

2022 Regional Transportation Plan/ Sustainable Communities Strategy

Final Program Environmental Impact Report
SCH# 20211100331

prepared by

Kings County Association of Governments
339 West D Street, Suite B
Lemoore, California 93245
Contact: Terri King, Executive Director

prepared with the assistance of

Rincon Consultants, Inc.
7080 North Whitney Avenue, Suite 101
Fresno, California 93720

September 2022

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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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 Kings County Association of Governments (KCAG) 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, KCAG, 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 July 15, 2022. The public comment period closed on August 29, 2022. The Draft EIR was made available on the KCAG website. Additional options were made available to the public to view the Draft EIR by contacting KCAG, 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), KCAG will consider certifying the Final EIR as having been prepared in compliance with CEQA. Following Final EIR certification, KCAG 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 Kings County Association of Governments (KCAG) proposed 2022 Regional Transportation Plan Sustainable Communities Strategy (2022 RTP/SCS) ("Plan" or "project").

The Draft EIR was circulated for a 45-day public review period that began on July 15, 2022 and ended on August 29, 2022. KCAG received one comment letter on the Draft EIR. The commentor and date of the letter is listed below.

Letter/Comment No.	Commenter	Date
1	David Padilla, Chief Transportation Planning, California Department of Transportation, District 6 Office	8/10/2022

Written responses to each comment received on the Draft EIR are provided in this section. The letter received during the public review period on the Draft EIR is provided in its entirety. The comment letter has been numbered sequentially and each separate issue raised by the commentor has been assigned a number. The responses to each comment are assigned a number (Response 1.2, for example, indicates that the response is for the second issue raised in comment Letter 1).

No edits to the DEIR were required based on comments received from Caltrans.

California Department of Transportation

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August 10, 2022

DRAFT 2022 RTP/SCS
DRAFT Program EIR
REVIEW LETTER

Sent via email

Letter 1

Ms. Terri King
Executive Director
Kings County Association of Governments
339 W. D Street, Suite B
Lemoore, CA 93245

Dear Ms. King:

Thank you for the opportunity to review the Kings County Association of Governments' (KCAG) Draft 2022-2046 Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS), Draft Environmental Impact Report (EIR), Federal Transportation Improvement Program (FTIP) and Air Quality Conformity Analysis. Caltrans, at District 6 and various divisions within our department have reviewed the Draft RT/SCS, Draft Environmental Impact Report (EIR), Federal Transportation Improvement Program (FTIP) and Air Quality Conformity Analysis and collectively offers the following comments.

TRANSPORTATION PLANNING-DISTRICT 6

KCAG has demonstrated a strong commitment to support their 20-year planning horizon with a focus on promoting the safe and efficient development, management and operation of surface transportation systems to serve the mobility needs of people and freight (with the inclusion of meeting the needs of American with Disabilities Act requirements, accessible pedestrian walkways, bicycle transportation facilities), fostering economic growth and development, while minimizing transportation-related fuel consumption, air pollution and greenhouse emissions for the region. 1.1

KCAG addressed the four main required elements: Policy Element, Sustainable Communities Strategy (SCS), Action Element and Financial Element which conforms to the RTP Guidelines adopted by the California Transportation Commission (CTC) pursuant to Government Code 65080(d). Public workshops were held in July 2022, to demonstrate the effectiveness of each strategy. The feedback of the workshop will be presented in August 2022, to KCAG's technical committees, stakeholder committee members and the KCAG Board to select a preferred scenario for 2022 RTP/SCS.

KCAG RTP is designed to comply with the 2017 Regional Transportation Plan Guidelines for Metropolitan Planning Organizations which was adopted by the California Transportation Commission (CTC) in 2017.

KCAG has encouraged public participation at every stage of the planning process. KCAG sustains the on-going partnership with federal, state, local partners, and stakeholders to consult and cooperate with the public to assist in understanding issues, options, and solutions. On January 26, 2022, KCAG adopted an updated version of their Supplemental Public Participation Plan for the RTP/SCS; which provided a detailed approach to obtain public participation during each step of the RTP process.

Caltrans recommends priority be given to actions that reduce vehicle miles traveled (VMT) to further reduce the region's greenhouse gas (GHG) emissions productions and that would serve to protect the state's most vulnerable populations such as Disadvantaged Communities.

Caltrans supports health-promoting policies that encourage more transit-oriented development, active transportation, bicycling and walking that addresses safety, VMT/GHG reduction, and overall quality of life and public health. Policies and programs of this nature can foster more accessible, more livable, and healthier communities, especially vulnerable communities. 1.1 cont.

The RTP is consistent in demonstrating programming and operations. Identifying funding and revenue sources and listing constrained and unconstrained projects. The RTP provided projections from federal, state, and local governmental funding, distinguishing between formula funding and competitive funding source, during the 24-year planning process of the RTP. Through the Financial elements, funding of revenue sources is outlined for the region's planned transportation investments. Ongoing operations and maintenance through resources from FAST Act, CMAQ, Senate Bill 1 (SB1); (the Road Repair and Accountability Act of 2017), Proposition 42, and miscellaneous funding Covid-19 Relief Bill, Cares Act, the American Rescue Plan and CRRSSEA; which will be available for the next few fiscal years has been identified and is included in the funds that will be available for KCAG use.

Draft RTP/SCS, Chapter 3, page 27:

Regional Transit Objectives section: Providing incentives to increase transit ridership should be considered. 1.2

Draft RTP/SCS, Chapter 3, page 30:

Active Transportation Policy section: Recommendation: The County may consider creating a VMT Mitigation Impact fee program so that future land development projects can pay into to mitigate their fair share. This fair share mitigation bank can provide funding for future transportation projects such as active transportation infrastructure or increased transit. 1.3

Draft RTP/SCS, Chapter 3, page 31:

Number 14: DD-64-R2 has been replaced with Director's Policy (DP)-37. More information can be found at https://dot.ca.gov/news-releases/news-release-2021-039 1.4

Draft Program Environmental Impact Report, Transportation, page 400, Regulatory Setting, 4-13-2:

"Within the proposed 2022 RTP/SCS, approximately $67 million in KART and CAT investments are planned, with a majority of funds invested toward decreasing greenhouse gas emissions through the purchase of zero-emission busses and other required infrastructure."

Caltrans applauds KCAG for including plans towards a zero-emission fleet in addition to infrastructure supporting the use of zero emission vehicles. It should be noted that the placement of the infrastructure, such as charging stations, be under review from Caltrans so that users are able to effectively traverse through State Routes. Caltrans currently recommends that any new development along the State Highway System provide charging stations and other forms of transportation that reduces greenhouse gasses. 1.5

Draft Program Environmental Impact Report, Transportation, page 403, Ridesharing:

"Rideshare programs help reduce congestion and improve traffic flow. Regionally, Kings County participates in CalVans Vanpool and KCAPTA operates the KART Vanpools. The rideshare programs are designed to facilitate carpooling for commuters within central California."

Caltrans recommends vanpools continue to provide services to high employment areas. Dial a ride service, which users can schedule a pickup time and drop off location, should be considered for use. These types of services would be able to operate with on demand requests and users would have the benefit of getting picked up at their location compared to meeting in a specific location. 1.6

TECHNICAL PLANNING-DISTRICT 6

Draft RTP/SCS, Chapter 2, page 11:

Numbers 11 & 12 not needed. 1.7

Draft RTP/SCS, Chapter 2, page 18:

Figure 2-7 does not indicate how many Kings County residents work in Kings County. 1.8

Draft RTP/SCS, Chapter 4, pages 39 & 40:

Figure 4-1 used twice. 1.9

Draft RTP/SCS, Chapter 4, page 42:

Figure 4-2 State Routes are shown broken. The State Routes and Arterial lines should be overlapped. 1.10

Draft RTP/SCS, Chapter 4, page 44:

Figure 4-3 State Route 43 looks like it was cut short on map. 1.11

Draft RTP/SCS, Chapter 4, page 51:

Figure 4-7 - SR 198 should have same line code as other figures. 1.12

Draft RTP/SCS, Chapter 5, page 81:

Last sentence in last paragraph under Rail Crossings states there are Union Pacific (UP) tracks in Kings County, but Figure 5-8 does not show any. The UP label shows as an abandoned line. 1.13

Draft RTP/SCS, Chapter 5:

The Cross Valley Rail with the SJV railroad should there be mention. 1.14

Draft RTP/SCS, Chapter 6, page 94:

The Cross Valley Railroad should be mentioned as part of the expanded service between Hanford and Visalia. 1.15

PROJECT MANAGEMENT-DISTRICT 6

Draft RTP/SCS, Chapter 12, page 205, Table 12-8 KINGS COUNTY 10-YEAR SHOPP LIST:

Kings River Bridge Replacement Project. Currently a Project Change Request (PCR), is being circulated for review and approval. Based on the (PCR), changes to Location and Cost are Location - In and near Stratford, at the Kings River Bridge No. 45-0007, remove 22nd Street to Laurel Avenue, project cost revised to ($K) - $ 28,338. 1.16

HEADQUARTERS-GENERAL COMMENTS:

Freight:

KCAG is applauded for having on a robust and thorough plan. The plan includes parking discussion for many different modes but does not have a lot of information on the lack of truck parking facilities. The truck parking is deficit is a nationwide issue that drastically decreases the safety of the roadway for all users. To combat the lack of truck parking in California, Caltrans is currently working to reopen the Coalinga/Avenal rest area. However, a multifaceted, long-term approach is needed from transportation planners at all agencies to make the change needed. Please consider adding more information about truck parking, specifically in the " Summary of Goods Movement Issues" on **page 80** is recommended. 1.17

KCAGs Draft 2022 RTP/SCS, 2023 FTIP and Air Quality Conformity Analysis appear to meet all applicable planning requirements per 23 CFR Part 450, 40 CFR Part 93 and conform to applicable State Implementation Plan (SIPs) and is compliant with Senate Bill 375. Caltrans highly encourages KCAG to consider our comments for inclusion in the Final KCAG 2022 RTP/SCS, 2023 FTIP and Air Quality Conformity Analysis. Caltrans applauds KCAG for their continued partnership with all their public and stakeholders, in the on-going process of transportation planning for the Kings County region. KCAG has demonstrated strategies in emission-reduction targets, minimizing farmland loss with more efficient development, minimizing rural residential development, and improving transportation in their region. 1.18

Please included the signed RTP Checklist, and signed Resolution No 22-XX. Also, it is recommended before sending the final document to change the file from "Report Title" the title is long and descriptive when opened with Chrome or Firefox.

If you have any questions, please call or email Sandra.L.Scherr@dot.ca.gov at (559) 981-7281.

Sincerely,

David Padilla, Chief
Transportation Planning – North Branch

c: Caltrans D6-Michael Navarro, Alec Kimmel, Albert Lee, Eric Olson, Shane Gunn
Caltrans HQ-Jacob Lummen, Jennifer Duran, Kevin Mariant, Gilbert Valencia
Ted Matley - FTA

Letter 1

COMMENTER: David Padilla, Chief Transportation Planning, California Department of Transportation, District 6 Office

DATE: August 10, 2022

Response 1.1

The commenter summarizes the primary topics covered in the RTP/SCS. The commenter recommends that priority be given to actions that reduce vehicle miles traveled (VMT) to further reduce the region's greenhouse gas (GHG) emissions productions, that they support the health-promoting polices promoting transit-oriented development, bicycling, and walking, and identify that the RTP is consistent in demonstrating programming and operations.

In the context of brief summary, the commenter's discussion is on the RTP/SCS and their project understanding is accurate as written. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required.

Response 1.2

The commenter suggests considering providing incentives to increase transit ridership.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.3

The commenter recommends that the County consider creating a VMT Mitigation Impact fee program so that future land development projects can pay into to mitigate their fair share.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.4

The commenter advises that DD-64-R2 has been replaced with Director's Policy (DP)-37 and that change should be reflected in the Draft RTP/SCS.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.5

The commenter notes that the placement of infrastructure, such as charging stations, be under review from Caltrans so that the users are able to effectively traverse through State Routes. The commenter recommends that new development along the State Highway System provide charging stations and other forms of transportation that reduce greenhouse gases.

As this is an RTP, there are currently no project details to review, such as the inclusion of charging stations. In regard to this infrastructure development within Caltrans right-of-way (ROW), projects within Caltrans ROW would be required to undergo Caltrans review and permitting where this can be required by Caltrans as applicable and allowed. In addition, Mitigation Measure GHG-4 lists charging stations beyond what is currently required by the State of local agencies as a GHG-reducing method, as copied here:

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

As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment. However, this comment is hereby shared with decisionmakers for their consideration.

Response 1.6

The commenter recommends vanpools continue to provide services to high employment areas. The commentor recommends that dial a ride services, where users may schedule a pickup time and drop off, be considered for use.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment. However, this comment is hereby shared with decisionmakers for their consideration.

Response 1.7

The commenter suggests that numbers 11 and 12 in chapter 2, page 11 of the Draft RTP/SCS are not needed.

This comment pertains to the RTP/SCS and not the Draft EIR. No revisions to the Draft EIR are required in response to this comment, as this does not question any analysis in the Draft EIR. Therefore, no response is required regarding the DEIR.

Response 1.8

The commenter notes that Figure 2-7 in the Draft RTP/SCS does not indicate how many Kings County residents work in Kings County.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.9

The commenter notes that Figure 4-1 in the Draft RTP/SCS was used twice in the document on pages 39 and 40.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.10

The commenter states that Figure 4-2, State Routes, in the Draft RTP/SCS are shown broken and that State Routes and Arterials should be overlapped.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.11

The commenter states that State Route 43 appears to be cut short on Figure4-3 in the Draft RTP/SCS.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.12

The commenter states that State Route 198 in Figure 4-7 of the RTP/SCS should have the same line code as other figures within the RTP/SCS.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.13

The commenter notes that in the last paragraph in chapter 5, page 81 of the Draft RTP/SCS, the document states that there are Union Pacific tracks in Kings County, but that is not reflected in Figure 5-8. The commenter states that the Union Pacific Label is shown as an abandoned line in the figure.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.14

The commenter states, "the Cross Valley Rail with the SJV railroad should there be mention."

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.15

The commenter states that the Cross Valley Railroad should be mentioned as part of the expanded service between Hanford and Visalia in the Draft RTP/SCS.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.16

The commenter notes that there is a Project Change Request (PCR) being circulated for review and approval pertaining to the King River Bridge Replacement Project. The commenter states that based on the PCR, there have been changes to the location and cost that should be reflected in the Draft RTP/SCS.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.17

The commentor recommends considering adding more information about truck parking, specifically in the "Summary of Good Movement Issues" on page 80 of the Draft RTP/SCS.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

Response 1.18

The commentor states that the KCAG Draft 2022 RTP/SCS, 2023 FTIP and Air Quality Conformity Analysis appear to meet all applicable planning requirements. The commentor requests that the RTP Checklist and signed Resolution No. 22-XX be included with the RTP/SCS. The commenter suggests that, prior to sending the final document, the file name of the RTP/SCS should be changes from "Report Title", as it is long and descriptive when opened with Chrome of Firefox.

This comment pertains to the RTP/SCS and not the EIR. As this comment does not pertain to the adequacy of the EIR or CEQA process, no revisions to the Draft EIR are required in response to this comment.

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3 Amendments to the Draft EIR

This section provides a summary record of all text amendments to the Draft EIR. One comment letter was received that did not request or result in the need to make any edits to the DEIR. No other edits were identified by KCAG staff or consultants, therefore there are no amendments to the DEIR.

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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
Aesthetic and Visual Resources				
AES-1(a) Discouragement of Architectural Features that Block Science Views				
The implementing agency 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.	Confirm that architectural plans, noise walls, and building plans satisfy the design standards, components and materials incorporate offsets, accents, and landscaping to prevent monotony. In addition, confirm sound walls shall be complementary in color and texture to surrounding natural features 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-1(b) Tree Protection and Replacement				
The implementing agency for new roadways, extensions, and widenings of existing roadways, trails and facility improvements 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 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. 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.	Monitor survivability of replacement trees periodically following construction.	Implementing agencies/ project sponsor.
AES-2(a) Recontouring for Adjacent Landforms				
Where a particular 2022 RTP/SCS project affects adjacent landforms, the local jurisdiction in which the project is located should ensure that recontouring provides a smooth and gradual transition between modified landforms and existing grade. This	Smooth and gradual transitions between modified landforms and existing structures.	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
requirement can be accomplished through the placement of conditions on the project by the implementing agency during the project specific environmental review.				
AES-2(b) Landscaping for Landform Variation				
The local jurisdiction in which a particular project is located should ensure that associated landscape materials and design enhance landform variation, provide erosion control and blend with the natural setting. This requirement can be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review. To ensure compliance with approved landscape plans, the implementing agency should provide a performance security equal to the value of the landscaping/irrigation installation.	Ensure that landscape materials and design enhance landform variation, provide erosion control and blend with natural setting. 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-2(c) 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	Ensure grading plans and landscape plans avoid large cut and fills, provide re-contouring, replace trees, and restore vegetation cover. Confirm that architectural plans and building plans incorporate design compatible with surrounding existing structures.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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.				
AES-3(a) Roadway and Project Lighting				
The implementing 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. As part of planning, design, and engineering for projects, project sponsors shall 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.	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
▪ 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.				
AES-3(b) Glare Reduction Measures				
Implementing agencies shall, or can and should, minimize and control glare from transportation and infill development projects near glare-sensitive uses through the adoption of project design features such as: ▪ Planting trees along transportation corridors to reduce glare from the sun; ▪ Creating tree wells in existing sidewalks; ▪ Adding trees in new curb extensions and traffic circles; ▪ 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; and ▪ Complying with applicable general plan policies, municipal code regulations, city or local controls related to glare ▪ 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.	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
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): ▪ 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. ▪ 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. ▪ 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	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.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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 implementing agency shall perform periodic site inspections.	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.
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, *Architectural Coatings*. ▪ Increase building envelope energy efficiency standards in excess of applicable building standards and encourage new development to achieve zero net energy use.	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
▪ 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 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				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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.				
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 (PM_{10} 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 *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas*. 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 (PM_{10} 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	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
CARB and OEHHA 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 sound walls between sensitive receptors and the pollution source. In addition, consistent with the general guidance contained in CARB's *Air Quality and Land Use Handbook* (2005) and Technical Advisory *on Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways* (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 appliable 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				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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 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.				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Agriculture and Forestry				
AG-1 Agricultural Land Impact Avoidance and Minimization				
Implementing agencies shall, or can and should, implement measures, where feasible 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, agriculturally zoned land and/or land under Williamson Act contract; ▪ Compensatory mitigation at a minimum 1:1 (impacted: replaced) acreage ratio with Important Farmland of equivalent or better quality; ▪ Require acquisition of conservation easements on land at least equal in quality and size as mitigation for the loss of Important Farmland through an appropriate land trust (e.g., Central Valley Farmland Trust); and/or ▪ Institute new protection of farmland in the project area or elsewhere through the use of long-term restrictions on use, such as 20-year Farmland Security Zone contracts (Government Code Section 51296 et seq.) or 10-year Williamson Act contracts (Government Code Section 51200 et seq.).	Ensure project-level environmental review and site plans incorporate the measures to protect farmland 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.
Biological Resources				
BIO-1(a) Biological Resources Screening and Assessment				
The implementing agencies shall, or can and should, implement the following measures during CEQA review of projects implementing the proposed 2022 RTP/SCS. 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	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
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 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. Pending the results of the biological resources assessment, 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 biological resources assessment and/or the project CEQA document 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 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.				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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 biological resources assessment. 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 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.	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. Ensure a restoration plan be developed for the project.	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
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 the implementing agency. 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 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:				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▫ 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				
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/NMFS protocols prior to issuance of any construction permits/project approvals. 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.	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
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 redesign the project in coordination with a qualified biologist to avoid impacting occupied/presumed occupied habitat to the extent feasible. If occupied or presumed occupied habitat cannot be avoided, the implementing agency shall estimate the total acreages for habitat that would be impacted prior to the issuance of construction permits/approvals. Compensatory mitigation shall be achieved through purchase of credits at a USFWS, NMFS and/or CDFW approved conservation bank if available for the affected species, and/or through providing compensatory mitigation to offset impacts to federal and/or state listed species habitat. Compensatory mitigation shall be provided at a minimum ratio of 1:1 with the final ratio to be determined by a qualified biologist (in coordination with CDFW and USFWS as and if applicable). Compensatory mitigation may be combined/nested with special-status plant species and sensitive community restoration where applicable. Temporary impact areas shall be restored to pre-project conditions. If on and/or off-site compensatory mitigation sites are identified, 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 has restoration needs to function as a suitable mitigation site. If restoration is required on the conservation site, the HMMP shall	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
contain the restoration components outlined under the Restoration Plan listed in measure BIO-1(c). The HMMP shall be submitted to the implementing agency.				
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]). ▪ 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 appropriate measures in the BO or Habitat Conservation Plan(HCP)/Incidental Take Permit (ITP) issued by the USFWS/NMFS (relevant to federal listed species) and/or the ITP issued by the CDFW (relevant to state listed species) shall be implemented; or if such guidance is not in place for the activity, the USFWS, NMFS and/or CDFW shall be consulted to determine the appropriate course of action. 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 within or adjacent to the limits of disturbance shall have highly visible orange	If applicable, project plans shall include project-specific mitigation measures to avoid and minimize impacts to endangered or threatened species. Implement the plans preconstruction and during construction of the project, and post construction monitoring as required.	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
construction fencing installed between said area and the limits of disturbance. ▪ 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 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 begin fully implemented. ▪ No endangered/threatened species shall be captured and relocated without authorization from the CDFW and/or USFWS/NMFS. ▪ 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, the USFWS, NMFS and/or CDFW shall be consulted to determine the appropriate course of action, or the appropriate measures implemented in accordance with the BO or HCP/ITP issued by the USFWS (relevant to federal listed species) and/or the ITP issued by the CDFW (relevant to state listed				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
species) and work can then continue as guided by those documents and the agencies as appropriate. ▪ 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. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies. ▪ 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. ▪ If project activities could degrade water quality, water quality sampling shall be implemented to identify the pre-project baseline, and to monitor during construction for comparison to the baseline. ▪ At the end of each workday, excavations shall be secured with 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.				
BIO-1(g) Non-Listed Special-status Animal Species Avoidance and Minimization				
Depending on the species identified in the biological resources screening assessment (measure BIO-1[a]), 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).	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
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. The report shall be submitted within 30 days of completion of the project. ▪ 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 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				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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				
The implementing agencies shall, or can and should, implement the following measures during CEQA review of projects implementing the proposed 2022 RTP/SCS. For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the CFGC, the Migratory Bird Treaty Act, and Bald and Golden Eagle Protection Act shall be conducted by a qualified biologist no more than 30 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 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	If applicable, a survey for nesting birds shall be completed; if necessary, a buffer shall be created. Retain a qualified biologist to conduct preconstruction surveys.	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
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 friendly (e.g., smooth top wire, smooth bottom wire at 6 inches above grade, etc.).	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
BIO-1 (j) Worker Environmental Awareness Program (WEAP)				
The implementing agencies shall, or can and should, implement the following measures during CEQA review of projects implementing the proposed 2022 RTP/SCS. 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				
The implementing agencies shall, or can and should, implement the following measures during CEQA review of projects implementing the proposed 2022 RTP/SCS. If the results of measure BIO-1(a) indicates projects implemented under the proposed 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/or 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, and/or CDFW, as appropriate, for review and approval, and the project shall be designed to avoid and minimize impacts	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
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 implementation of the avoidance and minimization identified in measure BIO-2(f).				
BIO-2(b) Wetland, Drainages, and Riparian Habitat Restoration				
The implementing agencies shall, or can and should, implement the following measures during CEQA review of projects implementing the proposed 2022 RTP/SCS. Unavoidable impacts to jurisdictional wetlands, drainages, and riparian habitat shall be mitigated at a ratio as required in applicable permits but shall not be less than a minimum ratio of 1:1, and as determined by a qualified biologist retained by the implementing agency and shall occur on-site or as close to the impacted habitat as possible. A mitigation and monitoring plan consistent with regulatory agency requirements and meeting those minimum standards outlined in measure BIO-1(c) shall be developed by a qualified biologist and submittal to the regulatory agency overseeing the project for approval. 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.
BIO-2(c) Landscaping Plan				
If landscaping is proposed for a specific project, a qualified biologist/landscape architect retained by the implementing agency shall prepare a landscape plan. 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 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.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
BIO-2(d) Sensitive Natural Community Avoidance and Mitigation				
If the results of measure BIO-1(a) indicates projects implemented under the proposed 2022 RTP/SCS would impact sensitive natural communities, the implementing agency shall avoid impacts to sensitive natural communities through final project design modifications if feasible. If the implementing agency determines that sensitive natural communities cannot be avoided, impacts shall be mitigated on-site or offsite at a minimum 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 and submitted to the implementing agency.	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.
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 retained by the implementing agency 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 implementing agency, 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	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
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 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.				
BIO-2(f) Wetlands, Drainages, and Riparian Habitat Best Management Practices During Construction				
The following best management practices shall be required by the implementing agency 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.	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
▪ 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 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				
All projects including long segments of fencing and lighting shall be designed to minimize impacts to wildlife. Fencing or other project components shall not block wildlife movement through riparian or other natural habitat. Where fencing or other project components that may disrupt wildlife movement is required for public safety concerns, they 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; and ▪ 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	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
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. ▪ 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 KCAG 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 BMPs shall be incorporated into all grading and construction plans in order to minimize temporary disruption of wildlife, which could hinder wildlife movement:	Ensure construction plans incorporate best management practices to minimize disruption to wildlife.	During project permitting and environmental review; prior to issuance of	Periodically during construction	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▪ Designation of a 20 mile per hour speed limit in all construction areas. ▪ Daily construction work schedules shall be limited to daylight hours only. ▪ Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition. ▪ 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.		grading and construction permits.		
Cultural Resources				
CR-1 Built Environment Historical Resources				
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 structure greater than 45 years in age is within the identified impact zone, a survey and evaluation of the 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 OHP guidelines. All evaluated properties shall be documented on Department of Parks and Recreation	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
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 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. Efforts shall be made 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				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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 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, or can and should, retain a qualified archaeologist to conduct a record search at the Southern San Joaquin Valley 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, or can and should, 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. Recommended mitigation measures will be consistent with State 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 Department of Parks and Recreation (DPR) Primary Record forms (Form DPR 523) and location information to the appropriate	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.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
California Historical Resources Information System office for the project area.				
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 are discovered during construction-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 (DPR 523a) and location information to the appropriate California Historical Resources Information System office for the project area. If the find is a Native American archaeological site, the culturally affiliated California Native American tribe shall be notified and	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 activities; during construction activities.	Ongoing throughout construction.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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.				
Geology and Soils				
GEO-4 Paleontological Resources Impact Minimization				
Prior to any ground disturbance, the implementing agency of a 2022 RTP/SCS project involving ground disturbing activities (including grading, trenching, foundation work and other excavations) within intact (previously undisturbed) deposits shall retain a qualified paleontologist, defined as a paleontologist who meets the 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, 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. ▪ **Paleontological Mitigation and Monitoring Program**. A qualified paleontologist shall prepare a Paleontological Mitigation and Monitoring Program to be implemented during ground disturbance activity. This program shall outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, 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
monitoring extent and duration (i.e., in what locations and at what depths paleontological monitoring shall be required), salvage and preparation of fossils, the final mitigation and monitoring report and paleontological staff qualifications. ▪ **Paleontological Worker Environmental Awareness Program (WEAP).** Prior to the start of ground disturbance activity greater than two feet below existing grade, 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.** Ground disturbing activity with the potential to disturbed geologic units with high paleontological sensitivity shall be monitored on a full-time basis by a qualified paleontological monitor. Should no fossils be observed during the first 50 percent of such excavations, paleontological monitoring could be reduced to weekly spot-checking under the discretion of the qualified paleontologist. 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. ▪ **Salvage of Fossils.** 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				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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 mitigation and monitoring program. 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				
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	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
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 ▪ 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	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
▪ 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 no-residential uses to reduce vehicle queuing and improve the pedestrian environment				
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	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
▪ 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 ▪ 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 proposed 2022 RTP/SCS is located on or near hazardous materials and/or waste site pursuant to Government Code Section 65962.5, the implementing agency 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	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
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 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, implementing agencies shall use reclaimed and/or recycled water 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. 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.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
HYD-2(b) Landscape Watering				
In jurisdictions that do not already have an appropriate local regulatory program related to landscape watering, implementing agencies shall design proposed 2022 RTP/SCS projects that include landscaping shall be designed with drought tolerant plants and drip irrigation. When feasible, native plant 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, implementing agencies 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.	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.
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. 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	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
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 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.				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
Whenever feasible, use quieter procedures, such as drilling rather than impact equipment operation. f. **Construction Activity Timing Restrictions**. Except where timing restrictions are already established in 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)	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
▫ Locate transit-related passenger stations, central maintenance facilities, decentralized maintenance facilities, and electric substations away from sensitive receptors to the maximum extent feasible. Where new or expanded transportation projects 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	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
potential threshold criteria to screen for and screen out projects as to their potential to damage buildings on site or near a project. If construction equipment would generate vibration levels exceeding acceptable levels as established by Caltrans, implementing agencies 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				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
more than one pile driver to shorten the duration of pile driving), where feasible, in consideration of geotechnical and structural requirements and 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 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: ▪ Rail Traffic ▫ Maximizing the distance between tracks and sensitive uses ▫ Conducting rail grinding on a regular basis to keep tracks smooth ▫ Conducting wheel truing to re-contour wheels to provide a smooth-running surface and removing wheel flats ▫ Providing special track support systems such as floating slabs, resiliently supported ties, high-resilience fasteners and ballast mats;	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
▫ Implementing operational changes such as limiting train speed and reducing nighttime operations. ▪ 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				
N-4 Noise Mitigation for Land Uses				
If a 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 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.	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.
N-5 Noise Mitigation Near Airports				
Implementing agencies for all new development proposed to be located within an existing airport influence zone, as defined by the locally adopted ALUCP or local general plan, or within two miles of a private	If applicable, require a site-specific noise compatibility study. Place conditions of approval on adherence to recommendations	During project permitting and environmental review.	Once	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
use airport, shall require a site specific noise compatibility study. The study shall consider and evaluate existing aircraft noise, based on specific aircraft activity data for the airport in question, and shall include recommendations for site design and building construction. 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, such as dual paned windows. The noise study and determination of appropriate mitigation measures shall be completed during the project's individual environmental review.	to site design and building construction, as recommended in the study.			
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: ▪ Provide car-sharing, vanpool, bike sharing, and ride-sharing programs ▪ Implement or provide access to commute reduction programs ▪ Improve pedestrian or bicycle networks, or transit service ▪ Provide transit passes	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.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
▪ 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 ▪ 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 ▪ 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				
Tribal Cultural Resources				
TRC-1 (a) 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 Public Resources Code (PRC) Section 21080.3.2, or shall implement the following	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
measures where feasible to 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.				
Wildfire				
WF-1(a) Wildfire Risk Reduction				
For individual transportation or land use project 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:	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
▪ Require the use of fire-resistant vegetation native to the KCAG region 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. ▪ Encourage the use of fire-resistant vegetation native to the KCAG region 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				

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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 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 respective County in the KCAG Region.				
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 Kings County Fire Department 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 Kings County Fire Department unless a Kings County Fire Department y -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	If a project is within two miles of an SRA or VHFHSZ, implement mitigation described in this measure, such as operational fire water tanks.	During project permitting and environmental review.	Once.	Implementing agencies/ project sponsor.

Mitigation Measure	Action Required	Timing	Monitoring Requirements	Responsible Agency
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				

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