USACE) has determined that restoration has been successful. Alternatively, mitigation shall be accomplished through purchase of credits from an approved wetlands mitigation bank.	Ensure, if applicable, project plans mitigate impacts to jurisdictional wetlands and riparian habitats at a ratio to fully offset project impacts, as determined by a qualified biologist. Ensure a mitigation and monitoring plan is developed be developed by a qualified biologist.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
BIO-2(c) Landscaping Plan				
If landscaping is proposed for a specific project, a qualified biologist/landscape architect shall prepare a landscape plan for that project. This plan shall indicate the locations and species of plants to be installed. Drought tolerant, locally native plant species shall be used. Noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or California Invasive Plant Council Inventory as moderate to highly invasive species shall not be permitted. Species selected for planting shall be regionally appropriate native species that are known to occur in the adjacent native habitat types.	Retain a qualified biologist/landscape architect, if applicable, to prepare a landscaping plan that includes all requirements in this mitigation measure; species shall be regionally appropriate native species found in adjacent native habitats.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.
BIO-2(d) Sensitive Natural Community Avoidance and Mitigation				
If the results of measure BIO-1(a) indicates projects implemented under the 2022 RTP/SCS would impact sensitive vegetation communities, impacts to sensitive communities shall be avoided through final project design modifications. Bright orange construction fencing shall be placed a minimum of 30 feet outside the edge of areas of sensitive communities that will be retained prior to any initiation of ground disturbance activities and shall remain in place until construction is complete. No vehicles, person, materials, or equipment shall be allowed in protected areas. If the implementing agency determines that sensitive communities cannot be avoided, impacts shall be mitigated on-site or offsite at a ratio of 1:1 for permanently impacted sensitive communities (habitat restored for habitat lost). Temporarily impacted areas shall be restored to pre-project conditions. A Restoration Plan shall be developed by a qualified biologist. The restoration plan shall be implemented for a period of not less than five years. Off-site habitat acquisition and off-site restoration and/or enhancement may be considered if onsite restoration is determined as	If applicable, project plans shall include final project design modifications shall be developed to avoid impacts to sensitive vegetation communities. If avoidance is not possible, impacts shall be mitigated at a ratio to fully offset project impacts, as determined by a qualified biologist. Ensure temporarily impacted areas are restored to pre-project conditions. Ensure a qualified biologist develops a Restoration Plan.	During project permitting and environmental review.	Once following construction and then, when applicable, in accordance with the Restoration Plan.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
unachievable, as long as the off-site proposals result in equal compensatory value. Replacement ratios for off-site mitigation may be different than those required for onsite mitigation. The plan shall include, at a minimum, the same components in accordance with the restoration plan component requirements in mitigation measure BIO-1(c) above.				
BIO-2(e) Invasive Weed Prevention and Management Program				
Prior to start of construction for each project that occurs within or adjacent to native habitats, an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species. The plan shall be submitted to the implementing agency for review and approval. A list of target species shall be included, along with measures for early detection and eradication. The plan, which shall be implemented by the project sponsor, shall also include, but not be limited to, the following measures to prevent the introduction of invasive weed species: ▪ During construction, limit the use of imported soils for fill. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species. ▪ To minimize colonization of disturbed areas and the spread of invasive species, the contractor shall stockpile topsoil and redeposit the stockpiled soil after construction or transport the topsoil to a permitted landfill for disposal. ▪ All erosion control materials, including straw bales, straw wattles, or mulch used on-site must be free of invasive species seed. ▪ Exotic and invasive plant species shall be excluded from any erosion control seed mixes and/or	Retain a qualified biologist to develop an Invasive Weed Prevention and Management Program if project is in or next to native habitats.	During project permitting and environmental review; prior to construction activities; during construction activities.	Once prior to construction; ongoing during construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
landscaping plant palettes associated with the proposed project. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan.				
BIO-2(f) Wetlands, Drainages, and Riparian Habitat Best Management Practices During Construction				
The following best management practices shall be required for development within or adjacent to wetlands, drainages, or riparian habitat: - Access routes, staging and construction areas shall be limited to the minimum area necessary to achieve the project goal and minimize impacts to other waters including locating access routes and ancillary construction areas outside of jurisdictional areas. - To control sedimentation during and after project implementation, appropriate erosion control materials shall be deployed to minimize adverse effects on jurisdictional areas in the vicinity of the project. - Project activities within the jurisdictional areas should occur during the dry season (typically between June 1 and November 1) in any given year, or as otherwise directed by the regulatory agencies. - During construction, no litter or construction debris shall be placed within jurisdictional areas. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site. - Raw cement, concrete, or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic species resulting from project related activities, shall be prevented from	If applicable, ensure project plans incorporate the best management practices listed in this mitigation measure.	During project permitting and environmental review; prior to construction activities; during construction activities.	Once prior to construction; ongoing during construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
contaminating the soil and/or entering wetlands, drainages, or riparian habitat. All refueling, maintenance and staging of equipment and vehicles shall occur at least 100 feet from bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). Prior to the onset of work activities, a plan must be in place for prompt and effective response to any accidental spills.				
BIO-3(a) Project Design for Wildlife Connectivity				
The implementing agency shall implement the following measures. All projects including long segments of fencing and lighting shall be designed to minimize impacts to wildlife. Where fencing or other project components is required for public safety concerns, these project components shall be designed to permit wildlife movement by incorporating design features such as: - A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals; - A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled; - If privacy fencing is required near open space areas, openings at the bottom of the fence measure at least 16 inches in diameter shall be installed at reasonable intervals to allow wildlife movement, or the fence may be installed with the bottom at least 16 inches above the ground level; - If fencing or other project components must be designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate; and	Project plans for projects with fencing and lighting shall be designed to minimize impacts to wildlife. Project plans shall incorporate wildlife crossing structures when a crossing is applicable.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Lighting installed as part of any project shall be designed to be minimally disruptive to wildlife (see mitigation measure AES-3(a) Roadway Lighting for lighting requirements).				
BIO-3 (b) Maintain Connectivity in Drainages				
No permanent structures shall be placed within any drainage or river that would impede wildlife movement (i.e., no hardened caps or other structures in the stream channel perpendicular to stream flow be left exposed or at depth with moderate to high risk for exposure as a result of natural bed scour during high flow events and thereby potentially create impediments to passage). In addition, upon completion of construction within any drainage, areas of stream channel and banks that are temporarily impacted shall be returned to pre-construction contours and in a condition that allows for unimpeded passage through the area once the work has been complete. If water is to be diverted around work sites, a diversion plan shall be submitted to SJCOG and/or local jurisdiction for review and approval prior to issuance of project construction permits/approvals. The diversion shall be designed in a way as to not impede movement while the diversion is in place.	Ensure construction plans and building plans avoid placement of permanent structures in drainages or rivers such that wildlife movement would be impeded. Ensure temporary impacts to stream channels are restored. If applicable, ensure a diversion plan is provided for the project.	During project permitting and environmental review. Ensure temporary impacts to stream channels are restored after construction is completed.	Once.	Implementing agencies/ project sponsor.
BIO-3 (c) Construction Best Management Practices to Minimize Disruption to Wildlife				
The following construction best management practices shall be incorporated by the implementing agency into all grading and construction plans to minimize temporary disruption of wildlife, which could hinder wildlife movement: - Daily construction work schedules shall be limited to daylight hours only. Designation of a 20 mile per hour speed limit in all construction areas. - Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition.	Ensure construction plans incorporate best management practices to minimize disruption to wildlife.	During project permitting and environmental review; prior to issuance of grading and construction permits.	Periodically during construction	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
- All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week. - No pets are permitted on project site during construction.				
Cultural Resources				
CR-1 Built Environment Historical Resources Impact Minimization				
Prior to the issuance of an individual project permit, the implementing agency of a 2022 RTP/SCS project involving a building or structure over 45 years of age shall prepare a map defining the project area. This map shall indicate the areas of disturbance associated with construction and operation of the facility and will help in determining whether known and potential historical resources are located within the project area. If a building or structure greater than 45 years in age is within the identified impact zone, a survey and evaluation of the building(s) and/or structure(s) to determine their eligibility for recognition under State, federal, or local historic resource designation criteria shall be conducted. The evaluation shall be prepared by an architectural historian or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards (PQS) as defined in 36 CFR Part 61. All buildings and structures 45 years of age or older within the project area shall be evaluated in their historic context and documented in a report meeting the State Office of Historic Preservation guidelines. All evaluated properties shall be documented on Department of Parks and Recreation Series 523 Forms. The report shall be submitted to the implementing agency for review and concurrence. If historical resources are identified within the project area of a proposed development, efforts shall be made to the extent feasible to ensure that impacts are mitigated. Application of mitigation shall generally be	Prepare a map defining the Area of Potential Effects. Retain an architectural historian, or historical architect, to determine eligibility of structure for recognition under state, federal, or local historic preservation criteria, if applicable.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
overseen by a qualified architectural historian or historic architect meeting the PQS, unless unnecessary in the circumstances (e.g., preservation in place). In conjunction with any development application that may affect the historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the implementing agency for review. To the greatest extent possible to ensure that the relocation, rehabilitation, or alteration of the resource is consistent with the Secretary of the Interior’s Standards for the Treatments of Historic Properties (Standards). In accordance with CEQA, a project that has been determined to conform with the Standards generally would not cause a significant adverse direct or indirect impact to historical resources (14 CCR § 15126.4(b)(1)). Application of the Standards shall be overseen by a qualified architectural historian or historic architect meeting the PQS. In conjunction with any development application that may affect the historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the implementing agency for review and concurrence. If significant historical resources are identified on a development site and compliance with the Standards and/or avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. Mitigation measures may include documentation of the historical resource in the form of a Historic American Building Survey-Like report. The report shall comply with the Secretary of the Interior’s Standards for Architectural and Engineering Documentation and shall generally follow the HABS Level III requirements, including digital photographic recordation, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
or historian who meets the PQS and submitted to the implementing agency prior to issuance of any permits for demolition or alteration of the historical resource. Copies of the report shall be provided to a local library and/or other appropriate repositories.				
CR-2(a) Archaeological Resources Impact Minimization				
Before construction activities, implementing agencies shall retain a qualified archaeologist to conduct a record search at the Central California Information Center to determine whether the project area has been previously surveyed and whether resources were identified. When recommended by the Information Center, implementing agencies shall retain a qualified archaeologist to conduct archaeological surveys before construction activities. Implementing agencies shall, or can and should, follow recommendations identified in the survey, which may include, but would not be limited to: subsurface testing, designing and implementing a Worker Environmental Awareness Program (WEAP), construction monitoring by a qualified archaeologist, or avoidance of sites and preservation in place, and/or data recovery if avoidance is not feasible. Recommended mitigation measures shall be consistent with CEQA Guidelines Section 15126.4(b)(3) recommendations and may include but not be limited to preservation in place and/or data recovery. All cultural resources work shall follow accepted professional standards in recording any find including submittal of standard DPR Primary Record forms (Form DPR 523) and location information to the appropriate California Historical Resources Information System office for the project area.	Retain a qualified archaeologist to conduct a record search to determine whether the project area has been previously surveyed and whether resources were identified. Implement recommendations identified in the survey. Project construction plans shall include required components to stop work if archaeological resources are uncovered.	During project permitting and environmental review; prior to construction activities; during construction activities.	Ongoing throughout construction.	Implementing agencies/ project sponsor.
CR-2(b) Unanticipated Discoveries During Construction				
During construction activities, implementing agencies shall, or can and should, implement the following measures. If evidence of any prehistoric or historic-era subsurface archaeological features, deposits or tribal cultural resources are discovered during construction-	Place conditions of approval on project to ensure that if archaeological resources are uncovered work is halted until the procedures described in this mitigation measure have been completed.	During project permitting and environmental review; prior to construction	Ongoing throughout construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
related earthmoving activities (e.g., ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity proximate to the discovery shall be halted until a qualified archaeologist (36 CFR Section 61) can assess the significance of the find. If the find is a prehistoric archaeological site, the appropriate Native American group shall be notified. If the archaeologist determines that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, a testing plan shall be prepared and implemented. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the implementing agency to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics and other factors, shall recommend additional measures such as the preparation and implementation of a data recovery plan. All cultural resources work shall follow accepted professional standards in recording any find including submittal of standard DPR Primary Record forms (Form DPR 523) and location information to the appropriate California Historical Resources Information System office for the project area. If the find is a prehistoric archaeological site, the culturally affiliated California Native American tribe shall be notified and afforded the opportunity to monitor mitigative treatment. During evaluation or mitigative treatment, ground disturbance and construction work could continue in other parts of the project area that are distant enough from the find not to impact it, as determined by the qualified archaeologist.		activities; during construction activities.		

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Geology and Soils				
GEO -5 Paleontological Resources Mitigation and Monitoring Program				
The implementing agency of a proposed 2022 RTP/SCS project involving ground disturbing activities (including grading, trenching, foundation work and other excavations) shall, or can and should, retain a qualified paleontologist, defined as a paleontologist who meets the Society of Vertebrate Paleontology (SVP) standards for Qualified Professional Paleontologist (SVP 2010), to conduct a Paleontological Resources Assessment (PRA). The PRA shall determine the age and paleontological sensitivity of geologic formations underlying the proposed disturbance area, consistent with SVP Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (SVP 2010) guidelines for categorizing paleontological sensitivity of geologic units within a project area. If underlying formations are found to have a high potential (sensitivity) for paleontological resources and/or could be considered a unique geologic feature, the following measures shall apply: ▪ Avoidance. Avoid routes and project designs that would permanently alter unique paleontological and geological features. If avoidance practices cannot be implemented, the following measures shall apply. ▪ Retention of a Qualified Paleontologist. A Qualified Paleontologist shall be retained to create a Paleontological Resources Monitoring and Mitigation Program (PRMMP) to direct all mitigation measures related to paleontological resources. The Qualified Paleontologist shall meet the qualifications for a Qualified Professional Paleontologist, which is defined by the SVP as an individual, preferably with an M.S. or Ph.D. in paleontology or geology, who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological	Retain a qualified paleontologist to conduct a PRA. Place conditions of approval on project to ensure procedures described in this mitigation measure are completed before and throughout construction, if the project area is underlying high sensitivity or unique geologic features.	During project permitting and environmental review; prior to construction activities; during construction activities.	Ongoing throughout construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
mitigation project supervisor for a least two years (SVP 2010). ▪ Paleontological Worker Environmental Awareness Program (WEAP). Prior to the start of ground disturbance activity, construction personnel shall be informed on the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. ▪ Paleontological Monitoring. Paleontological monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources and meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor. The duration and timing of the monitoring will be determined by the Qualified Paleontologist based on the observation of the geologic setting from initial ground disturbance. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions once the full depth of excavations has been reached, they may recommend that monitoring be reduced to periodic spot-checking or ceased entirely. Monitoring shall be reinstated if any new ground disturbances are required, and reduction or suspension shall be reconsidered by the Qualified Paleontologist at that time. In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. A Qualified Paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the Qualified Paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▪ Fossil Salvage. If fossils are discovered, the implementing agency shall be notified immediately, and the qualified paleontologist (or paleontological monitor) shall recover them. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. ▪ Preparation and Curation of Recovered Fossils. Once salvaged, fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps. ▪ Final Paleontological Mitigation and Monitoring Report. Upon completion of ground disturbing activity (and curation of fossils, if necessary) the Qualified Paleontologist shall prepare a final mitigation and monitoring report outlining the results of the PRMMP. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated. The report shall be submitted to the sponsor agency. If the monitoring efforts recovered fossils, then a copy of the report shall also be submitted to the designated museum repository				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Greenhouse Gas Emissions and Climate Change				
GHG –1 Construction GHG Reduction Measures.				
The project sponsor shall incorporate the most recent GHG emission reduction measures for off-road construction vehicles during construction. The measures shall be noted on all construction plans, and the implementing agency shall perform periodic site inspections. Current GHG-reducing measures include the following: ▪ Use of diesel construction equipment meeting CARB's Tier 4 certified engines wherever feasible for off-road heavy-duty diesel engines and comply with the State Off-Road Regulation. Where the use of Tier 4 engines is not feasible, Tier 3 certified engines shall be used; where the use of Tier 3 engines are not feasible, Tier 2 certified engines shall be used; ▪ Use of on-road heavy-duty trucks that meet CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation; ▪ Minimizing idling time (e.g., five-minute maximum). Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the five-minute idling limit; ▪ Use of electric-powered equipment in place of diesel-powered equipment when feasible; ▪ Use of alternatively fueled or catalyst-equipped diesel construction equipment when feasible, to the extent electric powered equipment is not feasible; ▪ Substitute gasoline-powered in place of diesel-powered equipment, when neither electric-powered equipment or alternatively fueled or catalyst-equipped diesel equipment is feasible; and ▪ Project proponents shall incentivize that construction workers carpool, and/or use electric vehicles to commute to and from the project site.	Ensure construction plans specify construction equipment is subject to the CARB Regulation for In-use Off-road Diesel Vehicles and, if feasible, construction equipment meets Tier 4 standards; or at least Tier 2 standards; and perform periodic site inspections. Ensure periodic site inspections are conducted.	During project permitting and environmental review	Once during project plan review; periodically during construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Incentives for construction workers to carpool and/or use electric vehicles to commute to and from the project site.				
GHG-2 Land Use Project Energy Consumption and Water Use Reduction Measures				
For land use projects under their jurisdiction, cities and the County can and should implement measures to reduce energy consumption, water use, solid waste generation, and VMT, all of which contribute to GHG emissions. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures include, but are not limited to: - Require new residential and commercial construction to install solar energy systems or be solar-ready - Require new residential and commercial development to install low flow water fixtures - Require new residential and commercial development to install water-efficient drought-tolerant landscaping, including the use of compost and mulch - Require new development to exceed the applicable Title 24 energy-efficiency requirements - Require new development to be fully electric - Require new residential and commercial development to offer information on recycling, composting, and disposal of household hazardous waste and e-waste - Require new development to implement circulation design elements in parking lots for non-residential uses to reduce vehicle queuing and improve the pedestrian environment	Use project-level analysis of energy consumption, solid waste generation, and water use and incorporate mitigation measures as needed to specifications described in measure. Place conditions of approval on the project requiring energy- and water-saving measures.	During project permitting and environmental review.	Once during project-level environmental review and discretionary approval decisions for land use projects. Once prior to issuance of an occupancy permit.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
GHG-4 Transportation-Related GHG Reduction Measures				
The implementing agency shall incorporate the most recent GHG emission reduction measures and/or technologies for reducing VMT and associated transportation related GHG emissions. Current GHG-reducing measures include the following: ▪ Installation of electric vehicle charging stations beyond those required by State and local codes ▪ Utilization of electric vehicles and/or alternatively fueled vehicles in company fleet ▪ Provision of dedicated parking for carpools, vanpool, and clean air vehicles ▪ Provision of vanpool and/or shuttle service for employees ▪ Implementation of reduced parking minimum requirements ▪ Implementation of maximum parking limits ▪ Provision of bicycle parking facilities beyond those required by State and local codes ▪ Provision of a bicycle-share program ▪ Expansion of bicycle routes/lanes along the project site frontage ▪ Provision of new or improved transit amenities (e.g., covered turnouts, bicycle racks, covered benches, signage, lighting) if project site is located along an existing transit route ▪ Expansion of existing transit routes ▪ Provision of transit subsidies ▪ Expansion of sidewalk infrastructure along the project site frontage ▪ Provision of safe, pedestrian-friendly, and interconnected sidewalks and streetscapes ▪ Provision of employee lockers and showers	Place conditions of approval on the requirement of implementation of GHG and/or VMT reduction measures described in this mitigation.	During project permitting and environmental review.	Once during project-level environmental review and discretionary approval decisions for land use projects	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
- Provision of on-site services that reduce the need for off-site travel (e.g., childcare facilities, automatic teller machines, postal machines, food services) - Provision of alternative work schedule options, such as telework or reduced schedule (e.g., 9/80 or 10/40 schedules), for employees - Implementation of transportation demand management programs to educate and incentivize residents and/or employees to use transit, smart commute, and alternative transportation options				
Hazards and Hazardous Materials				
HAZ-3 Site Remediation				
If an individual project included in the 2022 RTP/SCS is located on or near a hazardous material and/or waste site pursuant to Government Code Section 65962.5 or has the potential for residual hazardous materials and/or waste as a result of location and/or prior uses, the project sponsor shall prepare a Phase I ESA in accordance with the American Society for Testing and Materials' E-1527-05 standard. For work requiring any demolition or renovation, the Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done. All recommendations included in a Phase I ESA prepared for a site shall be implemented. If a Phase I ESA indicates the presence or likely presence of contamination, the implementing agency shall require a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented. Examples of typical recommendations provided in Phase I/II ESAs include removal of contaminated soil in accordance with a soil management plan approved by the local environmental health department; covering stockpiles of contaminated soil to prevent fugitive dust emissions; capturing groundwater encountered during construction in a holding tank for additional testing and characterization and disposal based on its characterization; and	Where applicable, prepare a Phase I ESA meeting the specifications of this mitigation measure. Place conditions of approval on project requiring incorporation of recommendations of the Phase I ESA, and if applicable, Phase II ESA.	During project permitting and environmental review.	Once prior to issuing grading or demolitions permits; periodically during construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
development of a health and safety plan for construction workers. For any project located on or near sites that are not listed and do not have the potential for residual hazardous materials as a result of historic land uses, no action is required unless unknown hazards are discovered during development. In that case, the implementing agency shall discontinue development until DTSC, RWQCB, SJVAPCD, and/or other responsible agency issues a determination, which would likely require a Phase I ESA as part of the assessment.				
Hydrology and Water Quality				
HYD -2(a) Construction Dust Suppression Water Supply				
For all proposed 2022 RTP/SCS projects, where feasible, reclaimed and/or recycled water shall be used for dust suppression during construction activities. This includes use of such reclaimed water in water trucks utilized for project construction occurring outside developed areas and away from water infrastructure which would otherwise provide such reclaimed water. It should be noted that use of reclaimed water in water trucks is generally no different than use of potable water, and therefore use of reclaimed water in projects that will require the use of water trucks should be given extra consideration as a measure which can enable use of reclaimed water in areas where it would otherwise be impossible due to lack of infrastructure. This measure shall be noted on construction plans and shall be spot checked by the local jurisdiction.	Place conditions of approval of individual projects on the implementation of mitigation detailed in this measure.	During project permitting and environmental review; during construction.	Ongoing throughout construction.	Implementing agencies/ project sponsor.
HYD -2(b) Landscape Watering				
In jurisdictions that do not already have an appropriate local regulatory program related to landscape watering, or for proposed 2022 RTP/SCS projects that are not required to comply with AB 1881, projects that include landscaping shall be designed with drought tolerant plants and drip irrigation. When feasible, native plant	If applicable, place conditions of approval on the inclusion of landscaping features described in this mitigation.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
species shall be used. In addition, landscaping associated with proposed improvements shall be maintained using reclaimed water when feasible. If reclaimed water could feasibly be utilized for project landscape watering due to proximity of reclaimed water sources but is unavailable due to lack of connecting infrastructure, local agencies or transportation sponsors shall conduct an analysis of the upgrades needed to provide such infrastructure, which will include the potential for new connections to existing reclaimed water systems to provide reclaimed water to other nearby sources besides the proposed project in the analysis, and shall perform such steps as necessary to utilize available reclaimed water if feasible.				
Noise				
N -1 Construction Noise Reduction				
To reduce construction noise levels to achieve applicable standards, implementing agencies for transportation and land use projects shall implement the measures identified below where feasible and necessary. a. Compliance with local Construction Noise Regulations. Implementing agencies shall ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites without pile driving, appropriate measures shall be implemented to ensure consistency with local noise ordinance requirements relating to construction. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise. b. Noise Complaint and Enforcement Manager. Designate an on-site construction complaint and enforcement manager for projects within 800 feet of sensitive receivers. Implementing agencies shall post	Ensure consistency with local noise ordinance requirements relating to construction for sensitive uses. Place conditions of approval on project to require construction noise reduction measures detailed in this mitigation.	During project permitting and environmental review; prior to construction; during construction activities.	Ongoing throughout construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
phone numbers for the on-site enforcement manager at construction sites along with complaint procedures and who to notify in the event of a problem. c. Pile Driving. For any project within 3,200 feet of sensitive receptors that requires pilings, the implementing agency shall require caisson drilling or sonic pile driving as opposed to pile driving, where feasible. This shall be accomplished through the placement of conditions on the project during its individual environmental review. d. Construction Equipment Noise Control. Implementing agencies shall ensure that equipment and trucks used for project construction utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds). e. Impact Equipment Noise Control. Implementing agencies shall ensure that impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, use of an exhaust muffler on the compressed air exhaust can lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment can achieve a reduction of 5 dBA. Whenever feasible, use quieter procedures, such as drilling rather than impact equipment operation. f. Construction Activity Timing Restrictions. The following timing restrictions shall apply to proposed 2022 RTP/SCS activities creating noise levels at or above 65 dBA at a nearby dwelling unit, except where timing restrictions are already established in				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
local codes or policies. Construction activities shall be limited to: - Monday through Friday: 7 a.m. to 6 p.m. - Saturday: 9 a.m. to 5 p.m. g. Placement of Stationary Noise Sources. Locate stationary noise sources as far from noise-sensitive receptors as possible. Stationary noise sources that must be located near existing receptors will be equipped with the best available mufflers				
N -2 Noise Assessment and Control for Mobile and Point Source Reduction				
Implementing agencies for 2022 RTP/SCS projects shall complete detailed noise assessments using applicable guidelines (e.g., Caltrans Traffic Noise Analysis Protocol) for roadway projects that may impact noise sensitive receptors. The implementing agency shall ensure that a noise survey is conducted that, at minimum: - Determines existing and projected noise levels - Determines the amount of attenuation needed to reduce potential noise impacts to applicable State and local standards - Identifies potential alternate alignments that allow greater distance from, or greater buffering of, noise-sensitive areas - If warranted, recommends methods for mitigating noise impacts, including: - Appropriate setbacks - Sound attenuating building design, including retrofit of existing structures with sound attenuating building materials - Use of sound barriers (earthen berms, sound walls, or some combination of the two) - Locate transit-related passenger stations, central maintenance facilities, decentralized maintenance facilities, and electric substations	Prior to issuance of grading or building permits, ensure noise assessments have been completed. Place conditions of approval to require implementation of recommendations in project-specific noise assessments.	During project permitting and environmental review.	Once	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
away from sensitive receptors to the maximum extent feasible. Where new or expanded roadways or transit are found to expose receptors to noise exceeding normally acceptable levels, the individual project lead agency shall implement techniques as recommended in the project-specific noise assessments. The preferred methods for mitigating noise impacts shall include the use of appropriate setbacks and sound attenuating building design, including retrofit of existing structures with sound attenuating building materials where feasible. In instances where use of these techniques is not feasible, the use of sound barriers (earthen berms, sound walls, or some combination of the two) shall be considered. Long expanses of walls or fences may be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls may be provided. Whenever possible, a combination of elements shall be used, including open grade paving, solid fences, walls, and landscaped berms. Other techniques such as rubberized asphalt or “quiet pavement” shall be used where feasible to reduce road noise for new roadway segments or modifications requiring repaving. The effectiveness of noise reduction measures shall be monitored by taking noise measurements and installing adaptive mitigation measures to achieve applicable standards				
N-3 (a) Vibration Mitigation for Construction of Transportation Projects				
Where local vibration and groundborne noise standards do not apply, implementing agencies of proposed 2022 RTP/SCS projects utilizing heavy construction equipment shall estimate vibration levels generated by construction activities and use the Caltrans vibration damage potential threshold criteria to screen for and screen out projects as to their potential to damage buildings on site or near a project.	If applicable, place conditions of approval on project to require construction noise reduction measures detailed in this mitigation.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
If construction equipment would generate vibration levels exceeding acceptable levels as established by Caltrans, implementing agencies of the proposed 2022 RTP/SCS shall, or can and should, complete the following tasks: ▪ Prior to construction, survey the project site for vulnerable buildings, and complete geotechnical testing (preconstruction assessment of the existing subsurface conditions and structural integrity), for any older or historic buildings within 50 feet of pile driving. The testing shall be completed by a qualified geotechnical engineer and qualified historic preservation professional and/or structural engineer. ▪ Prepare and submit a report to the lead agency that contains the results of the geological testing. If recommended by the preconstruction report implementing agencies shall require ground vibration monitoring of nearby historic structures. Methods and technologies shall be based on the specific conditions at the construction site. The preconstruction assessment shall include a monitoring program to detect ground settlement or lateral movement of structures in the vicinity of pile-driving activities and identify corrective measures to be taken should monitored vibration levels indicate the potential for building damage. In the event of unacceptable ground movement with the potential to cause structural damage, all impact work shall cease, and corrective measures shall be implemented to minimize the risk to the subject, or adjacent, historic structure. ▪ To minimize disturbance withing 550 feet of pile-driving activities, implement “quiet” pile-driving technology, such as predrilling of piles and the use of more than one pile driver to shorten the duration of pile driving), where feasible, in consideration of geotechnical and structural requirements and				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
conditions as defined as part of the geotechnical testing if testing was feasible. ▪ Use cushion blocks to dampen noise from pile driving. ▪ Phase operations of construction equipment to avoid simultaneous vibration sources				
N-3(b) Vibration Mitigation for Operation of Transportation Projects				
Where local vibration and groundborne noise standards do not apply, implementing agencies of proposed 2022 RTP/SCS projects shall comply with all applicable local vibration and groundborne noise standards, or in the absence of such local standards, comply with guidance provided by the FTA in Transit Noise and Vibration Impact Assessment (FTA 2018) to assess impacts to buildings and sensitive receptors and reduce vibration and groundborne noise. FTA recommended thresholds shall be used except in areas where local standards for groundborne noise and vibration have been established. Methods that can be implemented to reduce vibration and groundborne noise impacts include, but are not limited to: ▪ Bus and Truck Traffic ▫ Constructing of noise barriers ▫ Use noise reducing tires and wheel construction on bus wheels ▫ Use vehicle skirts (i.e., a partial enclosure around each wheel with absorptive treatment) on freight vehicle wheels	Prior to issuance of grading or building permits, ensure noise assessments have been completed. Place conditions of approval to require implementation of recommendations in project-specific noise assessments.	During project permitting and environmental review	Once.	Implementing agencies/ project sponsor.
N-4 Noise Mitigation for Land Uses				
If a 2022 RTP/SCS land use project is located in an area with exterior ambient noise levels above local noise standards, the implementing agency shall ensure that a noise study is conducted to determine the existing exterior noise levels in the vicinity of the project. If the project would be impacted by ambient noise levels, feasible attenuation measures shall be used to reduce	Comply with all applicable local and/or FTA vibration and groundborne noise standards.	During project permitting and environmental review.	Open during project operation.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
operational noise to meet acceptable standards. In addition, noise insulation techniques shall be utilized to reduce indoor noise levels to thresholds set in applicable State and/or local standards. Such measures may include but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and situating exterior doors away from roads. The noise study and determination of appropriate mitigation measures shall be completed during the project's individual environmental review.				
Transportation				
T -2(a) Regional VMT Reduction Programs				
Implementing agencies shall require implementation of VMT reduction strategies through TDM programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, and other land use project conditions that reduce VMT. Programs shall be designed to reduce VMT from existing land uses, where feasible, and from new discretionary residential or employment land use projects. The design of programs and project specific mitigation shall focus on VMT reduction strategies that increase travel choices and improve the comfort and convenience of sharing rides in private vehicles, using public transit, biking, or walking. Modifications may include but are not limited to:	Require the inclusion VMT reduction strategies included in this mitigation measure at a program and project-level.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.
▪ Provide car-sharing, vanpool, bike sharing, and ride-sharing programs ▪ Implement or provide access to commute reduction programs ▪ Provide a bus rapid transit system ▪ Improve pedestrian or bicycle networks, or transit service ▪ Provide transit passes ▪ Encourage telecommute programs				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▪ Incorporate affordable housing into the project ▪ Provide incentives to purchase electric vehicles ▪ Construct intelligent transportation system management/intelligent transportation system (TSM/ITS) measures such as ramp metering, signalization of intersections, and changeable message signs ▪ Provide a VMT mitigation bank or exchange program ▪ Increase density ▪ Increase mixed uses within the project area ▪ Incorporate improved pedestrian connections within the project/neighborhood ▪ Incentivize development in low VMT communities ▪ Incentivize housing near commercial and offices ▪ Increase access to goods and services, such as groceries, schools, and daycare ▪ Incorporate neighborhood electric vehicle network ▪ Orient the project toward transit, bicycle, and pedestrian facilities ▪ Provide traffic calming ▪ Provide bicycle parking ▪ Limit parking ▪ Separate out parking costs ▪ Provide parking cash-out programs				
Tribal Cultural Resources				
TRC-1(a) Identified Tribal Cultural Resources Impact Minimization				
Transportation project sponsor agencies shall comply with AB 52, which may require formal tribal consultation. If the implementing agency determines that a project may cause a substantial adverse change to a tribal cultural resource, they shall implement mitigation measures identified in the consultation process required under PRC Section 21080.3.2, or shall implement the following measures where feasible to	Ensure compliance with AB 52; and when applicable, implement measures identified in this mitigation measure.	During project permitting and environmental review. Additional measures listed should be implemented prior to and during construction.	Ongoing throughout project construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
avoid or minimize the project-specific significant adverse impacts: - Avoidance and preservation of the resources in place, including, but not limited to: designing and building the project to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria. - Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values, and meaning of the resource, including, but not limited to, the following: - Protecting the cultural character and integrity of the resource - Protecting the traditional use of the resource - Protecting the confidentiality of the resource - Establishment of permanent conservation easements or other culturally appropriate property management criteria for the purposes of preserving or utilizing the resources or places. - Native American monitoring by the appropriate tribe during soil disturbance for all projects in areas identified as sensitive for potential tribal cultural resources and/or in the vicinity (within 100 feet) of known tribal cultural resources.				
TRC-1(b) Unanticipated Tribal Cultural Resources Impact Minimization				
If unanticipated potential tribal cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and the appropriate tribal representative(s), the implementing agency, and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service [NPS] 1983) shall be contacted immediately to evaluate the find. If, in consultation with the implementing agency, the archaeologist and/or	Ensure that all construction activities come to a halt and appropriate agencies/representatives are contacted; implement mitigation plan.	During project permitting and environmental review.	Open during project operation.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
tribal representative determines the discovery to be a tribal cultural resource and thus, significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with tribal representatives. If the resource cannot be avoided, a mitigation plan shall be developed to address tribal concerns.				
Wildfire				
WF-1 (a) Wildfire Risk Reduction				
If an individual transportation or land use project included in proposed 2022 RTP/SCS is located within or less than two miles from an SRA or very high fire hazard severity zones, the implementing agency shall require appropriate mitigation to reduce the risk. Examples of mitigation to reduce risk of loss, injury or death from wildlife include, but are not limited to: ▪ Require the use of fire-resistant vegetation native to San Joaquin County and/or the local microclimate of the project site and discourage the use of fire-prone species especially nonnative, invasive species. ▪ Enforce defensible space regulations to keep overgrown and unmanaged vegetation, accumulations of trash and other flammable material away from structures. ▪ Provide public education about wildfire risk, fire prevention measures, and safety procedures and practices to allow for safe evacuation and/or options to shelter-in-place. ▪ Require adherence to the local hazard mitigation plan, as well as the local general plan policies and programs aimed at reducing the risk of wildfires through land use compatibility, training, sustainable development, brush management, public outreach, and service standards for fire departments. ▪ Ensure sufficient emergency water supply.	If a project is within two miles of an SRA or VHFHSZ, implement mitigation described in this measure, such as maintaining and enforcing defensible space.	During project permitting and environmental review	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
- Encourage the use of fire-resistant vegetation native to San Joaquin County and/or the local microclimate of the project site and discourage the use of fire-prone species especially non-native, invasive species. - Require a fire safety plan be submitted to and approved by the local fire protection agency. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. The local fire protection agency may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase of the project. - Prohibit certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location. Example activities that should be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings. - Require fire extinguishers to be onsite during construction of projects. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher. - Smoking and open fires shall be prohibited at individual transportation or land use projects sites included in the proposed 2022 RTP/SCS during construction and operations. A copy of the notification to all contractors regarding prohibiting smoking and burning shall be provided to the County.				
WF -1 (b) Fire Protection Plan				
Individual transportation or land use projects included in the 2022 RTP/SCS shall prepare a Fire Protection Plan that meets Fire Prevention Bureau of San Joaquin	If a project is within two miles of an SRA or VHFHSZ, implement mitigation described in this measure, such as a fire watch with appropriate firefighting equipment.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
County requirements. The plan shall contain (but not be limited to) the following provisions: ▪ All construction equipment shall be equipped with appropriate spark arrestors and carry fire extinguishers. ▪ A fire watch with appropriate firefighting equipment shall be available at the Project site at all times when welding activities are taking place. Welding shall not occur when sustained winds exceed that set forth by the Fire Prevention Bureau of San Joaquin County unless a Fire Prevention Bureau of San Joaquin County -approved wind shield is on site. ▪ A vegetation management plan shall be prepared to address vegetation clearance around all Wind Turbine Generators (WTGs) and a regularly scheduled brush clearance of vegetation on and adjacent to all access roads, power lines, and other facilities. ▪ Operational fire water tanks shall be installed prior to construction. ▪ Provisions for fire/emergency services access if roadway blockage occurs due to large loads during construction and operation ▪ Cleared, maintained parking areas shall be designated; no parking shall be allowed in non-designated areas. ▪ The need for and/or use of dedicated repeaters for emergency services. ▪ Appropriate Hot work permits (such as cutting and welding permits) shall be obtained from the jurisdictional fire agency. ▪ Compliance with California PRC 4291, 4442, and 4443				