Sacramento Area
Council of
Governments

1415 L Street,
Suite 300
Sacramento, CA
95814

tel: 916.321.9000
fax: 916.321.9551
tdd: 916.321.9550
www.sacog.org

October 11, 2018

Katherine Hess
Department of Community Development & Sustainability
City of Davis
23 Russell Blvd.
Davis, CA 95616

Re: University Research Park project consistency with the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy

Dear Ms. Hess:

You requested SACOG's confirmation that the proposed University Research Park project at 1771 Research Park Drive is consistent with the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy. SACOG provides a consistency determination at the request of the lead agency. However, it is the responsibility of the lead agency to make the final determination on a project's consistency with the MTP/SCS. This letter concurs with the City's determination that the University Research Park project is consistent with the MTP/SCS. SACOG reviewed the project description and SCS consistency analysis in the project documents and Determination of MTP/SCS Consistency Worksheet that you provided to us (included as an attachment to this letter) compared to the MTP/SCS assumptions for the project area in order to make our determination.

The University Research Park project is located on 4.46 acres on Research Park Drive in Davis. The University Research Park project, as defined in the project documents provided to us, consists of a total of 160 apartment units and approximately 26,912 square feet of "open plan tech space" in a mixed-use building. The gross residential density of the project is 35.9 dwelling units per acre and approximately 84 percent of the total building square footage consists of residential use (138,431 residential square feet ÷ 165,343 total building square feet).

The project is also located within one-half miles of the Davis Amtrak Station (a major transit stop) and within one-quarter mile of an existing or planned high-quality transit corridor included in the MTP/SCS.

The proposed project, is an infill project within the Center/Corridor Community designation of the MTP/SCS for the City of Davis (see attached Map 1). Within the Center/Corridor Community, the MTP/SCS forecasts a range of low to high density residential, commercial, office, and industrial uses (MTP/SCS Appendix E-3, Land Use Forecast Background Documentation, pp. 148, February 19, 2016). The project's land uses fall within this range of general uses, densities, and building intensities. Therefore,

development at the proposed densities is consistent with the assumptions for the area within this community type of the MTP/SCS.

With respect to consistency with the MTP/SCS policies, the applicable policies are embedded in the metrics and growth forecast assumptions of the MTP/SCS. For the purposes of determining SCS consistency, projects consistent with the growth forecast assumptions of the MTP/SCS are consistent with these policies. The MTP/SCS housing forecast for the Center/Corridor Communities was based not only on the City's land use plans and policies, but also on the following: an assessment of past building activity, current project entitlement activity, and consideration of changing demographic and housing market demand. Infill development and redevelopment is a strategy essential to the success of the Blueprint Preferred Scenario and the MTP/SCS. The Blueprint Preferred Scenario, the adopted MTP/SCS, and the draft MTP/SCS achieve transportation, air quality, and other quality of life benefits by relying in part on infill and redevelopment projects such as this one. The proposed University Research Park project is consistent with MTP/SCS growth forecast assumptions. Our confirmation of the project's consistency with the MTP/SCS is not intended to express any opinion on the site design or the appropriate conditions of approval of the project.

Finally, as you requested, attached please find the Mitigation Monitoring and Reporting Plan from this 2016 MTP/SCS. This includes the mitigation measures, performance standards, and criteria from the SCS.

Thank you for inviting SACOG's input as to the consistency of the University Research Park project with the 2016 MTP/SCS. If you have further questions or need further assistance, please don't hesitate to contact me at klizon@sacog.org or (916) 340-6265 or Jennifer Hargrove at jhargrove@sacog.org or (916) 340-6216.

Sincerely,

Kacey Lizon
Planning Manager

SACOG MTP/SCS EIR
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

INTRODUCTION

This document constitutes the Mitigation Monitoring and Reporting Program (MMRP) for the Environmental Impact Report (EIR) on the Sacramento Area Council of Government (SACOG) 2016 Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) Project.

The California Environmental Quality Act (CEQA) requires public agencies to report on and monitor measures adopted as part of the environmental review process (Public Resources Code section 21081.6 and CEQA Guidelines sections 15091(d) and 15097). This MMRP is designed to fulfill that requirement.

This MMRP is designed to ensure that the measures identified in the EIR are fully implemented. The MMRP describes the actions that must take place as a part of each measure, the timing of these actions, the entity responsible for implementation, and the agency responsible for enforcing each action. The implementation and monitoring responsibilities, as described in this MMRP, reflect the role of local agencies in making project-level determinations regarding the applicability and feasibility of particular measures based on project-specific circumstances.

As required by Section 21081.6 of the Public Resources Code, the SACOG Custodian of Records is the "custodian of documents and other material" which constitutes the "record of proceedings" upon which the decision to adopt the MTP/SCS is based. Inquiries should be directed to:

Lanette Espinoza, Custodian of Records
916 321-9000
lespinoza@sacog.org

The physical location of this information is:

SACOG
1415 L Street, Floor 300
Sacramento, CA 94814

In order to assist implementation of the mitigation measures, the MMRP includes the following information:

Mitigation Measure X.X: The mitigation measures are taken verbatim from the Final EIR.

Timing/Milestone: This section specifies the point by which the measure should be completed.

Responsibility for Oversight: This section indicates which entity will oversee implementation of the measure, conduct the actual monitoring and reporting, and take corrective actions when a measure has not been properly implemented.

Implementation of Mitigation Measure: This section identifies how actions will be implemented and verified.

Responsibility for Implementation: This section identifies the entity that will undertake the required action.

Pursuant to PRC Sections 21155.2(a) and (b)(2) and Section 21159.28(a), in order to take advantage of CEQA streamlining benefits allowed under SB 375, projects that seek to tier from the MTP/SCS EIR must incorporate the mitigation measures identified in the MTP/SCS Mitigation Monitoring and Reporting Program or, if the identified mitigation is found to be infeasible based on substantial evidence, the project must incorporate equivalent measures that avoid or mitigate potential impacts to a less than significant level**.**

Mitigation Measure AES-1: Reduce sun glare resulting from implementation of new transportation projects.

The implementing agency shall require measures that would minimize and control glare from transportation projects through the adoption of project design features that reduce glare. These features include:

- 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; and
- landscaping off-street parking areas, loading areas, and service areas.

Tree species planted to comply with this measure shall provide significant 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.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-1 would result in changes in project design that reduce glare by planting of trees along transportation corridors, sidewalks, curb extensions and traffic circles, greenways, and in parks, and planting landscaping in parking areas, loading areas, and service areas, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-2: Design structures to avoid or reduce impacts resulting from glare.

The implementing agency shall require measures that would minimize and control glare from land use and transportation projects through the adoption of project design features that reduce glare. These features include:

- 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 or local controls related to glare.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-2 would result in changes in project design that reduce glare by limiting the use of reflective materials and encouraging the use of non-reflective materials, screening of parking areas, and use of low-reflective glass, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-3: Design lighting to minimize light trespass and glare.

The implementing agency shall require measures that would impose lighting standards that ensure that minimum safety and security needs are addressed and minimize light trespass and glare. These standards include the following:

- minimizing incidental spillover of light onto adjacent private properties and undeveloped open space;
- directing luminaries away from habitat and open space areas adjacent to the project site;
- installing luminaries that provide good color rendering and natural light qualities; and
- minimizing the potential for back scatter into the nighttime sky and for incidental spillover of light onto adjacent private properties and undeveloped open space.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be

reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-3 would result in changes in project design that ensure that minimum safety and security needs are met and would minimize light trespass and glare by: controlling lighting to minimize spill-over onto other properties and/or open space, controlling artificial qualities of light (such as color); and shielding lighting to protect the night sky, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-4: Protect panoramic views and views of significant landscape features or landforms.

The implementing agency shall protect panoramic views and views of significant landscape features or landforms by taking the following (or equivalent) actions:

- requiring that the scale and massing of new development in higher-density areas provide appropriate transitions in building height and bulk that are sensitive to the physical and visual character of adjoining neighborhoods that have lower development intensities and building heights;
- ensuring building heights stepped back from sensitive adjoining uses to maintain appropriate transitions in scale and to protect scenic views;
- avoiding electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines along scenic roadways and routes, to the maximum feasible extent;
- prohibiting projects and activities that would obscure, detract from, or negatively affect the quality of views from designated scenic roadways or scenic highways; and
- complying with other local general plan policies and local control related to the protection of panoramic or scenic views or views of significant landscape features or landforms.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-4 would

result in changes to project design that protect views by ensuring that scale and massing of new development is sensitive to the physical and visual character of adjoining development, that building height and bulk is transitioned, and that utility features and towers are avoided along scenic routes, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-5: Design river crossings to minimize aesthetic and visual impacts and to protect scenic and panoramic views of significant landscape features and landforms to the greatest feasible extent.

The implementing agency shall design river crossings to protect the important elements of scenic vistas, including panoramic views and views of significant landscape features or landforms. Such design elements could include:

- designing the facility with aesthetics and dimensions which are architecturally pleasing and contextually appropriate for the adjacent neighborhoods;
- designing the facility to not exceed or expand the capacity of the approach roadway; and
- prohibiting design features that obscure, detract from, or negatively affect the quality of views from public viewing areas.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-5 would result in changes in the design of river crossings to ensure that aesthetics and dimensions are architecturally pleasing and contextually appropriate for the adjacent neighborhood, would not exceed or expand the capacity of the approach roadway, and would not include features that obscure, detract from, of negatively affect the quality of views from public viewing areas.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-6: Design projects to be visually compatible with surrounding areas.

The implementing agency shall require measures that minimize contrasts in scale and massing between the project and surrounding natural forms and developments. Strategies to achieve this include:

- avoiding large cuts and fills when the visual environment (natural or urban) would be substantially disrupted;
- siting or designing projects to minimize their intrusion into important viewsheds;
- using contour grading to match surrounding terrain;
- developing transportation systems to be compatible with the surrounding environments (e.g., colors and materials of construction material; scale of improvements);
- avoiding the use of non-native landscaping; if exotic vegetation is used, it should be used as screening and landscaping that blends in and complements the natural landscape;
- protecting or replacing trees in the project area;
- using grading that blends with the adjacent landforms and topography;
- landscaping new slopes and embankments with compatible grasses, shrubs, and trees to soften cuts and edges; and
- designing new structures to be compatible in scale, mass, character, and architecture with existing structures.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-6 would result in changes to project design to ensure visual compatibility by avoiding grading that results in large cuts and fill, siting projects to minimize intrusion into important viewsheds, using contour grading to match surround terrain, matching scale, color and materials of transportation systems to be compatible with surrounding environment, avoiding the use of non-native landscaping, and protecting or replacing trees, using grading that blends with adjacent landforms and topography, landscaping new slopes and embankments with compatible vegetation, and designing among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-7: Implement Mitigation Measure AES-3.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-7 would result in changes in project design that ensure that minimum safety and security needs are met and would minimize light trespass and glare by: controlling lighting to minimize spill-over onto other properties and/or open space, controlling artificial qualities of light (such as color); and shielding lighting to protect the night sky, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-8: Reduce the visibility of construction-related activities.

The implementing agency shall reduce the visibility of construction-related activities by taking the following (or equivalent) actions:

- restricting construction activities to permitted hours in accordance with local jurisdiction regulations;
- locating materials and stationary equipment such as generators, compressors, rock crushers, cement mixers, etc. as far from sensitive receptors as possible;
- locating materials and stationary equipment in such a way as to prevent glare, light, or shadow from impacting surrounding uses and minimize blockage of scenic resources; and
- reducing the visibility of construction staging areas by fencing or screening these areas with low-contrast materials consistent with the surrounding environment.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-8 would result in limited hours of construction, location of stationary equipment such as generators, compressors, rock crushers, and cement mixers away from sensitive

receptors, location of materials and equipment so as not to create glare, light, or shadow, or block views, and fencing or screening construction of staging areas with low-contrast materials consistent with the surrounding environment, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-9: Implement Mitigation Measure AES-8.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-9 would result in limited hours of construction, location of stationary equipment such as generators, compressors, rock crushers, and cement mixers away from sensitive receptors, location of materials and equipment so as not to create glare, light, or shadow, or block views, and fencing or screening construction of staging areas with low-contrast materials consistent with the surrounding environment, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-10: Implement Mitigation Measure AES-8.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-10 would result in limited hours of construction, location of stationary equipment such as generators, compressors, rock crushers, and cement mixers away from sensitive receptors, location of materials and equipment so as not to create glare, light, or shadow, or block views, and fencing or screening construction of staging areas with low-contrast materials consistent with the surrounding environment, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-11: Re-vegetate exposed earth surfaces.

The implementing agency shall minimize short-term visual impacts of construction by requiring project sponsors to re-vegetate slopes and exposed earth surfaces at the earliest opportunity during construction.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-11 would result in changes to construction methods to minimize short-term visual impacts of construction by revegetating slopes and exposed earth surfaces.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-12: Minimize contrasts between the project and surrounding areas.

The implementing agency shall ensure that projects use natural landscaping to minimize contrasts between the projects and surrounding areas. Wherever possible, the implementing agency shall develop interchanges and transit lines at the grade of the surrounding land to limit view blockage. Project designs shall contour the edges of major cut-and-fill slopes to provide a more natural-looking finished profile.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-12 would result in changes to project design to ensure that projects use natural landscaping to minimize contrasts between projects and surrounding areas, develop at grade to limit view blockage, and contour edges of major cut-and-fill slopes to provide a more natural-looking finish profile, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AES-13: Replace and renew landscaping along roadway corridors and development sites.

The implementing agency shall ensure that project sponsors replace and renew landscaping to the greatest extent possible along corridors with transportation improvements and at development sites. The implementing agency shall ensure that landscaping is planned in new corridors and developments to respect existing natural and man-made features and to complement the dominant landscaping of surrounding areas.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AES-13 would ensure that landscaping along existing roadway corridors and development sites be improved, and that new landscaping respect and complement the dominant landscaping of surrounding areas, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-1: Mitigate for loss of farmland.

The implementing agency shall require project proponents to mitigate for loss of farmland by providing permanent protection of in-kind farmland at a 1:1 ratio, in the form of easements, fees, or elimination of development rights/potential.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-1 would result in permanent protection of in-kind farmland at a 1:1 ratio, in the form of easement, fees, or elimination of development rights/potential.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-2: Implement Mitigation Measure AG-1.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-2 would result in permanent protection of in-kind farmland at a 1:1 ratio, in the form of easement, fees, or elimination of development rights/potential.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-3: Design proposed projects to minimize, to the greatest extent feasible, conflicts and inconsistencies with land protected by agricultural zoning or a Williamson Act contract and the terms of the applicable zoning and contract.

Implementing agencies shall require project proponents to:

- Relocate project or corridor realignment, where feasible, to avoid farmland, especially Prime Farmland;
- Minimize severance and fragmentation of agricultural land by constructing underpasses and overpasses at reasonable intervals to provide property access;
- Include berms, buffer zones, setbacks, and fencing to reduce use conflicts between new development and farming uses and to protect the functions of farmland; and
- Implement other feasible conservation tools available from the California Department of Conservation's Division of Land Resource Protection.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-3 would result in changes to project design to ensure that projects avoid farmland and minimize fragmentation of agricultural land, and include buffers to reduce use conflicts.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-4: Mitigate for loss of forest land or timberland.

The implementing agency shall require project proponents to mitigate for loss of forest land or timberland by requiring permanent protection of in-kind land at a 1:1 ratio, in the form of easements or fees and elimination of development rights/potential.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-4 would require permanent protection of in-kind forest land or timberland at a 1:1 ratio, in the form of easement, fees, or elimination of development rights/potential.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-5: Minimize conversion of farmland to non-agricultural use.

Implementing agencies shall require project proponents to:

- Design proposed projects to minimize, to the greatest extent feasible, the loss of the highest valued agricultural land.
- Redesign project features to minimize fragmenting or isolating Farmland. Where a project involves acquiring land or easements, ensure that the remaining nonproject area is of a size sufficient to allow economically viable farming operations. The project proponents shall be responsible for acquiring easements, making lot line adjustments, and merging affected land parcels into units suitable for continued commercial agricultural management.
- Reconnect utilities or infrastructure that serve agricultural uses if these are disturbed by project construction. If a project temporarily or permanently cuts off roadway access or removes utility lines, irrigation features, or other infrastructure, the project proponents shall be responsible for restoring access as necessary to ensure that economically viable farming operations are not interrupted.
- Manage project operations to minimize the introduction of invasive species or weeds that may affect agricultural production on adjacent agricultural land. Where a project has the potential to introduce sensitive species or habitats or have other spill-over effects on nearby agricultural lands, the project

proponents shall be responsible for acquiring easements on nearby agricultural land and/or financially compensating for indirect effects on nearby agricultural land. Easements (e.g., flowage easements) shall be required for temporary or intermittent interruption in farming activities (e.g., because of seasonal flooding or groundwater seepage). Acquisition or compensation would be required for permanent or significant loss of economically viable operations.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-5 would result in changes to project design to minimize loss of the highest valued agricultural land, minimize fragmenting or isolating farmland, reconnect utilities and infrastructure that serve agricultural uses, and manage project operations to minimize the introduction of invasive species, acquire easements for introduced sensitive species or habitats, and acquire or compensate for interruption of farming activities or economic loss.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-6: Inventory innovative ideas and best practices from the RUCS toolkit, USEPA and USDA Supporting Sustainable Rural Communities publication, and other sources and implement a locally appropriate strategy to manage growth issues at the rural-urban interface to support the long-term viability of agriculture in the SACOG region.

The implementing agency shall avoid or minimize general pressure to convert agriculture land at the urban edge to non-agricultural uses by adopting regulations that enforce the innovations and best practices identified to minimize conversion pressures on farmland. Examples of this might include but are not limited to:

- **Agriculture Buffers:** Buffers, generally imposed on new development, can assist in reducing urban land use conflicts with farming operations.
- **Right-to-Farm Ordinances:** These ordinances require project applicants to agree to provide real estate disclosures explaining farmers' rights to purchasers or lessees as a condition of project approval for projects located in active farming areas. The intent of such an ordinance is to protect farmers from nuisance complaints and enforcement actions.
- **Infill and Redevelopment:** These policies, which are supportive of infill and redevelopment and consistent with the policy objectives of the proposed MTP/SCS and SB 375, would direct population growth to urban communities,

or in established rural communities, thereby reducing pressure to convert agricultural land to development.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-6 would result in continued and renewed efforts to manage growth pressures at the rural-urban edge including use of agricultural buffers, right-to-farm ordinances, infill emphasis, and redevelopment, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-7: Implement Mitigation Measure AG-4.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-7 would require permanent protection of in-kind forest land or timberland at a 1:1 ratio, in the form of easement, fees, or elimination of development rights/potential.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AG-8: Minimize construction-related impacts to agricultural and forestry resources.

The implementing agency shall require project proponents to:

- restrict construction activities to permitted hours in accordance with local jurisdiction regulations;
- locate materials and stationary equipment (e.g., generators, compressors, rock crushers, cement mixers) as far from conflicting uses as possible;

- locate materials and stationary equipment in such a way as to prevent conflict with agricultural and forestry resources; and
- minimize conflict between construction vehicles and agricultural operations on roads that facilitate agricultural operations.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AG-6 would require that hours of construction be limited, that stationary equipment such as generators, compressors, rock crushers, and cement mixers be located away from conflicting uses, that materials and equipment be located so as not to prevent conflict with agricultural and forestry resources, and that construction vehicles be managed on the road to prevent conflict agricultural vehicles, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AIR-1: Adhere to ARB Handbook siting guidance to the maximum extent possible.

Where sensitive land uses or TAC sources would be sited within the minimum ARB-recommended distances, a screening-level HRA, and, if warranted, a site-specific HRA shall be conducted to determine, based on site-specific and project-specific characteristics, all feasible mitigation and best practices. Identified feasible mitigations and best practices shall be implemented. The HRA protocols of the applicable local air districts shall be followed or, where a district/office does not have adopted protocols, the protocol of SMAQMD or CAPCOA shall be followed. Best practices shall be applied as recommended and applicable, to reduce the impact to a less-than-significant level where feasible. The HRA should give particular attention to the nature of the receptor, recognizing that some receptors are particularly sensitive (e.g., schools, day care centers, assisted living and senior centers, and hospitals) and may require special measures. Examples of best practices that studies have suggested to be effective include:

- install, operate, and maintain in good working order a central heating, ventilation, and air conditioning (HVAC) system or other air intake system in the building, or in each individual unit, that meets or exceeds a minimum efficiency reporting value (MERV) of 13 and includes either high efficiency particulate air (HEPA) filters or American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) certified 85 percent or higher;

- install passive (drop-in) electrostatic filtering systems, especially those with low air velocities (i.e., 1 mile per hour [MPH]) as a part of the HVAC project HVAC system(s);
- maintain, repair, and/or replace the HVAC system on an ongoing and as needed basis or shall prepare an operation and maintenance manual for the HVAC system and the filter, for inclusion in the Covenants, Conditions and Restrictions (CC&Rs) for residential projects and a separate homeowners manual;
- orient air intakes away from TAC sources or provide shields or buffers to the maximum extent possible; maintain a vegetative barrier between new residential units consisting of tree species with year-round foliage and a porosity of 20 or 40 percent wherever feasible; and
- use tiered tree planting between roadways and sensitive receptors wherever feasible, using native, needled (coniferous) species, ensure a permanent irrigation source, and provide permanent funding to maintain and care for the trees.

Additionally, implementing agencies should contact SMAQMD and/or CAPCOA for the most current list of best practices for limiting exposure of sensitive receptors to substantial TAC concentrations consistent with the *ARB Handbook*.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AIR-1 utilizes existing state protocol to assess appropriate siting of land uses near TAC emitters. Where sensitive land uses or TAC sources would be sited within the minimum ARB-recommended distances, a screening-level HRA, and, if warranted, a site-specific HRA is required to be conducted based on site-specific, project-specific, and receptor-specific characteristics. All feasible mitigation in the form of best practices is required to be implemented. Examples of best practices known at this time to be effective include: installing, operating, and maintaining in good working order a central heating, ventilation, and air conditioning (HVAC) system or other air intake system in the building, or in each individual unit, that meets or exceeds a minimum efficiency reporting value (MERV) of 13 and includes either high efficiency particulate air (HEPA) filters or American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) certified 85 percent or higher; passive (drop-in) electrostatic filtering systems, especially those with low air velocities (i.e., 1 MPH) as a part of the HVAC project HVAC system(s); maintaining, repairing, and/or replacing the HVAC system on an ongoing and as needed basis or preparing an

operation and maintenance manual for the HVAC system and the filter, for inclusion in the Covenants, Conditions and Restrictions (CC&Rs) for residential projects and a separate homeowners manual; orientation of air intakes away from TAC sources or providing shields and buffers; and, tiered tree planting between roadways and sensitive receptors using native, needled (coniferous) species with permanent irrigation and permanent funding for maintain and care of the trees.

Implementing agencies should contact SMAQMD and/or CAPCOA for the most current list of best practices for limiting exposure of sensitive receptors to substantial TAC concentrations consistent with the *ARB Handbook.*

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AIR-2: Implementing agencies shall require assessment of new and existing odor sources for individual land use projects to determine whether sensitive receptors would be exposed to objectionable odors and apply recommended applicable mitigation measures as defined by the applicable local air district and best practices.

Examples of mitigation measures that may be applied where feasible and necessary to address site-specific impacts, include but not limited to:

- Proposed industrial, commercial, or convenience land uses (e.g., fast-food restaurants, painting operations) that have the potential to emit objectionable odors shall be located as far away as feasibly possible from existing and proposed sensitive receptors and oriented where possible to place buildings or other obstructions between the odor source and downwind receptors.
- The odor-producing potential of land uses shall be considered when the exact type of facility that would occupy industrial, commercial, or convenience areas is determined.
- If an odor-emitting facility is to occupy space in the industrial, commercial, or convenience area, the odor-producing potential of the source and potential control devices shall be determined in coordination with the local air district and shall be based on the number of complaints associated with existing sources of the same nature. Odor-control devices (e.g., wet chemical scrubbers, HVAC filters, activated carbon scrubbers, biologically active filters, enclosures) shall be identified in the improvement plans before the approval of building permits. The odor-control devices shall be installed before the issuance of certificates of occupancy for the potentially odor-producing use.
- Require notification to incoming property owners (e.g., real estate disclosures) regarding the existence of pre-existing odor-emitting facilities or operations (e.g., similar to aviation easements for noise).

Also, see specifically SMAQMD's *Guide to Air Quality Assessment in Sacramento County* (SMAQMD, 2009). Chapter 7 of the SMAQMD guide provides an extensive list of technology- and design based odor reduction measures.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AIR-2 would result in siting of odor emitting uses away from sensitive receptors, and/or downwind of receptors, consideration of odor emissions as a factor in locating businesses within a center, early identification and installation of odor-control devices/technologies, and use of odor disclosures, among other things.

Implementing agencies should refer to Chapter 7 of the SMAQMD Guide to Air Quality Assessment in Sacramento County for technology- and design-based odor reduction measures.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AIR-3: Implementing agencies shall require recommended applicable mitigation measures as defined by the applicable local air district.

Implementing agencies shall require projects that exceed the long-term operational thresholds to mitigate the air quality impacts using all applicable and feasible mitigation.

Examples of mitigation measures include, but are not limited to:

- provide for the use of energy-efficient lighting and process systems (e.g., low-NOx water heaters, furnaces, and boiler units);
- use EPA Phase II-certified devices for all newly installed woodburning devices;
- design streets to maximize pedestrian access to transit stops;
- include bus shelters at transit access points where deemed appropriate by local public transit operator in large residential, commercial, and industrial projects;
- contribute to traffic-flow improvements (e.g., right-of-way, capital improvements) that reduce traffic congestion;
- equip residential structures with electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment;
- provide for, or contribute to, dedication of land for off-site Class I and Class II bicycle trails linking the project to designated bicycle commuting routes in accordance with the regional bikeway master plan;

- contribute to the provision of synchronized traffic signals on roadways affected by the project and as deemed necessary by the local public works department;
- provide transit-enhancing infrastructure that includes bus turnouts or bulbs, passenger benches, street lighting, route signs and displays, and shelters as demand and service routes warrant, subject to review and approval by local transportation planning agencies;
- provide pedestrian-enhancing infrastructure that includes sidewalks and pedestrian paths, direct pedestrian connections, street trees to shade sidewalks, pedestrian safety designs and infrastructure, street furniture and artwork, street lighting, pedestrian signalization and signage, and/or access between bus service and major transportation points within the project;
- include neighborhood park(s) or other recreational options, such as trails, within the development to minimize vehicle travel to off-site recreational and/or commercial uses;
- install solar water heaters;
- incorporate mixed uses, where permitted by local development regulations, to achieve a balance of commercial, employment, and housing options on the project site;
- include neighborhood telecommunications/telework centers;
- contribute to traffic-flow improvements (e.g., right-of-way, capital improvements) that reduce traffic congestion and do not substantially increase roadway capacity;
- provide preferential parking spaces for carpool and vanpool vehicles, implement parking fees for single-occupancy vehicle commuters, and implement parking cash-out program for employees;
- use clean fuel vehicles in the vehicle fleet;
- require all employment centers to include an adequate number of on-site shower/locker facilities for bicycling and pedestrian commuters (typically one shower and three lockers for every 25 employees per shift);
- construct/contribute to bicycle and pedestrian facility improvements;
- provide ancillary services (e.g., cafeterias, health clubs, automatic tellers, and post offices) within walking distance of proposed development (no further than 1,500 feet) as appropriate and in compliance with local development regulations;
- provide park-and-ride lots as deemed feasible and appropriate by transportation planning agencies;
- employment centers that exceed a designated size, as measured by the number of employees, shall provide on-site child care and after-school facilities or contribute to off-site construction of such facilities within walking

distance of employment land uses (for employment centers on or adjacent to industrial land uses, on-site child daycare centers shall be provided only if supported by the findings of a comprehensive HRA performed in consultation with the local air district);

- provide on-site pedestrian facility enhancements, such as walkways, benches, proper lighting, vending machines, and building access that are physically separated from parking lot traffic;
- offer alternative work schedules, where practical, that allow for work hours that are compressed into fewer than 5 days (e.g., 9/80, 4/40, or 3/36 schedules), or allow flextime schedules;
- provide transit amenities (e.g., on-site and off-site bus turnouts, passenger benches, or shelters) where deemed appropriate by local transportation planning agencies;
- contribute to the provision of synchronized traffic signals on roadways affected by the proposed project and as deemed necessary by the local public works department;
- provide video conferencing facilities;
- commit to support programs that include guaranteed ride home, subsidized transit passes, and rideshare matching;
- provide transportation (e.g., shuttles) to major transit stations and multimodal centers;
- require each employer employment center (more than 25 employees) to assign a transportation coordinator for the applicable Transportation Management Association (TMA);
- require all employers to install a permanent display in employee common areas of alternate transit information, as determined by the requirements of the TMA;
- require employers or employment centers (more than 25 employees) to implement a guaranteed ride home program;
- require employers or employment centers (more than 25 employees) to implement an incentive program for riding transit, carpooling, vanpooling, biking, and walking instead of driving a single-occupancy vehicle to work, and design and locate buildings to facilitate transit access;
- install Energy Star (or equivalent) cool roofing systems on all buildings;
- design shuttle and transit exits to adjoining streets to reduce time to reenter traffic from the project site;
- increase wall and attic insulation to 20 percent above Title 24 requirements (residential and commercial);

- orient buildings to take advantage of solar heating and natural cooling, and use passive solar designs (residential, commercial, and industrial);
- provide energy-efficient windows (double pane and/or Low-E) and awnings or other shading mechanisms for windows, porches, patios, and walkways;
- consider passive solar cooling and heating designs, ceiling and whole house fans, and programmable thermostats in the design of heating and cooling systems; and
- use day lighting systems, such as skylights, light shelves, and interior transom windows.

See also SMAQMD's most recent version of the *Recommended Guidance for Land Use Emission*, currently version 3.2 (SMAQMD, 2015a).)

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AIR-3 would result in implementation of a variety of changes in project design and operation listed above that would mitigate air quality emissions to acceptable levels..

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure AIR-4: Implementing agencies shall require project applicants to implement applicable, or equivalent, standard construction mitigation measures as defined by the applicable local air district.

Lead agencies shall require project applicants, prior to construction, to implement construction mitigation measures that, at a minimum, meet the requirements of the applicable air district with jurisdiction over the area in which construction activity would occur if the project is anticipated to exceed thresholds of significance for short-term criteria air pollutant emissions. Projects that exceed these thresholds shall mitigate the air quality impacts using all applicable and feasible mitigation. For construction activity on the project site that is anticipated to exceed thresholds of significance, the project applicant(s) shall require construction contractors to implement both Standard Mitigation Measures and Best Available Mitigation Measures for Construction Activity to reduce emissions to the maximum extent applicable and feasible for all construction activity performed in the plan area.

Examples of mitigation measures could include, but not limited to, the following:

- The applicant shall implement a Fugitive Dust Control Plan.
- All grading operations on a project shall be suspended when winds exceed 20 MPH or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.
- Construction sites shall be watered as directed by the local air district and as necessary to prevent fugitive dust violations.
- An operational water truck shall be on-site at all times. Water shall be applied to control dust as needed to prevent visible emissions violations and off-site dust impacts.
- On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind-blown dust emissions. The use of approved nontoxic soil stabilizers shall be incorporated according to manufacturers' specifications to all inactive construction areas.
- All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.
- Approved chemical soil stabilizers shall be applied according to the manufacturers' specifications to all inactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee/equipment parking areas.
- To prevent track-out, wheel washers shall be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed before each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks and prevent/diminish track-out.
- Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom permitted) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.
- Temporary traffic control shall be provided as needed during all phases of construction to improve traffic flow, as deemed appropriate by the appropriate department of public works and/or California Department of Transportation (Caltrans), and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 MPH.
- Traffic speeds on all unpaved surfaces shall be reduced to 15 MPH or less, and unnecessary vehicle traffic shall be reduced by restricting access. Appropriate training to truck and equipment drivers, on-site enforcement, and signage shall be provided.
- Ground cover shall be reestablished on the construction site as soon as possible and before final occupancy through seeding and watering.

- Open burning shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (e.g., trash, demolition debris) may be conducted at the project site. Vegetative wastes shall be chipped or delivered to waste-to-energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials off-site for disposal by open burning.
- The primary contractor shall be responsible for ensuring that all construction equipment is properly tuned and maintained before and for the duration of on-site operation.
- Existing power sources (e.g., power poles) or clean-fuel generators shall be used rather than temporary power generators.
- A traffic plan shall be developed to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Operations that affect traffic shall be scheduled for off-peak hours. Obstruction of through-traffic lanes shall be minimized. A flag person shall be provided to guide traffic properly and ensure safety at construction sites.
- The project proponent shall assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that will be used an aggregate of 40 or more hours for the construction project and provide a plan for approval by the local air district demonstrating that the heavy-duty (equal to or greater than 50 horsepower) off-road equipment to be used for construction, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average 20 percent NO_X reduction and 45 percent particulate reduction compared to the most recent ARB fleet average at the time of construction. These equipment emission reductions can be demonstrated using the most recent version of the Construction Mitigation Calculator developed by the SMAQMD. Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology (Carl Moyer Guidelines), after-treatment products, voluntary off-site mitigation projects, the provision of funds for air district off-site mitigation projects, and/or other options as they become available. In addition, implementation of these measures would also result in a 5 percent reduction in ROG emissions from heavy-duty diesel equipment. The local air district shall be contacted to discuss alternative measures.

Air districts provide similar recommendations to those listed above. Some air districts in the region (e.g., SMAQMD) also offer the option for paying off-site construction mitigation fees if the recommended actions do not reduce construction emissions to acceptable levels.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure AIR-4 would result in changes in construction methods listed above that would mitigate construction-related air quality emissions to feasible levels.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure BIO-1a: Avoid, minimize, and mitigate impacts on special-status plant species.

Measures that shall be implemented at a project-level, where feasible and necessary to address site-specific impacts, to reduce the impacts to special-status plant species include but are not limited to:

- Projects covered by conservation plans or that are able to utilize take permits under such plans shall abide by the terms of the plan/permit. For all other projects and for non-covered species the following shall apply, dependent on the findings of project specific biological resources assessment.
- Biological resources assessments for specific projects proposed will be prepared in areas containing, or likely to contain, habitat for special-status plants.
- Prior to project initiation and during the blooming period for the special-status plant species with potential to occur in the proposed project site, a qualified botanist will conduct protocol-level surveys for special-status plants in areas where potentially suitable habitat would be removed or disturbed by project activities. If no special-status plants are found, the botanist will document the findings in a letter report to USFWS, CDFW, and the implementing agency.
- If special-status plant species are found that cannot be avoided during construction, the project applicant will consult with CDFW and/or USFWS, as appropriate depending on species status, to determine the appropriate mitigation measures for direct and indirect impacts that could occur as a result of project construction and will implement the measures to achieve no net loss of occupied habitat or individuals. Measures may include preserving and enhancing existing populations, creating offsite populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals. A mitigation and monitoring plan will be developed describing how unavoidable losses of special-status plants will be compensated.
- If relocation efforts are part of the mitigation plan, the plan will include details on the methods to be used, including collection, storage, propagation,

receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.

- Success criteria for preserved and compensatory populations will include:
    - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.
    - Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:
        - plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and
        - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
- If offsite mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure BIO-1a would result in participation in adopted species conservation plans with mitigation consistent with the terms of those plans, or the preparation of project-specific biological resource assessments with avoidance of special-status species where feasible, and where avoidance is not feasible, mitigation consistent with local, state, and federal requirements as described above.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure BIO-1b: Avoid, minimize, and mitigate impacts on special-status wildlife species.

Measures that shall be implemented, where feasible and necessary to avoid site-specific

impacts, to reduce the impacts to special-status wildlife species include but are not limited to:

- Projects covered by conservation plans or that are able to utilize take permits under such plans shall abide by the terms of the plan/permit. For all other projects and for non-covered species the following shall apply, dependent on the findings of the project specific biological resources assessment.
- A biological resources assessment for specific project proposed will be prepared in areas containing, or likely to contain, habitat for special-status species in areas where potentially suitable habitat would be removed or disturbed by project activities.
- Where federally or stated listed species will be affected by construction activities, the project applicant will adhere to regulatory guidelines and policies that identify specific avoidance and minimization measures to insure that these actions do not result in the take of a listed species, except as authorized under a USFWS Biological Opinion or Incidental Take Permit or a CDFG Incidental Take Permit.
- If special-status species or their habitat are found and cannot be avoided during construction, the project applicant will consult with CDFW, USFWS, and/or NMFS, as appropriate depending on species status, to determine the appropriate avoidance, minimization and mitigation measures for direct and indirect impacts that could occur as a result of project construction and will implement the measures to minimize the impact. Minimization and mitigation measures may include implementation of seasonal work windows to avoid or minimize impacts to wildlife species, implementation of a workers environmental awareness training, implementation of buffer areas to minimize disturbance, biological construction monitoring, and preservation, restoration, or creation of special-status wildlife habitat, where appropriate and feasible. If habitat compensation is required, mitigation will occur at an agency approved mitigation bank or through individual mitigation locations as approved by USFWS and/or CDFW. Examples of representative minimum replacement rations are presented below in Table 6.12. A mitigation and monitoring plan will be developed describing how unavoidable losses of special status wildlife will be compensated. The mitigation and monitoring plan will include how the site will be monitored and the duration of monitoring until the mitigation is considered to be successful.
- All mitigation areas should be preserved in perpetuity through either fee ownership or a conservation easement held by a qualified conservation organization or agency, establishment of a preserve management plan, and guaranteed long-term funding for site preservation through the establishment of a management endowment.

Table 6.12
Examples of Minimum Replacement Ratios and Typical Mitigation for Wildlife Habitat

Species	Creation/Restoration Mitigation Component
Vernal pool fairy shrimp and vernal pool tadpole (would mitigate for other vernal pool species)[1]	Preservation: 2:1 (for direct or indirect impacts) in approved banks, 3:1 in non-bank.* Creation/ Restoration: 1:1 (2:1 if based on Service evaluation of site-specific conservation values) in approved banks, 2:1 in non-bank.* **Mitigation ratios for non-bank mitigation may be adjusted to approach those for banks based on Service evaluation.*
Valley elderberry longhorn beetle[2]	Transplant directly affected shrubs to a USFWS approved conservation bank and purchase conservation credits depending on stem size and shrub location Plant seedlings and associated riparian at stem placement ratios from 1:1 to 8:1, depending on stem size and shrub location.
California tiger salamander	No net loss of habitat through restoration, preservation, or compensation.
California red-legged frog	No net loss of habitat through restoration, preservation, or compensation.
Sierra Nevada yellow-legged frog	No net loss of habitat through restoration, preservation, or compensation.
Giant garter snake[3]	Preservation: All replacement habitat must include both upland and aquatic habitat at a ratio of 2:1 upland acres to aquatic acres Creation/Restoration: From 1:1 to 3:1 depending on nature of impact.
Burrowing owl[4]	Varies depending on site conditions, consultation with CDFW is required. Create artificial burrows if necessary. Prepare a mitigation management plan and vegetation management goals in consultation with CDFW.
Swainson's hawk[5]	Depending on nest location with respect to project (typically 0.5:1 to 1.5:1), or participate in County sponsored Swainson's Hawk Mitigation Program if developed.

[1] Mitigation ratios are based on the Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California (Service file number 1-1-96-F-1) (USFWS, 1996).
[2] Conservation Guidelines for Valley Elderberry Longhorn Beetle (USFWS, 1999).
[3] Programmatic Consultation with the U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California (Service file number 1-1-F-97-149) (USFWS, 1997).
[4] Staff Report on Burrowing Owl Mitigation (CDFG, 2012).
[5] Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California (CDFG, 1994).
Source: Compiled by Ascent Environmental in 2015.

The implementing agency would require applicants to mitigate at the above ratios or greater depending on habitat quality, other impacts to the species, and other factors deemed important by the agencies.

The following are species specific mitigation measures typically implemented and implementation will be dependent on the findings of project-specific biological resources assessment.

Vernal Pool Invertebrates
If the proposed project identifies the potential for special status vernal pool invertebrates to be affected by project activities, the following measures will be implemented where feasible and necessary to avoid site-specific impacts:

- Prior to project construction, the implementing agencies will consult with the USACE and USFWS pursuant to Section 7 of the ESA and retain a Biologist to conduct vernal pool invertebrate surveys within the proposed project and within 250 feet from the edge of the proposed project to evaluate direct and indirect effects to vernal pools as provided in the Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California (USFWS, 1996).
- A worker environmental awareness training will be conducted to inform onsite construction personnel regarding the potential presence of listed species and the importance of avoiding impacts to these species and their habitat.
- The implementing agencies will secure any necessary take authorization prior to project construction through formal consultation between USACE and USFWS pursuant to Section 7 of the ESA, and will implement all measures included in the Biological Opinion issued by USFWS.
- Habitat Preservation: The implementing agencies will compensate for direct effects of the project on the habitat for vernal pool invertebrates at a sufficient ration for no net loss of habitat function or acreage, by purchasing vernal pool preservation credits from a USFWS-approved conservation bank, or from another USFWS-approved conservation bank. Compensation credits will be purchased prior to any ground-disturbing activities.
- Habitat Creation: The implementing agencies will compensate for the direct effects of the project on the habitat for vernal pool crustaceans at a sufficient ratio for no net loss of habitat function or acreage, by purchasing vernal pool creation credits from a USFWS-approved conservation bank, or from another USFWS-approved conservation bank.
- For seasonal wetlands and drainages that will be retained in the project area (i.e., those not proposed to be filled), a minimum setback of at least 50 feet from these features will be avoided in the project area. The buffer area will be fenced with high visibility construction fencing prior to commencement of ground-disturbing activities, and will be maintained for the duration of construction activities.

Valley Elderberry Longhorn Beetle

If the proposed project identifies potential for valley elderberry longhorn beetle or identifies elderberry shrubs to be affected by project activities the following measures will be implemented:

- Prior to any ground disturbing activities, a qualified Biologist will identify all elderberry shrubs within the footprint and a 100-foot buffer around of the proposed activity. The qualified Biologist will survey potentially affected shrubs for valley elderberry longhorn beetle (VELB) exit holes in stems greater than one inch in diameter.

- If elderberry shrubs are found on or adjacent to the site, a 100-foot wide avoidance buffer (measured from the dripline of the plant) will be established around all elderberry shrubs with stems greater than 1-inch diameter at ground level and will be clearly identified in the field by staking, flagging, or fencing. No construction activities involving mechanized equipment will occur within the buffer areas. Human access may be permitted in the buffer, provided that it does not cause disturbance to the shrubs.
- If impacts to VELB habitat cannot be avoided, the implementing agencies will consult with USFWS to determine appropriate compensation ratios. Compensatory mitigation measures will be consistent with the Conservation Guidelines for Valley Elderberry Longhorn Beetle (USFWS, 1999), or current guidance.
- Compensatory mitigation for adverse effects may include the transplanting of elderberry shrubs during the dormant season (November 1 to February 15), if feasible, to an area protected in perpetuity as well as required additional elderberry and associated native plantings as approved by the USFWS.
- If off-site compensation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan and must occur with full endowments for management in perpetuity. The plan will include information on responsible parties for long-term management, holders of conservations easements, long-term management requirements, and other details, as appropriate, for the preservation of long-term viable populations.

Amphibians and Reptiles

If the proposed project identifies potential for special status amphibians or reptiles (e.g., California tiger salamander (CTS), California red-legged frog (CRLF), Sierra Nevada yellow-legged frog (SNYLF), foothill yellow-legged frog (FYLF), western spadefoot toad (WST), giant garter snake (GGS), coast horned lizard (CHL) or western pond turtle (WPT)) to be affected by project activities, the following measures will be implemented where feasible and necessary to avoid site-specific impacts:

- A habitat assessment will be conducted following USFWS and/or CDFW guidance on site assessments and field surveys for the suspected species. If no guidance has been developed (e.g. SNYLF, CHL), the implementing agencies will consult with CDFW and/or USFWS, as appropriate depending on species status, to determine the appropriate survey protocol. The findings of the survey(s) will be provided to the USFWS and CDFW, as appropriate to the species regulatory status.
- For projects that may result in take of federally listed species (e.g., CRLF, CTS, SNYLF, and GGS), USFWS will be consulted. CDFW will also be consulted regarding take of species that are also state listed (e.g., CRLF, CTS, and SNYLF).
- GGS - The activities may qualify to use the “Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with

Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California" (USFWS, 1999). The Habitat Replacement & Restoration Guidelines (Appendix A), Items Necessary for Formal Consultation (Appendix B), Avoidance & Minimization Measures During Construction (Appendix C), and Monitoring Requirements (Appendix D) will be followed.

- The following measures will be implemented, at a minimum, in addition to any measures identified through consultation with USFWS, pursuant to ESA, and CDFW, pursuant to CESA.

California tiger salamander and California red-legged frog minimization measures:

- No later than 30 days prior to commencement of any construction activities between October 15 and May 15, including land clearing, in that portion of the site identified as potential dispersal habitat for CTS, and CRLF, exclusion fencing will be installed along the perimeter of that portion of the project site identified as dispersal habitat. One-way escape funnels will be installed at ground level every 50 feet within the exclusion fencing to allow any migrating amphibian or reptile within the project area to pass through the exclusion fencing. If construction activities occur between October 15 and May 15, the exclusion fencing will be maintained intact through May 15. No exclusion fencing is required if no construction activities occur between October 15 and May 15 within that portion of the project site identified as potential dispersal habitat.
- A qualified Biologist will conduct a pre-construction survey prior to commencement of construction activities, including land clearing, within that portion of the project site identified as potential dispersal habitat. If any special-status amphibian or reptile is identified on-site, work in the vicinity of the individual will not commence until the individual has been removed from the project site by a qualified Biologist and released near a suitable habitat or burrow at least 300 feet from the project site. Any aestivation burrows (defined as two or more small mammal burrows greater than 1 inch in diameter within a 10-footdiameter area within the identified dispersal habitat) will be excavated by hand and individual animals released near a suitable burrow at least 300 feet from the project site.
- Vegetation will be hand cleared in areas where CTS and/or CRLF are suspected to occur.
- Trenches and holes will be covered and inspected daily for stranded animals. Trenches and holes deeper than one foot deep will contain escape ramps (maximum slope of 2:1) to allow trapped animals to escape uncovered holes or trenches. Holes and trenches will be inspected prior to filling.
- A qualified Biologist will conduct a survey daily during initial construction and land clearing activities in that portion of the project site identified as potential dispersal habitat. If special-status amphibians or reptiles are found, the

Biologist will implement the same removal methods identified in the above paragraph.

- From October 15 to May 31 within the potential dispersal habitat identified on the project site, minimize operation of project vehicles and equipment at night off established roads during rain events and within 24 hours following rain events, and check under vehicles parked overnight off established roads before operation.

Sierra Nevada yellow-legged frog minimization measures:

- A qualified Biologist will conduct a pre-construction survey prior to commencement of construction activities, including land clearing, within that portion of the project site identified as potential dispersal habitat. If any special-status amphibian or reptile is identified on-site, work in the vicinity of the individual will not commence until the individual has left the site or has been removed from the project site by a qualified Biologist and released near a suitable habitat at least 300 feet from the project site.
- A qualified biologist will be present during the grubbing and clearing activities in the riparian and aquatic habitat in the project area.
- For projects that include water work, egg and tadpole survey will be conducted. If SNYLF eggs or tadpoles are identified in the work area or within 250 feet downstream of the work area, USFWS and CDFW will be notified and the water quality will be monitored so that the activity does not directly or indirectly disturb eggs or tadpoles.

Giant garter snake minimization measures:

- All ground-disturbing construction activities within 200 feet of aquatic habitat (e.g., irrigation ditches, low flowing streams, and associated seasonal wetlands) suitable for giant garter snakes will be conducted during the snake's active season of May 1 to October 1 so that snakes can move and avoid danger. For any construction outside of this period, USFWS will be consulted to determine whether additional measures are necessary to avoid or minimize potential impacts during the inactive season and avoid take.
- GGS habitat within or adjacent to the Project site will be flagged, staked, or fenced and designated as a no-construction area. No activity will occur within this area and USFWS-approved biological monitoring will be conducted to ensure that avoidance measures are being implemented.
- Vegetation will be hand cleared in areas where GGS are suspected to occur.
- Heavy equipment and vehicular movement within 200 feet of the banks of aquatic habitat will be restricted to existing access roads and the predetermined staging and construction sites to minimize habitat disturbance.
- In areas where wetlands, irrigation ditches, or other potential giant garter snake habitats are being retained on the site:

- A qualified Biologist will direct the installation of temporary exclusion fencing around suitable upland habitat within 200 feet of aquatic habitat to prevent giant garter snakes from entering the work area during construction. The fencing will be maintained for the duration of the construction activities;
- Ground disturbance, spoils, and equipment storage and other project activities will not be allowed within the fenced area; and
- The water quality will be maintained and construction runoff into wetland areas will be limited through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents. However, no plastic, monofilament, jute, or similar matting to control erosion that could entangle snakes will be placed in the project area.

- If wetlands, irrigation ditches, or other potential giant garter snake habitat would be filled, the aquatic habitats will be dewatered at least 15 days before fill. Dewatering of aquatic habitat for construction purposes will not occur between October 1 and April 15, with the exception of any areas within a cofferdam, unless authorized by USFWS. Any dewatered habitat must remain dry for at least 15 consecutive days after April 15 and before excavation or filling of the dewatered habitat. If GGS are observed, the species will be allowed to move out of the area on its own and will not be captured or relocated unless authorized by USFWS.
- Within 24 hours before beginning construction activities within 200 feet of suitable aquatic habitat for giant garter snakes, a qualified Biologist will inspect areas of anticipated disturbance for the presence of giant garter snakes. The construction area will be reinspected whenever a lapse in construction activity of two weeks or more has occurred. The monitoring Biologist will be available thereafter; if a snake is encountered during construction activities, the monitoring Biologist will have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities should be allowed to move away from construction activities on their own.
- Trenches and holes will be covered and inspected daily for stranded animals. Trenches and holes deeper than one foot deep will contain escape ramps (maximum slope of 2:1) to allow trapped animals to escape uncovered holes or trenches. Holes and trenches will be inspected prior to filling.
- After completion of project-related construction activities, any temporary fill and construction debris will be removed, and wherever feasible, disturbed areas will be restored to pre-project conditions. For any fill or debris that could be used as snake refugia, removal will occur prior to giant garter snake inactive season (October 2 to April 30), or potential refugia removed after that date must be surveyed for the presence of snakes by a qualified Biologist prior to removal.

Western pond turtle minimization measures:

- Pre-construction surveys for WPT will be conducted by a qualified Biologist 14 days before and 24 hours before the start of ground-disturbing activities where suitable habitat exists (e.g., along riparian areas and freshwater emergent wetlands).
- If WPT or their nests are observed during pre-construction surveys, a qualified Biologist will be on-site to monitor construction in suitable WPT habitat. WPT found within the construction area will be allowed to leave of its own volition or it will be captured by a qualified Biologist and relocated out of harm's way to the nearest suitable habitat immediately upstream or downstream from the Project site.
- If WPT nests are identified in the work area during pre-construction surveys, a 300-foot no disturbance buffer will be established between the nest and any areas of potential disturbance. Buffers will be clearly marked with temporary exclusion fencing. Construction will not be allowed to commence in the exclusion area until hatchlings have emerged from the nest, or the nest is deemed inactive by a qualified Biologist.

Coast horned lizard minimization measures:

- Focused surveys for the coast horned lizard will be conducted within suitable habitat that may be temporarily disturbed or permanently affected. Survey will be conducted in September/October when the species is more active prior to winter hibernation. The surveys will be conducted in to maximize the likelihood of observing the species, and shall rely on a combination of several walking surveys at times of the day when coast horned lizards are most active. The estimated occupied area will be delineated on a map, flagged in the field, and made available to all project personnel for avoidance.
- If avoidance is not feasible the implementing agency will consult with CDFW to develop a capture and relocation measures.
- A qualified Biologist will direct the installation of temporary exclusion fencing around suitable to prevent coast horned lizard from entering the work area during construction. The fencing will be maintained for the duration of the construction activities;
- Ground disturbance, spoils, and equipment storage and other project activities will not be allowed within the fenced area; and
- If coast horned lizard is found within the construction footprint, it will be allowed to move out of harm's way of its own volition or a qualified Biologist will relocate the lizard outside of the construction impact area but within suitable habitat.
- Trenches and holes will be covered and inspected daily for stranded animals. Trenches and holes deeper than one foot deep will contain escape ramps (maximum slope of 2:1) to allow trapped animals to escape uncovered holes or trenches. Holes and trenches will be inspected prior to filling.

Western spadefoot toad minimization measures:

- For work conducted during the western spadefoot toad migration and breeding season (November 1 to May 31), a qualified Biologist will survey the active work areas (including access roads) in mornings following measurable precipitation events. Construction may commence once the Biologist has confirmed that no spadefoot toads are in the work area.
- When feasible, there will be a 50-foot no-disturbance buffer around burrows that provide suitable upland habitat for western spadefoot toad. Burrows considered suitable for spadefoot will be identified by a qualified Biologist. The Biologist will delineate and mark the no-disturbance buffer. Burrows that cannot be avoided will be excavated by hand and individual animals released near a suitable burrow at least 300 feet from the project site.
- If western spadefoot toad is found within the construction footprint, it will be allowed to move out of harm's way of its own volition or a qualified Biologist will relocate the western spadefoot toad to the nearest burrow that is outside of the construction impact area.
- Prior to beginning work each day, a qualified Biologist will inspect underneath equipment and stored pipes greater than 1.2 inches (3 cm) in diameter for western spadefoot toad. If any are found, they will be allowed to move out of the construction area under their own accord.
- Trenches and holes will be covered and inspected daily for stranded animals. Trenches and holes deeper than one foot deep will contain escape ramps (maximum slope of 2:1) to allow trapped animals to escape uncovered holes or trenches. Holes and trenches will be inspected prior to filling.

Foothill yellow-legged frog minimization measures:

- Exclusion fencing will be required for construction activities that occur within that portion of the project site identified as potential habitat.
- If a FYLF is found within the construction footprint, it will be allowed to move out of harm's way of its own volition or a qualified Biologist will relocate the frog to the nearest suitable habitat area that is outside of the construction impact area.
- Trenches and holes will be covered and inspected daily for stranded animals. Trenches and holes deeper than one foot deep will contain escape ramps (maximum slope of 2:1) to allow trapped animals to escape uncovered holes or trenches. Holes and trenches will be inspected prior to filling.
- If in-stream work activities occur between April 1 and August 31, a FYLF egg and tadpole survey will be conducted. If FYLF eggs or tadpoles are identified in the work area or within 250 feet downstream of the work area, CDFW will be notified and the water quality will be monitored so that the activity does not directly or indirectly disturb eggs or tadpoles.

Mammals
Bats minimization measures:

If the proposed project identifies potential for bats or identifies a bat colony to be affected by project activities, the following measures will be implemented where feasible and necessary to avoid site-specific impacts:

- Surveys will be conducted to determine if areas of potential habitat are occupied by bats. These habitat types should be specifically surveyed if present within the project and within 14 days prior to start of construction. Bats may utilize rocky outcrops; dense tree canopies; snags; bridges over creeks or water; mines, caves, or flumes; cave-like structures; and/or vacant buildings. Surveys may consist of a daytime pedestrian surveys looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats. The type of survey will depend on the condition of the buildings or habitat. Bat detectors may be used to supplement survey efforts, but are not required. If no evidence of bat roosts are found, then no further study is required. If evidence of bat use is observed, the number and species of bats using the roost will be determined.
    - If surveys confirm bats daytime-roost will be affected by the project, a Bat Exclusion Plan will be developed by the implementing agency and submitted to CDFW for review and approval prior to its implementation. No bat exclusion will occur between March 1 and August 15 (depending on location) which coincides with the maternity season in California.
    - If a winter roost or a maternity roost is found, a 100-foot buffer will be created around a roost and no project related activities will occur within the buffer until a Biologist has determined that the roost is no longer in use.

Badger minimization measures:

If the proposed project identifies potential for badger or identifies a badger den to be affected by project activities, the following measures will be implemented where feasible and necessary to avoid site-specific impacts:

- If during the biological resources assessment a badger burrow or den is found, a visual survey (i.e. direct observation, monitoring, trail camera, etc.) of the burrow or den will be conducted to determine if the burrow or den is in use. If the burrow or den is determined not to be in use, no further study is required.
- If the burrow or den is found to be in use, the project applicant will consult with CDFW to determine the appropriate avoidance, minimization and mitigation measures for direct and indirect impacts that could occur as a result of project construction and will implement the measures to achieve no net loss of occupied habitat or individuals. Minimization and mitigation

measures may include implementation of seasonal work windows (i.e., avoiding the denning period) to avoid or minimize impacts to the species, implementation of buffer areas to minimize disturbance, biological construction monitoring, passive exclusion, and preservation, restoration, or creation of badger habitat.

- If passive exclusion is use, no disturbance of active dens will take place when cubs may be present and dependent on parental care, as determined by a Biologist. If the Biologist determines that dens may be active but outside of the denning season, the entrances of the dens will be blocked with soil, sticks, and debris for three to five days to discourage the use of these dens prior to project disturbance activities. The den entrances will be blocked to an incrementally greater degree over the three to five-day period. After the qualified Biologist determines that special status mammals have stopped using the active dens, the dens will be hand-excavated with a shovel to prevent re-use during construction.

Special-Status Forest Carnivores minimization measures:

If the proposed project identifies potential for special-status forest carnivores or their dens to be affected by project activities, the following measures will be implemented where feasible and necessary to avoid site-specific impacts:

- Implementing agencies shall implement the following practices identified below for American marten, and apply the same survey practices to the Pacific fisher, Sierra Nevada red fox and California wolverine for land use changes and transportation projects within the range of these species. CDFW shall be notified of the results of the preconstruction surveys and establishment of buffers to avoid discovered dens.
- Pre-project surveys for American marten den sites will be conducted by a wildlife Biologist in suitable denning habitat within 0.25 mile of vegetation removal, construction, and development activities. The results of the surveys shall be made available to CDFW for review and approval prior to site disturbance or construction activity.
- If a potential den is located, an appropriate method will be used to determine whether the site is occupied by marten. Determination of suitability, and whether a pre-project survey is required, should be based on a reconnaissance field assessment of habitat conditions before initiating projects in these areas.
- Survey Timing: April 1 to July 31: If an active marten den site is located during the pre-project surveys or otherwise, notify CDFW. Delay project activities within 500 feet of the den during the sensitive denning season when activities could disturb rearing of young (April 1 through July 31). Although martens are active and can be surveyed year-round, this is considered the sensitive reproductive period that could overlap with timing of project activities. Generally, young are born between March and April, emerge from the den at about 50 days, and leave their mother in late summer.

- Motorized vehicle or construction equipment use will be restricted within 0.25 mile of an active den or concentrated use area

Birds

If the proposed project identifies potential for burrowing owl or identifies burrowing owl burrows to be affected by project activities, the following measures will be implemented where feasible and necessary to address site-specific impacts:

- Pre-construction surveys for burrowing owls will be conducted in areas supporting potentially suitable habitat and within 30 days prior to the start of construction activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the site will be resurveyed. The project Biologist will conduct surveys for burrowing owls in accordance with protocols established in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012).
- If burrowing owls are detected, disturbance to burrows will be avoided during the nesting season (February 1 through August 31. Buffers will be established around occupied burrows in accordance with guidance provided in the Staff Report on Burrowing Owl Mitigation. Buffers around occupied burrows will be a minimum of 656 feet (200 meters) during the nesting season, and 160 feet (100 meters) during the non-breeding season.
- Outside of the nesting season (February 1 through August 31), passive owl relocation techniques will be implemented if approved by CDFW. Owls would be excluded from burrows in the immediate impact zone within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors will be in place at least 48 hours prior to excavation to insure the owls have departed.
- The work area will be monitored daily for one week to confirm owl departure from burrows prior to any ground-disturbing activities.
- Where possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe will be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.

Swainson's hawk minimization measures:

If the proposed project identifies potential for Swainson's hawk or identifies Swainson's hawk nest(s) to be affected by project activities, the following measures will be implemented where feasible and necessary to address site-specific impacts:

- If construction activities occur between February 1 and August 31, the implementing agencies will conduct surveys for Swainson's hawk in accordance with the Swainson's Hawk Technical Advisory Committee 2000 guidelines (SHTAC, 2000), or current guidance. Surveys will cover a minimum of a 0.5-mile radius around the construction area. If nesting

Swainson's hawks are detected, a 0.5-mile no disturbance buffer will be established. Buffers will be maintained until a qualified Biologist has determined that the young have fledged and are no longer reliant upon the nest or parental care for survival.

- If potential nesting trees are to be removed during construction activities, removal will take place outside of Swainson's hawk nesting season and the implementing agencies will develop a plan, in consultation with CDFW, to replace known nest trees at a ratio of 3:1. If replacement planting is implemented, monitoring will be conducted annually for five years to assess the mitigation's effectiveness. The plan will include a performance standard for the mitigation that results in a no net loss of nesting habitat.
    - If available, the implementing agencies will participate in a Swainson's Hawk Mitigation Program to compensate for loss of foraging habitat. If no such program exist, the implementing agencies will consult with CDFW so that affected foraging habitat is replaced at a ratio that results in a no net loss of foraging habitat.

Northern Goshawk and California Spotted Owl minimization measures:

If the proposed project identifies potential for northern goshawk, California spotted owl or identifies northern goshawk or California spotted owl nest to be affected by project activities, the following measures will be implemented where feasible and necessary to address site-specific impacts:

Northern Goshawk

- Pre-project surveys will be conducted in suitable nesting habitat within 0.25 mile of vegetation removal, construction, and development activities prior to site disturbance or construction activity. Surveys for northern goshawks will follow the Northern Goshawk Inventory and Monitoring Technical Guide (Woodbridge and Hargis 2006), or another appropriate method determined by the appropriate regulatory agency. Suitable nesting habitat and whether a pre-project protocol survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified avian Biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the protocol survey; if suitable habitat is not present, no further (protocol) survey would be required.
- Survey timing: June 1 to August 15 (broadcast acoustical surveys or intensive surveys/stand searches) or approximately March 1 to April 15 (dawn acoustical surveys): To avoid disturbances to or loss of active nest sites, between March 15 and August 15, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. This buffer may be reduced through consultation with CDFW. This time frame is based on the

California Forest Practice Rules guidelines and definition of “Critical Period” for northern goshawk.

California Spotted Owl

- Pre-project surveys will be conducted in suitable nesting habitat within 0.25 mile of vegetation removal, construction, and development activities prior to site disturbance or construction activity. Surveys for California spotted owl will follow the Protocol for Surveying for Spotted Owl in Proposed Management Activity Areas and Habitat Conservation Areas (USFS, 1993), or another appropriate method determined by the appropriate regulatory agency. Suitable habitat suitability, and whether a pre-project protocol survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified avian Biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the protocol survey; if suitable habitat is not present, no further (protocol) survey would be required.
- Survey Timing: March 1 to August 31: To avoid disturbances to or loss of active nest sites, between March 1 and August 31, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. This buffer may be reduced through consultation with CDFW.
    - The project applicant shall not remove any trees between September 1 and February 28 that contained active nest sites for California spotted owl or northern goshawk during the breeding season. Once a qualified Biologist has deemed a nest site inactive for two consecutive years, the restriction to protect the nest tree shall be lifted.

Other raptors (e.g., white-tailed kite, northern harrier, owls), minimization measures:

In order to eliminate or reduce impacts to nesting raptor the following mitigation measures are required where feasible and necessary to address site-specific impacts:

- Conduct construction related activities near suitable raptor nesting habitat in the non-breeding season (August 16 to February 14) to the extent practicable.
- If project construction activities, including ground disturbing activities, vegetation trimming or tree removal are scheduled to occur between February 15 and August 15, a pre-construction survey will be conducted within a 500-foot radius of the site to survey for nesting raptors, including ground-nesting raptors (i.e., northern harrier). The survey(s) will occur within seven days of start of construction. If no nesting raptors are found, then no further mitigation is required. If nesting raptors are found the following measures will be implemented:

- If nesting raptors are found, the nests and nest trees will be protected with a no construction buffer determined by the project Biologist so that "no take" occurs. The no construction buffer will remain until the young have fledged and are no longer reliant on the nest site or parental care or until the project Biologist determines that the nest is no longer in use.
- If MBTA protected species are found nesting, the nests and nest tree/shrub/structure will be protected by a no-construction buffer as determined by the project Biologist so that "no take" occurs and/or until young have fledge and are no longer reliant on the nest site or parental care.

Riparian, marsh, beach or bank nesting birds (e.g. western yellow-billed cuckoo, least Bell's vireo, willow flycatcher, yellow warbler, yellow-headed blackbird, bank swallow, California least tern, western snowy plover, California clapper rail, California black rail) minimization measures:

If the proposed project identifies potential for special-status riparian, marsh, beach or bank nesting birds or identifies colonies or nests to be affected by project activities, the following measures will be implemented where feasible and necessary to address site-specific impacts:

- If western yellow-billed cuckoo, least Bell's vireo, willow flycatcher, bank swallow, California least tern, western snowy plover, California clapper rail, California black rail or yellow warbler has the potential to be present within a work area, a qualified Biologist will make an initial site visit to determine if suitable habitat for the species exists within the vicinity of the project footprint.
- Where suitable habitat is present, surveys will be conducted by Biologists adhering to guidance offered in Western Yellow-billed Cuckoo Natural History Summary and Survey Methodology (Halterman et al., 2009); Least Bell's Vireo Survey Guidelines (USFWS, 2001); A Survey Protocol for Willow Flycatcher in California (Bombay et al., 2003) and/or current industry standards and the implementing agencies will initiate consultation with USFWS and CDFW.

If nests are detected, the implementing agencies will establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted by construction. No-disturbance buffers around active nests will be a minimum of 250 feet, unless a qualified Biologist determines that smaller buffers would be sufficient to avoid impacts to nesting birds. Factors to be considered for determining buffer size will include: the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers will be maintained until a qualified Biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable

Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure BIO-1b would result in participation in adopted species conservation plans with mitigation consistent with the terms of those plans, or the preparation of project-specific biological resource assessments with avoidance of special-status species where feasible, and where avoidance is not feasible, mitigation consistent with local, state, and federal requirements as described above.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure BIO-1c: Avoid, minimize, and mitigate impacts on special-status fish species.

Measures that shall be implemented, where feasible and necessary to reduce impacts to special-status species include but are not limited to:

- Projects covered by conservation plans or that are able to utilize take permits under such plans shall abide by the terms of the plan/permit. For all other projects and for non-covered species the following shall apply, dependent on the findings of project-specific biological resources assessment.
- A biological resources assessment for specific projects proposed will be prepared in areas containing, or likely to contain, habitats for special-status fish.
- If habitat is found, but the proposed project will have no impact on the habitat or species, no further study is required. If habitat is present and cannot be avoided, the implementing agencies will initiate consultation with NMFS, USFWS, and/or CDFW, depending on species status.

Measures that shall be implemented, where feasible and necessary to address site-specific impacts, to minimize direct and indirect impacts to special-status fish include but are not limited to:

- Avoidance of special-status fish species and their habitat will be pursued where consistent with the project objectives and where feasible, as defined in Section 15364 of the CEQA Guidelines.
- The implementing agencies will secure any necessary take authorization prior to project construction through consultation NMFS and USFWS pursuant to Section 7 of the ESA if there is a federal action, and will implement all measures included in the Biological Opinion issued by NMFS and/or USFWS. The implementing agencies will also implement all measures provided by CDFW.
- All work within waters where there is potential for Delta smelt to occur, as defined in the most recent USFWS guidance, will be confined to a season

work window of August 1 through November 30 when Delta smelt are least likely to be present. Because this species does not regulate its movement strictly within this time frame, modification to the work windows may be approved by USFWS prior to project implementation based on information from the various in-Delta monitoring programs.

- In-channel construction activities that could affect designated critical habitat for Central Valley steelhead and/or Chinook salmon will be limited to the low-flow period between June 1 and October 1 to minimize potential for adversely affecting federal listed anadromous salmonids during their emigration period.
- In-channel construction activities which could affect habitat for Pacific salmonids will be limited to daylight hours during weekdays, leaving a nighttime and weekend period of passage for federally listed fish species.
- Construction BMPs for off-channel staging and storage of equipment and vehicles will be implemented to minimize the risk of contamination of the waters of the stream/river by spilled materials. BMPs will also include minimization of erosion and stormwater runoff, as appropriate.
- Riparian vegetation removed or damaged will be replaced at a ratio, coordinated with NMFS and CDFW, within the immediate area of the disturbance to maintain habitat quality.
- If bank stabilization activities should be necessary, then such stabilization will be constructed to minimize predator habitat, minimize erosion potential, and contain material suitable for supporting riparian vegetation.
- Designated critical habitat within the vicinity of project activities will be identified. All proposed project actions will be designed to avoid direct and indirect adverse modifications to these areas. Minimization measures, such as establishing and maintaining buffers around areas of designated critical habitat will be implemented in the event that avoidance is not feasible.
- If critical habitat may be adversely modified by the implementation of proposed project actions, the area to be modified will be evaluated by a qualified Biologist to determine the potential magnitude of the project effects (e.g., description of primary constituent elements present and quantification of those affected) at a level of detail necessary to satisfy applicable environmental compliance and permitting requirements.
- The project applicant will implement compensatory conservation measures developed through consultation with USFWS or NMFS. If off-site compensation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures a mitigation and monitoring plan will be developed. The plan will include information on responsible parties for long-term management,

holders of conservation easements, long-term management requirements, and other details, as appropriate, for the preservation of long-term viable populations. Any impacts that result in a compensation purchase will be required to do so with an endowment for land management in perpetuity prior to any project groundbreaking activities.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure BIO-1c would result in participation in adopted species conservation plans with mitigation consistent with the terms of those plans, or the preparation of project-specific biological resource assessments with avoidance of special-status species where feasible, and where avoidance is not feasible, mitigation consistent with local, state, and federal requirements as described above.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure BIO-1d: Avoid, minimize, and mitigate impacts to sensitive natural communities.

Measures that shall be implemented, where feasible and necessary to address site-specific impacts, to reduce the impacts to these sensitive natural communities and avoid potential conflicts with local policies that protect them include but are not limited to.

- Projects covered by conservation plans or that are able to utilize take permits under such plans shall abide by the terms of the plan/permit. For all other projects and for non-covered species the following shall apply, dependent on the findings of project-specific biological resources assessment.
- Biological resources assessments for specific projects proposed will be prepared in areas containing, or likely to contain, habitat for sensitive natural communities (see Appendix BIO-3).
- Prior to project initiation, a qualified botanist will conduct surveys for sensitive natural communities in areas where potentially suitable habitat would be removed or disturbed by project activities, these surveys can be carried out concurrent with special-status plant surveys. If no sensitive natural communities are found, the botanist will document the findings in a letter report to CDFW and the implementing agency.

- To the extent practicable, and in consideration of other design requirements and constraints (e.g., meeting primary project objectives and needs, avoidance of other sensitive resources), the implementing agencies will attempt to design the proposed projects in a way that minimizes the removal of native sensitive natural communities, particularly trees that contribute to the overstory canopy of these communities.
- If effects occur to riparian habitat, emergent wetland, or other sensitive natural communities associated with streams or lakes, the implementing agencies will comply with Section 1602 of the California Fish and Game Code; compliance may include measures to protect fish and wildlife resources during the project.
- If riparian vegetation is removed or disturbed, the project applicant will compensate for the loss of riparian vegetation. Compensation will be provided at a sufficient ratio for no net loss of habitat function or acreage for restoration and preservation, and may be a combination of onsite restoration/creation, offsite restoration, preservation, or mitigation credits. At a minimum, the restoration and monitoring plan will include clear goals and objectives, success criteria, specifics on restoration/creation (plant palette, soils, irrigation, etc.), specific monitoring periods and reporting guidelines, and a maintenance plan. Riparian restoration or creation will be monitored for a minimum of five years and will be considered successful when at least 75 percent of all plantings have become successfully established.
- If oak woodland is removed, the county implementing agency will determine if the loss of oak woodland would have a significant impact on the environment. If so, an oak woodland mitigation plan would be developed that achieves a no-net-loss of habitat acreage and function, and may be a combination of restoration/creation, preservation, or mitigation credits. At a minimum, the restoration and monitoring plan will include clear goals and objectives, success criteria, specifics on restoration/creation (e.g., plant palette, soils, irrigation), specific monitoring periods and reporting guidelines, and a maintenance plan. Oak woodland restoration or creation will be monitored for a minimum of five years and will be considered successful when at least 75 percent of all plantings have become successfully established. Such mitigation sites will be dedicated either in fee or as an easement in perpetuity held by a qualified agency. Guaranteed funding for maintenance of the mitigation sites will be established.
- If losses of other sensitive natural communities recognized as sensitive by CDFW (see Appendix BIO-3) would be substantial, then additional compensation will be provided through creating, restoring, or preserving in perpetuity in-kind communities at a sufficient ratio for no-net-loss of habitat function or acreage.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure BIO-1d would result in participation in adopted species conservation plans with mitigation consistent with the terms of those plans, or the preparation of project-specific biological resource assessments with avoidance of sensitive natural species where feasible, and where avoidance is not feasible, mitigation consistent with local, state, and federal requirements as described above.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure BIO-1e: Avoid, minimize, and mitigate impacts to wetland and other waters.

Measures that shall be implemented, where feasible and necessary to address site-specific impacts, to reduce impacts to wetlands and other waters include but are not limited to:

- Projects covered by conservation plans or that are able to utilize take permits under such plans shall abide by the terms of the plan/permit. For all other projects and for non-covered species the following shall apply, dependent on the findings of project-specific biological resources assessment or wetland delineation.
- Before implementing a proposed project that may affect waters of the United States or waters of the State, the implementing agency will map the distribution of wetlands (including vernal pools and other seasonal wetlands) in the vicinity of the work area.
- The implementing agency will determine, based on the mapped distribution of these wetlands and waters, the acreage of effects, if any, on waters of the United States. If it is determined that wetlands will be affected by the proposed project, the implementing agency will conduct a delineation of waters of the United States, and submit the delineation to USACE for verification. The delineation will be conducted according to methods established in the USACE Wetlands Delineation Manual (Environmental Laboratory, 1987) and Arid West Supplement (Environmental Laboratory, 2008).
- The implementing agencies will obtain a USACE Section 404 permit, RWQCB Section 401 certification, and a Streambed Alteration Agreement (1602) from CDFW if required, and the implementing agency will implement all permit conditions. The acreage, location, and methods for compensation will be determined during the Section 401, Section 404 and Streambed Alternation Agreement (1602) permitting process.

- Implementing agencies will adhere to a "no net loss" basis of the acreage of wetlands and other waters of the U.S. and waters of the State that will be removed and/or degraded. Wetland habitat will be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to USACE, RWQCB, and CDFW as appropriate, depending on agency jurisdiction. The replacement of waters or wetlands will be equivalent to the nature of the habitat lost, and will be provided at a suitable ratio to ensure that, at a minimum, there is no net loss of habitat acreage or value. The replacement habitat will be set aside in perpetuity for habitat use.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure BIO-1e would result in participation in adopted species conservation plans with mitigation consistent with the terms of those plans, or the preparation of project-specific wetlands delineations with avoidance of wetlands where feasible, and where avoidance is not feasible, mitigation consistent with local, state, and federal requirements as described above.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure BIO-2: Avoid, minimize, and mitigate impacts to wildlife corridors or native wildlife nursery sites.

Measures that shall be implemented at a project-level, where feasible and necessary to address site-specific impacts to wildlife corridors or native wildlife nursery sites include but are not limited to:

- Projects covered by conservation plans or that are able to utilize take permits under such plans shall abide by the terms of the plan/permit. For all other projects and for non-covered species the following shall apply.
- Implementing agencies will design projects such that they avoid and minimize direct and indirect impacts to wildlife corridors and/or native wildlife nursery sites. Design considerations may include but would not be limited to the following:
    - constructing wildlife friendly overpasses, underpasses, bridges and/or culverts that are integrated with appropriate roadside fencing that maintains animals off the road and direct them towards crossing structures;
    - using wildlife friendly fences that allow larger wildlife such as deer to get over, and smaller wildlife to go under;

- limiting wildland conversions in identified wildlife corridors or native wildlife nursery sites; and
- retaining wildlife friendly vegetation in and around developments,
- avoid the nursery season during construction.

- For projects that cannot avoid significant impacts to wildlife movement corridors or wildlife nursery areas, implementing agencies will consult with CDFW to determine appropriate measures to minimize direct and indirect impacts that could occur as a result of the proposed project and will implement measures to mitigate impacts to wildlife corridors or native wildlife nursery sites.
- For projects that require the placement of stream culverts in a fish spawning stream, the implementing agencies will follow the USACE, NMFS, USFWS and CDFW permit conditions and design requirements to allow fish passage through the culverts.
- For projects in or adjacent to riparian corridors, project design will maximize distance of lighting from riparian corridors and direct light sources away from the riparian corridor. Night lighting of trails along riparian corridors should be avoided.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure BIO-2 would result in participation in adopted species conservation plans with mitigation consistent with the terms of those plans, or the avoidance of wildlife corridors or native wildlife nursery sites where feasible, and where avoidance is not feasible, mitigation consistent with local, state, and federal requirements as described above.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure BIO-3: Avoid, minimize, and mitigate for impacts on protected trees and other biological resources protected by local ordinances.

Measures that shall be implemented, where feasible and necessary to address site-specific impacts, to ensure that the proposed project is consistent with local ordinances protecting trees and other biological resources include but are not limited to:

- Projects covered by conservation plans or that are able to utilize take permits under such plans shall abide by the terms of the plan/permit. For all other projects and for non-covered species the following shall apply.

- A biological resources assessment for specific projects proposed will be prepared in areas containing, or likely to contain, protected trees or other locally protected biological resources (e.g., streams, wetlands, and sensitive natural communities).
- Implementing agencies should design projects such that they avoid and minimize direct and indirect impacts to protected trees and other locally protected resources where feasible, as defined in Section 15364 of the CEQA Guidelines.
- At a minimum, qualifying protected trees (or other resources) will be replaced at ratios included in the local general plan, local policies, city or county codes in locally approved mitigation sites.
- As part of project-level environmental review, implementing agencies will ensure that projects comply with the most recent general plans, policies, and ordinances, and conservation plans. Review of these documents and compliance with their requirements will be demonstrated in project-level environmental documentation.

Review of these documents and compliance with their requirements should be demonstrated in project-level environmental documentation.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure BIO-3 would result in participation in adopted species conservation plans with mitigation consistent with the terms of those plans, or the preparation of project-specific biological resource assessments with avoidance of sensitive natural species where feasible, and where avoidance is not feasible, mitigation consistent with local, state, and federal requirements as described above.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CR-1: Conduct project-specific historic built environment resource studies and identify and implement project-specific mitigation.

Measures that shall be implemented, where feasible and necessary to address site-specific impacts, include but are not limited to:

- As part of the project/environmental review of individual projects, a records search at the appropriate Information Center of the CHRIS and a review of literature and historic maps shall be conducted to determine whether the project area has been previously surveyed and whether historic built environment resources were identified.

- In the event the records indicate that no previous survey has been conducted within the last five years, a qualified architectural historian (36 Code Fed. Regs., § 61) shall conduct a study of the project area for the presence of historic built environment resources. The study will include conducting a field survey, necessary background, archival and historic research, consultation with local historical societies, museums or other interested parties as relevant, and preparation of a Historic Resource Assessment Report. The report will document the results of the survey and the historic context, evaluate the federal, state, or local significance of built environment resources greater than 45 years in age that may potentially be directly or indirectly impacted by project activities, recommend appropriate protection or mitigative treatment, if any, and include recordation of identified built environment resources on appropriate California Department of Parks and Recreation (DPR) series 523 forms. The final report and DPR forms will be filed by the architectural historian with the CHRIS. Recommended treatment for historical resources identified in the report shall be implemented.
- If no significant historic built environment resources are identified in the Historic Resource Assessment Report or prior survey of the project study area that may be directly or indirectly impacted by project activities, then mitigation for built environment resources is complete, and there is no adverse change to documented historical built environment resources for the project.
- If significant historic built environment resources are identified in the Historic Resource Assessment Report or prior survey of the project study area, the project sponsor and/or implementing agency should consider avoidance as the primary mitigation measure. If avoidance is possible, mitigation to documented historical built environmental resources is complete.
- If avoidance of a significant built environment resource is not feasible, then the maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, or reconstruction of the historical resource as recommended by a qualified architectural historian or historic architect (36 Code Fed. Regs., § 61) and conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings or Historic Landscapes (Birnbaum and Peters 1996; Weeks and Grimmer 1995) will generally reduce impacts. If adherence to the Secretary of the Interior's Standards cannot avoid materially altering in an adverse manner the physical characteristics or historic character of the surrounding environmental setting that contribute to a resource's historical significance, additional mitigation may be required.
- If avoidance of or minimization of substantial adverse effects to a significant built environment resource is not feasible through project design or by adherence to the Secretary of the Interior's Standards, the project sponsor and/or implementing agency should ensure that Historic American Buildings

Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscapes Survey (HALS) documentation is completed prior to demolishment or significant material alteration of the resource's physical characteristics or setting. The HABS, HAER, and HALS programs formally document historical resources through the use of large-format photography, measured drawings, written architectural descriptions, and historical narratives. The level of documentation required as mitigation and preparation of the HABS, HAER, or HALS will be determined and prepared by a qualified architectural historian or historic architect (36 Code Fed. Regs., § 61). The documentation packages will be archived in appropriate public and secure repositories. Such documentation would not reduce the impact to a less than significant level.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure CR-1 would result in the preparation of project-specific historic built environment resource inventories consistent with the protocol summarized above including mitigation consistent with local, state, and federal requirements that strives to avoid and minimize impacts.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CR-2: Conduct project-specific archaeological resource studies and identify and implement project-specific mitigation.

Measures that shall be implemented, where feasible and necessary to address site-specific impacts, include but are not limited to:

- As part of the appropriate project/environmental review of individual projects, the NAHC shall be consulted to determine whether known sacred sites are in the project area, and to identify Native Americans to contact to obtain information about the project area and relevant areas of cultural sensitivity. Additional consultation with relevant tribal representatives may be appropriate regarding known prehistoric sites, traditional cultural places, TCPs, project areas deemed highly sensitive for prehistoric or ethnohistoric resources, or where avoidance of impacts to prehistoric or ethnohistoric resources may be infeasible. A records search at the appropriate Information Center of the CHRIS shall be conducted by a qualified archaeologist (36 Code Fed. Regs., § 61) as part of the appropriate project/environmental review of individual projects to determine whether the project area has been

previously surveyed and whether archaeological resources were identified.

- In the event the records indicate that no previous survey has been conducted or the survey did not meet current professional standards or regulatory guidelines, the qualified archaeologist (36 Code Fed. Regs., § 61) or the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for archaeological resources and current professional standards or regulatory guidelines. If a survey is considered warranted, the archaeological study of the project area by a qualified archaeologist will include conducting a field survey, necessary background research, a Sacred Lands search by the NAHC and consultation with local Native Americans identified by the NAHC, consultation with local historical societies, museums or other interested parties as relevant, and an Archaeological Survey Report. The confidential report will document the results of the survey and the cultural context, assess the federal, state, or local significance of prehistoric, traditional, or historic-era archaeological resources that may potentially be directly or indirectly impacted by project activities, provide appropriate management recommendations, and include recordation of identified archaeological resources on appropriate California DPR series 523 forms. Management recommendations may include but not be limited to additional studies to evaluate identified sites, treatment for documented historical resources, or archaeological monitoring during ground-disturbing construction activities at locations determined by the archaeologist to be sensitive for subsurface cultural resource deposits, including local Native American monitors if sensitive for prehistoric resources. The final confidential report and DPR forms would be filed by the archaeologist with the CHRIS. Recommended treatment for historical resources identified in the report should be implemented.
- If no archeological resources are identified in the Archeological Survey Report that may be directly or indirectly impacted by project activities, mitigation is complete as there would be no adverse change to documented archeological resources.
- When a project will impact a known archaeological site, the project sponsor and/or implementing agency shall determine whether the site is a historical resource (CEQA Guidelines § 15064.5 (c)(1)). If archaeological resources identified in the project area are considered potentially significant, the project sponsor and/or responsible implementing agency shall undertake additional studies overseen by a qualified archaeologist (36 Code Fed. Regs., § 61) to evaluate the resources eligibility for listing in the CRHR, NRHP, or local register and to recommend further mitigative treatment. Evaluations shall be based on, but not limited to, surface remains, subsurface testing, or archival and ethnographic resources, on the framework of the historic context and important research questions of the project area, and on the integrity of the resource. If a site to be tested is prehistoric, local tribal representatives should be afforded the opportunity to

monitor the ground-disturbing activities. Appropriate mitigation may include curation of artifacts removed during subsurface testing.

- If significant archaeological resources that meet the definition of historical or unique archaeological resources are identified in the project area, the preferred mitigation of impacts is preservation in place (CEQA Guidelines § 15126.4(b); Pub. Resources Code, § 21083.2). Preservation in place may be accomplished by, but is not limited to, avoidance by project design, incorporation within parks, open space or conservation easements, covering with a layer of sterile soil, or similar measures. If preservation in place is feasible, mitigation is complete. Additionally, where the implementing agency determines that an alternative mitigation method is superior to in-place preservation, the project sponsor and/or implementing agency may implement such alternative measures.
- When preservation in place or avoidance of historical or unique archaeological resources are infeasible, data recovery through excavation shall be required (CEQA Guidelines § 15126.4(b)). Data recovery would consist of approval of a Data Recovery Plan and archaeological excavation of an adequate sample of site contents so that research questions applicable to the site can be addressed. For prehistoric sites, local tribal representatives should be afforded the opportunity to monitor the ground-disturbing activities. If only part of a site will be impacted by a project, data recovery will only be necessary for that portion of the site. Data recovery will not be required if the implementing agency determines prior testing and studies have adequately recovered the scientifically consequential information from the resources. Studies and reports resulting from the data recovery shall be deposited with the appropriate CHRIS Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code or the provisions of NAGPRA on federal lands. Mitigation may include curation for artifacts removed during data recovery excavation.
- If archaeological resources are discovered during construction, all work near the find shall be halted and the project sponsor and/or implementing agency shall follow the steps described under CEQA Guidelines Section 15064.5(f), including an immediate evaluation of the find by a qualified archaeologist (36 Code Fed. Regs., § 61) and implementation of avoidance measures or appropriate mitigation if the find is determined to be a historical resource or unique archaeological resource. Consultation with or affording local tribal representatives the opportunity to monitor mitigative treatment may be appropriate. Should the find include human remains, the remains shall be treated in accordance with the provisions of Section 7050.5 of the Health and Safety Code or the provisions of NAGPRA on federal lands. During evaluation or mitigative treatment, ground disturbance and construction work could continue on other parts of the project area.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure CR-2 would result in the preparation of project-specific archeological resource inventories consistent with the protocol summarized above, including mitigation consistent with local, state, and federal requirements that strives to avoid and minimize impacts. Implementation of this measure would also ensure that unknown subsurface resources are properly protected and assessed if discovered.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CR-3: Reduce visibility or accessibility of historical or unique archaeological resources.

The project sponsor and/or implementing agency shall determine whether or not implementation of a project will indirectly impact historical or unique archaeological resources by increasing public visibility and ease of access. Increased visibility and accessibility may place a significant archaeological site in danger of disturbance, alteration, or destruction via vandalism, unauthorized collection of artifacts, or destruction (intentional or unintentional) of prehistoric or historic features. If so, the project sponsor and/or implementing agency shall take measures to reduce the visibility or accessibility of the historical or unique archaeological resource to the public. Visibility of the resource can be reduced through the use of decorative walls or vegetation screening. Accessibility can be reduced by installing fencing or vegetation barriers, particularly noxious vegetation, such as poison oak or blackberry bushes. It is important to avoid creating an attractive nuisance when protecting significant archaeological sites. Conspicuous walls or signs indicating that an area is restricted may result in more attempts to access the excluded area.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure CR-3 would ensure that historical or unique archeological resources that may be indirectly at risk due to increased public visibility and ease of access are protected through the use of walls or vegetation screening to reduce visibility and installation of fencing or vegetation barriers to reduce accessibility.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CR-4: Conduct project-specific paleontological resource studies and identify and implement mitigation.

Measures that shall be implemented, where feasible and necessary to address site-specific impacts, include but are not limited to:

- The fossil yielding potential of the project area shall be determined by initially identifying the aerial and stratigraphic extents of the local geology, and then by performing a site-specific search of fossil locality records and peer-reviewed literature, as appropriate, by a qualified professional paleontologist, established state clearinghouse such as the UCMP, and/or by an established paleontological repository. A field survey by a qualified professional paleontologist to assess the paleontological sensitivity of the project area may be warranted if the preliminary review is inconclusive.
- If a project is found to contain or be in the near vicinity of previously identified paleo- resources, to be located within an area of high, moderate, or undetermined paleontological resource sensitivity, or to be near a known unique geological feature, the project sponsor and/or implementing agency shall retain a qualified professional paleontologist prior to construction to conduct a survey, as warranted, to locate surface fossil concentrations and to assess the sensitivity of the project area for unique paleontological resources or geologic features. After completion of the survey, the qualified paleontologist will complete a technical report documenting the results of all work, and include any recommended mitigation recommendations specific to the project. This study shall comply with standards in the industry such as the *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontological Resources* (SVP, 2010) and applicable regulations.
- If the study indicates the project area is located in an area rich with paleontological resources or geologic features, the study may recommend that the project sponsor and/or implementing agency retain a qualified paleontologist to prepare a Paleontology Mitigation Plan and monitor subsurface disturbance, such as grading, excavation, and trenching. Construction protocols to ensure that contractors take appropriate measures to avoid destroying fossil materials discovered during construction shall also be established by the project sponsor and/or implementing agency.
- Any area of known unique paleontological resources within a project area shall be avoided during construction if feasible. If avoidance of known resources is infeasible or a project has been identified as potentially directly or indirectly impacting, damaging or destroying a unique paleontological resource, treatment measures for nonrenewable unique paleontological resources or unique geologic features may include appropriate

documentation and/or salvage measures for fossils, microfossils, or matrix in consultation with the project sponsor and/or implementing agency. Treatment shall comply with regulatory requirements. Measures may include plans for sampling and data recovery. All final documentation of mitigation treatment for paleontological resources to be impacted by the project shall be approved by the project sponsor and/or implementing agency prior to the initiation of any project ground-disturbing activities.

- If fossils or other paleontological resources are encountered during construction, all work shall be halted within a minimum 30-foot radius of the find and a qualified paleontologist shall be contacted to examine the find and evaluate its significance. If the find is deemed to have significant scientific value, the paleontologist and the project sponsor and/or implementing agency shall coordinate with the property owner to formulate a plan to either avoid impacts, document the resource, or to continue construction without disturbing the integrity of the find (e.g., by excavating the material containing the resources). Consistent with regulatory requirements, recommendations determined by the qualified professional paleontologist, project sponsor, and/or implementing agency to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure CR-4 would result in the preparation of project-specific paleontological resource inventories consistent with industry protocol summarized above that encourages avoidance and minimization of impacts. Implementation of this measure would also ensure that unknown subsurface resources are properly protected and assessed if discovered.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CR-5: Conduct project-specific consultation with traditionally and culturally affiliated California Native American tribes to identify tribal cultural resources (TCR) and implement project-specific mitigation.

If the implementing agency determines that a project may cause a substantial adverse change to a TCR, and measures are not otherwise identified in the consultation process under Public Resources Code Section 21080.3.2, the following mitigation measures described at Public Resources Code Section 21084.3 shall be implemented, where feasible

and necessary, to address site-specific impacts in order to avoid or minimize the significant adverse impacts:

- Avoidance and preservation of the TCRs in place, including, but not limited to, planning and construction 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 TCR with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to: protecting the cultural character and integrity of the resource; or protecting the traditional use of the resource; protecting the confidentiality of the resource;
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places; or
- Protecting the resource.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure CR-5 would result in tribal consultation, and mitigation including resource avoidance, dignified resource treatment, and/or resource protection consistent with local, state, and federal requirements.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CR-6: Reduce visibility or accessibility of tribal cultural resources. Measures that shall be implemented for projects that have a NOP, ND, or MND filed on or after July 1, 2015 include:

- The project sponsor and/or implementing agency shall determine whether or not implementation of a project will indirectly impact TCRs by increasing public visibility and ease of access. Increased visibility and accessibility may place a TCR in danger of disturbance, alteration, or destruction via vandalism, unauthorized collection of artifacts, or destruction (intentional or unintentional) of features, traditional resources, or traditional use of a TCR. If so, the project sponsor and/or implementing agency shall take measures to reduce the visibility or accessibility of the TCR to the public. Visibility of

the resource can be reduced through the use of decorative walls or vegetation screening. Accessibility can be reduced by installing fencing or vegetation barriers, particularly noxious vegetation such as poison oak or blackberry bushes. It is important to avoid creating an attractive nuisance when protecting TCRs. Conspicuous walls or signs indicating that an area is restricted may result in more attempts to access the excluded area.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure CR-6 would ensure that TCRs that may be indirectly at risk due to increased public visibility and ease of access are protected through the use of walls or vegetation screening to reduce visibility and installation of fencing or vegetation barriers to reduce accessibility.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure ENE-1: Require new development to provide necessary infrastructure to charge electric vehicles.

To address this impact, where feasible and necessary to address site-specific impacts, the lead agency shall (1.) require all new single-family residential developments to install conduit necessary for the installation of charging infrastructure for electric vehicles for the use and charging of electric vehicles at the place of residence; and, (2.) require all new multi-family residential developments to install both necessary conduit and charging equipment for electric vehicles. All charging infrastructure and equipment shall be sufficient to meet or exceed electric vehicle supply equipment (EVSE) installation requirements of CALGreen Tier 1.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure ENE-1 would ensure that new development provides necessary infrastructure for charging electric

vehicles, including conduits and charging equipment, sufficient to meet or exceed CALGreen Tier 1 requirements.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure ENE-2: Require new development to comply with local GHG reduction plans that contain measures identified in the Scoping Plan.

The implementing agency should require development and transportation projects to comply with locally-adopted GHG reduction plans that, at a minimum, specifically address measures in the Scoping Plan aimed at reducing GHG emissions. Local plans should include local targets to help the state achieve the AB 32 goal of reducing 5 $MMtCO_2e$ from cities and counties, which also will result in reduced reliance on oil and natural gas from residential, commercial, industrial, and public land uses, as well as transportation.

If a local GHG reduction plan does not exist, the jurisdiction should adopt a plan with the foregoing features and apply such plan to new development projects.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure ENE-2 would require development to be consistent with local GHG reduction plans and that these plans should contain local targets for achieving AB 32 goals. If a local GHG reduction plan does not exist then the jurisdiction is encouraged to adopt one.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure GEO-1: Reduce soil erosion and loss of topsoil through erosion control mitigation and SWPPP.

The implementing agency shall require the development and implementation of detailed erosion control measures, consistent with the CBC and UBC regulations and guidelines and/or local NPDES, to address erosion control specific to the project site; revegetate sites to minimize soil loss and prevent significant soil erosion; avoid construction on unstable slopes and other areas subject to soil erosion where possible; require management techniques that minimize soil loss and erosion; manage grading to maximize the capture and retention of water runoff through ditches, trenches, siltation ponds, or similar measures; and minimize erosion through adopted protocols and standards in the industry. The implementing agency should also require land use and transportation projects to comply with locally adopted grading, erosion, and/or sediment control ordinances beginning when

any preconstruction or construction-related grading or soil storage first occurs, until all final improvements are completed.

If a local grading, erosion, and/or sediment control ordinance or other applicable plans or regulations do not exist, the jurisdiction should adopt ordinances substantially addressing the foregoing features and apply those ordinances to new development projects.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure GEO-1 would require the development of project-specific erosion control measures, revegetation of the site to minimize soil loss and prevent significant soil erosion, avoidance of construction on unstable or erosive slopes, site management to minimize soil loss and prevent erosion, grading to capture and retain water runoff on site, and other measures to minimize erosion. Implementation of this measure would ensure compliance with local grading, erosion, and sediment control ordinances and encourages the development of such ordinances if they do not exist.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure GEO-2: Implement Mitigation Measure GEO-1.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure GEO-2 would require the development of project-specific erosion control measures, revegetation of the site to minimize soil loss and prevent significant soil erosion, avoidance of construction on unstable or erosive slopes, site management to minimize soil loss and prevent erosion, grading to capture and retain water runoff on site, and other measures to minimize erosion. Implementation of this measure would ensure compliance with local grading, erosion, and sediment control ordinances and encourages the development of such ordinances if they do not exist.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure GEO-3: Reduce the loss of availability of a designated mineral resource.

The implementing agency shall protect against the loss of availability of a designated mineral resource through identification of locations with designated mineral resources and adoption and implementation of policies to conserve land that is most suitable for mineral resource extraction from development of incompatible uses.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure GEO-3 would result in identification of mineral resources designated by the state as having regional or statewide significance, and protection of that land from development of incompatible uses.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HAZ-1: Reduce the impacts to the public and the environment from the reasonably foreseeable upset and accident conditions involving the release of hazardous materials by requiring implementation of best practice safety standards regarding crude oil transport.

SACOG, in commenting on several specific projects and on federal rulemaking, has identified numerous measures to mitigate the impacts of crude oil shipments by rail. These include, but are not limited to, the following:

- Removal of the most volatile elements, including flammable natural gas liquids, prior to shipment.
- More stringent tank car safety standards.
- Improved rail transportation route analysis, and modification of routes based on that analysis.
- Utilization of the best available inspection equipment and protocols, and implementation of positive train control.
- Reduced train car speeds to 40 miles per hour when passing through urbanized areas of any size.

- Limitations on storage of crude oil tank cars in urbanized areas of any size and provide appropriate security in storage yards for all shipments.
- Advance notification to county and city emergency operations offices of all crude oil shipments, including a contact number that can provide real-time information in the event of an oil train derailment or accident.
- Quarterly hazardous commodity flow information, including classification and characterization of materials being transported, to all first response agencies (49 Code Fed. Regs. 15.5) along the mainline rail routes used by trains carrying crude oil identified.
- Funding for training and outfitting emergency response crews that includes the cost of backfilling personnel while in training.
- Annual emergency responses scenario/field based training including Emergency Operations Center Training activations with local emergency response agencies.

Timing/Milestone: This mitigation measure is within the jurisdiction of state and federal regulatory agencies, railroad carriers, and local agencies approving crude oil by rail projects.

Responsibility for Oversight: See Timing/Milestone.

Implementation of Mitigation Measure: See Timing/Milestone.

Responsibility for Implementation: See Timing/Milestone.

Mitigation Measure HAZ-2: Determine if project sites are included on a government list of hazardous materials sites pursuant to Government Code Section 65962.5.

For any listed sites or sites that have the potential for residual hazardous materials as a result of historic land uses, project proponents shall prepare a Phase I ESA that meets ASTM standards. For any 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, local air district, and/or other responsible agency issues a determination, which would likely require a Phase 1 ESA as part of the assessment. Projects preparing a Phase I ESA, where required, shall fully implement the recommendations contained in the report. If a Phase I ESA indicates the presence or likely presence of contamination, the project proponent shall require a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA

documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HAZ-2 would result in the preparation of a Phase I Environmental Site Assessment (ESA) that meets industry standards for project sites that appear on government lists of hazardous materials sites pursuant to Government Code Section 65962.5 and for project sites that have the potential to contain residual hazardous materials and/or waste as a result of location and/or prior uses or are found to contain unknown hazards. As a part of this mitigation, the recommendations of the Phase I ESA are to be implemented including preparation, if appropriate, of a Phase II ESA, and implementation of recommendations contained in that report.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HAZ-3: Implement state and local requirements for ongoing emergency evacuation planning.

Implementing agencies shall require implementation of state and local requirements regarding evacuation planning and application of recommended applicable mitigation measures as defined by state and local agencies. Examples of mitigation measures should include, but are not limited to, the following:

- Continue to coordinate locally and regionally based on ongoing review and integration of projected transportation and circulation conditions;
- Develop new methods of conveying projected and real time information to citizens using emerging electronic communication tools including social media and cellular networks; and
- Continue to evaluate lifeline routes for movement of emergency supplies and evacuation.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HAZ-3 would ensure that state and local requirements regarding evacuation planning and application of applicable mitigation measures are implemented, as well as ensure local and regional coordination regarding transportation and circulation, development of new methods of conveying real time emergency information, and continued evaluation of lifeline evacuation routes.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-1: Manage stormwater runoff and other surface drainage.

Measures that shall be implemented at a project-level, where feasible and necessary to address site-specific impacts, to reduce the impacts to hydrological resources, include but are not limited to:

- The implementing agency should require projects to direct stormwater run-off and other surface drainage into an adequate on-site system or into a municipal system with capacity to accept the project drainage. This should be demonstrated by requiring consistency with local stormwater drainage master plans or a project-specific drainage analysis satisfactory to the jurisdiction's engineer of record.
- The implementing agency should develop and implement best management practices (BMPs) for control of stormwater associated with rural residential development not otherwise subject to other runoff and water quality control requirements.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-1 would ensure that projects direct stormwater run-off and other surface drainage into an adequate on-site system or into a municipal system with capacity to accept the project drainage, demonstrated by requiring consistency with local stormwater drainage master plans or a project-specific drainage analysis satisfactory to the jurisdiction's engineer of record and that best management practices (BMPs) for control of stormwater associated with rural residential development not otherwise subject to other runoff and water quality control requirements are implemented.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-2: Use best management practices to treat water quality.

The implementing agency should require the use of BMPs or equivalent measures to treat water quality on-site, prior to leaving the project site, and/or at the municipal system as necessary to achieve local or other applicable standards. This should be demonstrated by requiring consistency with local standards and practices for water quality control and management of erosion and sedimentation, and/or other applicable standards, including

the CBC and UBC regulations and guidelines and/or local NPDES. Implementation of Mitigation Measure GEO-1 will also help mitigate this impact.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-2 ensures the use of BMPs or equivalent measures to treat water quality at on-site basins, prior to leaving the project site, and/or at the municipal system as necessary to achieve local or other applicable standards, demonstrated by requiring consistency with local standards and practices for water quality control and management of erosion and sedimentation, and/or other applicable standards, including the CBC and UBC regulations and guidelines and/or local NPDES.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-3: Implement Mitigation Measure GEO-1 (Reduce soil erosion and loss of topsoil through erosion control mitigation and SWPPP).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-3 would require the development of project-specific erosion control measures, revegetation of the site to minimize soil loss and prevent significant soil erosion, avoidance of construction on unstable or erosive slopes, site management to minimize soil loss and prevent erosion, grading to capture and retain water runoff on site, and other measures to minimize erosion. Implementation of this measure would ensure compliance with local grading, erosion, and sediment control ordinances and encourages the development of such ordinances if they do not exist.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-4: Conduct hydrology studies for projects in floodplains.

The implementing agency should conduct or require project-specific hydrology studies for projects proposed to be constructed within floodplains to demonstrate compliance with applicable federal, state, and local agency flood-control regulations. These studies should identify project design features or measures that reduce impacts to either floodplains or flood flows to a less than significant level.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-4 would ensure that project-specific hydrology studies are prepared for projects proposed to be constructed within floodplains to demonstrate compliance with applicable federal, state, and local agency flood-control regulations. These studies would identify project design features or mitigation measures that reduce impacts to either floodplains or flood flows to levels consistent with federal, state, and local regulations and laws related to development in the floodplain.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-5: Implement Mitigation Measure PS-1.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-5 would ensure adequate public services and utilities will be available to satisfy levels identified in local general plans or relevant service master plans.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-6: In areas of existing or potential future land subsidence due to groundwater pumping, establish cooperative regional relationships to define and manage sustainable yield.

Implementing agencies shall establish cooperative, comprehensive regional relationships with appropriate water supply planning agencies to define and manage the groundwater sustainable yield in areas of existing or potentially unsustainable groundwater use. At a minimum this effort should involve the following:

1. Determine how growth and development will document compliance with current regulations related to sustainable groundwater use;
2. Establish cooperative agreements within groundwater basins to study and define sustainable yield, undertake regular monitoring, and reach agreement regarding management of groundwater withdrawal pursuant to sustainable yield objectives;
3. Develop and implement recharge programs in areas where land subsidence is, or is likely to become, a problem;
4. Cooperate regionally to consider use of surface water resources; and
5. Ensure that new land uses do not exacerbate the potential for groundwater overpumping and land subsidence, and strive to avoid increases in subsidence.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-6 would ensure that compliance with current regulations related to sustainable groundwater use is documented, cooperative regional relationships are established within groundwater basins to define and manage sustainable yield in areas where subsidence is or may be a problem, recharge programs are developed and implemented, cooperative use of surface water resources is considered , and new land uses do not exacerbate groundwater overpumping and subsidence, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-7: Implement Mitigation Measure HYD-2.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-7 ensures the use of BMPs or equivalent measures to treat water quality at on-site basins, prior to leaving the project site, and/or at the municipal system as necessary to achieve local or other applicable standards, demonstrated by requiring consistency with local standards and practices for water quality control and management of erosion and sedimentation, and/or other applicable standards, including the CBC and UBC regulations and guidelines and/or local NPDES.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure HYD-8: Implement Mitigation Measure HYD-2.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure HYD-8 ensures the use of BMPs or equivalent measures to treat water quality at on-site basins, prior to leaving the project site, and/or at the municipal system as necessary to achieve local or other applicable standards, demonstrated by requiring consistency with local standards and practices for water quality control and management of erosion and sedimentation, and/or other applicable standards, including the CBC and UBC regulations and guidelines and/or local NPDES.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure NOI-1: Employ measures to reduce noise from new land uses and transportation projects.

For projects that have not undergone previous noise study and that exceed acceptable noise thresholds, the implementing agency should conduct a project-level evaluation of noise impacts in accordance with applicable federal, state, and local noise standards. Where significant impacts are identified, applicable mitigation measures shall be implemented, to reduce noise to be in compliance with applicable noise standards. Measurements that shall be implemented, where feasible and necessary to address site-specific impacts, include but are not limited to:

- constructing barriers in the form of sound walls, buildings, or earth berms to attenuate noise at adjacent residences;

- using land use planning measures, such as zoning, restrictions on development, site design, and buffers to ensure that future development is compatible with adjacent transportation facilities and land uses;
- constructing roadways so that they are depressed below-grade of the existing sensitive land uses to create an effective barrier between new roadway lanes, roadways, rail lines, transit centers, park-n-ride lots, and other new noise generating facilities;
- maximizing the distance between noise-sensitive land uses and new noise-generating facilities and transportation systems;
- improving the acoustical insulation of dwelling units where setbacks and sound barriers do not sufficiently reduce noise; and
- using rubberized asphalt or "quiet pavement" to reduce road noise for new roadway segments, roadways in which widening or other modifications require re-pavement, or normal reconstruction of roadways where re-pavement is planned.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure NOI-1 would result in a project-level evaluation of noise impacts in accordance with applicable standards and implementation of measures identified above, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure NOI-2: Employ vibration-reducing measures on new and expanded rail systems.

The implementing agency shall require project proponents to undertake a detailed evaluation of vibration and groundborne noise impacts and identify project-specific mitigation measures, as necessary to reduce vibration to a level that is in compliance with applicable local standards or FTA standards. Measures that shall be implemented, where feasible and necessary to address site-specific conditions in order to minimize the effects of vibration and groundborne noise from rail operations include but are not limited to:

- complying with all applicable local vibration and groundborne noise standards, or in the absence of such local standards, comply with FTA vibration and groundborne noise standards.
- 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; and
- implementing operational changes such as limiting train speed and reducing nighttime operations.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure NOI-2 would result in a project-level evaluation of noise impacts in accordance with applicable standards and implementation of measures identified above, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure NOI-3: Reduce noise, vibration, and groundborne noise generated by construction activities.

Measures that shall be implemented to reduce noise, vibration, and groundborne noise generated by construction activities, where feasible and necessary to address site-specific considerations, include but are not limited to:

- restrict construction activities to permitted hours in accordance with local jurisdiction regulations;
- properly maintain construction equipment and outfit construction equipment with the best available noise suppression devices (e.g., mufflers, silencers, wraps);
- prohibit idling of construction equipment for extended periods of time in the vicinity of sensitive receptors;
- locate stationary equipment such as generators, compressors, rock crushers, and cement mixers as far from sensitive receptors as possible; and
- predrill pile holes to the maximum feasible depth, provided that pile driving is necessary for construction.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure NOI-3 would result in limited hours of construction, properly maintained equipment with available noise suppression devices, controls on vehicle idling near sensitive receptors, location of stationary equipment such as generators, compressors, rock crushers, and cement mixers away from sensitive receptors, and pre-drilling of piles holes to the maximum feasible depth, among other things.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure PS-1: Ensure adequate public services and utilities will be available to satisfy applicable service levels.

The implementing agency shall ensure that public services and utilities will be available to meet or satisfy applicable service levels. This shall be documented in the form of a capacity analysis or provider will-serve letter.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure PS-1 would ensure adequate public services and utilities will be available to satisfy applicable service levels.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure PS-2: Implement the construction-related mitigation measures identified in other chapters of the MTP/SCS EIR.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure PS-2 would ensure that construction of public service facilities is consistent with applicable federal, state, and local laws and regulations.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure TRN-1: Strategies to support the movement of agricultural products on rural roadways near growth areas.

Implementing agencies shall require implementation of best practice goods movement standards regarding agricultural products transport and apply recommended applicable mitigation measures as defined by state and federal agencies for new growth in Developing Communities or Rural Residential Communities. Examples of mitigation measures should include, but are not limited to, the following:

To reduce the impacts to the movement of agricultural products on rural roadways related to land use and transportation changes from the implementation of the proposed MTP/SCS, one or more of the following measures shall be implemented by local agencies for new growth in Developing Communities or Rural Residential Communities.

- Consider access needs for agricultural uses in the site design and phasing of development adjacent to rural roads. Balancing the needs from increased passenger vehicle travel in Developing Communities with the preservation of key access points for trucks and agricultural equipment can increase safe and efficient agricultural operations.
- Prioritize safety and design improvements along rural roadways that are important farm-to-market routes and projected to accommodate future traffic increases from growth in Developing Communities and Rural Residential areas. Focusing available local funding on improvements to make these roadways consistent with local design standards (such as horizontal curvature, site distance, etc.) improves safety and reduces friction between agricultural operations, trucks, and passenger vehicles on the corridors with the greatest need.
    - Reduce the growth in passenger vehicle miles traveled (VMT) in Developing Communities and Rural Residential areas through increased local investments in transit and non-motorized improvements. Implementing transportation demand management strategies identified in Mitigation Measure TRN 2 that divert some single occupancy auto trips to alternative modes reduces friction with travel for agricultural operations along rural roadways.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be

reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure TRN-1 would result in the implementation of best practice goods movement standards for transport of agricultural products including implementation of the measures listed above in developing and rural residential communities.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure TRN-2: Apply best practice strategies to reduce the localized impact from construction activities on the transportation system.

Implementing agencies shall require implementation of best practice strategies regarding construction activities on the transportation system impacts and apply recommended applicable mitigation measures as defined by state and federal agencies. Examples of mitigation measures should include, but are not limited to, the following:

- Apply special construction techniques to minimize impacts to traffic flow and provide adequate access to important destinations in the area.
- Develop circulation and detour plans to minimize impacts to local street impacts from construction activity on nearby major arterials. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone.
- Establish truck "usage" routes that minimize truck traffic on local roadways to the extent possible.
- Schedule truck trips outside of peak morning and evening commute hours.
- Route truck trips to avoid roadway segments with at risk or failed pavement conditions.
- Limit the number of lane closures during peak hours to the extent possible.
- Identify detours for bicycles and pedestrians in all areas potentially affected by project construction and provide adequate signage to mark these routes.
- Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones.
- Develop and implement access plans for potentially impacted local services such as police and fire stations, transit stations, hospitals, schools and parks. The access plans should be developed with the facility owner or administrator. To minimize disruption of emergency vehicle access, affected jurisdictions should be asked to identify detours for emergency vehicles, which will then be posted by the contractor.

- Store construction materials only in designated areas that minimize impacts to nearby roadways.
- Coordinate with local transit agencies for temporary relocation of routes or bus stops in works zones, as necessary.
- Conduct a public information campaign about how to use transit and other methods to reduce single-occupant vehicle use.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure TRN-2 would result in the implementation of best practice strategies including implementation of the measures listed above:

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure USS-1: Implement Mitigation Measure PS-1.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure USS-1 would ensure adequate public services and utilities will be available to satisfy applicable service levels.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure USS-2: Implement Mitigation Measure PS-1.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable

Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure USS-2 would ensure adequate public services and utilities will be available to satisfy applicable service levels.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure USS-3: Perform project-level CEQA environmental review for new wastewater treatment plants, landfills, and similar large utility facilities.

The implementing agency shall undertake project-level review, where feasible and as necessary to address site-specific impacts, in order to provide CEQA clearance for new wastewater treatment plants, landfills, and similar large utility facilities.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure USS-3 would ensure project-level CEQA environmental review for new wastewater treatment plants, landfills, and similar large utility facilities.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure USS-4: Implement the construction-related mitigation measures identified in other chapters of the MTP/SCS EIR.

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: If found to be feasible by the implementing/lead agency, implementation of Mitigation Measure USS-4 would result in the implementation of other construction-related mitigation measures in other chapters of the MTP/SCS EIR.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CUM-1: Implement Mitigation Measures in Chapter 3 (Aesthetics).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures AES-1 through AES-13.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CUM-2: Implement Mitigation Measures in Chapter 4 (Agriculture and Forestry Resources).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures AG-1 through AG-8.

Responsibility for Implementation: Implementing/lead agency and/or developer.

Mitigation Measure CUM-3: Implement Mitigation Measures in Chapter 5 (Air Quality).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures AIR-1 through AIR-4.

Responsibility for Implementation: Implementing/lead agency and developer.

Mitigation Measure CUM-4: Implement Mitigation Measures in Chapter 6 (Biological Resources).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures BIO-1 through BIO-3.

Responsibility for Implementation: Implementing/lead agency and developer.

Mitigation Measure CUM-5: Implement Mitigation Measures in Chapter 7 (Cultural and Paleontological Resources).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures CR-1 through CR-6.

Responsibility for Implementation: Implementing/lead agency and developer.

Mitigation Measure CUM-10: Implement Mitigation Measures in Chapter 11 (Hydrology and Water Quality).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures HYD-1 through HYD-8.

Responsibility for Implementation: Implementing/lead agency and developer.

Mitigation Measure CUM-12: Implement Mitigation Measures in Chapter 13 (Noise).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures NOI-1 through NOI-3.

Responsibility for Implementation: Implementing/lead agency and developer.

Mitigation Measure CUM-14: Implement Mitigation Measures in Chapter 15 (Public Services and Recreation).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures PS-1 and PS-2.

Responsibility for Implementation: Implementing/lead agency and developer.

Mitigation Measure CUM-16: Implement Mitigation Measures in Chapter 17 (Utilities and Service Systems).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures USS-1 through USS-4.

Responsibility for Implementation: Implementing/lead agency and developer.

Mitigation Measure CUM-19: Implement Mitigation Measures in Chapter 17 (Utilities and Service Systems, Solid Waste).

Timing/Milestone: This mitigation measure will be considered by the implementing/lead agency for applicability at the project level.

Responsibility for Oversight: Implementing/lead agency. Compliance will be reflected in subsequent CEQA compliance documents, including Sustainable Communities Environmental Assessments (SCEAs) or other tiered CEQA documents prepared for projects in the MTP/SCS.

Implementation of Mitigation Measure: See discussion of implementation of Mitigation Measures USS-3 and USS-4.

Responsibility for Implementation: Implementing/lead agency and developer.